Comment Letter 52

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City of Chico Community Development Department
Attn: Mike Sawley, Principal Planner
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530-879-6812
Sent via electronic mail

Re: Valley's Edge Specific Plan Draft Environmental Impact Report

Dear Mr. Sawley,

We submit the following comments on behalf of our client, the Sierra Club Motherlode Chapter, in opposition to the Valley's Edge Specific Plan Draft Environmental Impact Report and project. As noted in this letter and in comments separately submitted by other organizations and members of the public, the proposed Project should be thoroughly revised and reconsidered due to its significant, unanalyzed, undisclosed, and unmitigated impacts to the rare and endangered biological communities in the Project area, among other key issues of concern. 52-1

Given the unique environmental and cultural significance of the proposed project site, the current state of housing supplies and demands in the region, and the ill-planned low-density design of the proposed project, the City should adopt the No Project Alternative, and deny the proposed Project. We thank you in advance for your careful consideration of the numerous public comments and opposition you will receive regarding the Project, and we look forward to working with the City in this regard. 52-2

A. CEQA Overview

An EIR is an "informational document" meant to "provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment" and "demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered" the environmental impacts of a project. *Center for Biological Diversity v. Dept. of Fish & Wildlife* (2015) 62 Cal.4th 204, 245 (citations omitted). As an informational document, CEQA "requires full environmental disclosure." *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 88; *see also* Cal. Code Regs., tit. 14, § 15121, subd. (a) (hereafter "Guidelines"). Although "technical perfection" is not required, an EIR must be "adequa[te], complete[], and a good-faith effort at full disclosure," with "informed and balanced" decisionmaking. Guidelines, § 15003, subds. (i)-(j). "[A]n agency must use its best efforts to find out and disclose all that it reasonably can." *Id.* § 15144. For each of the reasons discussed below, the DEIR falls short of CEQA's informational and substantive requirements, and should be revised and recirculated. 52-3

B. Biological Resources

The EIR fails to properly disclose, analyze, and mitigate impacts to biological resources. The Project Area contains rare and unique biological resources with federal, state, and local protections. Critically, the Project Area contains vernal pool habitat, which supports the federally-endangered Butte County meadowfoam ("BCM") and Conservancy fairy shrimp, and the federally-threatened vernal pool fairy shrimp and vernal pool tadpole shrimp. The EIR discounts the unique significance of these populations and proposes inadequate, undeveloped, or nonexistent mitigation measures to attempt to make up for the disturbance and destruction of these habitats. 52-4

i. Butte County Meadowfoam

a. The DEIR Impermissibly Defers Formulation of Mitigation Measure BIO-1

The DEIR recognizes that "Butte County meadowfoam is a federal and state endangered and CRPR 1B.1 species that was identified on the project site during protocol-level rare plant surveys conducted in 2008, 2010, and 2016," that "[w]etlands on the project site, such as vernal pools and swales, provide habitat for Butte County meadowfoam," and that the "proposed project implementation has a potential to directly impact [Butte County meadowfoam]." DEIR at 4.3-18, 4.3-34, 4.3-36. The DEIR elsewhere notes that BCM was "mapped on the project site during protocol-level rare plant surveys conducted in 2010, 2016, and 2018." DEIR at 4.3-49. As a preliminary matter, the City should clarify whether such surveys were conducted in 2008 and/or 2018 in order to ensure the City is not relying upon outdated information. 52-5

The DEIR states that "[i]mplementation of the proposed project has the potential to impact special-status species through permanent conversion of habitat, temporary construction-related impacts, and/or operation and maintenance activities," including BCM. DEIR at 4.3-49. In order to "prevent direct project effects" to BCM, the DEIR relies on establishment of two preserves: "According to the [Valley's Edge Specific Plan], approximately 20 acres of land surrounding the mapped Butte County meadowfoam populations would be set aside as two of the three environmental preserves. The Butte County meadowfoam preserves would be managed by a qualified land trust for resource conservation purposes. No recreational access to these areas would be allowed." DEIR at 4.3-49. However, the DEIR states, "[t]he VESP notes that preserves would need to be established to protect Butte County meadowfoam, however, the plan sets no clear parameters for the meadowfoam preserves, including timing for establishment or management or monitoring requirements." DEIR at 4.3-50. 52-6

In an attempt to rectify the glaring inadequacies of preserve establishment, management, and monitoring as described in the Valley's Edge Specific Plan ("VESP"), the City sets forth Mitigation Measure BIO-1 as the sole mitigation measure relied upon to "reduce potential impacts" to BCM and its "habitat to less than significant." DEIR at 4.3-54. BIO-1 consists of two paragraphs comprised of a vague directive to create the preserves at some later, unspecified date: "The developer shall prepare a Habitat Mitigation and Monitoring Plan, record easements, and complete other requirements, as necessary, to establish the two Butte County Meadowfoam preserves and the other preserve on the VESP project site in compliance with all applicable state and federal resource agency permits. The preserves shall be separated from any development by 52-7

a minimum of 250 feet unless site-specific hydrological analysis . . . demonstrates that a reduced separation would still prevent direct or indirect effects to Butte County meadowfoam within the preserve. The VESP Habitat Mitigation and Monitoring Plan shall include at a minimum: management techniques to be used on the preserves; monitoring methods and frequencies to detect changes in Butte County Meadowfoam and allow for adaptive management; and a funding strategy to ensure that prescribed monitoring and management would be implemented in perpetuity to ensure efficacy of the preserves. Management methods shall include controls on introduction and spread of invasive plant species, and requirements for fencing to control public access and pet entry into preserves. No development shall be approved by the City within 500 feet of the avoidance area until the preserves are established." DEIR at 4.3-54.

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BIO-1 as drafted constitutes an impermissible deferral of mitigation measures. "Formulation of mitigation measures should not be deferred until some future time." Guidelines § 15126.4(a)(1)(b). "An EIR is inadequate if 'the success or failure of mitigation efforts may largely depend upon management plans that have not yet been formulated, and have not been subject to analysis and review within the EIR.'" *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 92, quoting *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 670. "Numerous cases illustrate that reliance on tentative plans for future mitigation after completion of the CEQA process significantly undermines CEQA's goals of full disclosure and informed decision making; and consequently, these mitigation plans have been overturned on judicial review as constituting improper deferral of environmental assessment." *Id.* at 92.

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BIO-1 constitutes precisely the type of deferral of mitigation measures that is prohibited by CEQA. The City relies exclusively on BIO-1 to mitigate direct impacts of the Project on BCM, but fails to provide decisionmakers or the public with any specifics regarding how the preserves will be established, managed, or monitored in such a way that significant impacts will, in fact, be avoided. First, BIO-1 itself does not provide a specific acreage requirement for the preserves, leaving the actual acreage of the "approximately 20 acre" preserves to be determined at a later date. DEIR at 4.3-54. The directive that the Habitat Mitigation and Monitoring Plan ("Mitigation Plan") include "management techniques to be used on the preserves" is so vague as to constitute no mandate at all, offering no specific criteria regarding what such techniques will entail and how they will be effective in achieving the goal of managing the preserves such that BCM will not suffer significant impacts. The requirement that the Mitigation Plan include "monitoring methods and frequencies to detect changes in Butte County Meadowfoam and allow for adaptive management" is similarly deficient in providing any substantive detail that would allow for meaningful analysis, public comment, or informed agency decisionmaking. What monitoring method will be used? At what frequency? What evidence will be relied upon to ensure it will be effective in "detect[ing] changes in Butte County Meadowfoam?" If changes are detected indicating BCM populations are in decline or otherwise adversely affected, what mitigation or "adaptive management" will then be required? On what studies or evidence will the methodology be based?

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The required "funding strategy" that will purportedly "ensure that prescribed monitoring and management would be implemented in perpetuity to ensure efficacy of the preserves" is exceedingly ambiguous and constitutes no more than a plan to make a plan, and lacks any

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specific performance standards to ensure it will be effective despite being relied upon to "ensure efficacy of the preserves." DEIR at 4.3-54. Finally, the referenced "[m]anagement methods" that "shall include controls on the introduction and spread of invasive plant species" is equally deficient. What will the controls be? How will their efficacy be determined? What will be done if the controls are found to be insufficient and invasive plant species propagate in spite of such controls? 52-12 Cont.

All of these questions go unanswered for decisionmakers and the public. The Mitigation Plan should be drafted during the DEIR stage, when the document is subject to public review and comment and the agency is required to respond. Given the DEIR does not require the developer to submit the Mitigation Plan to the City Council for approval, the developer has carte blanche to create a Mitigation Plan it deems sufficient. Regardless, even if the Mitigation Plan was required to obtain City Council approval, the actual terms of the mitigation measure are insulated from further environmental review, depriving the public of the opportunity to meaningful review mitigation relied upon to reduce impacts to an endangered species to less than significant. BIO-1 must be revised and recirculated to address such deficiencies and comply with CEQA's mandates. To "set out a handful of cursorily described mitigation measures for future consideration" that "are nonexclusive, undefined, untested and of unknown efficacy" violates CEQA because mitigation measures are not developed in "an open process that also involves other interested agencies and the public." *Communities for a Better Environment, supra*, 184 Cal.App.4th at 93. In *San Joaquin Raptor*, the Court rejected a similar mitigation measure for improper deferral of its development. There, the EIR required "a management plan" to be prepared 'by a qualified biologist to 'maintain the integrity and mosaic of the vernal pool habitat.'" *San Joaquin Raptor, supra*, 149 Cal.App.4th at 669. The court held that the "mitigation measure was deficient because it merely included a 'generalized goal of maintaining the integrity of the vernal pool habitats,' placing the onus of mitigation to the future plan and leaving the public 'in the dark about what land management steps will be taken, or what specific criteria or performance standard will be met." *Communities for a Better Environment*, *supra*, 184 Cal.App.4th at 93, quoting *San Joaquin Raptor*, *supra*, 149 Cal.App.4th at 670. Similarly here, BIO-1 simply includes a generalized goal of establishing, maintaining, and monitoring the two BCM preserves, and "plac[es] the onus of mitigation to the future plan." *Id.* 52-13 52-14 52-15

Deferred development of the "specific details of a mitigation measure" under CEQA is permissible in the following narrow circumstance: "when it is impractical or infeasible to include those details during the project's environmental review provided that the agency (1) commits itself to the mitigation, (2) adopts specific performance standards the mitigation will achieve, and (3) identifies the type(s) of potential action(s) that can feasibly achieve that performance standard and that will [be] considered, analyzed, and potentially incorporated in the mitigation measure." Guidelines § 15126.4(a)(1)(B). In short, "for kinds of impacts which mitigation is known to be feasible, the EIR may give the lead agency a choice of which measure to adopt, so long as the measures are coupled with specific and mandatory performance standards to ensure that the measures, as implemented, will be effective." *Communities for a Better Environment v. City of Richmond*, 184 Cal.App.4th at 94. 52-16

Deferred development of the specific details of BIO-1 is impermissible because (1) it is not impractical or infeasible to develop the Mitigation Plan now; and (2) the City has not adopted 52-17

any specific and mandatory performance standards to ensure that the measures, as implemented, will be effective. Accordingly, BIO-1 must be revised and recirculated prior to the final EIR stage with specific and mandatory performance standards such that the public will not be left "in the dark about what land management steps will be taken, or what specific criteria or performance standard will be met." *San Joaquin Raptor, supra*, 149 Cal.App.4th at 670.

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b. The DEIR Lacks Sufficient Information or Analysis to Support the Conclusion That Effects to Butte County Meadowfoam Will Be Less Than Significant

Even if BIO-1 were not fundamentally deficient as a mitigation measure, the DEIR lacks sufficient information or analysis to support the conclusion that effects to BCM will be less than significant with implementation of BIO-1.

The DEIR acknowledges that "A total of 0.004 acre of [Butte County meadowfoam] were observed in the survey area during the protocol-level survey conducted," and that "[t]hese occurrences represent an approximate total of 30 individual plants." Appendix C, Valley's Edge Project 2017 Rare Plant Survey 2014-108, p. 3. However, the DEIR leaves out a key detail: that the Butte County Meadowfoam ("BCM") surrounding the City of Chico are genetically unique from populations north and south of the City. (See generally Christina Sloop, Application of Molecular Techniques to Examine the Genetic Structure of Populations of Butte County Meadowfoam (Limnanthes floccose ssp. california) (2009).) This information is critical to an understanding of the environmental setting and the project's impacts, as well as the feasibility and adequacy of any mitigation measures or alternatives. The failure to include it stunts the analysis required by the EIR and fails to adequately inform both the City and the public with regard to the impacts of the project.

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The DEIR also fails to discuss the way in which the Project Site correlates to or is affected by the U.S. Fish and Wildlife Service's ("USFWS") 2006 Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon ("Recovery Plan"). While Appendix C, p. 11 notes that there is no USFWS critical habitat present in the biological survey area, the DEIR fails to discuss that there is designated critical habitat for both Butte County meadowfoam and Vernal pool fairy shrimp within approximately 1 mile of the Project Site, both of which are included in the Recovery Plan, and whether any indirect effects from the Project may impact such habitat. Appendix C, Figure 4. The DEIR fails to discuss whether the Project Site is designated as a Zone 1, 2, or 3 core habitat area for BCM and/or Vernal pool fairy shrimp, or is not designated as a core habitat pursuant to the Recovery Plan. Provision of this information in the EIR is essential, as the Recovery Plan recognizes:

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> Designation of critical habitat may not include all of the habitat areas that may eventually be determined to be necessary for the recovery of the species. For these reasons, critical habitat designations do not signal that habitat outside the designation is unimportant or may not be required for recovery. Some areas within Zone 1 and Zone 2 core areas were excluded from critical habitat for economic reasons (U.S. Fish and Wildlife Service 2005), creating a discrepancy between the core area boundaries and critical habitat. We anticipate that some lands in recovery core areas outside of the areas designated as critical habitat will be necessary for recovery.

Recovery Plan at I-2 – 3. Therefore, although the Project Area is not designated BCM "critical habitat," this does not diminish the area's importance to the species' recovery. If the Project Area is Zone 1, 2, or 3 core habitat for BCM, the City must disclose this information in the EIR and consider it when assessing the project's effects, and proposing mitigation measures and alternatives. 52-19 Cont.

