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*Via Electronic Mail*  
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**Re: Crystal Geyser Bottling Plant**  
**Draft Environmental Impact Report (SCH#2016062056)**

Dear Ms. Ryan:

This office represents We Advocate Thorough Environmental Review (W.A.T.E.R.) regarding Crystal Geyser's proposed water bottling facility in Siskiyou County. The following comments are submitted in conjunction with comments submitted by Marsha A. Burch representing the Gateway Neighborhood Association. As an initial matter, W.A.T.E.R. and GNA object to the proposed project on the grounds that the Draft Environmental Impact Report ("DEIR") fails to meet the legal requirements of the California Environmental Quality Act ("CEQA"), Public Resources Code, section 21000 *et seq.* and the CEQA Guidelines, section 15000 *et seq.* (Title 14 California Code of Regulations § 15000 *et seq.*)

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As discussed in Ms. Burch's letter and this letter, the Draft EIR is fatally flawed as an informational document and fails to meet CEQA's requirements. The Draft EIR's significant flaws are also described and discussed in the comment letters submitted by W.A.T.E.R. and GNA's experts. This comment letter will focus on the Draft EIR's inadequacies with respect to hydrology, utilities and alternatives.

**I. THE CALIFORNIA ENVIRONMENTAL QUALITY ACT**

"CEQA is a comprehensive scheme designed to provide long-term protection to the environment. [Pub. Resources Code, §21001.] In enacting CEQA, the Legislature declared its intention that all public agencies responsible for regulating activities affecting the environment give prime consideration to preventing environmental damage when carrying out their duties. [Pub. Resources Code, § 21000(g).] CEQA is to be interpreted 'to afford the fullest possible protection to the environment within the reasonable scope of the statutory language.' [*Friends of Mammoth v. Board of Supervisors* (1972) 8 Cal.3d 247, 259]". (*Mountain Lion Foundation v. Fish & Game Com.* (1997) 16 Cal.4th 105, 112.) "The environmental impact report, with all its specificity and complexity, is the mechanism prescribed by CEQA to force informed

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decision making and to expose the decision-making process to public scrutiny. (*Planning and Conservation League v. Department of Water Resources* (2000) 83 Cal.App.4<sup>th</sup> 892, 910; citing *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 86.) This interpretation remains the benchmark for judicial interpretation of CEQA. (*Laurel Heights Improvement Association v. Regents of the University of California* (“*Laurel Heights I*”) (1988) 47 Cal.3d 376, 390, quoting *Bozung v. Local Agency Formation Commission* (1975) 13 Cal.3d 263, 274.) As the *Laurel Heights I* court noted, “[i]t is, of course, too late to argue for a grudging, miserly reading of CEQA.” (*Laurel Heights I*, *supra*, 47 Cal.3d at p. 390.)

The EIR is “the heart of CEQA” and “an environmental alarm bell whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological point of no return.” (*Id.* at p. 392.) The EIR is the “primary means” of ensuring that public agencies “take all action necessary to protect, rehabilitate, and enhance the environmental quality of the state.” (*Id.*, quoting Pub. Resources Code, § 21001(a).) The EIR is also a “document of accountability,” intended “to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its actions.” (*Laurel Heights I*, *supra*, 47 Cal.3d at p. 392 (quoting *No Oil, Inc.*, *supra*, 13 Cal.3d at p. 86.) Thus, “[t]he EIR process protects not only the environment but also informed self-government.” (*Ibid.*)

The central purpose of an EIR is to identify the significant environmental effects of the proposed project, and to identify ways of avoiding or minimizing those effects through the imposition of feasible mitigation measures or the selection of feasible alternatives. (Pub. Resources Code, § 21002, 21002.1(a), 21061.) “An EIR provides the public and responsible government agencies with detailed information on the potential environmental consequences of an agency’s proposed decision.” (*Mountain Lion Foundation v. Fish & Game Commission*, *supra*, 16 Cal.4th at p. 113.) Thus, the primary purposes of CEQA is to inform government decision-makers and the public about the potential significant environmental effects of proposed projects (CEQA Guidelines, § 15002(a)(1)) and to disclose to the public the reasons for approval of a project that may have significant environmental effects. (CEQA Guidelines, § 15002(a)(4).) Informed decision making and public participation are fundamental cornerstones of the CEQA process. (See *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553; *Laurel Heights I*, *supra*, 47 Cal.3d 376.) With this primary purpose of CEQA in mind, the California Supreme Court has stated that “[t]he environmental impact report (“EIR”) is the primary means of achieving the Legislature’s considered declaration that it is the policy of this State to take all action necessary to protect, rehabilitate, and enhance the environmental quality of the State.” (*Sierra Club v. State Board of Forestry* (1994) 7 Cal.4<sup>th</sup> 1215, 1229 [emphasis added].)

Thus, when an agency fails to comply with CEQA’s informational requirements of CEQA, an agency has failed to proceed in ‘a manner required by law. (*Save Our Peninsula Committee v. Monterey County Board of Supervisors* (2001) 87 Cal.App.4<sup>th</sup> 99,

118. If the deficiencies in an EIR “preclude[ ] informed decisionmaking and public participation, the goals of CEQA are thwarted and a prejudicial abuse of discretion has occurred.” (*Id.* at p. 128.)

