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public should not have to dig through detailed and multiple technical appendices to ascertain how Project demand was calculated. The DEIR should provide its demand assumptions and estimates in a clear manner.

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cont.

Demand estimates and assumptions are demonstrably low. See Exhibit 1 at 2, 13. As Dr. Myers explains, “[t]he demand was based on an annual average occupancy rate of 55.2% [which] was determined based on the recession period 2009 through 2011 when occupancy would have been lower than average.” *Id.* at 1 at 2,3. Further, the occupancy rates do not reflect the Project objectives, which are to transform Squaw Valley from its current intermittent seasonal uses to, as the applicant claims, a “world-class” four season resort destination. An additional flaw is that demand rates for commercial square footage (0.24 gpd/sf) appear to be based solely on area and not occupancy or use. Exhibit 1 at 16. Dr. Myers estimates occupancy rates, and, therefore, demand on water supplies, could be underestimated by as much as 80 percent. Exhibit 1 at 2, 16.

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Further, the model used a flawed approach to the distribution of demand, noting that “[m]ore demand especially in late summer would cause even more drawdown lengthening dry periods and the length of dry stream.” Exhibit 1 at 2. Rather than simply examine one possible demand scenario, the DEIR should acknowledge that uncertainty exists concerning the distribution of future demand and analyze a realistic range of demand distributions.

The myriad errors in the DEIR’s groundwater analysis are not trivial defects. The document does not serve to inform the public and decision-makers as to whether sufficient water is available to meet the Project’s needs. In fact, it is nearly useless to the people it is intended to enlighten. The County must correct the above mentioned errors, along with the additional flaws regarding the groundwater model’s estimation of groundwater availability set forth in Dr. Myers’ Report, and recirculate the DEIR.

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**(iii) The DEIR Underestimates Drawdown from Squaw Creek from Pumping Operations.**

In addition to the errors listed above that would result in an underestimation of impacts to Squaw Creek, the DEIR also underestimates the amount of water that would be drawn down from Squaw Creek as a result of pumping operations. For example, the DEIR’s assertion that “current groundwater pumping does not substantially alter stream flow” (at 13-18), does not take into account cumulative pumping conditions. The statement assumes an eight-hour pumping cycle that starts fresh each time. This is not how drawdown occurs; rather, water flows towards a well-site even after pumping ceases

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as the depleted area near the well is refilled either with surface waters or adjacent areas of the aquifer. These impacts may be substantial as pumping tests have demonstrated that “after 51 hours of pumping (test #1, see Hydrometrics 2013a), 17% of the amount being pumped was being drawn from Squaw Creek” a rate that would be expected to continue for some time even after pumping stops. Exhibit 1 at 10. Thus, far more water would be drawn from the Creek than the DEIR reveals.

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Dr. Myers also determined that the DEIR “does not consider the cumulative effects of overlapping drawdown cones. In other words, the drawdown from one well will affect nearby wells so that the drawdown at any point is a summation of drawdown from each well. It is possible that the saturation could fall below 65% due to these overlaps.” Exhibit 1 at 15. The DEIR must be revised and recirculated to correct these errors and to reflect the accurate potential drawdown of Squaw Creek.

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**(c) The DEIR’s Water Supply Mitigation Is Inadequate.**

The DEIR claims that if the wellfields were built as discussed in the WSA, there would not be any significant water supply impacts. The DEIR further states that if wellfields were ultimately built in a different configuration, the impact would remain less than significant if Mitigation Measure 13-4 were imposed. This approach to mitigation is flawed for several reasons. For one, it is unclear when and whether Mitigation Measure 13-4 applies. The WSA states that the Project would only require construction of 6 new wells but, as explained, the model simulates pumping over 9 new wells. It is unclear from the DEIR whether Measure 13-4 would apply if only 6 new wells are constructed as planned. Further, it is unclear whether parts B and C of Measure 13-4 apply to all new wells, or only wells that do not meet the WSA configuration.

