

**Peter Martin, P.E.**

**Environmental Engineering Consulting**

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*About the Author: Peter Martin earned a B.S. degree in Mechanical Engineering from Brunel University, London and an M.S. degree in Environmental Engineering from San Jose State University. He is a registered Civil Engineer in California, and holds a Grade 5 Water Treatment Operator certificate. He has over 32 years experience in the water industry, during which time he worked as a water & wastewater treatment operator, environmental engineering consultant (including leach field design), process engineer at Contra Costa Water District, and design engineer and water treatment superintendent at East Bay Municipal Utility District. He currently works as a water system operations consultant, and is an Adjunct Professor at Solano Community College, where he teaches water treatment classes for the Bay Area Consortium of Water & Wastewater Education.*

22 February 2017

W.A.T.E.R.  
P.O. Box 873  
Mt. Shasta, CA 96067

Gateway Neighborhood Association  
724 Butte Ave.  
Mt. Shasta, CA 97067

Dear Sir or Madam,

This letter expresses my concerns about the inadequacies and inaccuracies of the Draft Environmental Impact Report for the Crystal Geyser Bottling Plant Project in Mount Shasta.

Points to Emphasize

- The drinking water quality provided to local groundwater consumers is no less important than the water quality provided to Crystal Geyser consumers.
- The DEIR has failed to evaluate the feasibility of Crystal Geyser recycling its wastewater streams directly for its own production. Instead the DEIR has assumed that Crystal Geyser's wastewater streams can be discharged into the drinking

water supply of local residents. Failure to evaluate direct recycling alternatives by Crystal Geysers in the final EIR would represent an indefensible double standard, in which the addition of waste streams to residents' drinking water is considered acceptable, while its addition to Crystal Geysers' product is not.

- The soils beneath Crystal Geysers' leach field and proposed irrigation system are Deetz 125, which has the lowest possible filtration capacity rating. The soils are not suitable for industrial wastewater discharges, especially the discharges of floor drain and clean-in-place (CIP) wastewater that are proposed in the DEIR.
- Mt. Shasta's wastewater collection system and wastewater treatment plant (WWTP) have had numerous flow and water quality violations in recent years. The addition of Crystal Geysers' large wastewater streams will increase the frequency of violations, unless startup of the facility is postponed until the planned upgrades to the collection system, WWTP, and outfall have been completed.

#### Detailed Comments

#### **Section 3.5.8 Project Description**

**Wastewater Treatment Option 1** The DEIR neglects to mention the numerous flow and water quality violations that have occurred at the Mt. Shasta WWTP in recent years.

The addition of relatively large flows from the Crystal Geysers facility is likely to increase the frequency of such violations and result in the degradation of the receiving water quality. Discharges of wastewater from the Crystal Geysers facility should be postponed until the planned upgrades to the WWTP and the collection system have been completed.

**Wastewater Treatment Option 2** proposes discharging industrial rinse wastewater flows to the leach field. As described in Section 3.5.8.1, the industrial rinse wastewater flows would include: industrial rinse wastewater from filter backwash, the bottle rinsing process, and floor wash.

A revision to the Central Valley Regional Water Quality Control Board (CVRWQCB) Permit (letter from CVRWQCB to Crystal Geysers dated 30 October 2015) specifically excludes "generation of wastewater from floor washing" from the approved wastewater discharge.

For Option 2 to be viable, Crystal Geysers would need to apply to CVRWQCB for a revised permit that would allow floor wash discharges to the leach field. However:

- floor wash discharges could potentially contain spilled material, such as hazardous chemicals involved in janitorial, maintenance, and repair activities (including commercial cleansers, lubricants, and paints), as well as diesel fuel, propane, and those involved in the refrigeration system (propylene glycol and 1,1,1,2-tetrafluoroethane) and the pH neutralization system (sodium hydroxide [50 percent] and sulfuric acid [1-51 percent])
- percolation through the Deetz 125 soils would not provide any removal of these toxic chemicals before they contaminate the groundwater

Therefore, it is highly unlikely that CVRWQCB would issue a revised permit that would allow for the generation of wastewater from floor washing.

It is not acceptable to discharge floor drain waste to the leach field. Under all four Wastewater Treatment Options, the floor drain waste should be discharged to the sewer.