Further, the DEIR failed to discuss whether the Project Site has prime soil type for BCM recovery. In a 2015 letter to the City of Chico regarding the adjacent Stonegate project, the California Department of Fish and Wildlife noted, "[t]he Draft Butte County Regional Conservation Plan (BPRC) . . . conducted an extensive analysis of the soil types known to support BCM, and used this to define primary and secondary modeled habitat for BCM." (CDFW Letter at 3.) The analysis determined that "[t]he Project site is located on primary modeled habitat for BCM." (*Ibid.*) The DEIR must disclose, evaluate, and consider this important information if it is also applicable to the VESP project site. 52-20

The City's failure to disclose the genetic uniqueness of the BCM populations affected by the Project and the area's prime habitat characteristics are violations of CEQA, which requires an agency to "use its best efforts to find out and disclose all that it reasonably can." Guidelines § 15144. As a result, the public and decisionmakers cannot fully evaluate and consider the Project's true impacts on BCM. "[O]nly through an accurate view of the project may the public and interested parties and public agencies balance the proposed project's benefits against its environmental cost, consider appropriate mitigation measures, assess the advantages of terminating the proposal and properly weigh other alternatives." *City of Santee v. County of San Diego* (1989) 214 Cal.App.3d 1348, 1454. By not disclosing the unique characteristics of these BCM populations and their habitat, the City has inaccurately described the existing environmental baseline, and the Project's environmental effects. 52-21

Further, the omission from the DEIR of any discussion of the Recovery Plan becomes particularly problematic with regard to the purported requirement in the VESP that "approximately 20 acres of land surrounding the mapped Butte County meadowfoam populations" on the project site to be "set aside as two" environmental preserves. DEIR at 4.3-49. The DEIR relies on the establishment of the preserves pursuant to BIO-1 to mitigate impacts to BCM to less than significant. *Id.* at 4.3-54. However, the DEIR is entirely devoid of *any* evidence or analysis to support the conclusion that two approximately 20-acre preserves are sufficient to avoid impacts to BCM located on the project site. Given the lack of analysis, a preserve size of 20 acres appears to be arbitrary and untethered from any of the habitat requirements of BCM. There is no analysis regarding whether the 20 acre preserves comport or are consistent with the Recovery Plan. Further, given that the DEIR notes that the preserves, according to the VESP, are "*approximately* 20 acres," it is possible that the preserves are smaller than 20-acres each. *Id.* at 4.3-49. The impact of two preserves smaller than 20 acres each on BCM is also not discussed. 52-22

Similarly, Appendix C states "[t]he location of the [Butte County Meadowfoam] population within the [biological survey area] is depicted in Figure 6. This population of [Butte County Meadowfoam] is proposed to be completely avoided with a minimum of 200-250 foot buffer from planned construction activities. Therefore, the Project will have no effect on [Butte 52-23

County Meadowfoam]." C-17. However, the EIR fails to set forth evidence to support the assertion that a 200-250 foot buffer is sufficient to prevent any adverse effects to BCM, including, but not limited to, the Recovery Plan or any other expert opinion or studies. This statement directly contradicts the statement in the main EIR document that "[p]reserve establishment to protect the on-site Butte County meadowfoam would prevent direct project effects, but project construction and operation could potentially cause indirect effects to the Butte County meadowfoam including but not limited to runoff, dust, or introduction of invasive plant species. These are considered potentially significant impacts." EIR 4.3-49 – 50. There is no mitigation measure designed to address this identified potentially significant impact to the BCM. The only mitigation measure that comes remotely close to addressing the issue of indirect dust impacts is found in a document not included in the DEIR, the Butte Regional Conservation Plan, and simply states, "Water will be spread on work sites consistent with the Butte County Air Quality Management District's requirements and as needed to minimize spread of dust to habitat on adjacent lands." BRCP at 6-9. This mitigation measure, if even applicable to the project (applicability is discussed in further detail below) lacks any meaningful detail that would facilitate mitigation of the identified potentially significant impact.

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The failure of the DEIR to meaningfully analyze impacts of the Project to Butte County Meadowfoam renders the DEIR deficient as an informational document. The DEIR must be revised and recirculated in order to cure this failure.

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ii. Conservancy fairy shrimp, Vernal Pool Fairy Shrimp, & Vernal Pool Tadpole Shrimp

The DEIR acknowledges that the project site provides potential habitat for the federally endangered conservancy fairy shrimp and the federally listed vernal pool fairy shrimp and vernal pool tadpole shrimp: "Although vernal pools on the project site provide potential habitat for listed branchiopods (i.e., conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp), none were identified during protocol-level wet and dry season surveys of the proposed site. However, 22 of the 53 total vernal pools surveyed were only surveyed during the dry season. Of these 22 vernal pools, only 9 were determined to provide marginally suitable habitat for listed branchiopods; the remaining 13 were determined to lack sufficient water to support these species' lifecycles. The 9 vernal pools that provide marginal habitat are located within areas proposed as environmental preserves or as regional open space and would not be directly impacted by the project." DEIR at 4.3-50. The DEIR concludes that as a result, "no impacts to listed branchiopods, including conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp, are anticipated," and as such, no mitigation is required for impacts to these species. *Id.*

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The DEIR fails to engage in any discussion of the indirect edge effects to the 9 vernal pools that are "located within areas proposed as environmental preserves or as regional open space" that may occur from the change in the surrounding environment. Vernal pools that were previously located on over a thousand acres of undeveloped land will now be located within either a 20 acre preserve or a "regional open space" that is otherwise surrounded by commercial and residential development. The DEIR should note whether the vernal pools are located within the 20-acre preserve or the regional open space, and the different indirect effects associated with

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each. Absent from the DEIR is any analysis regarding impacts to the 9 vernal pools resulting from being completely surrounded by development, including impacts to hydrology and impacts from noise and other human activity in the area. This analysis should be included in the DEIR.

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Further, the DEIR does not explicitly state the fate of the remaining 44 surveyed vernal pools, nor does it discuss the fact that while "Gallaway biologists mapped 81 vernal pools on the project site," only 53 "total vernal pools [were] surveyed." *Id.* at 4.3-7, 4.3-50. The DEIR should provide the public and decisionmakers with detailed information and analysis as to why the remainder of the mapped vernal pools were not surveyed, beyond the extremely general statement that "[m]ost vernal pools on the project site exhibit flashy, or short ponding durations and therefore provide poor to marginal habitat for these species," particularly given that the federally listed branchiopods have a very short lifespan. *Id.* at 4.3-19.

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The DEIR notes that "a total of 17.43 acres of aquatic resources have been mapped and delineated within the project site," including "0.997 acres of vernal pools, 3.212 acres of vernal swales, 0.211 acre of seasonal wetlands, 0.615 acre of wet meadows, 1.212 acres of seasonal swales, and 11.183 acres of drainages." DEIR at 4.3-61. "Based on the VESP Land use Plan [], permanent development areas *appear to avoid* approximately 5 of the approximately 6.25 acres of wetlands mapped on the project site. Although the VESP directs development away from biological resources where possible, absolute wetland avoidance *may not be feasible*. Impacts to drainages and wetlands (i.e. aquatic resources) as a result of project roadways and development are considered potentially significant impacts." *Id.* (emphasis added).

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First, in order to fulfill its obligation as an informational document, the DEIR should explicitly state: (1) whether permanent development areas actually avoid, rather than "appear to avoid," 5 of the 6.25 acres of wetlands mapped on the project site; (2) whether absolute wetland avoidance is or is not feasible; and (3) whether whether the approximately 1.25 acres of wetlands mapped on the project site that will be not be avoided by development contain potential habitat for conservancy fairy shrimp, vernal pool fairy shrimp, vernal pool tadpole shrimp, and Butte County meadowfoam.

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Second, the analysis provided in DEIR is insufficient to support a finding of no significant effects to these listed species. As with Butte County meadowfoam, there is no discussion of the Recovery Plan and how it relates to the project site and the potential habitat of the listed branchiopods located thereon, and how any destruction of potential habitat will affect the ability of the species to recover. As noted above, while Appendix C, p. 11 states that there is no USFWS critical habitat present in the biological survey area, the DEIR fails to discuss that there is designated critical habitat Vernal pool fairy shrimp within approximately 1 mile of the Project Site, and whether any indirect effects from the Project may impact such habitat. Appendix C, Figure 4. The DEIR fails to discuss whether the Project Site is designated as a Zone 1, 2, or 3 core habitat area for Vernal pool fairy shrimp, conservancy fairy shrimp, or Vernal pool tadpole shrimp, or is not designated as a core habitat for any of these species pursuant to the Recovery Plan. Provision of this information in the EIR is essential, and the DEIR should be revised to include this information and recirculated in order to comply with its obligations pursuant to CEQA.

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iii. Other Special-Status Species

The DEIR's analysis regarding impacts to other special-status species is similarly deficient.

a. Western Spadefoot

With regard to the Western Spadefoot, a "CDFW Species of Special Concern with a moderate potential to occur on the project site," for which "[v]ernal pools and other temporary wetlands are considered optimal for breeding," the DEIR notes that while none "were observed during site surveys," "no focused surveys for western spadefoot were conducted and this species is nocturnal, cryptic and unlikely to be detected during general biological surveys." DEIR at 4.3-19, 4.3-50. Regardless, the DEIR states that because the "only portion of the project site that has potential habitat for the western spadefoot [is] designated as an environmental preserve in the VESP," "no impacts to western spadefoot are anticipated." *Id.* This analysis fails to address and analyze the edge effects of surrounding potential habitat with residential and commercial development.

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b. Swainson's Hawk, Bats, Burrowing Owl, and Other Raptors

The "proposed project would permanently convert roughly 570 acres of marginal, potential foraging habitat for Swainson's hawk, burrowing owl, bats, and other raptors." DEIR at 4.3-66. The analysis and mitigation measures for these species set forth in the DEIR is insufficient to (1) determine whether the project will significantly impact these species; and (2) mitigate any impacts to less than significant. While the DEIR focuses mitigation measures primarily on identification and relocation of species located within construction zones, absent is any analysis of the impacts to the species from 570 acres of habitat loss. This impact is potentially significant, may require mitigation beyond simply relocation of species identified in construction zones, and should be discussed in the DEIR. The cursory analysis provided in the cumulative impacts section regarding "maximum allowable removal thresholds" for these species' habitat types under the BRCP, which may or may not eventually apply to the project, is insufficient to satisfy CEQA's informational disclosure requirements. *Id.* at 4.3-66.

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The Swainson's hawk is a state threatened species. *Id.* at 4.3-27. The DEIR states that "Swainson's hawk has not been documented on the project site; however, no focused surveys for this species have been conducted." Despite failing to conduct a focused survey, and failing to provide an explanation as to why a survey was deemed unnecessary despite the conversion of "roughly 570 acres of . . . habitat for Swainson's hawk," the DEIR concludes that there is "a low potential for Swainson's Hawk presence on the project site." *Id.* The DEIR goes on to state that "[a]lthough large trees on the project site provide marginal potential nesting habitat for Swainson's hawk, this species was not detected during prior site surveys," and concludes that impacts to the Swainson's hawk are "anticipated to be less than significant." *Id.* at 4.3-51. First, this statement contradicts the previous DEIR statement that no surveys have been conducted, and should be clarified. Second, the DEIR's statements that "there are no recent nesting occurrences within 10 miles of the project site," and "[n]est records in the region are generally limited to the valley where agricultural lands for foraging are abundant" are extremely general and fail to

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provide the reader with any details or specifics to support the DEIR's finding of less than significant impacts. *Id.*

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Mitigation Measure BIO-4 for the Swainson's Hawk both proposes to improperly defer key elements to a later date, and lacks enforceability. For example, it lacks provisions for continued monitoring by a qualified biologist, making enforcement difficult. DEIR at 4.3-56. Without continued monitoring, the City will be unable to know "if the nest becomes inactive (e.g., the young have fully fledged)," and work can continue. *Id.* BIO-4 also improperly defers mitigation to a later date. The DEIR states that if an "active Swainson's hawk nest is identified within 0.25 miles of the project site, an exclusion buffer shall be established in consultation with the biologist and [CDFW]." *Id.* Yet the DEIR does not specify the minimum buffer size, leaving the reader to wonder whether it is 0.25 miles, or some other distance. Given the City knows the one species this measure refers to and the type of construction planned, it should have at least a minimum no disturbance buffer size, which would allow for some flexibility depending on the conditions. If developing this measure is not practical at this stage, the City must commit itself to specific performance criteria for evaluating the efficacy of mitigation. *See POET, LLC v. Cal. Air Resources Board* (2013) 218 Cal.App.4th 681, 738.

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The Western Red Bat "is a CDFW Species of Special Concern with a moderate potential to occur on the project site." DEIR at 4.3-29. Like the Swainson's hawk, the City found it unnecessary to conduct "focused surveys for bats [] within the project site," and failed to provide an explanation as to why. *Id.* In fact, the DEIR failed to perform a "formal roost assessment or focused surveys" for *any* bats on the project site, including the "Pallid Bat, Western Red Bat, and other roosting bats." *Id.* at 4.3-51. The DEIR notes that "construction-related activities," "tree removal," and "permanent development" could "reduce roosting habitat" and "fragment foraging and roosting habitat for bats. These are considered potentially significant impacts." *Id.* at 4.3-52. However, the DEIR fails to provide an analysis as to the impacts of habitat fragmentation and reduction on bats in the project area.

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Mitigation Measure BIO-5 is insufficient to address these potentially significant impacts, and impermissibly defers development of key elements to a later date in violation of CEQA. BIO-5 states that "[i]f a bat roosting or maternity colony cannot be completely avoided, a qualified biologist shall prepare a bat mitigation and monitoring plan for CDFW review and approval. Potential measures to be included in the plan are restrictions of timing of activities, placement of exclusion barriers when bats are foraging away from the roost, and replacement of roosting structures." *Id.* at 4.3-56. This constitutes impermissible deferral of development of mitigation measures. "An EIR is inadequate if 'the success or failure of mitigation efforts may largely depend upon management plans that have not yet been formulated, and have not been subject to analysis and review within the EIR.'" *Communities for a Better Environment, supra,* 184 Cal.App.4th at 92, quoting *San Joaquin Raptor Rescue Center, supra,* 149 Cal.App.4th at 670. There is no reason that the requisite monitoring and mitigation plan cannot be developed and subject to review and analysis in the DEIR.

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The Burrowing Owl is "a CDFW Species of Special Concern with a high potential to occur on the project site." DEIR at 4.3-20. In order to avoid potentially significant impacts to the burrowing owl, the DEIR relies on mitigation measure BIO-3. However, BIO-3 lacks provisions

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for continued monitoring by a biologist, making enforcement of the measure difficult. BIO-3 provides, "[o]nce the breeding season is over and young have fledged, passive relocation of active burrows may proceed as described [] above." *Id.* at 4.3-55. However, without continued monitoring, the City will be unable to know if "young have fledged," and work can continue. Including continued biological monitoring provisions in BIO-3 could alleviate this problem.

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c. Loggerhead Shrike, Yellow Warbler, and Other Nesting Birds

Loggerhead Shrike and Yellow warbler are both "CDFW Species of Special Concern with a moderate potential to occur on the project site," and have "been recently documented near the project site." DEIR at 4.3-27, 4.3-51. The DEIR notes that potential impacts to these species, and other native or migratory birds, "would be related to nest failure or abandonment due to disturbance during construction. These are considered potentially significant impacts . . . ." *Id.* To mitigate these impacts, the DEIR relies on mitigation measure BIO-2. As with the mitigation measures discussed above, BIO-2 lacks Mitigation Measure impermissibly defers development of key elements to a later date in violation of CEQA: "If any active nests are observed during surveys, a qualified biologist shall establish a suitable avoidance buffer from the active nest" "typically rang[ing] from 50 to 300 feet" and determined "based on factors such as the species of bird, topographic features, intensity and extent of the disturbance, timing relative to the nesting cycle, and anticipated ground disturbance schedule." *Id.* at 4.3-54. Given the City knows at least two species this measure refers to and the type of construction planned, it should have, at the least, a minimum avoidance buffer size, which would allow for some flexibility depending on the conditions. If developing this measure is not practical at this stage, the City must commit itself to specific performance criteria for evaluating the efficacy of mitigation. *See POET*, supra, 281 Cal.App.4th at 738. This mitigation measure also impermissibly defers formulation of the mitigation measure with regard to "[l]imits of construction to avoid active nests," which "shall be established in the field with flagging, fencing, or other appropriate barriers." *Id.* There is no reason that the manner in which limits of construction will be established in the field cannot be decided upon now. Further, BIO-2 lacks continued monitoring by a qualified biologist, making enforcement difficult. DEIR at 4.3-56. Without continued monitoring, the City will be unable to know when "the chicks have fledged and the nests are no longer active," and work can continue. *Id.* Finally, BIO-2(d) impermissibly defers formulation of the mitigation measure with regard to identification of an active nest in or adjacent to the construction zone after construction has started. Where this occurs, "work in the vicinity of the nest shall be halted until the qualified biologist can provide appropriate avoidance and minimization measures to ensure that the nest is not disturbed by construction. Appropriate measures may include a no-disturbance buffer until the birds have fledged and/or full-time monitoring by a qualified biologist during construction activities conducted in close proximity to the nest." *Id.* This constitutes impermissible deferral of development of mitigation measures. "An EIR is inadequate if 'the success or failure of mitigation efforts may largely depend upon management plans that have not yet been formulated, and have not been subject to analysis and review within the EIR.'" *Communities for a Better Environment, supra,* 184 Cal.App.4th at 92, quoting *San Joaquin Raptor Rescue Center, supra,* 149 Cal.App.4th at 670. There is no reason that the requisite avoidance and minimization measures cannot be developed and subject to review and analysis in the DEIR.