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Additionally, Measure 13-4 improperly defers mitigation until a later date. CEQA generally prohibits deferral of mitigation, except in narrow circumstances. To do so, (1) there must be practical considerations that preclude development of the measures at the time of project approval, (2) the EIR must contain criteria to govern the future actions implementing the mitigation, and (3) the agency has assurances that the future mitigation will be both “feasible and efficacious.” *Californians for Alternatives to Toxics v. Dept. of Food & Agric.* (2005) 136 Cal.App.4th 1, 17. This standard is not met here.

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First, the DEIR never explains why it cannot at this point identify an optimal wellfield configuration that would be utilized by the Project and operated to a consistent set of standards. Rather, the DEIR appears to anticipate and accept that the wellfield configuration will change and breeds further uncertainty by modeling more wells than

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would be necessary for the Project. The DEIR’s project description claims that more wells may be necessary if the applicant were to create an entirely new water company. As discussed previously, it is entirely unclear whether the Project includes the creation of a new water company. This critical detail must be resolved now, prior to Project approval. Following clarification on that issue, the DEIR must be revised to show Project water levels under various wellfield configuration scenarios.

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Second, while Mitigation Measure 13-4 does establish some criteria, others are not defined. For example, the Measure states the SVPSD will implement a “Pumping Management Plan” and the Project would be consistent with that Plan. The Measure sets forth the types of items to be covered in the Plan (e.g., standard operating procedures, new well siting criteria), but does not provide any details or actual standards. *See Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182 (holding an agency may not avoid analyzing water shortages by relying on future analyses). The Measure also states the applicant will enter into a development agreement with the SVPSD but fails to provide the agreement or contents thereof. For the criteria that are defined, the Measure quickly removes any certainty by including a provision that allows the SVPSD and the County to change the criteria so long as the new criteria “maintain adequate water supply and would not result in degradation of water quality and/or loss of riparian vegetation and/or aquatic habitat substantially greater than” described in the DEIR. DEIR at 13-64. However, the DEIR entirely fails to define the terms “adequate” or “substantially greater” relying instead on the discretion in the SVPSD and the County, making analysis of subsequent impacts impossible.

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Third, the Measure would fail to reduce water supply impacts. As with the DEIR’s flawed analysis of water supply impacts in the first instance, the mitigation uses as one of its criteria the same operational threshold of 65% average saturated thickness. As explained, this measure does not relate to overall health of aquifer. Once the DEIR corrects this issue, mitigation should be proposed to reduce any true significant environmental impacts to the aquifer and Squaw Creek. For example, Dr. Myers proposes mitigation that involves designing a pumping regimen that allows pumping from different well locations (e.g., closer to or farther from Squaw Creek) based on the effects that pumping would have on the Creek at the specified time. *See Exhibit 1 at 2.*

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The DEIR’s mitigation measures must be completely revamped so that they are concrete, detailed, and enforceable and their potential effectiveness must be fully described.

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**(d) The DEIR Fails to Acknowledge the Uncertainty of Water Supplies for the Project and Fails to Examine the Environmental Impacts from Obtaining Water from Additional Sources.**

As set forth above, the groundwater model relied upon by the DEIR is fundamentally flawed and does not constitute substantial evidence to support the DEIR’s determination that there is sufficient water supply for the Project. Once the identified errors have been corrected, the analysis will likely demonstrate far less water available than previously identified. However, even with the gross overestimates currently contained in the DEIR, it is apparent that groundwater elevations in the OVGB are highly variable, with large seasonal and yearly fluctuations, and that the Project could exacerbate these fluctuations. *See, e.g.*, DEIR at 13-13 (groundwater levels fluctuate 10 to 15 feet seasonally, and recover to within 10 feet in only half of the years), 13-67, 13-73 (noting Project would have a “measurable effect on groundwater elevations along Squaw Creek” and “the duration and spatial extent of drying would likely increase), 14-7 (“there is a large magnitude of seasonal aquifer fluctuations”).