**Wastewater Treatment Option 3** proposes discharging industrial rinse wastewater flows and industrial process wastewater to the leach field. As described in Section 3.5.8.1, the industrial rinse wastewater flows would include: industrial rinse wastewater from filter backwash, the bottle rinsing process, and floor wash. The industrial process wastewater would include: cleaning agents from CIP water, boiler discharge, cooling tanks, etc.

As stated above, the revision to the CVRWQCB permit specifically prohibits floor wash discharge to the leach field. It also prohibits CIP discharge to the leach field. There are no specific details about the clean-in-place (CIP) system in the DEIR, but the original permit for Danone (CRWQCB Central Valley Region, Order No. 5-01-233) describes Danone's CIP, which used peracetic acid and is likely to be similar to Crystal Geysers' CIP system. Peracetic acid is carcinogenic and mutagenic. The Danone CIP wastewater was discharged to the sanitary sewer. An analysis of the CIP wastewater showed significant levels of arsenic, benzoic acid, and methyl chloride, which confirms CIP wastewater is not appropriate to discharge to the leach field. CIP wastewater must be discharged to the sanitary sewer in all the four of the Wastewater Treatment Options.

Wastewater Treatment Option 3 depends on a revision to the CVRWQCB permit to allow floor wash wastewater and CIP wastewater to be discharged to the leach field. However, given the toxic characteristics of floor wash and CIP wastewater, it is unlikely that CVRWQCB would provide a revised permit for wastewater discharges that would unquestionably degrade the groundwater quality.

Wastewater Treatment Option 3 proposes adding wastewater from the production of flavored sparkling water to the wastewater discharges; the higher flow rates and more concentrated wastewater thus generated would require an expansion of the existing leach field. However the soils in the leach field area are classed as Deetz 125. The Natural Resource Conservation Service Custom Soil Resource Report for Siskiyou County, California, Central Part classed Deetz 125 as very limited for slow rate treatment of wastewater. It has a filtering capacity rating of 1.00, which is the greatest negative impact

of the use, i.e. the worst possible rating. This means that Deetz 125 is entirely unsuitable for the treatment of wastewater. Therefore, although it's referred to as a "leach field" in the DEIR, it is really nothing more than a system for delivering wastewater flows directly to the groundwater drinking water supply. It is questionable if the leach field is suitable for the wastewater flows that are allowed under the existing permit. It certainly is not suitable for the stronger wastewater that would be produced in Wastewater Treatment Option 3, and should not be expanded to accommodate higher flow rates.

**Wastewater Treatment Option 4** As with Option 2, Option 4 is dependent on obtaining a revised permit from CVRWQCB to allow discharge of floor drain wastewater to the leach field. Given the potential presence of toxic chemicals in the floor drain wastewater, this should not be permitted.

The DEIR does not describe how the other waste streams, such as CIP and anti-scaling chemicals from the reverse osmosis process would be disposed. They should be hauled off site for disposal with reverse osmosis reject water.

The proposed wastewater treatment system for the industrial process water should provide an acceptable effluent water quality when the process is optimized. However, in the long term, process disruptions will inevitably occur, due to upsets to the biological system and membrane breaches. At these times the effluent water quality will not be acceptable to discharge to the leach field or to the irrigation system.

A much better alternative would be for Crystal Geysers to use this highly treated water to supplement the supply from their well for their own production. This would allow Crystal Geysers to deal with process disruptions in a controlled manner without risk of degradation of the groundwater. It would also be more in accordance with the Sacramento River and San Joaquin River Basin Plan recommendation for reclamation, and would enhance Crystal Geysers' reputation as an environmentally responsible company. This alternative should be evaluated in the final EIR.

The proposal to deliver as much as 120,000 gal/day of the highly treated water to the irrigation system where it would be lost as evaporation and evapotranspiration is an unacceptable waste of water and energy. This waste of water would contravene the intent of the Sacramento River and San Joaquin River Basin Plan, which recommends reclamation (page IV-14:00, Control Action Considerations of the Central Valley Regional Water Board, Section 2, Wastewater Reuse Policy).

The proposed wastewater treatment system, particularly reverse osmosis, is an energy intensive process. To subsequently waste this water to evaporation and evapotranspiration would clearly be a wasteful, inefficient, and unnecessary consumption of energy. Furthermore, allowing this highly treated water to drain by gravity from the leach field while then pumping fresh water from the domestic well—when the water at the surface could be directly recycled for Crystal Geysers' production—would also be a wasteful, inefficient, and unnecessary consumption of energy.