As discussed in these comments, GNA’s comments, and the comments submitted by experts on behalf of W.A.T.E.R and GNA, the Draft EIR fails as an informational document and thus is legally deficient. Moreover, the Draft EIR’s conclusion and findings regarding impacts are not supported by substantial evidence.

## II. Chapter 4.8: Hydrology

### A. The Draft EIR Fails to Address Water Rights for the Project.

When a project involves the exercise of a water right, CEQA requires that the Draft EIR discuss and disclose the basis for the claimed water right. (*Save Our Peninsula Committee v. Monterey County Board of Supervisors* (2001) 87 Cal.App.4<sup>th</sup> 99, 134 [EIR must contain information regarding water rights in order to provide sufficient information to make the exercise of this discretion an informed one].) If there is a valid water right, then the EIR needs to disclose and discuss in order to address how the project may affect other water users in the area. (*Id.*) The failure to discuss deprives “the public of a meaningful opportunity to comment upon a *substantial* adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect.” (*Id.*, quoting *Laurel Heights Improvement Assn., Inv. Regents of University of California* (1993) 6 Cal.4<sup>th</sup> 1112, 1129-1130.)

While Appendix E addresses permitting issues, it fails to address the issue of water rights for use of surface water. Studies prepared for Danone Corp (most importantly the Secor Report section 2.2.42), and relied upon by the Draft EIR as a supporting document for a variety of purposes attempts to document the hypothesis that water from the deeper aquifer has been shown via dye tests to be directly linked to the surface flows forming Big Springs Creek. The State of California concurred with that finding, and allowed Danone to market its bottled water as surface spring water, not ground water. Those documents attempt to document the flow path that water takes from the Project site, all the way to Big Springs Creek. That flow path, if true, elucidates that the water is flowing in a now “known and definite channel”. As such, this water meets the legal definition of surface water. (Water Code § 1200.) The EIR fails to discuss whether or not Crystal Geyser’s planned uses of the water constitute onsite consumption, in which case possibly a riparian right is legally sufficient to meet their needs, or possibly not, or if the plant is the start of a transshipment process for ultimate use off site, in which case it seems as if an appropriative right is required.

Moreover, it should be noted that DEX-6 is located on a separate parcel from the bottling operations. As such, water from the DEX-6 may be limited to the parcel where the well is located. When a spring is a tributary to a watercourse, it is part of the stream

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(Cont.)

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itself. (*Gutierrez v. Wege* (1905) 145 Cal. 730, 734.) The owners of the lands on which surface waters abut have riparian rights to the water. (*Simons v. Inyo Cerro Gordo Mining & Power Co.* (1920) 48 Cal.App. 524, 536.) The riparian rights are part of the parcel. Unless adjudicated, riparian rights are not limited in quantity except to an amount which can be reasonably and beneficially used on the riparian land, subject to the requirements of other landholdings bordering on the water. The riparian right is "correlative." That is, the riparian must share the available supply on an equitable basis with other riparians. The use under a riparian right must be confined to the lands that are adjacent to the water. The riparian landowner whose source is from a running stream or spring has the right to the natural flow of the water only. The riparian right remains with the land that is adjacent to the stream, but does not extend to other parcels that are not contiguous to the riparian water. The Draft EIR must address the Project's compliance with water law. (*Save Our Peninsula Committee v. Monterey County Board of Supervisors*, *supra*, 87 Cal.App.4<sup>th</sup> at p. 134 [EIR must contain information regarding water rights in order to provide sufficient information to make the exercise of this discretion an informed one].)

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(Cont.)

The connection between Big Springs and DEX-6 has not been clearly established, as discussed in some expert comments. There are two extreme possibilities: either they both draw from the same contiguous aquifer (called the "Big Springs aquifer" in the Draft EIR), or they each draw from largely distinct aquifers. In the first case, Crystal Geyser runs into problems with using what is legally then "surface water" which it cannot export it across parcel lines. In the second case, the Draft EIR presents absolutely no evidence that whatever other aquifer is involved is not impacted by their pumping. Both ways lead to a legally inadequate Draft EIR. In fact, the connectivity is not well known, and the failure to determine the connection is also an inadequacy of the Draft EIR.

#### **B. The Draft EIR fails to Adequately Evaluate and Discuss the Groundwater Recharge**

Figure 4.8.2 shows the water level in DEX-6 well. (DEIR at p. 4.8-5.) There is no indication as to whether this is the static level, or if DEX-6 was being pumped when some of these levels were recorded, although those data points after 2011 when the plant was out of operation presumably are reliably static levels as is the single point from 1998. Using just data from 1998 and 2011 through 2016, and estimating from the figure, since actual data was not provided, it appears that the water level varied from a high of about 3577.8' msl to a low of about 3576.2' msl.