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Although the DEIR acknowledges this variability, it fails to acknowledge that water supply for the Project could be uncertain in the future. Rather, the DEIR inappropriately claims that “even in years with below average precipitation groundwater levels rose to near maximum elevations,” and that most recharge is “rejected” because the aquifer is full. DEIR at pp. 13-13, 13-17; *see* Exhibit 1 at 9. In fact, DEIR Exhibit 13-19 demonstrates that the aquifer is full only at very limited times. *See also* Exhibit 1 at 9, 10. Thus, even the information presented in the DEIR does not support a conclusion that, even with the installation of new wells, the Project would not have significant water supply impacts. Indeed, prior SVPSD studies have shown that groundwater development increases the drawdown and pulls more water from Squaw Creek which indicates the water company has always faced a lack of certainty regarding groundwater supplies in the OVGB. 2007b, West-Yost 2003.

Further, the DEIR’s conclusion that installation of new wells would not have environmental impacts is based on incorrect data and the flawed use of an operational baseline that does not take into account overall Basin health as discussed above. As stated in *Vineyard*, “[t]he ultimate question under CEQA . . . is not whether an EIR establishes a likely source of water, but whether it adequately addresses the reasonably foreseeable impacts of supplying water to the project.” *Vineyard*, 40 Cal. 4th at 434. The DEIR must be recirculated with an adequate discussion of the true environmental impacts of installing new wells and increasing pumping throughout the Basin. This analysis must

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include not only the hydrological impacts to whole Basin, but also any foreseeable effects from well construction activities, including impacts to air quality, traffic, and public safety.

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The DEIR’s failure to properly acknowledge the uncertainty in the Project’s water supply is a serious defect. The revised EIR must identify potential additional sources of water and analyze any potential environmental impacts from utilizing such sources. As discussed previously, the SVPSD has already determined, even under existing demand, local water supplies are insufficient and is pursuing water exports from the Martis Valley watershed. SVPSD’s proposed “Project 60” in the Draft Tahoe Sierra Integrated Regional Water Management Plan would fund the construction of a 2,000,000 gallon water storage tank to serve as a pipeline terminal to facilitate export of water from Martis Valley to Squaw Valley. See Exhibit 8. Inasmuch as the SVPSD has sought grant funding and is publically pursuing this project, the revised EIR must examine this proposal and any potentially significant environmental impacts that may result from it. *Vineyard*, 40 Cal.4th at 835. Such analysis must include, but is not limited to, the environmental impacts of running an eight-mile pipeline along and across the Truckee River and potential streamflow impacts to Martis Creek and other surface waters receiving discharge from the Martis Valley aquifer.

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**(e) The DEIR Fails to Adequately Analyze the Project’s Cumulative Impacts to Water Supply.**

A legally adequate cumulative impacts analysis views a particular project over time and must consider the impact of the project combined with other projects causing related impacts, including past, present, and probable future projects. CEQA Guidelines § 15130(b)(1). The DEIR concludes that cumulative water supply impacts would be less than significant because, even with future projected growth, pumping would not exceed the DEIR’s threshold for saturated thickness. The cumulative impact analysis suffers from the same flaws as mentioned above regarding the model data and information as well as a threshold that does not adequately measure impacts to the basin. Furthermore, the cumulative impact analysis is deficient because it does not consider anticipated projects that would be relying on water from the Truckee River or Squaw Creek. As explained above, given the interconnectedness of the water system, diversions from Squaw Creek, including those required by the Project, could ultimately be regulated along with diversions from the Truckee River as taking water from the system becomes a zero sum game.

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The DEIR must be revised and recirculated to correct the errors above and to adequately analyze and mitigate the Project’s direct and cumulative impacts to water supply.

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cont.