In Section 3.5.10, Energy Use and Associated Infrastructure, the DEIR states: *“In addition, Crystal Geyser is pursuing Leadership in Energy and Environmental Design (LEED) certification from the United States Green Building Council.”*

Both of the above examples of wasteful energy usage in Option 4 run counter to Crystal Geyser’s pursuit of LEED certification.

As stated in Section 4.13.4 of the DEIR, according to CEQA Guidelines Appendix F:  
An energy impact is considered significant if the Proposed Project would:

- Result in the wasteful, inefficient or unnecessary consumption of energy.

Therefore mitigation is clearly required for Option 4. The only logical mitigation is for Crystal Geyser to directly recycle the high quality water stream for its own production.

Given that Crystal Geyser is prepared to provide the proposed level of treatment for the industrial process water in Option 4, an equivalent level of treatment could equally well be provided for the industrial process wastewater and the industrial rinse water in Options 2, 3 & 4. This would allow Crystal Geyser to directly recycle the waste streams for their own production. This alternative needs to be evaluated in the final EIR. Failure to consider this alternative would represent an indefensible double standard, in which the water quality of Crystal Geyser’s product is given higher priority than the water quality of local consumers.

The proposal to discharge wastewater streams to the leach field and the irrigation system in Options 2, 3, & 4, instead of discharge to the sanitary sewer for treatment at the WWTP, runs contrary to CVRWQCB’s recommendation for consolidated, regionalized treatment as specified in Resolution R5-2009-0028.

#### **Section 4.8 Hydrology & Water Quality**

A letter dated 21 August 2015 from CVRRWQCB to Crystal Geyser stated: *“An additional concern regarding the ROWD (Report of Waste Discharge) and Technical Memorandum is the lack of projected effluent water quality projected for the facility. Please provide an evaluation of anticipated water quality. This evaluation should include an evaluation and or comparison of previous facility effluent data, source water, product data, and similar facility operation data. This evaluation should provide an estimate of range of anticipated concentrations that could be expected in effluent that would be discharged to the facility’s onsite leach field. All assumptions using in this evaluation should also be clearly detailed as well. Also include a proposed monitoring and characterization program to confirm the projected characterization.”*

These requirements have not been met in the DEIR. They need to be included in the final EIR.

## **Wastewater Treatment Option 2**

The limited data presented in Table 4.8-2 ignores the potentially toxic impacts of the known pollutants that will be added to the waste stream, i.e., hydrogen peroxide, peroxyacetic acid, acetic acid, nitric acid, bleach or chlorine, hydrochloric acid, vinegar, caustic soda, sodium xylene sulfonate, cocamine oxide, and fruit flavoring extracts. Without evaluating the impact of these pollutants it is not possible to determine the significance of the wastewater discharge on the groundwater. Therefore, the DEIR conclusion that the impact would be less than significant is invalid.

## **Wastewater Treatment Option 3**

Table 4.8.3 also ignores the potentially toxic impacts of the known pollutants that will be added to the waste stream, i.e., hydrogen peroxide, peroxyacetic acid, acetic acid, nitric acid, bleach or chlorine, hydrochloric acid, vinegar, caustic soda, sodium xylene sulfonate, cocamine oxide, and fruit flavoring extracts.

The DEIR does not include any indication of the quantities and concentrations of these pollutants that will be in the waste. It blithely states that: “*the food grade acids used in the process would rapidly degrade into benign substances*”. Food grade chemicals are only safe in very low concentrations and where their use is very closely controlled. At higher concentrations and without close control, they can be hazardous and toxic. The DEIR is woefully inadequate in failing to evaluate the expected concentrations of these pollutants and their potentially hazardous and toxic impacts.

For example, peracetic acid is a known carcinogen and mutagen. The DEIR completely ignores the toxicity of peracetic acid; it fails to assess the decay rate of peracetic acid; and provides no evaluation of what concentrations of peracetic acid could occur in the well water of local residents. Peracetic acid was used in Danone’s CIP system and was discharged to the sanitary sewer in accordance with the original permit (CRWQCB Central Valley Region, Order No. 5-01-233). CIP wastewater is too toxic to discharge to the leach field and must be discharged to the sanitary sewer in all four of the Wastewater Treatment Options.

Sodium xylene sulfonate can cause liver damage, but again the DEIR has ignored its toxicity. It’s a stable compound, which is not likely to be removed during percolation through Deetz 125 soils or decay within the groundwater. The DEIR has failed to provide any assessment of sodium xylene sulfonate concentrations that could occur in the well water of local residents

Nitrate and nitrite should also have been included in Table 4.8.3 to assess the impact of nitric acid in the waste stream on the groundwater, and to evaluate the potential for an increased risk of “blue baby” syndrome.