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The study entitled *Slightly thermal springs and non-thermal springs at Mount Shasta, California: Chemistry and recharge elevations*, by M. Nathenson, J.M. Thompson I, L.D. White, U.S. Geological Survey, Menlo Park, CA 94025, USA. Received 1 March 2002; accepted 26 August 2002 in the *Journal of Volcanology and Geothermal Research* 121 (2003), at p. 137-153 (Table 2) lists the elevation of Big Springs as being at an elevation of 1097 meters, or 3599 feet. If Big Springs really is at



3599 feet, how does water with a static level in DEX-6 flow out of Big Springs when the elevation in the well is 3577 feet elevation. That's 22-feet lower than the Big Springs outlet. Gravity doesn't work that way, and water generally flows downhill. Water can flow "uphill" if confined to a pipe with a pressure head. This is not inconceivable with lava tubes, etc. For the Draft EIR to be correct about water flowing uphill from DEX-6 to Big Springs, however, they would have to hypothesize such a mechanism. This has never been demonstrated as a fact in this area, nor even mentioned as a necessary assumption in the Draft EIR, so the conclusion about the connection is theoretically tenuous and not supported by substantial evidence. The Draft EIR must include a review of the available data provide an explanation of USGS report.

The Draft EIR states that "...Big Springs Flow is regional in nature, and primarily influenced by precipitation on or near the summit of Mt. Shasta." (DEIR at p. 4.8-10.) Contrary to this statement, the Secor report in Figure 1 provides a graphic indicating an estimated catchment area that appears minimal in area at high elevations. Similarly, the RCS reports contains an expanded but similar catchment area, with additional catchment area appearing to be added centering ~ 8000 feet, and another mapped catchment listed as "Geosyntec", which is much smaller and even lower in elevation, all shown on RCS figure 5. (Appendix H, described on page 4.8-17 as the Geosyntec report doesn't include a similar map, leaving the Geosyntec footprint provenance open to question.) This lack of consistency in source documents relied upon for the ultimate conclusion stated above on page 4.8-10 must be explained, especially in light of the findings in a more recent scientific work: *California GAMA Special Study: Tracers of recent recharge to predict drought impacts on groundwater: Mount Shasta Study Area*, by Ate Visser, Jean E. Moran\*, Amanda Deinhardt, Elizabeth Peters\*, Richard Bibby, and Bradley K. Esser, Lawrence Livermore National Laboratory, December 2016, (Revised February 2017) Final Report for the California State Water Resources Control Board, which studied isotope data to determine the mean infiltration area very extensively, and concluded:<sup>1</sup>

Groundwater recharge, however, is still dominated by recharge at lower elevations with more than 50% of recharge is estimated to occur below 2000 m.

2,200 meters is approximately 7,200 feet, which means that this statement directly contradicts the conclusions in the Draft EIR.

The Draft EIR discusses average Crystal Geyser water usage amounts. (DEIR at p. 4.8-25.) In all cases, water usage is described in terms of steady 24/7/365 extraction.

<sup>1</sup> A copy of the *California GAMA Special Study: Tracers of recent recharge to predict drought impacts on groundwater: Mount Shasta Study Area*, by Ate Visser, Jean E. Moran\*, Amanda Deinhardt, Elizabeth Peters\*, Richard Bibby, and Bradley K. Esser, Lawrence Livermore National Laboratory, December 2016, (Revised February 2017) Final Report for the California State Water Resources Control Board is attached to this comment letter.

which could be conservative in terms of creation of a cone of depression reaching a great distance horizontally, especially if water movement is slow, but might well not be adequately informative of modeled outcomes if other mitigations for noise or traffic etc. limit the plant to fewer hours than 24/7, and Crystal Geyser changes plant operational details to meet their volume targets in fewer hours or days, which would mean extraction per hour would need to go up substantially, even though the annual volume remained unchanged. The Draft EIR must include an analysis that looks at (from Crystal Geysers perspective) a worst case, with project, scenario in which they were limited to 8-5, 5 days per week, with annual water usage unchanged, since that potentially is a reasonably foreseeable outcome.

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It is long term pumping that is most likely to cause problems in neighboring wells. Short-term drawdown tests are not adequate to determine if there is a problem. The longest drawdown test that was ever done at DEX-6 was 63 hours (i.e., less than 3 days). That is not nearly long enough. Besides, even for the 63-hour test, they never checked for the response in neighboring residential or even onsite shallow wells. So again, the DEIR is completely inadequate

Since modeling of groundwater behavior is good and useful but never exact, in as much as one of the major issues here is impacts to surrounding wells, the Draft EIR must contain a mitigation measure that provides pumping rates will be limited should Crystal Geyser's water usage contribute to or cause interference with the other wells whose owners rely on the groundwater. If the Draft EIR's findings are accurate, then such a mitigation and/or restriction on project operations would not affect the Project, but would provide assurance to neighboring water users.

The Draft EIR fails to adequately address groundwater modeling. The Draft EIR relies on the use of a "pump-it" model, but detailed information on the appropriateness of that model for these specific groundwater conditions is not available in the Draft EIR or supporting documents. Given that, it becomes just one more "trust me" approach, again inadequate for a document legally mandated to inform. Nor is there any information presented on how the model was parametrized, where assumptions almost always must be made and consequently where outcomes can be intentionally or unintentionally biased there-by. Adequate details of this or any other models used must be available to allow the public to perform a proper review.