**2. The DEIR Fails to Adequately Analyze and Mitigate the Project’s Impact on Biological Resources.**

**(a) The DEIR’s Description of the Environmental Setting for Biological Impacts is Inadequate.**

The DEIR fails to fully and accurately describe the Project site’s existing biological resources which undermines the legitimacy of its impact analysis. Of critical importance, surveys for a number of sensitive habitats and plant and animal species are entirely absent from the DEIR. The DEIR concedes that it lacks the surveys necessary to complete its wetland delineation because “[t]he Salix constraints maps did not cover the entirety of the project site.” DEIR at 6-25. It also admits that no wetland delineation has been conducted for the wet meadow along the sewer line corridor, even though this area is potentially a jurisdictional water of the United States.<sup>3</sup> *Id.* at 6-13.

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The DEIR’s biological resources analysis is riddled with this sort of lack of crucial information about the Project’s environmental setting. For example, when analyzing the Project’s impact on sensitive habitats, the DEIR discloses that it “lack[s] . . . specific information on bank and habitat elevation” but does not explain the reason this information could not have been provided. DEIR at 6-40. Nor does the DEIR provide any explanation for the document’s lack of data on “specific riparian plant locations [and] specific meadow elevations beyond the creek bed.” *Id.* at 6-42.

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As explained previously, CEQA allows deferred analysis and mitigation only if there is a reason or basis for the deferral and the measures contain specific performance standards that will be met. *San Joaquin Raptor Rescue Ctr. v. County of Merced* (2007) 149 Cal. App. 4th 645, 669-71. Here, the DEIR admits that “assessments will need to be completed for the unsurveyed locations prior to construction as described in the impact and mitigation discussion.” *Id.* The DEIR also discloses that “[n]ot all utility corridors outside of the Specific Plan area boundary have been surveyed for sensitive habitats (e.g.,

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<sup>3</sup> “Waters of the United States” are water features and bodies that the U.S. Environmental Protection Agency and U.S. Army Corps of Engineers have the authority to regulate under the Clean Water Act, 33 U.S.C. 1251 *et. seq.* See 80 Fed.Reg. 37054 (June 29, 2015), to be codified at 40 C.F.R. § 230.3 (defining “Waters of the United States”).

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wetlands)” and that “[t]hese areas will require surveys prior to any ground disturbances.” *Id.* at 6-38. But the DEIR contains no rationale for why it is necessary to defer these surveys and is thus legally inadequate.

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The fact that the DEIR’s mitigation measures require surveys for sensitive habitats and species and delineations of waters of the United States before construction does not save the DEIR’s analysis; it is too little too late. *See, e.g.*, DEIR at 6-46. “A study conducted after approval of a project will inevitably have a diminished influence on decision-making. Even if the study is subject to administrative approval, it is analogous to the sort of post hoc rationalization of agency actions that has been repeatedly condemned in decisions construing CEQA.” *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 307.

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There are also inaccuracies in the DEIR’s descriptions of the Project’s setting. For example, the descriptions of sensitive habitats on pages 6-10 through 6-14 are inaccurate because they fail to explain the habitats’ relationship with, and dependency on, groundwater and runoff. As explained in Dr. Myers’s Report (Exhibit 1), the description of each sensitive habitat should include information on how vegetation gets its water, such as whether the vegetation relies on snowmelt and rainfall or depends in part on groundwater. Exhibit 1 at 5 – 7. Further, the DEIR should identify the groundwater requirements for each sensitive plant species. *Id.* This level of detail is especially necessary for an accurate discussion of this Project’s environmental setting and identification of its impacts because the Project would impact groundwater and stream flows, which could in turn impact vegetation in sensitive habitats. Of course, these impacts can be measured only if plant species’ groundwater requirements are disclosed.