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d. Western Pond Turtle

Western Pond Turtles "are a SSC with a low potential to be present on the project site . . . . There is one CNDDB occurrence of western pond turtle within close proximity of Comanche Creek, located approximately 0.9 mile southwest of the project site." DEIR at 4.3-29. "Within the off-site utilities area, the habitat assessment noted the potential for western pond turtle to be present in Comanche Creek . . . ." *Id.* at 4.3-33. Further, "The wetland fringes [of Comanche Creek] are suitable areas for western pond turtles to find refuge and food." *Id.* at 4.3-52. "[B]ecause there is a potential the [Western pond] turtles could be present this is considered a potentially significant impact." *Id.* To mitigate this potentially significant impact, the DEIR relies on mitigation measure BIO-6, which requires that if "western pond turtles are identified in an area where they could be impacted by construction activities, [] a biologist trained in relocating western pond turtles shall relocate the turtles outside of the work area or create a species protection buffer (determined by the biologist) until turtles have left the work area. If a nest is found, a species protection buffer (determined by the biologist] shall be established and avoided until the young have hatched or the eggs proven non-viable, as determined by the biologist." *Id.* at 4.3-57. Again, this mitigation measure impermissibly defers development of key elements to a later date in violation of CEQA. Given the City knows the species this measure refers to and the type of construction planned, it should have, at the least, a requirement to either relocate the turtles or create a species protection buffer where turtles are found. If developing this measure is not practical at this stage, the City must commit itself to specific performance criteria for evaluating the efficacy of mitigation. *See POET*, supra, 281 Cal.App.4th at 738. Further, the mitigation measure lacks provisions for continued monitoring by a qualified biologist, making enforcement difficult. DEIR at 4.3-56. Without continued monitoring, the City will be unable to know if "turtles have left the work area," or "the young have hatched or the eggs are proven non-viable," and work can continue.

52-43

e. Elderberry Shrubs

The DEIR notes that "[w]ithin the off-site utilities area, the habitat assessment noted several valley elderberry shrubs which provide habitat for the valley elderberry longhorn beetle (VELB), were recorded immediately adjacent to the utility corridor." DEIR at 4.3-33. The VELB is a federally threatened species. *Id.* at 4.3-29. "The beetle is found only in association with its host plant, elderberry." *Id.* The DEIR further states that "[f]ive elderberry shrubs were identified adjacent to segments B and C of the proposed off-site utilities corridor . . . . All of the shrubs have large multiple stems and occur in riparian habitat and appear to have exit holes . . . . due to the proximity of the shrubs to the proposed utility corridor there is the potential construction activities could indirectly impact the plant. This is considered a potentially significant impact." *Id.* at 4.3-52.

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To mitigate this potentially significant impact, the DEIR relies on mitigation measure BIO-7. BIO-7 suffers from the same inadequacies as the mitigation measures discussed above. BIO-7 instructs that the "following avoidance and minimization measures shall be implemented" prior to and during construction: "Activities that may damage or kill an elderberry shrub *may* need an avoidance area of at least 6 meters [] from the dripline, depending on the type of activity." *Id.* at 4.3-57 (emphasis added). This mitigation measure essentially constitutes a

suggestion, not a mandate, and does not include any specific performance criteria to ensure its efficacy. It defers determination of whether to implement an avoidance area to seemingly anyone, as it does not require the opinion of a qualified biologist. BIO-7(d) requires that a biologist "monitor the work area at appropriate intervals to assure that all avoidance and minimization measures are implemented. The amount and duration of the monitoring shall depend on the construction specifics and, if required, the biologist shall consult with the U.S. Fish and Wildlife Service." *Id.* The measure fails to define what constitutes an "appropriate interval," and despite the fact that the City knows what the construction activities of the project are, it defers formulation of a mitigation monitoring plan for a different day, insulated from CEQA review. *Id.* BIO-7(d) states that "[t]o the extent feasible, all activities that could occur within 50 meters [] of an elderberry shrub" be conducted outside of March – July. *Id.* A mitigation measure suggesting something be done "to the extent feasible," with no specific performance criteria or ability to determine efficacy of the measure, is tantamount to no mitigation at all.

52-44 Cont.

iv. Use of the Butte Regional Conservation Plan as Alternative Mitigation for Biological Resources

The DEIR states, "The Butte County Association of Governments is preparing the Butte Regional Conservation Plan (BRCP). The final BRCP documents were submitted to the USFWS, National Marine Fisheries Service (NMFS), and CDFW for final review on June 28, 2019. If approved, the BRCP would provide streamlined state and federal endangered species act and wetlands permitting for covered activities for a term of 50 years." DEIR at 4.3-42. The DEIR goes on to note, "The proposed project site is designated within an Urban Permit Area (UPA) in the BRCP and could be a covered activity under the BRCP . . . . Any party seeking coverage under the BRCP for permanent development projects would need to comply with relevant conditions of the BRCP for covered species and natural communities . . . . To see full descriptions of the following mitigation measures, see pages 6-2 through 6-10 of the BRCP (Butte County 2019)." *Id.* What follows is a truncated synopsis of nineteen "mitigation measures," each approximately 1-2 sentences, that are apparently being relied upon to mitigate the significant impacts of the Project in the event the BRCP is adopted prior to project development and future project developers opt to seek coverage under the BRCP. *Id.* at 4.3-43 – 45. In the "Mitigation Measures" portion of the Biological Resources section, the DEIR goes on to state,

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> "If future project developers proceed to implement the proposed project as a 'permanent development project' as defined by and covered under the BRCP, once it is adopted, they would be required to comply with the Butte Regional Conservation Plan AMM 1 through 19 [] for the two covered species present onsite [] and four covered species with a moderate potential to occur on the project site []. In addition to these AMMs that would avoid and reduce project impacts to species and species habitat, the BRCP would establish a range of biological goals and objectives that must be achieved by the BRCP Permittees over the proposed 50-year permit term. By payment of fees into an adopted BRCP program, the proposed project would contribute to regional scale habitat preservation, restoration, and creation that would mitigate for impacts to biological

> resources identified in this EIR. Participation in the BRCP, if it is adopted, would satisfy mitigation requirements under CEQA for species covered under the BRCP.
>
> If future project developers opt not to seek coverage under the BRCP, or if the BRCP is not adopted prior to development, then the following mitigation measures would be implemented to avoid and/or substantially lessen impacts to special-status plant and wildlife species. With the implementation of the BRCP AMM measures or mitigation measures listed below, the proposed project would reduce potential impacts to special-status species and their habitat to less than significant."

52-45 Cont.

Id. at 4.3-53 – 54. The manner in which the DEIR sets forth alternative mitigation measures for biological resources violates CEQA for a number of reasons.

First and foremost, despite the fact that the Butte Regional Conservation Plan AAM 1 through 19 are relied upon, in the alternative, to mitigate impacts to biological resources to less than significant, the DEIR *does not include* the BRCP in either the main document or any of the appendices. This omission renders the DEIR fundamentally deficient as an informational document. CEQA requires that an EIR should "be organized and written in a manner that will make [it] meaningful and useful to decision-makers and to the public." Pub. Res. Code § 21003(b). Where an EIR fails "to include relevant information [and] precludes informed decisionmaking and informed public participation," it "thwart[s] the statutory goals of the EIR process" and constitutes an abuse of discretion. *Kings Cty. Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 712. Here, the EIR's cursory synopsis of nineteen potentially applicable mitigation measures, with no accompanying analysis whatsoever and without even including the full language of the mitigation measures themselves, let alone the BRCP in its entirety, constitutes a blatant violation of CEQA's informational disclosure requirements. In order to understand mitigation measures proposed to avoid significant impacts to threatened and endangered species, the reader is referred to a document that is entirely separate and apart from the DEIR. Further, because any meaningful analysis of the BRCP is omitted from the DEIR, the extent to which the BRCP has addressed the Project's potentially significant effects and reduced them to less than significant is unclear. To the extent the DEIR intends to rely on the BRCP to mitigate project impacts to biological resources to less than significant, the DEIR must be revised to include the full language of such mitigation measures, accompanied by the requisite environmental assessment of the efficacy of such measures, supported by substantial evidence.

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Further, and as discussed in detail above, "[a]n EIR is inadequate if 'the success or failure of mitigation efforts may largely depend upon management plans that have not yet been formulated, and have not been subject to analysis and review within the EIR.'" *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 92, quoting *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 670. "Numerous cases illustrate that reliance on tentative plans for future mitigation after completion of the CEQA process significantly undermines CEQA's goals of full disclosure and informed decision making; and consequently, these mitigation plans have been overturned on judicial review as constituting improper deferral of environmental assessment." *Id.* at 92. The BRCP has yet to be approved and finalized, and the mitigation measures contained therein and relied upon in the DEIR to mitigate significant effects to less than significant are not even included in the DEIR, much less subject to

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analysis and review. Accordingly, reliance on BRCP mitigation measures constitutes a violation of CEQA. The DEIR must be revised and recirculated to reflect inclusion of BRCP mitigation measures in their entirety, along with the requisite accompanying analysis of their efficacy.

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Likewise, the statement that the BRCP will "establish a range of biological goals and objectives that must be achieved by the BRCP Permittees over the proposed 50-year permit term," and that "by payment of fees into an adopted BRCP program, the proposed project would contribute to regional scale habitat preservation, restoration, and creation that would mitigate for impacts to biological resources identified in this EIR" constitutes impermissible deferral of mitigation measures in violation of CEQA. Again, this constitutes a plan to make a plan and lacks "specific and mandatory performance standards to ensure that the measures, as implemented, will be effective." *Communities for a Better Environment v. City of Richmond*, 184 Cal.App.4th at 94. To "set out a handful of cursorily described mitigation measures for future consideration" that "are nonexclusive, undefined, untested and of unknown efficacy" violates CEQA because mitigation measures are not developed in "an open process that also involves other interested agencies and the public." *Communities for a Better Environment, supra*, 184 Cal.App.4th at 93.

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v. The DEIR Lacks Sufficient Information, Analysis, and Mitigation to Support the Conclusion That Effects to Oak Trees Will Be Less Than Significant

The DEIR acknowledges that the "proposed project would involve oak tree removal to support permanent development." DEIR at 4.3-58. "Based on the VESP, an estimated 200 acres of blue oak foothill pine woodland may be converted to permanent development to accommodate the project." *Id.* The DEIR finds that the "removal of trees is considered a potentially significant impact," but will be reduced to less than significant via the implementation of mitigation measure BIO-9, which requires the developer to "implement the below measures *in addition to those required for compliance with the goals and policies of . . . the Oak Woodland Mitigation and Management Plan, and AMM 11 of the BRCP* []." *Id.* at 4.3-60 (emphasis added).

As with reliance upon the BRCP to mitigate impacts to biological resources, the DEIR relies *entirely* on the VESP Oak Woodland Mitigation and Management Plan ("Oak Mitigation Plan") to mitigate impacts from the removal of trees to less than significant, but *does not include* the Oak Mitigation Plan in either the DEIR main document or any of its appendices. This omission renders the DEIR fundamentally deficient as an informational document. CEQA requires that an EIR should "be organized and written in a manner that will make [it] meaningful and useful to decision-makers and to the public." Pub. Res. Code § 21003(b). Where an EIR fails "to include relevant information [and] precludes informed decisionmaking and informed public participation," it "thwart[s] the statutory goals of the EIR process" and constitutes an abuse of discretion. *Kings Cty. Farm Bureau, supra,* 221 Cal.App.3d at 712. Here, the EIR offers "example[s]" of the sole mitigation measure employed to reduce impacts from the removal of trees to less than significant, but omits inclusion of the measure from the text of the DEIR, and fails to provide substantive analysis of such "examples" or the efficacy of the mitigation. *Id.* at 4.3-58. CEQA requires more than a cursory discussion of examples of mitigation measures in an EIR – the purpose of an EIR is to facilitate informed decisionmaking, and that purpose is fundamentally undermined by the type of discussion, or lack thereof, offered here. The DEIR

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notes that the Oak Mitigation Plan "requires specific procedures to be followed to protect avoided trees if roots are cut down as part of the construction process," but fails to describe or analyze for the reader what those procedures actually are. *Id.*

52-49 Cont.

This truncated synopsis of mitigation relied upon to reduce project impacts to less than significant, with no accompanying analysis and without including the full language of the mitigation measures themselves, constitutes a blatant violation of CEQA's informational disclosure requirements. In order to understand the mitigation measure, the reader is referred to a document that is entirely separate and apart from the DEIR. Further, because any meaningful analysis of the Oak Mitigation Plan is omitted from the DEIR, the extent to which the Oak Mitigation Plan has addressed the Project's potentially significant effects and reduced them to less than significant is unclear. To the extent the DEIR intends to rely on the Oak Mitigation Plan to mitigate project impacts to protected trees to less than significant, the DEIR must be revised to include the full language of such mitigation measures, accompanied by the requisite environmental assessment of the efficacy of such measures, supported by substantial evidence.

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Further, the DEIR states that the project developers "shall appropriately mitigate for trees removed and/or damaged by the project in accordance with the [Oak Mitigation Plan] (such as planting onsite, off site, or paying an in-lieu fee)." As with BIO-1, this constitutes an impermissible deferral of development of mitigation measures, as it fails to set specific performance criteria to ensure that the measures, as implemented, will be effective. Will planting onsite be required? In what circumstances? At what ratio? When will planting off site be permitted? When is it appropriate to pay an in-lieu fee rather than plant onsite or off site? What are the effects associated with choosing one type of mitigation over the other? Will monitoring be required to ensure the mitigation is effective? All these questions are left unanswered, in violation of CEQA. *See*, *e.g.*, Guidelines § 15126.4(a)(1)(b); *Communities for a Better Environment, supra,* 184 Cal.App.4th at 92; *San Joaquin Raptor Rescue Center, supra,* 149 Cal.App.4th at 670. To the extent these questions may be answered in the Oak Mitigation Plan, this is insufficient for the purposes of CEQA. Required mitigation measures must be discussed in the CEQA document itself.