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The Draft EIR contains a footnote describing pump testing done on what is called the "domestic" well. (DEIR at p. 4.8-25.) The casing is described as being perforated to draw water from both the shallow and deeper aquifers. (*Id.*) Given the volume this well is capable of (tested at 500 gpm), it seems readily foreseeable that it could be converted to a production well should any problems arise with DEX-6 (possibly including contamination from on or off site, insufficient volume, collapsed casing, etc.). The Draft EIR's analysis is limited to the deeper aquifer only. The Draft EIR should analyze and disclose the impacts of using the "domestic" well for production purposes on both aquifers, or a mitigation that caps its volume to the maximum of 11 gpm.

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The Draft EIR describes the underflow area believed to be supplying water to Big Springs as being "16 times greater" than the area DEX-6 withdraws water from, and that somehow will mean that the volume of water taken by DEX-6 will somehow have less impact than if conditions were different. (DEIR at p. 4.8-28.) This is nonsensical. Think of a straw in a bucket—the straw is small, but it directly or indirectly lowers the entire volume of water in the bucket. Likewise with Big Springs, whether water is withdrawn from a large or small portion of the flow channel, regardless the total flow will be reduced by the same amount, unless the aquifer discharges to multiple areas besides Big Springs ("...because water from other areas of the aquifer would supplement the flow."). (DEIR at p. 4.8-28.) Meaning that it is currently discharging in a spring somewhere else or contributing to groundwater somewhere else, and the impact of Crystal Geyser would therefore be transferred to whichever other springs or groundwater areas those are. If so, the Draft EIR has not identified any such areas, nor does it analyze impacts. This argument, since raised by the independent consultant, needs to be supported and impacts on any such consultant-proposed alternate discharge location assessed.

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The Draft EIR estimates near-by groundwater usage, based on an assumed 60 gpd per person. (DEIR at p. 4.8-29.) No justification is provided for the source of this number either in this section or on page 31 of the quoted RCS report. Presumably it is a standard urban water use number from some state or federal agency, but there does not appear to be any basis in the record to support this assumption. This appears to be far too broad-brushed an approach to use to justify anything, and either needs to be linked to supporting data from areas of similar land use and climate, or to local details that document the assumption of this number for the purposes of the analysis performed and the conclusions reached. At the very least, water usage in a rural area with landscaping and gardens and orchards will greatly increase in summer as compared to winter, and no single per capita number will be correct for both if there is any outdoor usage at all. The Draft EIR needs to identify the origin of this number, and its appropriateness for this situation justified.

**C. Substantial evidence does not support the Draft EIR's conclusion that the Project will not impact water quality**

The Draft EIR concludes that the Project would not violate any water quality standards or waste discharge requirements. (Impact 4.8-1; DEIR at 4.8-18.) As discussed in the letters submitted by Peter Martin and the Central Valley Regional Water Quality Control Board, substantial evidence does not support the Draft EIR's conclusion that the impacts to water quality are less than significant. Moreover, the comment demonstrates that Draft EIR failed to address potentially significant environmental impacts to groundwater quality.

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As discussed in Mr. Martin's letter, for Wastewater Options 2, 3 and 4 the Draft EIR fails to identify and analyze the potentially toxic impacts of the pollutants that the operation will add to the waste stream. Despite the Draft EIR's failure to evaluate the

impacts of the added pollutants, the Draft EIR determines that impact of the Project's wastewater discharge will not significantly impact groundwater quality. Moreover, the Draft EIR fails to identify the quantities and concentrations of the added pollutants.

Not only does the Draft EIR fail to discuss the potential impacts from pollutants added to the waste stream, Mr. Martin's letter provides substantial evidence, based upon the limited data in the Draft EIR, that the effluent discharge would significantly degrade groundwater quality. Moreover, Mr. Martin opines that the increased concentration of pollutants is substantial and not adequately analyzed in the Draft EIR.

While the WWTP plan in Appendix D, table A-I and associated text speaks to lab testing for lots of materials that are not to be found in significant quantities in similar operations, the WWTP fails to identify what is in that rinse water. There must be something significant as it apparently is contaminated enough so that it cannot be recycled and reused, but must be discarded after a single use and allowed to mix with the shallow groundwater. It is laudable that real world data is used to discuss the topic, but with no simple statement of just what is in the rinse water, the description is inadequate.

The Project's failure to reuse allegedly clean rinse water is also contrary to Siskiyou County General Plan Policy H-6, as discussed in the Draft EIR. (See DEIR at p. 4.8-16.)

Crystal Geysers' web page: (<http://www.crystalgeysermtshasta.com/facts/>) states that Crystal Geyser will use no rinse water for bottles, but will use air instead:

We will rinse bottles with air, not with water, which will allow us to ensure the majority of the water we extract will go directly in the bottle. In addition, it will reduce our wastewater discharge from 250,000 gpd to 54,000 gpd.

In contradiction to Crystal Geyser's representations to the public, the Draft EIR predicts that the planned 2 bottling lines will use twice the volume. The Draft EIR states:

Industrial wastewater discharges from the bottling operation will range from approximately 20,000 gallons per production day (gppd) to approximately 54,000 gpd for one product line. In 5 to 7 years, when a second bottling line is added, discharges will approximately double, ranging from 40,000 to 100,000 gppd. (DEIR, Appendix D at p. 1)

If water use does not include washing bottles, then the Draft EIR must disclose what is the use that requires 100,000 gppd? Crystal Geyser has failed to answer that question, although the Draft EIR implies that bottles will be rinsed as was done by and assessed for the Dannon plant. (DEIR at p. 4.8-20.) Without disclosing what is being rinsed, there is no way for the public and decision makers to assess the adequacy of the

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lab testing done, the treatment processes proposed, or the reliability of the conclusions reached.

