



February 19, 2007

Mr. Bert Rapp, Public Works Director
City of Fillmore
250 Central Avenue
Fillmore, CA 93015

Dear Bert:

You have requested various information in your letter of February 9, 2007. This response will address those inquiries and will utilize the numbering sequence contained in your letter.

- A. As you are aware, our system is developed in 250,000 GPD increments. Therefore, our proposal would include two extra filtration trains to provide redundancy in operation as well as additional capacity to process normal daily flows of up to 2.0 MGD. If one of the trains is taken offline, there would be additional capacity within the backup trains to provide for significant redundancy. The PLC would control the additional trains and bring them online as needed for either service of a train or addition flows. The proposal includes three CleanScreen separators, each rated for up to 1.0 MGD. This would provide a 100% redundancy coverage on the primary separators.
- B. The CleanStream system utilizes an anoxic bacteria in the filtration step to provide oxidized secondary treatment. The State is unclear as to the functioning of this step and we are currently working with UC Davis and Dr. Tchobanoglous for validation of the previous work performed. We are currently in the middle of this testing and the initial results demonstrate the ability of the CleanStream vessels to meet the EPA standards for secondary treatment. We anticipate delivering this information to Mr. Stone after Dr. T completes his study in early March.
- C. As discussed in A above, the proposal has been designed to include a 2.0 MGD operational flow.
- D. Based on what we observed, we believe that the existing office would be sufficient. Since the laboratory testing needed on the system should be identical to what is currently required, we don't believe that expansion of the lab area would be needed. However, if the State requirements on the City are expanded because of the tertiary application, additional lab equipment or space may be needed. We have not addressed these needs. Since we are planning on enclosing the system, it would be feasible to expand this building for additional office and laboratory space, if necessary. Naturally, our proposal has not included the additional cost for these items.

- E. We see no need for a mechanical shop. Spare parts for the system should be maintained onsite and an area in the proposed building could be used.
- F. Odors from the process would be contained within the structure and will be vented accordingly. We would utilize covers on the clarifiers that would become the equalization basins.
- G. The process utilizes a PolyAluminumChloride coagulant. We have tested for increases in Aluminum residuals but not Chloride. No increases were found on the Aluminum chemical.
- H. UV disinfection would be acceptable with our system. Transmittance testing has been performed and the CleanStream system produced water with a transmittance rating as high as 84%. We highly recommend using UV over chlorine.
- I. We have worked hard to get Title 22 certification and were surprised to read Mr. Stone's letter. We have been and will be in contact with him shortly regarding both his comments to the City as well as the results from Dr. T's testing.
- J. There are a number of options for bio-solid handling and energy generation. We would be pleased to discuss these options further face to face. Several options will provide energy to both operate the facility and produce excess energy that can be sold to electric companies. How the City participates in this production, both from an initial cost as well as revenue sharing can be discussed. The Co-Gen plant is owned and developed by a third party. We do not know what permits they have received. They have an operating facility in San Diego County that has the required permits.
- K. Aquarion Operating Services, Inc. is prepared to enter into an operational agreement with the City. We anticipate that this agreement will assume the risk of penalties for failure of the system to produce treated water at the permitted discharge levels. What agreement Aquarion and the City come to regarding discharge of the treated water is outside the purview of MicroMedia. As for the warranty of the system, MicroMedia provides a 1 year warranty on the mechanical workings of the system. In conjunction with our relationship with Aquarion, we will work with them to insure the proper operational reliability of the system for years to come.
- L. It may be necessary for the City to obtain the NPDES permit so that overflow conditions in rain event scenarios are covered. That is a decision for the City to make and not MicroMedia. We have done testing for Copper and Mercury previously and achieved satisfactory removals. Since we do not know the levels permitted, we cannot determine the ability of the process to remove these constituents. Since river discharge will only be necessary during storm events, we would expect that the levels of these contaminants would be very low.
- M. As mentioned previously, we have not tested for the chloride levels in the effluent. We have tested for TDS levels and have shown no increase.
- N. The standard operational loading rate for the filters is 3.8 gallons per foot per minute. Each train has 50 square feet of surface area leading to a flow rate of 273,000 gallons per day. The average reject flow is 8% of the loading rate, thereby providing 252,000 gallons of processed water per day per train. The maximum loading rate permitted by Title 22 is 5 gallons per foot per minute, or a net capacity of 331,000 gallons per day after allowing for reject flows.

- O. As mentioned above, 8% is the reject flow and has been adjusted to provide the above flow quantities.
- P. We don't have the ability to provide an answer at this time. There are several alternatives that we would be willing to discuss with you to solve the issue. These would include additional filtration vessels, equalization, and/or utilization of existing basins at the plant. Each alternative has plusses and minuses too great to elaborate in this letter.
- Q. Again, discharge locations for the treated water is in question. The idea of splitting the filters in a rain event lends itself to discharge to the river where Title 22 issues were no longer in play, only the discharge requirements. Again, we welcome the opportunity to discuss this with you in person.

The City can utilize concrete for the construction of the filtration basins. We have developed the necessary molds for the cone bottoms and would be able to work with the City engineer to design the concrete basins necessary. Alternatively, higher grade stainless steel can be used to provide a longer life expectancy. That choice is the City's to make. We have no preference in the material used for the basin.

We are agreeable to delaying the payment of the pilot fees over a four installment period. However, we would agree to the 25% payment after 15 days of successful operation and every 30 days thereafter. The monthly fee of \$15,000 would be paid at the beginning of each month after the initial month. Additionally, should the system not meet the WDR permit requirements, we will remove the system and the City will owe nothing. Once the system meets the WDR permit requirements, the City will agree not to stop the pilot program until full payment has been made.

At this time, we would like to schedule a meeting with you and our engineer for the project. I am in New Hampshire this week and will contact you when I return to arrange a meeting in the near future.

Very truly yours,



Sam Luxenberg