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Regardless, the Oak Mitigation Plan does not answer these questions. It states, "Mitigation to oak resources in the Plan Area shall be addressed with the following replacement *options*," and goes on to list either on-site planting, off-site planting, or payment of an in-lieu fee, with no requirements or specifics as to when which type of mitigation is required. Oak Mitigation Plan at E-7. For example, with regard to the on-site planting option, "If any replacement trees die or fail within the first three years of their planting, then the applicant can either pay an in-lieu fee as established by a fee schedule adopted by the City Council, inquire with the Homeowner Association (HOA) to see if any regeneration tree credits are available, or provide a replanted tree in place of the dead or failed tree.Off-site. (*Sic*.) If it is not feasible or desirable to plant replacement trees on site, payment of an in-lieu fee as established by a fee schedule adopted by the City Council shall be required." *Id.* There is no analysis regarding when it is appropriate to require which type of mitigation – the type of mitigation depends not on the most efficacious way to mitigation significant impacts, but rather what is "desirable." This constitutes deferral of mitigation measures and a failure to set specific performance criteria to ensure the measures will be effective, in clear violation of CEQA. Further, a mitigation measure

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that requires payment of in-lieu fee where onsite tree replacement is not feasible has been held to be inadequate to avoid significant impacts. *Save the Agoura Cornell Knoll v. City of Aguora Hills* (2020) 46 Cal.App.5th 665. 52-52 Cont.

The DEIR fails to adequately analyze or mitigate significant project impacts from removal of trees. It must be revised and recirculated to address the above deficiencies. 52-53

C. The Project Would Have Significant Unmitigated Effects to Groundwater.

The DEIR fails to align its analysis with its own stated threshold of significance. The DEIR states that an impact to groundwater resources would be significant if it would "[s]ubstantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin." (DEIR 4.9-25.) The DEIR then admits that groundwater levels in the affected basin are decreasing, that the proposed project would add demand to the basin, and thereby increase the rate of groundwater depletion. The Vina Subbasin is designated by DWR as a "high priority" basin and under the Sustainable Groundwater Management Act. Remarkably, "the proposed project would represent an approximately 7% increase in water demand in Cal Water's Chico District service area." (DEIR 4.9-31.) Nevertheless, the DEIR inappropriately injects new vague considerations in its conclusion that "Because the Vina subbasin is not in a state of critical overdraft, continued annual groundwater declines of less than 1.0 feet per year would not be substantial or unreasonable. Therefore, the potential of the proposed project to substantially decrease groundwater supplies in a manner that would interfere with the sustainable management of the groundwater basin would be less than significant." (DEIR 4.9-32.) The DEIR's conclusion that this impact would not be "unreasonable" is vague, subjective, wrong, and not a factor included in its threshold of significance. Similarly, the threshold of significance does not limit significant effects to basins in a state of "critical overdraft," yet the DEIR adds this as a reason it concludes effects would be insignificant, inappropriately adding more factors and misconstruing the threshold of significance. Moreover, the DEIR offers no support for its proposition that adding to the rate of groundwater decrease would not interfere with sustainable groundwater management. The DEIR admits that the basin is a high priority, and that its rate of drawdown is faster than its rate of recharge. While offering no additional recharge, water supply, or conservation efforts, how can this incremental added demand do anything *but* interfere with the sustainable management of a groundwater basin that already suffers from unsustainable demand? The DIER's conclusions are improper as a matter of law, and unsupported by fact or reason. 52-54 52-55 52-56

The DEIR fails to assess loss of recharge for perched and seasonal groundwater. The DEIR acknowledges that "trees located along certain slope breaks are indicative of seasonal groundwater flows, and also indicates that perched groundwater may occur on the project site" (4.9-31) but the DEIR wholly disregards these site features in its assessment of recharge loss (4.9-30). This impact should be assessed. 52-57

The Water Supply Assessment relies on unsupported projections that demand will increase in near-term future years, but will decrease on a longer horizon. (Table 5.) This kicking the can down the road clearly serves to minimize project effects. Instead, the DEIR must now 52-58

reconcile the growing demands with diminishing supplies, which its analysis fails to do. The Water Supply Assessment further skews its findings by looking at groundwater decreases over averaged periods of 2005-2013 and 2014-2018. By segmenting and then averaging these periods, the DEIR ignores entirely the significant adverse effects that specifically occurred during the 2013-2015 drought; effects that would only be exacerbated by the proposed project, which the DEIR completely fails to analyze or disclose. 52-58 Cont.

Finally, public comments on the draft Butte Subbasin Groundwater Sustainability Plan, incorporated fully here by reference, plainly demonstrate the severity of groundwater mismanagement in this subbasin, and provide a clearer picture of the baseline and future conditions that will be affected by the proposed project. Given the past and ongoing depletion of groundwater supplies, and the ongoing inadequacies in the GSP proceedings, the only responsible and defensible course of action here is approval of the no project alternative. 52-59

D. The No Project Alternative, or another Feasible Alternative, Must be Adopted if the Project is to Proceed.

Owing to the numerous significant and unavoidable impacts of the proposed project, the City should certainly adopt the no project alternative. (*See*, *Las Lomas Land Co., LLC v. City of Los Angeles* (2009) 177 Cal. App. 4th 837, 848-852.) Under any alternative, the massive environmental losses clearly contemplated by the project would not be in the public interest, and cannot support the required findings for a statement of overriding considerations. As such, the no project alternative is the best alternative presented by the DEIR. 52-60

If any iteration of the project is to be approved, CEQA requires that the City pursue only an increased density and increased open space alternative. CEQA requires agencies to adopt all feasible alternatives and mitigation measures that would reduce a project's significant environmental impacts. Pub Res Code, § 21002–21002.1, 21004; 14 Cal Code Regs §§ 15002(a), (h), 15021(a), 15096(g)(2). Here, the DEIR itself asserts that Alterative 4 would prevent significant and avoidable damage to the environment and protect biological resources by increasing the acreage of open space and shifting the residential land uses to other areas within the project site. Alternative 4 was also determined to be the environmentally superior alternative because it reduces the potential for impacts in seven out of fourteen of the resource areas evaluated. Public comments on the DEIR, however, propose additional alternatives that are feasible and would be superior even to Alternative 4, and as such should be adopted. 52-61

The Draft EIR found that Alternative 4 would essentially achieve all the project objectives. *See*, 14 Cal Code Regs §15126.6(a). Under Alternative 4, the commercial development remains the same—2,777 residential units and the total amount of commercial space would remain at 447,155 sf. This Alternative would provide the same amount of residential and non-residential uses as the proposed project and would therefore achieve those project objectives to the same extent. Housing diversity would be the same as the proposed project since it is assumed that Alternative 4 would include the same number of senior housing units. However, Alternative 4 would do this while also increasing the open space area to preserve and protect resources to a 52-62

greater extent than the proposed project. The additional Alternatives submitted in public comment concurrently herewith will similarly meet project objectives.

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Alternative 4 would retain the same level of commercial development, and is not infeasible because it would not require extravagant economic, environmental, social, technological, or legal measures to be accomplished. Pub Res C §21061.1; 14 Cal Code Regs §15364. Therefore, Alternative 4 should be adopted because it will feasibly avoid or substantially lessen the project's significant environmental effects while at the same time attain most of the basic project objectives.

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The DEIR acknowledges that Alternative 4 is also feasible because it does not require excessive steps to be accomplished. The term "feasible" is defined as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors." Pub Res C §21061.1. The Guidelines add the term "legal" to the list of factors to take into account. 14 Cal Code Regs §15364. Under Alternative 4 the wastewater generation from residential uses in Alternative 4 would generally be similar to the proposed project and would not necessitate expansion of new facilities or exceed treatment capacity. Alternative 4 would be served by PG&E for electric and natural gas service, which is required by the CPUC to update existing systems to meet any additional demand, would comply with applicable solid waste diversion, reduction, and recycling mandates, and would not exceed capacity at the Neal Road Recycling and Waste Facility. Additional mitigation measures are not necessary. Again, the DEIR analysis of Alternative 4 should be applied equally to the similar but additional alternatives submitted herewith in public comments, that would feasibly reduce or avoid the project's adverse effects to a larger degree.

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Finally, as discussed below, a feasible alternative would help to protect on-site features in the southern open areas, preserve sensitive habitat, provide additional safeguards for natural drainages, allow for increased wildlife movement, and protect wetlands and other aquatic features.

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Biological Resources Impacts

An increased open space and higher density alternative would reduce and avoid significant impacts to biological resources by moving the 65 residential units from the southeastern area of the site to the other planning areas within the Specific Plan. The elimination of all Very Low Density Residential (VLDR) uses in the southeastern portion of the plan will increase the open space buffer along Skyway and Honey Run Road, which would result in a better-defined urban edge to the central portion of the plan area. This is in part because there would be less vegetation and tree removal required within the area. The protection of additional oak woodlands as open space would help further reduce impacts to sensitive species and habitat within the area. The elimination of the VLDR uses will also prevent resources in those areas from being impacted by construction and operation. The amount of ground disturbance would be less compared to the proposed project as there would be no construction on the slopes of the Equestrian Ridge area which would require less grading activity and prevent potential soil erosion impacts. There would be no construction associated with the road connection to Honey Run Road included in the proposed project.

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Traffic Impacts

An increased open space and higher density alternative would reduce significant impacts by decreasing traffic. The roadway connection from Honey Run Road to the Equestrian Ridge area as well as proposed roadways along the creek in the southern portion of the site would no longer be required. This would reduce the need for creek crossings in sensitive areas, reducing impacts to wetlands and riparian habitat. This Alternative would, in turn, result in a reduction in mobile GHG emissions, as compared to the proposed project, due to less travel distance required for residents to visit commercial areas and the rest of the City. 52-67

Density Impacts

By increasing the residential density in the North area, an increased open space and higher density alternative reduces the overall environmental impacts. EIRs often include an alternative involving increased project density or intensity. *See, e.g., Tracy First v City of Tracy* (2009) 177 Cal.App.4th 912; *Sequoyah Hills Homeowners Ass'n v City of Oakland* (1993) 23 Cal.App.4th 704. Alternatives that increase the density of a residential development project usually do so because it may reduce the pressure to develop on other, more environmentally sensitive sites. *Village Laguna of Laguna Beach, Inc. v Board of Supervisors* (1982) 134 Cal.App.3d 1022 (holding that an EIR that discussed a reasonable range of alternative densities for a major development was not defective because it failed to consider other reasonable intermediate density alternatives in addition to those that were studied); *see also City of Maywood v Los Angeles Unified Sch. Dist.* (2012) 208 Cal.App.4th 362, 417 (school district's decision to exclude reduced project alternatives was supported by state school siting policies relating to density of students per acre). Alternative 4 reduces significant impacts in the southern portion of the plan by increasing the residential density from 4.1 units/acre to 4.7 units/acre in the north. This will result in a reduction in the overall development footprint. Such an alternative would also result in a reduction in impacts to existing views of the site as compared to the proposed project and would help to reduce impacts to important visual resources such as mature trees and rock outcroppings. 52-68

In conclusion, if the project is to proceed, which it should not, an increased open space and higher density alternative must be adopted because it will avoid or substantially lessen the project's significant environmental effects better than the proposed project while at the same time feasibly attaining most of the basic project objectives. 52-69

Respectfully,

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AQUA TERRA AERIS LAW GROUP

AQUALLIANCE
DEFENDING NORTHERN CALIFORNIA WATERS

CSPA

california water impact network

October 31, 2021

Butte County Department of Water & Resource Conservation
308 Nelson Ave
Oroville, CA, 95965
info@buttebasingroundwater.org

RE: Comments on the draft Butte Subbasin Groundwater Sustainability Plan

Dear Butte County Water Department:

AquAlliance, the California Sportfishing Protection Alliance, and the California Water Impact Network (hereinafter AquAlliance) submit the following comments and questions on the draft Butte Subbasin Groundwater Sustainability Plan ("Butte GSP" or "Plan"). There are serious weaknesses in the Plan that require ***significant*** changes to the document, without which the public and policymakers are truly left in the dark and dangerous consequences are obfuscated.

The information and analysis provided in Section A discuss the future changes described in the draft Butte GSP for the Butte Subbasin groundwater system and the overlying surface waters, as well as the implications of the proposed sustainability objectives and minimum thresholds. The draft Plan presents a rosy scenario, suggesting that future precipitation, evapotranspiration, and surface water supplies will adjust to the 2070 Central Tendency climate change scenario provided by DWR and keep groundwater levels stable. However, elsewhere in the Plan is material that indicates the proposed GSP management of the subbasin under the 2070 Central Tendency scenario will cause detrimental changes to both surface waters and groundwater. The 2070 scenario sustainable management of the subbasin assumes that annual average groundwater pumping will increase 29% to possibly 48%, while allowing declines in groundwater level of as much as twice the historical low. The groundwater storage will be sustained by increases in seepage from overlying streams and a reduction in groundwater accretion to the streams. Additional losses to the groundwater system may also occur through increased subsurface outflow along the western subbasin boundary.

Section B demonstrates the serious deficiencies in definitions of and plans to resolve conflicts. This failure will lead to escalating costs to residents, farms, and businesses to protect access to groundwater by deepening wells or drilling a replacement, plus likely legal expenses. Adam Keats and Chelsea Tu discussed this at length in 2016: "[i]f a medium or highpriority [sic] groundwater basin becomes a multi-use basin that includes imported water rights, overlying

rights, and interconnected instream rights, the relationship between those rights, and the priority given to each of the rights-holders, remains unresolved by the Act. The responsibility for identifying and addressing the foreseeable legal and use conflicts between imported water, overlying use, and/or in-stream use where groundwater interconnects with surface water is thus left to the GSAs, or ultimately, the courts."[1]

Section C provides historic information on some of the destructive planning and practices that have transpired in the Sacramento Valley that have caused groundwater basins to become private assets, as opposed to public commons elsewhere in California. It is a tragedy in the making to have local government, the cities of Biggs and Gridley, and the counties of Butte and Glenn promote a Plan that accepts groundwater levels that drop up to 100 percent of the historic range and the failure of 7 percent of the domestic and very deep aquifer supply wells.

A. Sustainability objective and threshold for undesirable results

1. The Draft Butte GSP breaks the groundwater monitoring network into four parts: Primary Aquifer, Very Deep Aquifer, Interconnected Surface Water, and Groundwater Quality. Wells in the Primary Aquifer have screen depth less than 700 feet below ground surface (bgs). The Very Deep wells are screened greater than 700 feet bgs (pages 4-13 and 4-14, pdf pages 210 and 211). The summary discussion of the monitoring network is given in Section 4.3.1 (pdf pages 210 through 230). Table 4-1 lists the Primary Aquifer monitoring wells (pdf page 215 and 216), Table 4-2 lists the Very Deep Aquifer wells (pdf page 220), Table 4-3 lists the Interconnected Surface Water wells (pdf page 230), and Table 3-3 lists Water Quality wells (pdf page 189).

Section 4.3.1.1 (pdf page 211) describes the Primary Aquifer MTs as:

> *Minimum thresholds (MTs) for primary aquifer groundwater level representative monitoring wells were calculated using a process designed to be protective of domestic wells while also allowing for conjunctive use and groundwater extraction by agriculture.*
>
> *The MT for each well in the primary aquifer was calculated based on the following process and criteria:*
>
> *1. Determine the shallower of:*
>
> *a. The shallowest 7th percentile of nearby domestic wells.*
>
> *b. The range of measured groundwater levels or 20 feet (whichever is greater) below the observed historic low.*
>
> *2. If the resulting value is shallower than the observed historic low, set the MT as 10 feet deeper than the observed historic low.*

Section 4.3.1.6 (pdf page 216) describes the Very Deep Aquifer MTs as (underlines added):

[1] Keats, Adam et al., 2016. *Not All Water Stored Underground is Groundwater: Aquifer Privatization and California's 2014 Groundwater Sustainable Management Act*. p. 98.