The DEIR has also failed to evaluate the potential for toxic reactions to occur between the added chemicals. For example, the acids and caustic soda would react violently if combined; bleach will give off chlorine gas if mixed with an acid. There should have been an evaluation of the increase in carcinogenic trihalomethanes that would occur as a

result of the addition of bleach or chlorine to the groundwater. This could easily be modeled based on the anticipated total organic carbon and chlorine concentrations in the wastewater discharge and the total organic carbon and bromide concentrations in the groundwater.

Even with the limited amount of data shown, Tables 4.8.3 & 4.8.3 clearly indicate that the Crystal Geyser effluent would produce significant degradation of the groundwater. The percentage increases in the concentrations of the listed parameters in the source water (DEX-6) are shown in the following table:

Constituent	Units	Initial Source Water Concentration (DEX-6)	Resulting Source Water Concentration	Percentage Increase
TDS	mg/L	110	140	27%
COD	mg/L	0	62.6	infinite
Na	mg/L	11	23.7	115%
Cl	mg/L	1.5	16.1	973%
SO4	mg/L	0.61	6.4	949%
B	mg/L	0.025 (ND)	0.1298	> 419%

The Resulting Source Water Concentrations listed above are based on the “worst-case” scenario, using a soil hydraulic conductivity value of 40 feet per day. If higher conductivity values are used, the percentage increases are somewhat less, but still the same order of magnitude.

Clearly these increases are quite substantial. This should be classed as “significant” in the final EIR, and mitigation is definitely required. The goal is not merely to keep the groundwater quality below the California MCLs, but to have no degradation of the high quality groundwater.

The statement that “the resulting concentration in the shallow aquifer underneath the leach field would be even less than the generated effluent due to the natural filtration during percolation and dilution from mixing with the existing groundwater” has no validity because:

1. The soils in the leach field area are Deetz 125, which has a filtering capacity rating of 1.00 – the absolute worst possible rating. Therefore, if any natural filtration occurs during percolation, it will be negligible.
2. The values in Table 4.8.3 were calculated using Summer Model, which assumes that the waste stream and the groundwater are completely mixed, so that further mixing is not possible. In fact, residences with wells close to the leach field may

receive water that is not completely mixed. If that is the case, those consumers will receive a higher proportion of the waste stream and even higher concentrations than indicated in Table 4.8.3.

Furthermore, the above use of the term “dilution” seems to be an acknowledgment that the wastewater has indeed significantly degraded the groundwater and that this degradation could be mitigated by dilution with uncontaminated groundwater.

The State's Statement of Policy with Respect to Maintaining High Quality Waters in California, Resolution 68-16, incorporates the Federal Anti-degradation Policy, and states, in part:

*Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.*

Clearly, in this case, pH adjustment followed by the negligible degree of filtration that would occur during percolation through Deetz 125 soil, does not represent the best practicable treatment and control of the discharge by any stretch of the imagination. Furthermore, a pollution or nuisance would occur and the highest water quality would not be maintained. Therefore Option 3 would violate the Federal and State Anti-degradation policies.

In addition, the CRWQCB Central Valley Region Order No. 5-01-233 states that: *“The discharge, in combination with other sources, shall not cause groundwater underlying the wastewater disposal area to contain waste constituents statistically greater than background water quality.”* As shown in the table above, the waste constituents are most definitely statistically greater than background water quality.

Furthermore, in Section 4.8.3, the DEIR quotes from the City of Mount Shasta General Plan, Policy OC-10.2, Protect the City's Drinking Water Sources from Contamination, Implementation Measure OC-10.2 (a): *“When reviewing development proposals for projects with the potential to contaminate drinking water supplies, ensure that the environmental and project review process incorporates appropriate measures to avoid drinking water contamination.”* In this case, appropriate measures are not being taken to avoid contamination.

Nevertheless, if Crystal Geysers representatives are satisfied that the waste stream would have no significant impact when blended with groundwater, a much better alternative would be for Crystal Geysers to blend the waste stream with groundwater from their production well for their own beverage products.

#### **Wastewater Treatment Option 4**

With Option 4 the concerns about the toxic impacts of the industrial rinse wastewater discharge are the same as those in Options 2 & 3 above.