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The Draft EIR's inconsistency and lack of accurate information continues on 4.8-24, where treatment is described as returning the effluent to a "...similar water quality as the groundwater...", then further on the same page says the process will rely on "natural filtration and dilution" to finish the job. However, as demonstrated in comments and in the record, Deetz 125 soil has the lowest rating for "filtration." Because of the baseline high quality of the groundwater, this appears to violate the water quality regulations that prohibit degradation of existing high quality water, since, by necessity, dilution raises the quality on one by lowering the quality of the other. The Draft EIR must address this degradation, as well as disclose what the "rinse" water actually contains that was not present in the original groundwater, not just a seemingly irrelevant list of potential contaminants it tests well for. Moreover, the Draft EIR relies upon groundwater tested under the leach field. Thus, the high quality water was not the baseline, instead the baseline was already polluted water under the leach field. The baseline should be the high quality water.

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Table 4.8-1 shows some limited water quality data for both shallow groundwater and DEX-6, but fails to indicate whether or not the samples were taken on approximately the same day, or if one was from late summer and one from mid-spring, or similar separated sampling intervals. (DEIR at p. 4.8-2.) The timing and sources of groundwater arrival on site could result in significant differences in water chemistry depending on just what was being brought in from the varying elevations the water originated at.

**D. Substantial evidence does not support the Draft EIR's determination that the Project will not impact groundwater supplies or groundwater recharge**

The Draft EIR concludes the Project's operation would not substantially deplete groundwater supplies or substantially interfere with groundwater recharge. (Impact, 4.8-2, DEIR at 4.8-25.) This determination, however, is not supported by substantial evidence.

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First, the Draft EIR's hydrology discussion relies upon an oversimplified analysis of the groundwater hydrology. As discussed in Parker Groundwater's February 19, 2017 comment letter, the Project setting involves a complex hydrogeological setting. The simplified approach and lack of supporting data leads to an environmental document that fails to inform the public and the decisionmakers regarding the project's potentially significant impacts to groundwater resources.

Second, as pointed out in the Parker Groundwater letter, the groundwater studies focused on the connection of well DEX-6 to Big Springs and the studies were not designed to address the impacts to domestic wells adjacent to the Project. Moreover, the

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Draft EIR and supporting studies ignore the substantial evidence of nearby landowners' comments and testimony regarding drawdowns on their domestic wells when CCDA operated a bottling facility and relied upon DEX-6. As demonstrated in the comments on the Draft EIR, a number of adjacent domestic wells had significant impacts to water level and water quality issues during CCDA operations. The Draft ignores those impacts.

Third, the Hydrogeologic Evaluation Report's conclusions are theoretical predictions about the impacts to Big Springs and nearby domestic wells. The Report does not rely upon any new data, but instead relies upon previous studies that did not assess impacts to third-party domestic wells. Moreover, nothing in the record indicates that the EIR preparers attempted to contact the domestic well owners to evaluate the impacts groundwater levels and quality from when CCDA operated DEX-6.

Fourth, the Report and the studies relied upon for the Report failed to address the relationship and connectivity between the "shallow aquifer" and "lower aquifer". As discussed by Parker Groundwater, there has been no hydrogeologic study of the interconnection between the upper and lower aquifer systems.

Thus, as demonstrated by Parker Groundwater and comments from the public, substantial evidence does not support the EIR's conclusions that the Project will not result in potentially significant environmental impacts. Moreover, substantial evidence supports a determination that the Project may significantly impact nearby domestic wells as such impacts occurred when CCDA operated the facility and actually pumped less from DEX-6 and the onsite domestic well.

### III. Chapter 4.12 - Utilities

#### A. The Draft EIR fails to adequately analyze the 4 options for wastewater treatment disposal and therefore conclusions regarding impacts are not valid

The Draft EIR identifies four options for the Project's discharge of wastewater. (Table 3-2, DEIR at 3-15.)

Alternative	Wastewater Source		
	Domestic Wastewater Flow	Industrial Process Wastewater Flow	Industrial Rinse Wastewater Flow
Option 1	City Sanitary Sewer	City Sanitary Sewer	City Sanitary Sewer
Option 2	City Sanitary Sewer	City Sanitary Sewer	On-Site Leach Field

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Option 3	City Sanitary Sewer	Leach Field (for sparkling and flavored sparkling water only)	On-Site Leach Field
Option 4	City Sanitary Sewer	On-site Treatment to On-site Land Application Irrigation, and Leach Field during Non-Irrigation Season (for sparkling and flavored sparkling water, juice beverages, and teas)	On-Site Leach Field

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**1. The Draft EIR should address the Regional Water Quality Control Board's Resolution No. R5-2009-0028.**

The Draft EIR fails to disclose and discuss the Central Valley Regional Water Quality Control Board's Resolution No. R5-2009-0028 which provides for establishing efforts to promote new or expanded wastewater recycling and reclamation; as well as water conservation measures. A copy of the Resolution is attached to this comment letter.