Setting minimum thresholds using this methodology is protective of the Beneficial Uses of the very deep groundwater aquifer, including agricultural, municipal, and domestic uses, because the minimum threshold is calculated to be at a level that allows for adequate flexibility to compensate for drought periods (e.g. 2015) while protecting up to 93% of supply wells greater than 700 feet deep (the minimum depth of the very deep aquifer representative monitoring network), thereby avoiding undesirable results.

2. A technical report in the Appendix 4A, dated June 11, 2021, discusses the MT criteria differently and gives hydrographs for almost all the monitoring wells (Appendices pdf pages 1045 and 1046). The MT criteria are said to be:

To protect the beneficial use by domestic wells, groundwater levels need to remain higher than the bottom depth of domestic wells. After reviewing the hydrographs, the Butte Advisory Board (BAB) suggested that the effects of declining groundwater levels would become significant and unreasonable when groundwater levels dropped below the depth of more than 7% of domestic wells. Consequently, the BAB determined that MT exceedances at more than 7% of domestic wells would constitute an undesirable result. This is described as an MT calculation method to determine the shallowest 7th percentile of domestic well depths, and results in an MT that would protect 93% of the domestic wells. [emphasis added]

To protect the health of vegetation in GDEs, shallow monitoring wells will be installed in GDEs that are used to monitor GDEs. This allows MTs outside of GDEs to be set without regard to the GDE criteria, so the MTs in this set of hydrographs do NOT consider the GDE criteria.

To protect the conjunctive use of groundwater for agricultural production, groundwater levels must be able to fluctuate, lowering during droughts, when groundwater pumping increases to augment reduced surface water availability, and increasing during years when surface water is available for recharge. For agricultural conjunctive use, the effects of declining groundwater levels are expected to be significant and unreasonable when groundwater levels drop below the lowest historical groundwater elevation by more than 100 percent of the historical range in groundwater levels or by 20 feet, whichever is greater. Consequently, MT exceedances occurring at the greater of these levels would constitute an undesirable result. [emphasis added]

Depending on the depths of domestic wells, the need for lower ground water levels during droughts could cause some domestic wells to go dry if the MTs are set based on the conjunctive use beneficial use alone. Conversely, setting MTs based solely on domestic well depths may impact the ability of agricultural beneficial users to pump groundwater during droughts. Local stakeholders must agree on a balance between these two beneficial uses. [emphasis added]

Considering the MT exceedances described above, in the primary and very deep monitoring networks the MT of each well was calculated based on the shallowest of the following criteria: [emphasis added]

1. *Shallowest 7th percentile of domestic well depths to protect at least 93% of the domestic wells in DWR's well completion database, and*

2. *100% of historical range or 20 feet, whichever is greater, to protect conjunctive use of groundwater.* [emphasis added]

3. *If the shallowest value from the two criteria above is shallower than the deepest observed groundwater level, the MT is set 10 feet deeper than the deepest observed groundwater level.* [emphasis added]

By selecting the shallowest value, these criteria are protective of the beneficial use most vulnerable to undesirable results. Undesirable Results (UR) Detection = 25% fall below the minimum threshold for 24 consecutive months (i.e., 11 of 41 wells in primary aquifer representative monitoring network, 3 of 10 wells in very deep aquifer representative monitoring wells)) [emphasis added]

The use of the term *shallowest* in selection of the MTs raises the question of the GSPs meaning of *shallowest*. The modification of criteria number 2 in the GSP main text from the Appendix 4A text with the addition of *below the observed historic low* seems to create a conflict with MT criteria number 3 and brings into question what *shallowest* means. AquAlliance interprets *shallowest* to mean the *shallowest depth*, i.e., the least distance between the ground surface and the water level. But maybe the GSP means *shallowest elevation*, i.e., lowest elevation? How can an MT value set at 100% of the historical range or 20 feet (whichever is greater) below the observed historic low be shallower than the historic low? If 100% of the range is less than 20 feet, the MT uses 20 feet. How can 20 feet below the historical low be shallower than 10 feet below the historic? If the depth for the shallowest 7th percentile of domestic wells is below the observed historical low, then it's not the shallowest of the MT criteria, so criteria number 2 would set the *shallowest* MT. This may make sense if the GSP is referring to an elevation rather than depth. This needs immediate clarification. The hydrographs in Appendix 4A don't add much clarity to how the MTs are established.

3. There is another issue in the determination of the MT. The hydrographs in Appendix 4A for the Primary Aquifer wells give at the base of the graph the MT calculation method used to set the value along with the MO and MT values. Tables 3-1 and 4-1 in the main GSP list the Primary Aquifer MT values (pdf pages 181, and 215-216, respectively). For several of the Primary Aquifer monitoring wells, 16 of 41, the MT values in the Appendix 4A hydrographs differ from the values in Tables 3-1 and 4-1. Specifically, the MT calculation method listed in the Appendix 4A hydrographs as -20 feet deep than historical low was changed for these 16 monitoring wells to 100% historical range (below the historical low value). Overall, 20 of the MTs for the Primary Aquifer monitoring wells are set at 100% historical range below the lowest historical level. The MT values in Tables 3-1 and 4-1 in the main GSP text are all equal to or greater than those given in the Appendix 4A hydrographs. When you plot the values in Tables 3-1 or 4-1 on the Appendix 4A hydrographs, they are at a deeper depth than the -20-foot value. An example of one hydrograph 18N01E15D002M is attached as page 2 of AquAlliance Exhibit A. I have no understanding as to why these changes were made and the Draft GSP doesn't appear to explain it either. I've attached a table that lists the Butte GPS Primary Aquifer well characteristics and the different MTs (columns G and H) along with the MT calculation method (columns P and Q) for the main text and Appendix 4A. See page 1 of AquAlliance Exhibit A.

4. The MT calculation method for the Very Deep Aquifer monitoring wells given in the Appendix 4A hydrographs are at the 100% historical range ***below*** the lowest historical groundwater level

(Appendix pdf pages 1096 to 1105). The MTs for the Very Deep Aquifer wells are described in the Draft GSP main text (pdf page 216) as:

> *Setting minimum thresholds using this methodology is protective of the Beneficial Uses of the very deep groundwater aquifer, including agricultural, municipal, and domestic uses, because the minimum threshold is calculated to be at a level that allows for adequate flexibility to compensate for drought periods (e.g. 2015) while protecting up to 93% of supply wells greater than 700 feet deep (the minimum depth of the very deep aquifer representative monitoring network), thereby avoiding undesirable results.*

5. The MT calculation method for the Interconnected Surface Water monitoring wells given in the Appendix 4A hydrographs as *-10 feet deeper than the historical low* (Appendix pdf pages 1108 to 1119). The MTs for the Interconnected Surface Water wells are described in the Draft GSP main text (pdf page 225) as:

> *Minimum thresholds for depletion of interconnected surface waters were set at 10 feet below the measured historical low for each of the representative monitoring wells. The minimum threshold was established to prevent undesirable results while taking into consideration key water bodies (including the Sacramento River, Feather River, Butte Creek, Little Dry Creek, Dry Creek, and Angel Slough) and groundwater dependent ecosystems (GDEs).*
>
> *The minimum threshold was selected such that levels would be protective of the beneficial use of interconnected surface water and of shallower groundwater near streams and rivers, including those of shallower domestic users and potential groundwater dependent ecosystems. The additional 10 feet in depth below the measured historical low (during which no undesirable results were observed) is intended to provide an appropriate margin of operational flexibility during GSP implementation. While information and understanding of interconnected surface waters is limited, groundwater levels that exceed the minimum threshold in the future for an extended period of time could impact beneficial uses of interconnected surface waters by reducing the volume and changing the timing of surface water availability, and potentially impacting the beneficial uses of groundwater by dewatering domestic wells and limiting groundwater supplies to groundwater dependent ecosystems. As additional data are collected during GSP implementation, minimum thresholds may change and the threshold calculations revised to reflect a better understanding of this complex interaction and the Subbasin's unique conditions.*

Setting the MTs groundwater levels for Interconnected Surface Water at a value greater than the lowest historical depth may result in undesirable results to stream flows and Groundwater Dependent Ecosystems (GDEs) because a decline of 10 feet could result in stream flows being lower than the minimum instream flows necessary to protect aquatic habitats and groundwater levels dropping beyond the acceptable rooting deep of GDEs vegetation. Rooting depths of GDEs can be found at The Nature Conservancy's Groundwater Resources Hub[2]. Note that 170

[2] https://groundwaterresourcehub.org/sgma-tools/gde-rooting-depths-database-for-gdes/

of the 230 entries, 74%, for California phreatophytes in The Nature Conservancy's database have maximum rooting depth at or less than 10 feet. The loss in stream flows predicted by the simulations for the Draft GSP show that surface water flows will be reduced (see discussions on the Water Budgets). The GSP Interconnected Surface Water monitoring network and the MOs and MTs should be set based on the requirements that sustain the existing GDEs by maintaining shallow groundwater at depths less than the maximum rooting depth for the overlying vegetation, and also to maintains surface water flow necessary to protect overlying aquatic habitats.

As noted in the excerpts above, this Plan offers experimentation cloaked as science through the abuse of the already stressed hydrologic system and all flora and fauna species, including humans, living in the region. The Butte GSP must not offer, let alone approve, Minimum Thresholds that are below ***any*** historic low. Proposing declines of up to 100% or 20 feet, whichever is greater, demonstrates an intention to hammer the basin and figure out the problems later. Well failure must not be an accepted result, so some water players may have "flexibility" during droughts or to conduct conjunctive use exercises. The public and the environment are not willing participants in this special interest Plan.

6. For Water Quality MTs the values are set at this time only for salinity using electrical conductivity (EC). The minimum threshold for EC in Water Quality monitoring wells was set as the higher of 900 µs/cm or the measured historical high, whichever is greater (pdf pages 221 to 223). For other water quality constituents, the Draft GSP says that it will wait 5-years and then:

> *The GSAs will also consider setting minimum thresholds for other constituents as part of the 5-year update. The established minimum thresholds will take into consideration:*
>
> - *Maximum Contamination Levels (MCL)*
> - *Local conditions (historical measurements).*
> - *Agricultural requirements (Irrigated Lands Regulatory Program [ILRP], Central Valley Salinity Alternatives for Long-Term Sustainability [CV-SALTS])*

Water quality standard already exist for the Butte Subbasin in the Central Valley Regional Water Quality Control Board's (CVRWQCB) Water Quality Control Plan (Basin Plan) for the Sacramento River Basin and the San Joaquin River Basin.[3] The Water Quality MOs and MTs for the Butte Subbasin should follow the requirements of the CVVRWQCB's Sacramento River Basin Plan. In addition, the GSP should maintain the subbasin's water quality so that it meets all required health protective drinking water standards at levels below the Maximum Contaminant Levels (MCLs) for public water systems, and below the public health goals (PHGs).[4,5]

7. The hydrographs in Appendix 4A for the Primary Aquifer and Very Deep Aquifer monitoring wells all list a *Model Adjustment Value*. This value is sometimes positive, zero, or negative. See column R on page 1 of AquAlliance Exhibit A. What this adjustment does to the calculation of

[3] https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf
[4] https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/MCLsandPHGs.html
[5] https://www.waterboards.ca.gov/laws_regulations/docs/drinking_water_code_2021.pdf

MO or MT is unclear. The description of the Model Adjustment is given on page 2 of the Appendix 4A report (pdf page 1045) as:

> *Projected future water levels from the model run are a line plot of the monthly values averaged from the daily model results. The projected future water levels have been adjusted on the graphs at wells where the historical measurements were offset from the model results. This is an accepted modeling practice and it is noted on the hydrographs when such an adjustment has been made.*

The hydrographs don't provide much clarity on how the adjustment changes these values. Clarification is need on what this adjustment does to the MO and MT values.

8. The MO values listed in the Appendix 4A hydrographs are the same as in Tables 3-1 and 4-1. The hydrographs also show the simulated groundwater levels for future conditions using the 2070 climate change simulation results. The MO values essentially align with the simulation groundwater curve. The description of the hydrographs is given on page 2 of the report in Appendix 4A (pdf page 1045) as:

> *Hydrographs for the future conditions with 2070 climate change and the historical measured groundwater levels were plotted on one chart for each of the monitoring well locations (i.e., the chart includes the 2000 through 2018 historical run and 2019 through 2068 projected future run). The charts show simulated groundwater elevations on the left vertical axis and groundwater depths below ground surface (bgs) on the right vertical axis. Ground surface elevation is also plotted along with the elevation and depth bgs of the draft MT and MO. The charts are organized by monitoring network beginning with the primary aquifer, followed by the very deep aquifer and the interconnected surface water networks, and included as attachments to this TM.*

9. There are several issues related to how the MTs are set. For the Primary Aquifer, why are the MTs being set below the historical lowest groundwater level when the Draft GSP says that the subbasin will be managed to maintain the current MOs? The future 2070 simulation assumed that the past 50-years of water use would be repeated during the next 50 years. The simulation groundwater levels shown in the Appendix 4A hydrographs don't suggest that there will be deep declines in groundwater in the next 50 years. Does the Draft GSP assume that there will be more conjunctive use in the future than in the past, such that the groundwater will decline below the depths calculated in the 2070 future simulation? Why didn't the 2070 simulation include these projected increases in conjunctive use? Why almost double the historical lowest depth of groundwater decline for the MT? As discussed below, the results on the water balance suggests that the MTs in the Draft GSP are set based on a planned significant increase in average annual groundwater production during the next 50 years. The Draft GSP does mention increased groundwater production during drought years, but also states that groundwater storage will recover during non-drought years (pdf page 231 and 232). The Draft GSP seems to state that although there will be an average decrease in the future in groundwater storage of 2,000 AFY, the management actions will address this imbalance and provide *an average annual benefit to groundwater storage of at least this volume*. **Again, why is an MT that's almost twice the historical low needed to maintain groundwater sustainability?**

10. In the discussion of the Interim Milestones, the main GSP text states on page 4-15 (pdf page 212) for the Primary Aquifer and on page 4-21 (pdf page 218) for the Very Deep Aquifer that:

> *For the Butte Subbasin, since groundwater levels are already at or near MOs, it is reasonable to set the interim milestones equal to the MOs to provide numerical metrics for GSAs to track maintenance of the Subbasin's sustainability goal relative to the overall sustainability goal, ensuring that the basin remains sustainable.*

The Draft GSP reasoning for setting of the Interim Milestones at the MO values seems to say that the subbasin is already sustainable. If that were the case, then why does a GSP need to be prepared? DWR seems to believe that groundwater levels are declining such that the Butte Subbasin was given a Medium SGMA priority. The results of the 50-year Current and 2070 climate change simulations suggest that there has been a decline in groundwater storage since 1971 with an overall decline since WY 1998 (pdf page 173; also see modified Figure 2-42 on page 3 of AquAlliance Exhibit A). The setting of the Interim Milestone at the MOs suggests that there is no need to raise groundwater levels or add to the volume of groundwater in storage.