#### **Section 4.7 Hazardous Materials**

The proposed pH adjustment system does not have any secondary containment (see comments on Appendix G below). This creates the possibility for spills of caustic soda or sulfuric acid to flow to the leach field or the sewer – thereby contaminating the groundwater or damaging the sewer pipes or disrupting the wastewater treatment process. Since the caustic soda and sulfuric acid storage and feed systems are combined on the same skid, there is also a possibility of simultaneous spills of caustic soda and sulfuric acid combining to produce a violent, dangerous reaction.

Given that there is no secondary containment in the proposed pH adjustment system, it also seems likely that other hazardous chemicals at the Crystal Geyser facility do not have secondary containment.

#### **Section 4.12 Utilities**

In describing the wastewater collection system and the wastewater treatment plant, the DEIR has neglected to mention the numerous flow and water quality violations that have occurred in the past. Permit violations of discharge limits occurred in 2009, 2010, and during March 2011 through November 2011. The following link documents the CRWQB Central Valley Region's response to some of the violations:

[http://www.waterboards.ca.gov/centralvalley/board\\_decisions/adopted\\_orders/siskiyou/r5-2014-0509\\_aclo.pdf](http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/siskiyou/r5-2014-0509_aclo.pdf)

The DEIR has also omitted the following relevant information: On March 17, 2016, the City responded to comments on their NOP for the city's State Mandated WWTP and Outfall Project with the following comments:

- *"We concur that the existing WWTP is unable to meet the water quality standards prescribed in the WDRs issued by the Central Valley RWQCB in 2012. As discussed in the response to Comment 2-1, the City recognizes that it is unlikely to meet some or all of the requirements contained in the accompanying Time Schedule Order."*
- *"The DAFS and RSF [of the City's existing WWTP] do not have the capacity to treat increased wintertime flows."*
- *"The City's current filtration facilities cannot accommodate current peak wet weather flows."*

- *"The City's existing gaseous chlorination facility has posed operational challenges in recent years. Use of chlorination for effluent disinfection requires that all chlorine be removed from the waste stream prior to discharge to the Sacramento River. Sulfur dioxide gas is used for this purpose. Any glitches in the controls or equipment used in this process can lead to positive chlorine residual in the effluent and subsequent fines by the CVRWQCB. The City has had fines for positive chlorine residuals in recent years."*

The relatively large wastewater flows from Crystal Geyser would further aggravate these existing problems and will lead to further violations, unless the Crystal Geyser operation is postponed until the necessary improvements to the collection system, wastewater treatment plant, and outfall project have been completed. The scheduled completion date is 2021.

### **Section 4.12.1.1 Environmental Setting**

#### **Wastewater Conveyance Facilities**

The DEIR includes an analysis of the wastewater conveyance facilities in Appendix L. This analysis was done for peak wet weather flow, but NOT extreme weather events. In addition to the section of 12-inch-diameter pipe that has been identified as in need of upgrade, there is another section that is close to its capacity limits (MH 25-28). Overflows could occur in this section in an extreme weather event. More analysis needs to be done for extreme weather events. This is especially important in light of the failure that occurred in the system this past January.

#### **Mitigation Measure 4.12-1**

Mitigation Measure 4.12-1 proposes to limit industrial wastewater flow discharges to the sanitary sewer system to 24,000 gpd, but it is not clear that this is possible under Option 1, where all of the plant's waste would go to the sanitary sewer system. The DEIR states that around 100,000 gallons of industrial wastewater will be generated per production day, but it does not clarify when those production days will occur. With a discharge limit of 24,000 gpd, 100,000 gpd would take over 4 days to be released into the sewer system. The final EIR needs to clarify how many sequential days Crystal Geyser might generate 100,000 gpd and what size holding tanks would be needed to accommodate the wastewater while it is waiting to be released.

### **Section 4.12.1.3 Impacts**

The DEIR states that: *"Industrial rinse wastewater discharged this way would have to comply with either the existing WDR Order No. 5-01-233 (Wastewater Treatment Option 2) or a modified WDR order issued by the CVRWQCB (Wastewater Treatment Options 3 and 4)."* A modified WDR would also be needed for Wastewater Treatment Option 2

because the rinse wastewater includes floor drain wastewater, which the CVRWQCB has prudently prohibited.

Because floor drain and CIP wastewater discharges to the leach field are prohibited by the CVRWQCB, the proposed Options 2, 3, & 4 would all result in quite significant impacts related to the wastewater treatment requirements of the CVRWQCB, and mitigation definitely would be required.