The Resolution provides that:

1. The Water Quality Control Plans for the Sacramento River and the San Joaquin River Basins . . . includes the following principles that relate to reclaimed water and consolidation of wastewater collection and treatment systems.

\* \* \*

b. Coordinated management of water supplies and wastewaters on a regional basis must be promoted to achieve efficient utilization of water.

c. Regional solutions for wastewater collection and treatment must be considered in all cases where feasible and desirable to implement sound water quality management programs based upon long-range economic and water quality benefits to an entire basin.

The Resolution requires that any new or existing discharger that owns or operates a WWTP shall provide a report regarding new or expanded wastewater recycling and reclamation opportunities and programs as well as water conservation measures. Thus,

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the Draft EIR should identify wastewater recycling and reclamation opportunities as well as the water conservations measures.

**2. The Draft EIR does not identify the constituents that will be in the wastewater streams.**

The DEIR identifies three types of wastewater streams that will be released from the bottling plant: domestic waste industrial rinse wastewater, and industrial process wastewater. (DEIR at p. 3-13.)

**a. Industrial Rinse Wastewater**

Industrial Rinse Wastewater contains wastewater from "filter backwash, the bottling rinsing process, floor wash, and etc. (DEIR at p. 3-13.) The Draft EIR, however, fails to describe the constituents of the filter backwash. The Draft EIR, however, states that water processing for beverage production consists of deionization, proprietary ozonation, carbon filtration, micro-filtration, UV treatment, softening, and deionizing. (DEIR at p. 3-9.) The filtering steps suggest that the filter backwash wastewater may contain, ions, metals, maybe heavy metals, organic compounds, and particulates. The DEIR must describe what contributions each of these will make to the wastewater discharge. Disclosure of this information is important as the Crystal Geyser water bottling plant in Olancho has been cited for holding ponds that leach arsenic into the groundwater. That arsenic came from filter backwash.

The bottle rinsing process may require compliance with Title 40 Code Federal Regulations § 463. As such, the Project may not be allowed to discharge bottle rinse into the leach field and/or the WWTP, at least, not without compliance with additional regulations. The Draft EIR must fully describe the "bottle rinsing process" wastewater.

The draft sewer hookup permit (for releasing effluent to the Mt. Shasta City sanitary sewer system, Appendix I page 33) states:

The molding facility does not require cooling, rinse, or finish water. Therefore, Crystal Geyser Water Company is not subject to 40 CFR 463 .

Despite this statement, CG intends be discharging water from "the bottle rinsing process. (DEIR at p. 3-13.)

Water regulated under 40 CFR 463 includes any water that has come in contact with the blow molded plastic or the machinery that comes in contact with the plastic, thus the DEIR must describe what the "bottle rinsing process" wastewater is. It appears that "water from the bottle rinsing process" falls into one of the waste categories that requires

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compliance with 40 CFR 463 if it goes to the City sanitary sewer system and will not be allowed in the leach field, as recommended for options 2, 3, and 4.

The Draft EIR fails to describe and analyze the floor wash contents. Currently, the floor wash is not permitted to be discharged into the leach field per WDR Order 5-01-233. Also, the use of the term "Etc." fails to provide adequate information regarding the wastewater constituents. If there are other constituents in the wastewater, then the Draft EIR must disclose and analyze those constituents.

#### **b. Industrial Process Wastewater**

Industrial Process Wastewater will contain "cleaning agents from CIP water, boiler discharge, cooling tanks, etc." (DEIR at p. 3-13.) The DEIR fails to describe the constituents in the boiler discharge and cooling tank wastewater. Moreover, "etc" does not constitute an adequate characterization of wastewater constituents. If there are other constituents in the wastewater, then the Draft EIR must identify such constituents.

While the Draft EIR contains information about what is in the CIP water, the Draft EIR fails to describe the chemical reactions that can occur among the cleaning products. The Draft EIR needs to identify the potential chemical reactions among the chemicals.

The Draft EIR describes the chemicals in the CIP as: hydrogen peroxide, peroxyacetic acid, acetic acid, nitric acid, bleach or chlorine (NaClO), hydrochloric acid, vinegar, caustic soda (NaOH and NaCl), sodium xylene sulfonate, and cocamine oxide, along with fruit flavorings extracts, juice residue, tea residue. (DEIR at p. 4.8-22; Appendix H.) Appendix H states: "Because all chemicals used in CGWC processes are food grade products, no priority pollutants such as listed volatile organic compounds, semi-volatile organic compounds or title 22 metals are believed to be contained in the products used by CGWC." (See also DEIR at p. 4.8-22.) While this statement may be true, it does not mean there are no priority pollutants in the waste stream. The statement ignores the fact that many of these cleaning compounds can react with each other and create priority pollutants. For example, bleach and chlorine readily react with organic compounds (for example, fruit flavoring extracts) and produce chlorinated hydrocarbons, including priority pollutants such as listed volatile organic compounds. In fact, Appendix D, Attachment A, Table 1-A shows the effluent from Crystal Geyser's other plants contain chlorinated VOCs (chloroform, chloromethane, dichloromethane) that are priority pollutants.

Additionally, other constituents in the CIP wastewater are problematic. Mixing sodium hypochlorite (bleach) with acid can generate chlorine gas leading to more chlorinated VOCs. Peroxyacetic acid reacts explosively with nitric acid. The Draft EIR must disclose the full range of chemical reactions among the cleaning chemicals.