The future 2070 simulation groundwater levels shown in the Appendix 4A hydrographs also suggest that there will be no sustainability issues in the future. However, the information provided in the Draft GSP Water Balance calculations suggests that there may be problems with the sustainability of the subarea in the future. The cumulative loss in groundwater storage on January 1, 2015, the SGMA Benchmark date, calculated by the Current water budget simulation is approximately 150,000 AF. See modified Figure 2-42 on page 3 of AquAlliance Exhibit A. If the cumulative change in groundwater storage simulated for the next 50 years is subtracted from the January 2015 cumulative loss, the total loss in storage in 2070 will be approximately 450,000 AF. This is more than double the cumulative storage loss estimated at the start of SGMA. Perhaps, this is why the GSP has set the MTs at 100% below the historical range, which is almost twice the maximum historical depth. Twice the loss in cumulative storage will likely cause a decline in groundwater levels that is almost twice the historical maximum.

11. The Draft GSP provides several water budgets, or water balances, scenarios for both surface water and groundwater. There appear to be three baseline water balance calculations, and three 50-years-in-the-future water balance calculations. The Draft GSP selects the future 2070 Central Tendency (2070CT) climate change scenario for comparison to the Current conditions.

The three baseline water budgets include two called "Historical" (19 water years from 2000 to 2018), and one "Current" (50 years from 1971 to 2018 plus 2004 and 2005 to fill in to make 50 years). The three future water balance scenarios are described as (pdf pages 23 to 26):

> *Three projected water budget scenarios were developed across a range of future conditions that may occur: these scenarios include one in which no climate change occurs, one with adjustments to precipitation, evapotranspiration, and surface water supplies based on the 2030 Central Tendency climate change datasets provided by DWR to support GSP development, and one with adjustments to precipitation,*

evapotranspiration, and surface water supplies based on the 2070 Central Tendency climate change datasets provided by DWR to support GSP development.

One of the Historical water budgets is given in Appendix 4C as two tables, Table C-1 for surface water, and Table C-2 for groundwater. See pages 4 and 5 of AquAlliance Exhibit A. There doesn't seem to be a clear explanation of the development of these two Appendix tables, but there are several water balance reports in the Appendices, so maybe these tables can be derived from those reports. The second Historical water budget is given as part of the main GSP text in Section 2 (pdf pages 149 to 161). Table 2-7 for surface water and Table 2-8 for groundwater (pdf pages 156 and 157) have a column called Historical. See column B pages 6 and 7 of AquAlliance Exhibit A. I've attached a file that has several modifications to those two tables that calculate the annual differences between the three baseline scenarios and the 2070 future scenarios. See pages 8 with 9, 16 with 17, and 18 with19 of AquAlliance Exhibit A for the three baseline to 2070 scenario water balance differences.

The third baseline water budget is called "Current" in column C of Tables 2-7 and 2-8. This is a water budgets based on the past from 1971 to 2018 with two additional average years 2004 and 2005 added to make a 50-year average. The past 50-years of annual water budget is then used to estimate the annual water balances for 50 years into the future using three different assumptions. The Draft GSP apparently selects the 2070 future scenario for comparison to the Current water budget for evaluation future groundwater pumping impacts. The GSP selects the 50-year Current scenario because it has *[a]n advantage of evaluating the current conditions water budget over a representative 50-year period is that the results provide a baseline for evaluation of the projected water budgets* (p. 2-55, pdf page 147).

12. The Historical water budget for Appendix 4C Tables C-1 and C-2 had to be calculated because the tables only list the annual values for each component, but don't give any overall statistics. The attached two Appendix 4C water budgets and two tables that give the summary statistics for surface water and groundwater. See pages 4, 5, 10 and 11 of AquAlliance Exhibit A. In addition, modified Tables 2-7 and 2-8 are included that calculate the average annual differences between the two Historical water budgets for each water budget components. See pages 12 and 13 of AquAlliance Exhibit A.

13. The Draft GSP gives in Figure 2-42 (pdf page 173) graphs of the cumulative change in groundwater storage for the past "Current" 50-years and the three future 50-year scenarios. I've included this graph with some modifications in the attached water budget pdf document. See page 3 of AquAlliance Exhibit A. The Draft GSP in Table 5-1 (pdf page 232) provides a comparison of the Current to the future 2070 water balances for selected parameters for 2019 to 2068. It is unclear why the future years start in 2019 when the 50 years for the Current water budget added two years after 2018 to end in 2020. Regardless, the values in Table 5-1 appear to be derived from values in Tables 2-7 and 2-8. See page 14 of AquAlliance Exhibit A.

    Also attached is a modification of Table 5-1 that includes the original Current to 2070 year water balances along with two additional Historical baselines for comparison. See page 15 of AquAlliance Exhibit A. One modification compares Table 2-8 Historical to future 2070 water balances and the other Appendix 4C Table C-2 Historical to the future 2070. The comparisons

for the two Historical baseline water budgets show significant differences from the "Current" scenario. Both the Historical baselines comparisons show an increase in overall groundwater storage of approximately 7,800 AFY rather than the decrease as calculated with the Current baseline.

This increase in groundwater storage seems to come from a significant *net* reduction in surface water flows caused by an increase in total surface water seepage to groundwater, and a significant decrease in discharge of groundwater to surface water (accretion). Even with the Current baseline water budget, the *Net Stream Gains from Groundwater (Accretion)* parameter decreases in the future, just not as much as the difference from the two Historical baselines. There is also significant decrease in *Surface Water Outflows* with both Historical baselines. The *Surface Water Inflows* parameter for the Appendix 4C Historical water budget also differs significantly from the Current and Table 2-8 Historical baselines.

If the Historical water budgets that the subbasin is presently experiencing (since 2000) are used as the baseline for estimating the results of the 2070 future climate change conditions, then the difference calculations show that the flows in the subbasin's streams and rivers will be significantly reduced. At the same time the subbasin will have an increase in groundwater pumping along with a gain in groundwater storage. This contradiction for the Historical baselines needs to be explained because it might indicate a problem with the assumptions about the water budgets and the future scenarios.

The use of the past 50-year Current scenario as the input for the hypothetical future scenarios is reasonable. Repeat the past with the climate changes applied to see what happens. However, the starting point for going forward in an evaluation of the subbasin's groundwater sustainability should be at today's conditions, not the average of the past 50 years. From the graphs of groundwater storage in Figure 2-42 (pdf page 173; page 3 of AquAlliance Exhibit A) it's clear that during the past 20 years the subbasin has seen a downward trend in groundwater storage. The volume of storage at the SGMA benchmark date of January 1, 2015 was near -150,000 AF lower than in 1971, and lower than any time prior to the start of SGMA. The additional decline in groundwater storage from the 2070 climate change scenario should be started at the -150,000 AF value of the SGMA Benchmark date, not the zero of 1971. The authors of the Draft GSP may know this, and that's maybe why many of the groundwater monitoring well MTs are set at 100% of the historical range below the historical low. The GSP authors want to allow for an additional 200,000 to 300,000 acre feet of loss in groundwater storage predicted by the 2070 climate change scenario, for a total of 400,000 to 450,000 AF since the 1971, without triggering an *undesirable result*. The Draft GSP doesn't actually say that it's planning to have this amount of groundwater storage loss, but the water balance calculations suggest that it is likely.

14. The water budgets given in Tables 2-7 and 2-8 suggest that groundwater production in the Butte Subbasin will be significantly increase during the next 50 years. The groundwater pumping annual average given in Table 2-7 or Table 2-8 for the Draft GSP preferred scenarios, 50-year Current baseline and 2070 climate change future, show an increase in the annual production of 47,700 AFY, a 29.3% increase over the Current baseline (columns G and H on page 9 of AquAlliance Exhibit A), from 162,800 AFY to 210,500 AFY (columns C and F). If the Historical baselines are used the groundwater production increases to 48% above the baseline,

with an approximately 68,300 AFY increase. See pages 17 and 19 of AquAlliance Exhibit A. This increase in groundwater production is apparently recharged by losses in the stream and rivers. The water budgets have two components that deal with stream flow and groundwater interaction, the *Stream Gains from Groundwater* as an inflow, and the stream *Seepage* as an outflow. See pages 8, 16 and 18 of AquAlliance Exhibit A.

The Draft GSP Table 5-1 lists a parameter called *Net Steam Gains from Groundwater* for the Current baseline and the 2070 Climate Change water budgets. See page 14 of AquAlliance Exhibit A. Both parameter values show that for these two scenarios the net gain for the streams is negative and that the loss increases in the future under the 2070 climate change scenario. The streamflow loss under the Draft GSP preferred 50-year Current vs 2070 Climate change is 42,800 AFY, approximately 3% of the Current baseline loss. This is stream flow loss of 2.14 million acre-feet (AF) over the next 50 year.

If the Historical baselines are evaluated for net stream accretion, the stream losses significantly increase from gains ranging from 40,600 AFY to 212,116 AFY during the Historical period to losses during the next 50 years of 148,500 AFY. A decrease in stream flow ranging from 189,100 AFY with the Table 2-7 Historical water budget values, up to 360,616 AFY with the Appendix 4A Table C-1 Historical values. See page 15 of AquAlliance Exhibit A, columns B, C and D. This is an approximate 13% to 25% decrease in annual stream flow during the next 50 years (column E), or a 9.45 million AF to 18.03 million AF over the next 50 years.

If the ratio of the future changes in stream flow for the three baselines are compared to the increase in groundwater pumping with the 2070 scenario, the ratio ranges from approximately negative 89% to a negative 528%. See column D on page 15 of AquAlliance Exhibit A. In other words, the increase in future pumping results in a decrease in annual average stream flow volume that's slightly less than the increase in the volume of groundwater pumping, but it may be more than 5 times greater. I've attached another table that compares selected groundwater water balance components. See page 20 of AquAlliance Exhibit A. If the total annual average groundwater pumping for the Historical periods are compared to the net change in stream accretion, the ratio goes from a positive value for stream accretion that ranges from approximately 29% to 149% (the streams are gaining flow during the Historical periods). For the 50-year Current and future 2070 climate change scenarios, the net stream accretion is negative, ranging from approximately minus 65% to 71%. In other words, groundwater pumping under these two scenarios is apparently recharged by a reduction in stream flow, with stream flows decreasing in the future due to climate change.

15. All three baselines water budgets show a future loss in stream flow with the increase in groundwater production during the next 50 years under the 2070 climate change scenario. See page 15 of AquAlliance Exhibit A. This loss in stream flow isn't being directly measured. Instead, the Draft GSP proposes to use groundwater levels to monitor, and presumably measure, changes in Interconnected Surface Waters.

    - Under the Draft GSP preferred scenario comparison, the past 50-year Current vs the future 50-years of 2070 climate change, an increase in groundwater production of 47,700 AFY is almost balanced by a loss of 42,800 AFY from the streams (column D).

- If the most recent 19-years in Table 2-7 Historical water budget is used, then the groundwater production increases 68,300 AFY over baseline with net stream flow changing from a gain of 40,600 AFY to a loss of 148,500, a net change of negative 189,100 AFY (column D).

- For the Appendix 4C Table C-1 Historical water budget, an increase in groundwater production of 68,289 AFY is balanced by a change in net stream flow from a gain of 212,116 AFY to a loss of 148,500 a net change of negative 360,616 AFY (column D).

These changes in net stream flow show that the assumption in the Draft GSP that monitoring the changes in the levels of shallow will ensure that the flow in the interconnected streams and rivers are maintained and sustainable is flawed. The significant losses in *Net Stream Gains from Groundwater* from the baseline condition are expected to occur over the next 50 years with the 2070 Climate change water budget even though the groundwater levels measured in the Interconnected Surface Water monitoring well are predicted to remain consistent with the MO groundwater levels. The hydrograph for the Interconnected Surface Water monitoring wells in Appendix 4A (Appendices pdf pages 1107 to 1119) show the groundwater levels under the 2070 climate change scenario varying about the MO values. This predicted shallow groundwater level stability occurs even though 29% to 48% more groundwater is being produced, and flow in the interconnected stream flow declines from 42,800 AFY to as much as 360,000 AFY.

The reason that the shallow groundwater levels in the Interconnected Surface Water monitoring wells are remaining relatively consistent is because the streams are losing flow. The shallow groundwater levels won't decline until the interconnected streams are dry and can't supply any more recharge. Unless the actual flows in the interconnected streams are being measured, as they apparently can be, the decline in flow and the associated impacts to habitat won't be recognized until it is too late. See pages 6 and 7 of AquAlliance Exhibit A for list of stream inflows water budgets.

The Draft GSP lists four existing surface water gauge site in Table 3-4 (pdf page 193) and plots the locations on Figure 3-5 (pdf page 195). Unfortunately, these four stream flow gauges are insufficient in number to measure changes in stream flow across the Butte Subarea and aren't located to capture the upstream and downstream change in the six interconnected streams shown on Figure 2-28 (pdf page 142). See page 21 of AquAlliance Exhibit A. Additional stream gauges are needed to document that the subbasin is being sustainably managed to prevent undesirable results to surface waters.

The Draft GPS does propose to install additional shallow groundwater monitoring wells in the areas of the Groundwater Dependent Ecosystems (GDEs) shown on Figure 3-6 (pdf page 197) See page 22 of AquAlliance Exhibit A. Here the shallow groundwater level measurements can aid in monitoring the sustainability of the GDEs because the depth to groundwater directly affects the water available for vegetation. However, using groundwater levels to measure and monitoring the sustainability of the GDE habitat for stream aquatic species would be inappropriate for the reasons stated above for instream flow monitoring. That is, groundwater

levels can't measure surface water flows, which need to be maintained to maintain aquatic habitat sustainability.

It should be noted, that the Draft GSP proposed MTs for interconnected surface water at a depth that's 10 feet below the historical lowest level probably isn't appropriate for maintaining GDEs because a sustained decline in groundwater depth of 10 feet below the lowest historical level may result loss of the vegetation (see maximum rooting depths dataset available at The Nature Conservancy's Groundwater Resources Hub[1].

16. The Draft GSP water budget for groundwater lists an outflow component called Western Boundary Net Outflows (see Table 2-8; see page 7 of AquAlliance Exhibit A). The Draft GSP describes the Western Boundary as:

> *The western boundary is a combination of the Butte-Glenn County line along the Sacramento River, the Sacramento River through portions of Glenn and Colusa Counties and the jurisdictional boundary of Reclamation District No. 1004 (RD1004).* (pdf page 77)

The net outflow for the Western Boundary is described as:

> *Western Boundary Net Outflows – Sacramento River gains from groundwater and subsurface outflows to the Colusa and Corning Subbasins along the shared boundary along the river. The split between these outflows is uncertain at this time and will be addressed through future refinements to the BBGM and through coordination and collaboration with neighboring subbasins as part of GSP implementation.* (pdf page 155)

Groundwater flows across the Western Boundary are considered interbasin flows and are described as:

> *Interbasin flows are dependent on conditions in adjacent basins. It is recommended that GSAs refine estimates of subsurface groundwater flows from and to neighboring basins through coordination with GSAs in neighboring basins during or following GSP development and through review of modeling tools that cover the Sacramento Valley region, including the C2VSim and SVSim integrated hydrologic model applications developed by DWR.* (pdf page 176)

The water budgets for the three baselines when compared to the next 50 years with the 2070 climate changes shows that the outflows at the Western Boundary increase significantly over the Historical conditions. See page 20 of AquAlliance Exhibit A. The outflows for the Historical water budgets range from an average low of 10,911 AFY for the Appendix 4A Table C-2 to 182,400 AFY for Historical Table 2-8. Under the 2070 climate change future, the outflow increases to 292,800 AFY, an increase of 61% to as much as 2600%, depending on the Historical water budget. See pages 17 and 19 of AquAlliance Exhibit A. The Western Boundary outflows decline slightly in the future from the past 50-year Current outflows, which are 304,400 AFY. An approximate 4% decline. See page 9 of AquAlliance Exhibit A. The wide variation in the

value of the Western Boundary outflow with the different water budgets shows that there is a need to improve the estimate.