## **Appendix G pH Control System**

A Process and Instrumentation Diagram (P&ID) should be provided to show more clearly how the process would operate.

A secondary containment sump must be provided to collect spills of caustic soda and sulfuric acid that will inevitably occur from chemical tank overflows, joint leaks, line breaks, system maintenance, etc. This is particularly true since the chemical piping does not seem to be double-contained. The sump should be large enough to hold the contents of both tanks. Ideally, separate sumps should be provided for the caustic soda and sulfuric acid systems. Unfortunately, because the proposed system intertwines the caustic soda and sulfuric acid systems on the same skid, separate containment sumps are not feasible. This creates the potential for a violent reaction to occur from the mixing of spilled caustic soda and sulfuric acid.

The pH Neutralization Building drawing shows a 12" square sump with a 6" diameter drain. Liquid cannot be discharged into this drain without being tested to determine if it must be treated as hazardous waste. This drain must not be connected to the leach field.

The equipment description and drawings do not indicate any seismic restraints on the chemical tanks. Seismic restraints are essential in the Mount Shasta area to minimize the potential for tanks toppling and/or line breaks.

The Caustic Fill Pump and the Acid Fill Pump are described in Sections 4.6 & 4.15, respectively. However, it's not clear from where the chemical is pumped. If pumped directly from chemical tanker trucks, spills at the truck off-loading station must be contained in separate sumps for caustic soda and sulfuric acid.

What measures will be taken to ensure that caustic deliveries are not connected to the acid fill pump and vice versa? Throughout the water and wastewater industries, there have been numerous past examples of incorrect connections being made; if that were to happen in this case, a violent and dangerous reaction would occur.

Section 5.8.1 The Emergency Stop button must immediately close control valve AFV1-MPS to stop flow to the sewer or leach field.

An additional valve needs to be installed downstream of control valve AFV1-MPS, to provide extra protection in the event that AFV1-MPS leaks or gets stuck in the open position.

Section 5.9.1 refers to the System Response and Interlock Matrix. This has not been included in the DEIR.

## **Appendix H**

The Geosyntec modeling report included in Appendix H is limited because it uses a simple mass balance equation (Summers Model) that assumes there is complete mixing between the wastewater discharge and the groundwater. In practice, the large flow of wastewater through the leach field is likely to create an extensive zone of influence before complete mixing occurs. This zone of influence could extend beyond the domestic wells of the nearest residences. Therefore groundwater consumers living close to the leach field are likely to receive a higher proportion of the wastewater flow than is indicated by the model. The Summers Model is not sophisticated enough to be able to estimate what that proportion of wastewater would be or what the resulting level of contamination would be.

## **Appendix L**

### **Draft Technical Memorandum – City of Mt. Shasta Sewer Improvements for Crystal Geyser Capacity Needs**

The last sentence on page 2 of the draft technical memorandum states: *"During design, replacement of the existing 48 inch diameter culvert at a lower elevation or steeper grade to accommodate the proposed improvements could be considered; however, this would require work in the creek bed."* This refers to the culvert that conveys the unnamed perennial stream that flows under Old Stage Road. The DEIR omits an analysis of the potential environmental disruption of the creek bed that would occur with this culvert replacement. Since this is a possibility, the final EIR must include the appropriate environmental analyses of creek bed disruption.

## Conclusion

The four wastewater treatment options presented in the DEIR all have serious problems:

Option 1 would aggravate the existing capacity problems with the City's wastewater collection system and wastewater treatment plant. The proposed discharges from the Crystal Geyser facility would increase the frequency of flow and water quality discharge violations, unless the startup of the facility is postponed until after the proposed improvements to the collection system, wastewater treatment plant, and outfall have been completed.

Options 2, 3, & 4 involve discharging prohibited floor drain and CIP wastewater to the leach field. The Deetz 125 soils below the leach field are not suitable for the treatment of industrial wastes, particularly floor drain and CIP wastewater. These discharges to the leach field would significantly degrade the groundwater quality.

The DEIR has failed to evaluate a much less problematic alternative, i.e. for Crystal Geysers to recycle its wastewater flows for its own use. This would eliminate the capacity problems with the wastewater collection system and the wastewater treatment plant. It would also avoid degrading the groundwater quality. This alternative needs to be evaluated in the final EIR.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Peter Martin". The signature is fluid and cursive, with a large loop at the end.

Peter Martin, P.E.