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(Cont.)

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**2. The Draft EIR's recommendations violate anti-degradation policies.**

Option 3 for wastewater disposal would allow industrial process and industrial rinse wastewater (from production of sparkling and flavored water) to be released into the leach field. In Appendix D, calculations are performed to estimate changes in water quality in the aquifer underlying the leach field. The Draft EIR states: "...the estimated concentration of constituents in the industrial process waste water from the production of sparkling and flavored water is much less than the California MCL for drinking water, and while it is anticipated that there will be slight rise in several background constituents in the shallow groundwater aquifer, the constituents are still well within drinking water standards." (DEIR at p. 4.12-11.)

A "slight rise in several background constituents in the shallow groundwater aquifer" violates the anti-degradation policies as summarized below. Moreover, the Draft EIR's calculations underestimated the types of pollutants in the wastewater. The leach field should not be an option for disposal of industrial process wastewater.

The Federal Anti-degradation Policy (CWA, Section 303(d)) directs states to adopt policies designed to protect water quality and water resources and includes the following provisions: "(1) existing instream uses and the water quality necessary to protect those used shall be maintained and protected; (2) where existing water quality is better than necessary to support fishing and swimming conditions, that quality shall be maintained and protected unless the state finds that allowing lower water quality is necessary for important local economic or social development; and (3) where high-quality waters constitute an outstanding national resource, such as waters of national and state parks, wildlife refuges, and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected." (DEIR at p. 4.12-5.)

**3. The DEIR contains an inadequate analysis of Option 1.**

The Draft EIR fails to adequately evaluate the capacity of City's sewer conveyance system. Appendix L uses mathematical (engineering) models to estimate the capacity limits of the pipes that will convey wastewater from the bottling plant to the City wastewater treatment system. The analysis identifies a section of sewer lines between manholes 19-21 that must be replaced, and discussion of that replacement is included in the Draft EIR. The calculations, however, indicate there is another section further north (upstream), manholes 25-28, that may be at risk of becoming overcapacity. The Draft EIR dismisses any further discussion of this section arguing that the modeling overestimates the flow in this section. This argument, however, implies that the sections upstream of manhole 21 have not been appropriately modeled. Moreover, the analysis contains no modeling for extreme weather events. Thus the analysis of Appendix L is inadequate to draw conclusions about the capacity of the conveyance system.

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Mitigation Measure 4.12-1, which limits wastewater discharge to the City's sewer system to 24,000 gpd, may not be feasible without a reduced intensity Proposed Project. To insure the City's wastewater treatment plant can handle the effluent from the bottling plant, MM 4.12-1 limits Crystal Geyser's effluent discharge to 24,000 gpd. The Draft EIR, however, does not demonstrate that Crystal Geyser can limit the effluent discharge. With two production lines, peak production days could generate more than 100,000 gpd of effluent. That would take 4 days to discharge. It is proposed that up to 80,000 gallons of holding tanks will be installed at the bottling plant to accommodate peak production days, but what happens if there are two or more peak production days in a row? It is stated that only one option would be used at any one time (page 3-14), implying if more than 24,000 gpd are generated than discharge would have to switch to Options 3 or 4. The Draft EIR fails to identify what options would be used when and what are the criteria for choosing the various option.

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(Cont.)

**4. The Draft EIR fails to evaluate the option of wastewater recycling within the bottling plant operations**

The DEIR claims the industrial rinse wastewater and the industrial process water from sparkling and flavored water production is of drinking water quality. If this is so, then the water should be used in the beverages, in the boilers, cooling towers and bathrooms, with the recycled wastewater eventually going to the City sanitary sewer. This would both reduce aquifer depletion and avoid contamination of the aquifer underlying the project site.

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**5. The Draft EIR fails to adequately address the potential for the irrigation system to affect the surface Biological Resources and underlying aquifer.**

Wastewater treatment Option 4 will use an on-site wastewater treatment system and get rid of the processed water by irrigating surrounding land from May through October and discharging to the leach field from November to April. The amount of water discharged will be up to 100,000 gpd. The soil under the Proposed Project site is Deetz 125, a very porous soil that allows the water to rapidly flow into the underlying ground water, thus altering its composition. Irrigation with 100,000 gpd over the proposed 12 acres will be the equivalent of 50 additional inches of rain in the otherwise dry season. This has the potential to alter vegetation and habitat on the irrigated and surrounding lands. The Draft EIR, however, fails to analyze and discuss the potential impacts associated with the proposed irrigation.

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**II. Alternatives: Chapter**

The Draft EIR fails to consider a "reasonable range" of alternatives that would reduce and avoid the Project's significant impacts. (See Pub. Resources Code §§ 21002 and 21002(a); Guidelines § 15126.6(b); *Goleta Valley*, 52 Cal.3d at 566 (EIR

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must consider alternatives that “offer substantial environmental advantages”).) Other than the required No Project Alternative (Guidelines § 15126.6(e)), the Draft EIR’s alternative analysis contained only two alternatives to the proposed Project.