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The DEIR also fails to accurately quantify riparian habitat that may be impacted by the Project. Sierra Watch retained the Conservation Biology Institute (“CBI”) to evaluate the DEIR’s biological resources analysis, and in that report (“CBI Biological Resources Report,” attached as Exhibit 2), CBI observed that it is unclear if the DEIR included certain identified dense willow habitat and willow and alder habitat along the Truckee River in its riparian habitat calculations. Exhibit 2 at 3.

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Yet another problem is that the DEIR inexplicably separates certain types of sensitive habitat among different categories, which could lead to inaccurate estimates of the Project’s impact on these habitats. For example, the DEIR puts some alderleaf coffeeberry scrub habitat in its own category but includes other alderleaf coffeeberry scrub habitat under seep habitat. *See* DEIR at 6-10. The DEIR also splits its classification of willow scrub and willow alder scrub. *Id.* at 6-13 – 6-14. The DEIR must

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categorize all of this habitat together or explain its rationale for splitting habitats across multiple categories.

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There are also discrepancies between Tables 6-1 and 6-4, which identify sensitive habitat acreages. The DEIR states that the difference in the numbers presented in these tables is “solely a result of rounding.” See DEIR at 6-27. But the discrepancy is simply too large to attribute to rounding alone. Table 6-1’s listed acreages for different sensitive habitats totals 12.54 acres. *Id.* at 6-9. But Table 6-4 concludes there are 8.233 acres of the same habitat. *Id.* at 6-26 – 6-27. The DEIR must resolve this significant discrepancy.

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Finally, like the DEIR’s water supply section, the biological resources chapter fails to discuss California’s severe drought conditions. This information is critical to determining the Project’s impacts on biological resources from groundwater drawdown. The DEIR’s failure to acknowledge the severe drought is particularly deceptive; the Project’s impacts must be evaluated in light of these ecologically stressful conditions. The revised EIR should provide this detailed analysis.

09-65

**(b) The DEIR’s Analysis of Impacts to Biological Resources is Legally Inadequate.**

**(i) The DEIR’s Evaluation Of The Impacts On Sensitive Habitats Is Fatally Flawed.**

The DEIR’s analysis of the Project’s impacts on sensitive habitats (Impact 6-1) lacks sufficient information and contains numerous inaccuracies. First, as discussed above, the DEIR cannot adequately evaluate the Project’s environmental impacts if its description of the environmental setting is incomplete. But here, the DEIR acknowledges that it lacks information regarding wetland surveys; stream bank, habitat, and meadow elevations; and specific locations of riparian plants. The document even baldly admits that its analysis of operational impacts to sensitive habitats is “limited to the creek bed of Squaw Creek and areas where the creek bed is located less than one foot from the bank.” DEIR at 6-42. This means that the DEIR fails to analyze the impacts on *any sensitive habitat more than one foot away from Squaw Creek*. See DEIR at 6-44 (“[T]he data used in this analysis [of impact on riparian vegetation] does not take into account riparian vegetation that may be several feet above the creek bed.”). This plainly violates CEQA’s mandate that an EIR evaluate all of a project’s environmental impacts.

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Second, as discussed above and in Dr. Myers’ and the CBI Reports, the groundwater modeling upon which the DEIR’s conclusions is based does not take into

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account current drought or future climate change impacts. Due to the relationship between groundwater levels and the vigor of these sensitive habitats, groundwater modelling that accurately reflects current and likely future conditions is essential to an accurate analysis of the Project’s impacts. See Exhibit 1 at 3, 12; Exhibit 2 at 5, 8.

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Third, the DEIR’s analysis of the Project’s operational impacts on riparian vegetation is inadequate. The DEIR concludes that “groundwater withdrawals . . . , if managed as currently modelled, are unlikely to result in mortality to established perennial riparian vegetation within the western channel or upper meadow reach.” DEIR at 6-43 – 6-44. However, the DEIR lacks evidence or explanations supporting this conclusion.