The Plan also believes that … *interaction with the Sacramento River is subject substantially [sic] greater uncertainty than other streams, due to the river representing the western boundary of the BBGM model domain. It is recommended that this uncertainty be addressed through future refinements to the BBGM (Section 6.1.2.3)* (pdf page 145). With this level of uncertainty about the outflow on the Western Boundary, caution must guide present and future activity.

The Plan attempts to start from today when the last twenty years have shown serious declines, but when combined with the prior 30 years, it makes the starting point look less dire. In a deep hole NOW. See page 3 of AquAlliance Exhibit A.

17. The Draft GSP discusses several projects that may help Disadvantaged Communities in the Plan Area (pdf pages 252, and 284 through 289). The City of Biggs and City of Gridley were specifically identified as having disadvantaged communities. Unfortunately, the GSP doesn't appear to have any analysis of these disadvantaged communities. In the Appendix Section 5.A.2., under the section titled *Analysis of Disadvantaged Communities in the Plan Area*, the Draft GSP (Appendix pdf p. 1125) just says:

    > *Currently in development – to be included with final GSP.*

    The descriptions of GPS projects often refer to Disadvantaged Communities using the language that is similar to:

    > *This project can be designed to benefit disadvantaged communities, …. Required permitting activities will be determined as the project is developed further.*

    The lack of analysis for disadvantaged communities prevents any meaningful review of a critical public need. The Draft GPS in effect provides no protection or benefits for disadvantaged communities.

18. The projects and management actions to achieve sustainability goals are given in Chapter 5. The 25 projects and actions are divided into three categories, *ongoing, planned, and as needed*, see Table 5-2 for brief descriptions of projects (pdf pages 234 through 237). Details of these projects and the cost and benefits are only given for those that are *ongoing* and *planned,* 7 out of the 25 projects. The remaining *as needed* projects are described in less detail with no cost and benefit analysis provided. Table 5-4 lists the benefits and costs for the three *ongoing* project that will be completed prior to year 2042 and lists a combined total gross average annual benefit at full implementation of 8,939 AFY. Table 5-5 lists four *planned* projects that will be *available if continued monitoring indicates that they are needed to meet the sustainability goal by 2042, or to maintain other water management objectives.* Costs for all four *planned* projects are listed in Table 5-5, but benefits are only listed for two of the *planned* projects. The combined total gross average annual benefit for the two *planned* at full implementation is 9,947 AFY. The combined total benefit of the *ongoing* and *planned* projects is therefore 18,889 AFY. No specific costs or

benefits are given for the *as needed* projects. Table 5-3 does identify the general category of expected benefit for six general types of projects/management action.

19. The GSP implementation schedule for tasks and studies, along with general timelines are given in Tables 6-1 for GSP Implementation in years 2022 through 2042, and Table 6-2 for GSP Studies Implementation for years 2022 to 2027 (pdf page 317). Many of the projects and studies in Tables 6-1 and 6-2 have a footnote that states that: *Implementation and scale of these projects is dependent on funding availability*. The two footnoted funding dependent projects listed in Table 6-1 are the two *planned* projects in Table 5-2 that have cost benefits listed in Table 5-3. The apparent lack of current funding at this time for these two *planned* projects suggests that the be 9,947 AFY of benefit shouldn't be assumed at this time.

20. The water budget calculations in the Draft GSP for Butte Subbasin suggest that the assumptions being made regarding loss of surface water flows during a groundwater substitution transfer are flawed. The change from any of the baseline water budgets in the *Net Steam Gains from Groundwater (Accretion)* (see Table 5-1 for the Current baseline change, pdf page 232; see p. 14 of AquAlliance Exhibit A) that occurs with the increase in groundwater production during the next 50-year with the 2070 climate change scenario is much greater than the DWR/BOR assumed *stream depletion factor* of 13 percent[6] The ratio of the change in net stream accretion to the change in groundwater ranges from approximately negative 90% to as much as negative 528%. See page 15 of AquAlliance Exhibit A.

    The groundwater budget in Draft GSP Table 2-8 shows that with the future increase in groundwater pumping under the 2070 climate change scenario, there is an increase in seepage from surface waters to the groundwater ranging from 7,800 AFY to 86,000 AFY with the Current or Historical baseline, respectively. See pages 9 and 17 of AquAlliance Exhibit A. In other words, more surface water will infiltrate into the groundwater basin to the detriment of the streams.

    The groundwater budget in Draft GSP Table 2-8 also shows that with the future increase in groundwater pumping the discharge of groundwater to streams, the S*tream Gains from Groundwater (Accretion)* during the next 50 years will decrease from 218,500 AFY and 154,800 AFY, the Historical and Current baselines, down to 123,500 AFY under the 2070 climate change scenario. See pages 9 and 17 of AquAlliance Exhibit A.

    The combined loss of stream flow, or net change, over the next 50 years with climate change from the increased seepage and reduced accretion ranges from -42,800 AFY up to -189,100 AFY, from the Table 2-8 Current or Historical baselines, respectively. See p. 15 of AquAlliance Exhibit A. This loss of stream flow occurs while groundwater pumping is increasing from 47,700 AFY to 68,300 AFY, Current or Historical baselines, respectively. This suggests that the amount of stream flow lost when groundwater pumping is increased ranges from 90 percent to 277 percent (-42,800 / 47,700 = -0.897; -189,100 / 68,300 = -2.768). This shows that the overall percentage of groundwater being pumped that will be recharged from the streams in the Butte

[6] https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/State-Water-Project/Management/Water-Transfers/Files/Draft_WTWhitePaper_20191203.pdf

Subbasin, i.e., stream depletion, with any future pumping increase is significantly greater than the DWR/BOR assumed 13% stream flow loss from a groundwater substitution transfer. **In fact, with the Historical baseline, the loss exceeds the volume of groundwater being pumped, suggesting that the subbasin maybe at a *tipping point* where the impacts from future pumping increases are amplified, causing significantly more harm than just taking 100 percent of the groundwater recharge from surface waters.**

21. The trigger for an undesirable result from lowering of groundwater levels occurs whenever the groundwater levels in 25% of the monitoring wells exceed the MT value continuously for 24 months (Section 4.2.1.2, pdf pages 202 and 203). There are 41 Primary Aquifer and 10 Very Deep Aquifer monitoring wells across the 265,500 acres of the Butte Subbasin (Bulletin 118). The Draft GSP doesn't appear to provide the areas monitored by each of these wells. If it is assumed that they are uniformly distributed, then each of the Primary Aquifer wells monitors an area of approximately 6,476 acres and the Very Deep Aquifer wells an area of 26,550 acres. The requirement that 25% of the monitoring wells continuously exceed their MTs for 24 months before an undesirable result is declared means that the Primary Aquifer MT for the area of exceedance is at least 71,232 acres, or 111 square miles (11 of 41 wells) and at least 79,650 acres in the Very Deep Aquifer, or 124 square miles (3 of 10 wells). Both minimum exceedance areas are greater than 25% of the total subbasin area (66,375 acres). In addition, the undesirable result *all or none* requirement with MT exceedance for a continuous 24 months in 25% of the monitoring wells appears to have no limitations on the maximum decline in groundwater that might occur in an area monitored by less than 25% of the wells. ***In other words, the Draft GSP has no limit to the maximum depth of groundwater drawn down when it occurs in less than 25% of the wells, or when the groundwater depths in the wells exceed their respective MT for a duration that's less than 24 continuous months.*** An uncontrolled maximum depth to groundwater in exceedance of the MTs can apparently continue indefinitely if depression remains smaller than an area covered by 25% of the wells or the groundwater level rises above the MT in at least one of 11 monitoring wells during a 24-month period. The GSP minimum threshold standard needs to be amended to provide a maximum allowable depth to groundwater at any time in a well to protect domestic wells, interconnected surface waters, and GDEs from periodic dewatering that might occur from a deep groundwater depression.

B. Conflict Resolution

State and federal agencies have long viewed the Northern Sacramento Valley as a source of "surplus" water that will one day serve the accelerating water market through conjunctive-use and water banking (more in Section C). Sadly, the Butte GSP reflects the willingness of the Groundwater Sustainability Agencies[7] to participate in a destruction model, emulating the demise of the Owens and San Joaquin valleys. As discussed in Section A, the Plan as proposed will degrade the groundwater basin and harm groundwater users who are not involved in conjunctive use or water banking but are reliant on the same groundwater basin.

[7] Biggs-West Gridley Water District, Butte Water District, City of Biggs, City of Gridley, Colusa Groundwater Authority, County of Butte, County of Glenn, Reclamation District No. 1004, Reclamation District No. 2106, Richvale Irrigation District, Western Canal Water District.

It is easy to see that newly formed GSAs have layers of potential conflict. Questions regarding authority, streamlined legal and regulatory timelines, a lack of existing precedents, and the need to represent agency and constituent interests have the potential to exacerbate regional conflicts under SGMA. In some cases, where authoritative interpretations of legal authority and truly sustainable limits have not been established yet, litigation may be necessary and warranted.

The public and SGMA governing bodies and committees have been excluded from inter-basin discussions. Moreover, when participants in the Vina Stakeholder Advisory Committee asked staff if discrepancies in inter-basin flow volumes/direction that are estimated in the various GSA Basin Settings had been deliberated within the Inter-Basin Coordinating Committee, they answered that they are too busy, but would examine the issue after the GSPs are submitted in 2022.

The drama surrounding the nascent Tuscan Water District and highly questionable Minimum Objectives and Minimum Thresholds in this and other plans are examples of "issues" that have already emerged. Achieving sustainability requires local agencies, stakeholders, and water users to make many difficult and potentially contentious decisions. These decisions are prone to conflict, particularly when pumping restrictions are viewed as infringing on property rights or when fees are charged to support local management.

The Butte GSP is not complete without a detailed process and funding to resolve conflicts that arise both within and external to the GSA boundaries.

C. Water Transfers and Conjunctive Use

Page 2-9 (pdf p. 64). Key Butte County General Plan Water Resources Element policies include: "W-P3.2 Groundwater transfers and substitution programs shall be regulated to protect the sustainability of the County's economy, communities and ecosystem, pursuant to Chapter 33 of the Butte County Code." For the Butte GSP to assume that Butte County's General Plan, Chapter 33, or other ordinances will in any way protect the population and environment of Butte County from any transfers belies historic facts and current proposals by DWR funded think tanks:

- Water transfers are not protective of the public or the environment. Transfers implement the dreams of the California's Department of Water Resources, the U.S. Bureau of Reclamation, and State Water Project and Central Valley Project water sellers who have demonstrated over decades that their interests are not the same as the public's interest. Once the state recognized that they were considerably short on water after former Governor and President Ronald Reagan protected North Coast rivers with Wild and Scenic status, it began trolling for other water sources.
    - Some of the Butte GSA entities in Butte County sold surface water from Oroville Reservoir to the 1994 Drought Water Bank.[8] This led to an increase in

[8] Thomas, Gregory, 2001. Designing Successful Groundwater Banking Programs in the Central Valley: Lessons From Experience. "The Butte County/Basin districts that increased groundwater pumping during the 1991 State Drought Water Bank included: Western Canal Water District, the Joint Water Districts Board (Richvale Irrigation District, Biggs-West Gridley Water District, Butte Water District, and Sutter Extension Water District) Ramirez Water District, Cordua Irrigation District, Hallwood Irrigation Company, and Browns Valley Irrigation District." p. 30.

groundwater withdrawals used for irrigating rice, called groundwater substitution transfers. Until the time of the water transfers, groundwater levels had sustained the normal demands of domestic and agricultural users in the region. The 1994 extractions, however, caused the water levels to suddenly fall in shallow domestic wells, water quality to deteriorate in the wells serving the town of Durham, irrigation wells to fail on several orchards, and one farm to enter bankruptcy because it didn't recover from the loss of its crop. Harmed farmers and residents were told to "Go hire an attorney."

- State and federal water agencies kept exploring how to manipulate groundwater systems during the 1990s to set up conjunctive use programs. CalFed was one such effort. "Potential projects at Stony Creek, Butte Basin, and the Cache-Putah Basin (Conaway Ranch) were eliminated because these aquifers are generally full. *Using these aquifers conjunctively would require initial extraction followed by active or passive recharge*. These may prove to be attractive projects in the future if potential third-party impacts are addressed adequately."[9] **(emphasis added)**
- Additional CalFed material recognized that conjunctive use will require an extra 100 feet of aquifer drawdown and "may be an issue." [10]
- Glenn Colusa ID received close to $3,000,000 of public money to study the Stony Creek Fan Conjunctive Water Management Program and Regional Integration of the Lower Tuscan Groundwater formation project.
- Glenn Colusa ID, Western Canal WD, and Richvale ID actively planned to implement conjunctive use schemes: "Ultimately the project evaluated the effects of exercising both the northern Sacramento Valley's deep aquifer system, which is presently relatively undeveloped, and the shallower, regional aquifer, which is more heavily pumped for both domestic and agricultural needs."[11]

- Think tanks are already encouraging the California Legislature to override local ordinances. "Once GSAs establish sustainability plans that address undesirable impacts of pumping, it should be possible to ease the coarser restrictions on this practice found in most county ordinances—which effectively preclude trades if they entail water leaving the county. If counties with restrictive groundwater export ordinances fail to amend their laws to conform to SGMA, *the legislature should consider preempting local laws that discriminate against out-of-county uses or place undue burdens on groundwater and groundwater-substitution transfers* that would not jeopardize sustainable groundwater management of the source aquifer."[12] (emphasis added)

Sustainability is not found in the Butte GSP, let alone equitable sustainability for all residents, farms, businesses, and the environment. The Butte GSA and Colusa GSA are dominated by

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"Participants in the 1994 State Drought Water Bank were Richvale Irrigation District, Western Canal Water District, Browns Valley Irrigation District, Cordua Irrigation District, and Ramirez Water District." p. 30.

[9] CalFed Bay Delta Program, 1999. *Conjunctive Use Assessment*. p. 6.

[10] CalFed Bay Delta Program. Groundwater Storage Attribute Matrices, Appendix B. p. B-5.

[11] Glenn Colusa ID, et al, 2012. *Feasibility Investigation of Re-Operation of Shasta and Oroville Reservoirs in Conjunction with Sacramento Valley Groundwater Systems to Augment Water Supply and Environmental Flows in the Sacramento and Feather Rivers*. p. ii.

[12] Ayres, Andrew, et al., 2021. *Improving California's Water Market: How Water Trading and Banking Can Support Groundwater Management*. p. 34.

large, non-residential landowners, many of whom have sought to play in the lucrative water market already to the detriment of their neighbors, streams, rivers, and species. Sadly, SGMA opened this door further: "Non-residential landowners and future banking partners may find it in their common interest to interpret the legislative intent (74)[13] and lax definitions of safe yield and overdraft provided in the Act (75)[14] based on the opinion in *Los Angeles v. San Fernando*, which encourages drawing down basins to create additional storage space and prevent water "wasting."(76)[15] Thus, in addition to exports, it is foreseeable that a future GSA will encourage drawdown of the aquifer to satisfy massive crop thirst as the drought continues, which will then create extra storage space for imported waters to "recharge" the Basin. As a result of future water exchanges and banking, local residents will bear the additional cost of digging deeper wells just to maintain their straws in the aquifer, and will increasingly compete with each other over a diminishing percolated supply while banked supplies increase."