CEQA mandates that a lead agency adopt feasible alternatives or feasible mitigation measures that can substantially lessen the project’s significant environmental impacts. (Pub. Resources Code, § 21002; Guidelines, § 15002(a)(3); *Citizens of Goleta Valley v. Board of Supervisors*, *supra*, 52 Cal.3d at p. 566.) For that reason, “[t]he core of an EIR is the mitigation and alternatives sections.” (*Id.* at p. 564.) “The purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided. (Pub. Resources Code, § 21002.1(a) (emphasis added); see also Pub. Resources Code, § 21061.) Thus, a lead agency must ensure “that all reasonable alternatives to proposed projects are thoroughly assessed.” (*Wildlife Alive v. Chickering* (1976) 18 Cal.3d 190, 197; Pub. Resources Code, § 21001(g) (lead agency must “consider alternatives to proposed actions affecting the environment”); *Laurel Heights I*, *supra*, 47 Cal.3d at p. 400.)

The determination of whether an alternative is feasible is made in two stages. (See *Mir Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App.4<sup>th</sup> 477- 489-490; *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4<sup>th</sup> 957, 981; CEQA Guidelines, § 15126.6(c).) The first step involves identifying a range of alternatives that will satisfy basic project objectives while reducing significant impacts. (*Ibid.*) Alternatives that are not “potentially feasible” are excluded at this stage as there is no point in studying alternatives that cannot be implemented. (*Ibid.*) In the second stage, the final decision on the project, the agency evaluates whether the alternatives are actually feasible. (*California Native Plant Society*, *supra*, 177 Cal.App.4<sup>th</sup> at 981; see CEQA Guidelines, § 15091(a)(3).) At this point, the agency may reject as infeasible alternatives that were identified in the EIR as potentially feasible. (*California Native Plant Society*, *supra*, 177 Cal.App.4<sup>th</sup> at 981.)

The EIR must “describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, and evaluate the comparative merits of the alternatives.” (CEQA Guidelines, § 15126.6(a).) The alternatives discussion must focus on alternatives that avoid or substantially lessen any significant effects of the project. (*Id.*, § 15126.6(b); *Goleta Valley*, *supra*, 52 Cal.3d at p. 566 (EIR must consider alternatives that “offer substantial environmental advantages”).) The range must be sufficient “to permit a reasonable choice of alternatives so far as environmental aspects are concerned.” (*San Bernardino Valley Audubon Soc’y v. County of San Bernardino* (1984) 155 Cal.App.3d 738, 750; see also *Sierra Club v. Contra Costa County* (1992) 10 Cal.App.4<sup>th</sup> 1212, 1217-18, 1222 (EIR that only considered two alternatives for less development was not a range of reasonable alternatives).) Although no rule governs the number of alternatives that must be considered, the range is governed by the “rule of reason.” (*Goleta Valley*, *supra*, 52



Cal.3d at p. 576; CEQA Guidelines, § 15126.6(a)(f).) *Marin Municipal Water District v. KG Land Corp.* ("Marin") (1991) 235 Cal.App.3d 1652, 1664 ("CEQA establishes no categorical legal imperative as to the scope of alternatives to be analyzed in an EIR".) The range of alternatives, however, must be selected and discussed in a manner that allows for meaningful public participation and informed decisionmaking. (*Id.*) The fact that CEQA does not require a specific number of alternatives does not excuse an agency's failure to present *any* feasible, less environmentally damaging options to a proposed project. (See *Sierra Club v. Contra Costa County*, *supra*, 10 Cal.App.4th at 1217-18, 1222 (EIR that only considered two alternatives for less development was not a range of reasonable alternatives).)

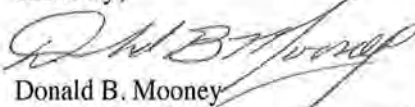
Failure to provide a range of potentially feasible alternatives means that an EIR failed to provide a choice to the decisionmakers. (*San Bernardino Valley Audubon Soc'y v. County of San Bernardino*, *supra*, 155 Cal.App.3d at 750 (range must be sufficient to provide a reasonable choice of alternatives); *California Native Plant Society*, *supra*, 177 Cal.App.4th at 981 (decisionmaking body evaluates whether the alternatives are *actually* feasible); Guidelines, § 15126.6(a) (EIR must consider a reasonable range of potentially feasible alternatives that will foster informed decisionmaking and public participation.)) The decision makers may reject as infeasible alternatives that were identified in the EIR as potentially feasible. (*Mira Mar Mobile Community v. City of Oceanside*, *supra*, 119 Cal.App.4th at 489.)

The Draft EIR should include a Limited Project Alternative that provides for the bottling facility's hours of operation to be limited to 7 am to 7 pm Monday through Friday. This would reduce and impacts to the local neighborhoods in terms of traffic, light and noise.

The Draft EIR should also include an alternative that provides for Crystal Geyser to increase its production at its existing facilities in order to meet the purported demand for its product. The Draft EIR fails to disclose that Crystal Geyser currently operates bottling plants in several other locations and fails to discuss whether those operations could be expanded or increased.

Given that other alternatives are feasible and available for review and consideration, the Draft EIR's consideration of only 2 alternatives does not constitute a reasonable range of alternatives designed to avoid or lessen the Project's significant impacts.

Sincerely,

  
Donald B. Mooney  
Attorney for We Advocate Thorough  
Environmental Review

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(Cont.)