In an attempt to defend its conclusion, the DEIR incorrectly states that there is a dearth of available literature on the impacts of groundwater decline on riparian species that exist on-site. See DEIR at 6-42. In fact, as explained in the CBI Report, there are multiple studies that have assessed impacts from groundwater changes on black cottonwoods, which occur on-site. Exhibit 2 at 5. Because these studies are available, the DEIR should have considered both the short- and long-term direct and indirect impacts to riparian vegetation from groundwater drawdown.

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Further, the DEIR’s chosen threshold for determining riparian vegetation mortality is when groundwater drops to depths greater than 10 feet from the surface. But, according to CBI, cottonwood mortality has been reported when groundwater is even closer to the surface. Exhibit 2 at 5. Thus, the DEIR’s threshold underestimates the Project’s riparian mortality impacts. This problem is magnified by the fact that the groundwater modeling’s failure to consider drought and climate change impacts underestimate the amount of drawdown to begin with. See Exhibit 2 at 5-6.

The DEIR also fails to acknowledge water requirements for seed germination, instead focusing only on seedlings’ groundwater needs. Specifically, the DEIR states that seedlings of trees like cottonwoods and willows can survive when water tables are within 3.3 feet of the surface. DEIR at 6-43. However, for a seed to germinate and survive, the soil surface must be moist for up to a month after seed deposition. Exhibit 2 at 6. Also, the DEIR overstates black cottonwood trees’ ability to reproduce through suckering, discounting the importance of seed germination in species health. *Id.* Finally, the DEIR lacks evidence supporting its conclusion that a 10-20% increase in years with dry conditions that are unsuitable for seedling germination and survival would not affect riparian health and persistence.

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Fourth, in its discussion of impacts on meadow vegetation, the DEIR admits that the Project’s groundwater withdrawals will result in more years where the groundwater level would drop below the threshold for meadow functionality. DEIR at 6-44. However, the DEIR does not identify how many years this would occur, nor whether they are likely to be sporadic or in succession. Nonetheless, the DEIR concludes, without explanation, that the impacts to meadow vegetation “would not be substantial since any reduction in meadow vegetation or vegetation productivity during dry years would be minimal and temporary.” *Id.* The DEIR cannot simply state this conclusion without any evidence to support it. *See Citizens of Goleta Valley*, 52 Cal.3d at 568 (an EIR must contain facts and analysis, not just bare conclusions). At a minimum, the DEIR should specify the duration that groundwater levels would be expected to drop below the threshold for meadow functionality and provide a map depicting these locations. *See id.*

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The DEIR also errs in its analysis of impacts to meadow habitat because it incorrectly assumes that “meadows are composed of annual plants that have adapted to variable water conditions.” DEIR at 6-44. This statement is contrary to the fact that the majority of plants in wet and dry meadows on the Project site are *perennial* plants. According to CBI, annual and perennial species may be impacted differently. Exhibit 2 at 8-9. And even those species that are adapted to natural fluctuations in climatic conditions that affect the plants’ growth in some years may be impacted by a permanent change in conditions that results in more frequent years of lower groundwater levels. Exhibit 2 at 9. Nor does the DEIR provide *any* evidentiary support for its conclusion that groundwater drawdown during the growing season will have no direct or indirect effects on meadow vegetation.

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Fifth, the DEIR also lacks any evidence for its conclusion that the proposed restoration of Squaw Creek would offset effects of groundwater drawdown. The DEIR even admits that it has no evidence, stating that there has been “no combined hydrologic and vegetation modeling . . . to support this expectation.” DEIR at 6-45. The DEIR cannot base its impacts analysis on bare conclusions without facts and analysis to support those conclusions. *Citizens of Goleta Valley*, 52 Cal.3d at 568. Instead, the DEIR preparers should have evaluated the restoration’s likely effects by (1) conducting accurate groundwater modeling that incorporates drought conditions and climate change simulations, (2) conducting hydrologic monitoring that incorporates plant species distribution models, and (3) considering wetland species-specific data from literature or reference sites. Exhibit 2 at 10.

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