D. Conclusion

By its own admission, the Butte GSP is bent on pursuing long-held plans to expand conjunctive use through groundwater manipulation, artificial recharge, and potential dam reoperation that will harm the people and environment of the GSA and surrounding region. The draft Plan will not lead to sustainability as required by SGMA, but will allow major groundwater fluctuations, significant well losses, and cost burdens on harmed groundwater dependent farms, homes, and businesses. This was predicted in 2016: "This potential conflict will become acute in the likely scenario where artificial recharge inhibits natural recharge so that it is difficult, if not impossible, to determine the relative quantity of each. Given explicit provisions in the Act and statewide policy favoring storing surface water underground it is not difficult to envision a privately-controlled GSA systematically drawing down percolated groundwater to create storage space in the basin, and then replenishing the basin with imported water, with little consideration of the ability for overlying users to access the basin or the long-term health of the surrounding ecosystem." [16]

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[13] Keats, Adam et al., 2016. *Not All Water Stored Underground is Groundwater: Aquifer Privatization and California's 2014 Groundwater Sustainable Management Act*. Footnote: *2014 Act, § 10720.1(g) (It is the intent of the Legislature "[t]o increase groundwater storage and remove impediments to recharge.").* p. 106.

[14] *Id. Footnote: 2014 ACT, § 10721(v) ("Sustainable yield" is defined as "the maximum quantity of water, calculated over a base period representative of long-term conditions in the basin and including any temporary surplus, that can be withdrawn annually from a groundwater supply without causing an undesirable result."); 2014 ACT, § 10735(a) ("Condition of long-term overdraft" means the condition of a groundwater basin where the average annual amount of water extracted for a long-term period, generally 10 years or more, exceeds the long term average annual supply of water to the basin, plus any temporary surplus. Overdraft during a period of drought is not sufficient to establish a condition of long-term overdraft if extractions and recharge are managed as necessary to ensure that reductions in groundwater levels or storage during a period of drought are offset by increases in groundwater levels or storage during other periods.").*

[15] *Id. Los Angeles v. San Fernando 14 Cal. 3d 199, 280 (1975) ("We agree with plaintiff that if a ground basin's lack of storage space will cause a limitation of extractions to safe yield to result in a probable waste of water, the amount of water which if withdrawn would create the storage space necessary to avoid the waste and not adversely affect the basin's safe yield is a temporary surplus available for appropriation to beneficial use. Accordingly, overdraft occurs only if extractions from the basin exceed its safe yield plus any such temporary surplus.").*

[16] *Id.* pp. 98-99.

Due to the inequity of the Plan for all dependent residents, farms, and the environment, the deficient presentation of the consequences in the text (see Section A above), and the unacceptable impacts to both ground and surface waters, it should be rejected by the Butte Subbasin Board.

Lastly, we submit additional comments and questions below in Attachment One.

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ATTACHMENT ONE

AquAlliance submits these additional facts and questions to seek clarification from the GSA regarding how future subbasin management actions will affect subbasin sustainability.

1. Table 2-7 gives the Historical, Current, and future Surface Water budgets, and Table 2-8 gives the same time periods for the groundwater budgets.
2. The surface water budgets shows that a decrease of approximately 4,300 to 4,600 AFY in surface water inflows is expected during the next 50 years with the 2070 climate change scenario, about quarter percent decrease, depending on the baseline, 2000-2018 Historical, or the 50-year 1971 to present Current.
3. The surface water budget shows that even though inflows decrease, precipitation will increase 35,400 to 60,300 AFY, an approximate 7 percent to 12 percent.

    - Question: Why is there a small decrease in surface water inflows with a much larger increase in precipitation?
    - Question: How does the increase in precipitation affect the availability of water for agricultural irrigation?

4. The surface water budget shows that total annual evapotranspiration (ET) is expected to increase from 40,100 to 46,700 AFY during the next 50 years, an approximate 5 percent to 6 percent increase.
5. Most of the increase comes from increased agricultural ET, 38,800 to 59,600 AFY.
6. The surface water and groundwater budgets show that the pumping of groundwater is expected to increase during the next 50 years by 47,700 AFY to 68,300 AFY, an increase of approximately 29 percent to 48 percent.

    - Question: Is the plan for managing the future groundwater sustainability of the Butte Subbasin to increase the average annual pumping of groundwater from 29 percent to possibly up to 48 percent to provide the water needed for an additional average annual ET of 5 percent to 6 percent?
    - Question: Is the increase in ET during the next 50 years due to a change in climate conditions, an increase the agricultural area under irrigation, a change in the type of crops, a change in irrigation efficiency, or a combination of all of these?
    - Question: How much does each of these potential changes contribute to the increase in ET and the increase in need for groundwater pumping?
    - Question: Will the monitoring proposed in the GSP track and quantify how much ET changes, tabulate these changes by the cause or source; when and where can public review the ET change monitoring data?

7. The groundwater budget in Table 2-8 shows that with the future increase in groundwater pumping under the 2070 climate change scenario, there is a decrease in stream accretion, or the stream gains from groundwater, ranging from 31,300 AFY to 95,000 AFY from the Current or Historical baseline, respectively. In other words, the subbasin will retain more groundwater to the detriment of the streams.

8. The groundwater budget in Table 2-8 shows that with the future increase in groundwater pumping under the 2070 climate change scenario, there is an increase in seepage from surface waters to the groundwater ranging from 7,800 AFY to 86,000 AFY from the Current or Historical baseline, respectively. In other words, more surface water will infiltrate into the groundwater basin to the detriment of the streams.
9. The groundwater budget in Table 2-8 shows that with the future increase in groundwater pumping under the 2070 climate change scenario, the change in stream accretion and seepage during the next 50 years will cause a net decrease in stream flow ranging from 42,000 AFY up to 189,100 AFY, from the Current or Historical baseline, respectively. This loss of stream flow is apparently caused, in part, by an increase in groundwater pumping of 47,700 AFY to 68,300 AFY, Current or Historical baseline, respectively.
10. Figure 2-28 in the Draft GSP (pdf page 142) shows the gaining and losing reaches of the streams in the Butte Subbasin based on the groundwater model for the Historical years 2000-2018.

    - Question: What percentage of the increase in net stream flow loss is due to increased groundwater pumping?
    - Question: What other factors are causing the future reduction in stream flow and what percentage do they contribute to the total loss?
    - Question: In particular, why is the ratio of the loss in stream flow to the increased groundwater pumping using the 2000-2018 Historical baseline at 277 percent (-189,100 AFY / 68,300 AFY = -2.77), while the ratio with the 50-year Current baseline, is only 88 percent (-42,000 AFY / 47,700 AFY = -0.88)?
    - Questions: What does the fact that the stream flow losses in the future relative to the most recent years, the Historical baseline, are much greater than the volume of additional groundwater being pumped say about the sustainability of the subbasin? How sensitive is the sustainability of the Butte subbasin to increases in groundwater pumping? Is the subbasin at a *tipping point* in its sustainability where every acre-foot increase in groundwater pumping causes a much larger loss in surface waters?
    - Questions: Where will the stream flow losses calculated for the 2070 climate change scenario occur? These changes should be shown on a figure such as Figures 2-27 and 2-28 (pdf pages 141 and 142).
    - Questions: What does the fact that the stream flow losses in the future relative to the most recent years, the Historical baseline, are much greater than the volume of additional groundwater being pumped say about the validity of DWR/BOR's recommended standard of a *13 percent stream depletion factor* for groundwater substitution transfers? Should the *stream depletion factor* for groundwater substitution transfers in the Butte Subbasin be equal to or greater than 100 percent of the volume of groundwater pumped for the transfer? Can the Butte Groundwater Subbasin achieve sustainability if groundwater substitution transfers are allowed using the 13 percent *stream depletion factor*; if yes, why? How will the losses to stream flow caused by a groundwater substitution transfer be accounted for and mitigated under the GSP management actions?

11. The groundwater budget in Table 2-8 shows that with the future increase in groundwater pumping under the 2070 climate change scenario, the net of the outflows at the Western

Boundary will decrease an average of 11,600 AFY relative to the 50-year Current water budget, but increase to 110,400 AFY relative to the most recent 2000-2018 Historical water budget, reaching an annual average outflow of 292,800 AFY throughout the next 50 years. This increase in groundwater outflow from the Historical conditions is significantly greater than the predicted annual increase in groundwater storage loss of 800 AFY given in Draft GSP Table 5-1 (pdf page 232) with the 2070 climate change scenario.

- Question: What does the increase in future Western Boundary outflows relative to the most recent time, the Historical water budget, say about the real effects that future groundwater pumping in the subbasins west of the boundary, e.g., the Colusa Subbasin, will have on the future sustainability of the Butte Subbasin?
- Question: Does the increase in future Western Boundary outflows contribute to the amplified surface water loss in the Butte Subbasin that occurs with the future increase in groundwater pumping?
- Question: What is/are the cause(s) of this approximate 60% increase over the Historical baseline in outflow at the Western Boundary (110,400 AFY / 182,200 AFY = 0.605), and what management actions can the Butte Subbasin GSAs take to prevent this increase?
- Question: If the cause(s) of the increase in outflow at the Western Boundary is/are due part to management of the groundwater basins to the west, what management actions should those western subbasin GSAs take to prevent the increase outflow?
- Question: Does the fact that the groundwater outflow at the Western Boundary is much greater than the loss in groundwater storage caused by future 2070 climate change indicate that the GSPs in all of the groundwater subbasins along the Butte Subbasin Western Boundary should have specific management actions to reduce the outflow from the Butte Subbasin?

12. The management objectives (MOs) for the Butte Subbasin are set at the groundwater levels during the most recent 5 years. Simulation results shown in hydrographs for each monitoring well in Appendix 4A for the groundwater levels in the future under the 2070 central tendency climate change scenario at the wells in the Primary Aquifer, Very Deep Aquifer and Interconnected Surface Water monitoring networks show that levels remain near the MOs for the next 50 years. The graphs in Figure 2-42 of the cumulative change in groundwater storage for Current and future conditions for the next 50 years show a decrease in groundwater storage relative to the Current baseline, with the greatest occurring during dry water years after the 30th simulation year (WY 2000). Even with these decreases in groundwater storage, the model predicted groundwater levels are expected to remain stable. Apparently, the GSP isn't proposing any specific management actions to maintain the MOs groundwater levels.

    - Questions: Is the assumption that the MOs will remain at the level of the most recent 5 years consistent with the large decrease in groundwater storage under the 2070 climate change scenario reasonable? Are the losses in groundwater storage after the 30th simulation year being cancelled out by the conditions in the earlier simulation years? Is it reasonable to carry the storage conditions in these early years forward for 20 years, when determining the

subbasin's sustainability? Doesn't the continued decline in groundwater storage occurring in the last 20 years of the 2070 climate change speak to the subbasin not being sustainable?

13. Minimum thresholds for primary aquifer are said to be ….*designed to be protective of domestic wells while also allowing for conjunctive use and groundwater extraction by agriculture.* The Draft GSP states that the minimum thresholds (MTs) for the Butte Subbasin for the Primary and Very Deep aquifers are set using two-step process (Section 4.2.1, pdf page 211) that requires:
    1. *Determine the shallower of:*
        a. *The shallowest 7th percentile of nearby domestic wells.*
        b. *The range of measured groundwater levels or 20 feet (whichever is greater) below the observed historic low.*
    2. *If the resulting value is shallower than the observed historic low, set the MT as 10 feet deeper than the observed historic low.*

    The MT values calculated using this two-step process are shown graphically in the hydrographs in Appendix 4A along with the MOs discussed above in Comment No. 12. Several of the Primary Aquifer and all of the Very Deep Aquifer hydrographs list another method for calculating the MT that sets the threshold at *[t]he lowest historical groundwater elevation minus 100 percent of the historical range in the groundwater elevation, or 20 feet, whichever is greater* (page 4 in Appendix 4A, pdf page 1047). Figure 4-1 in the Draft GSP (pdf page 213) shows the Primary Aquifer monitoring wells locations along with the MT value and the methodology for calculating the MT. Table 4-1 in the Draft GPS (pdf pages 215 and 216) lists the Primary Aquifer monitoring wells with the MTs and MO values. Figure 4-1 shows that MTs at up to 20 of the 41 Primary Aquifer monitoring wells, 49 percent, are set at 100 percent the historical range below the lowest historical elevation. The GSP selection of an MT at 100 percent below the historical lowest groundwater elevation in effect sets the threshold for subbasin groundwater sustainability at a depth that's close to twice the lowest historical value, depending on the shallowest historical measured depth to groundwater.

    - Questions: How will allowing the depth of groundwater of nearly double the historical lowest value when combined with the decline in groundwater storage (see above Comment No. 12) maintain the MO groundwater levels and achieve long-term subbasin sustainability? Are the conjunctive use conditions being planned for the future quantified in the Draft GSP water budget or elsewhere; if yes, where?
    - Questions: Are the anticipated conjunctive uses planned in the future greater than in the past; if yes, by how much? Is the additional groundwater pumping predicted for the future caused by the planned increases in conjunctive use? If yes, how much of an increase in pumping is due to the planned increase in conjunctive use?
    - Question: What percentage of the benefits from increasing conjunctive use are cancelled out by the decrease in stream flows that occur with the future increases in groundwater pumping (see above Comment Nos. 7 through 10)?

14. The MTs for two of the Primary Aquifer monitoring wells are said to be based on the *Shallowest 7th Percentile of Domestic Well Depth* with depth listed at 73 feet and 56 feet, Figure 4-1 (pdf page 213). The Draft GSP doesn't appear to provide any specific information on the number of domestic wells in the Butte Subbasin, the depths or the frequency percentiles associated with

their depths. Figure 4-1 shows several the Primary Aquifer monitoring well MTs exceed 56 feet and 76 feet. The Draft GSP also states that the MTs for the Very Deep Aquifer monitoring wells will *protect[ing] up to 93% of supply wells greater than 700 feet deep* (Section 4.3.2.6, pdf page 216). Figure 4-3 (pdf page 2127) shows that all of the MTs for the Very Deep Aquifer monitoring wells are calculated using the 100 percent of the historical range below the historical lowest groundwater elevation.

- Questions: What are the statistics for the domestic wells in the Butte Subbasin, the numbers, and the range of depths for each percentile? What are the numbers of domestic wells that will be dewatered around each Primary Aquifer monitoring wells when groundwater declines to the MT depths? What are the statistics for the Very Deep Aquifer supply wells in the Butte Subbasin, the numbers, and the range of depths for each percentile? What are the GSP management actions for remedying the dewatering of up to 7 percent of the domestic and very deep aquifer supply wells? Will any management actions to remedy dewatering of wells be implemented if the duration of the dewatering is less than 24 continuous months? What is the source of funding for remedial management actions for any dewatered well?

15. The trigger for an undesirable result for lowering of groundwater levels occurs whenever the groundwater levels in 25% of the monitoring wells exceed the MT value continuously for 24 months (Section 4.2.1.2, pdf pages 202 and 203). There are 41 Primary Aquifer and 10 Very Deep Aquifer monitoring wells across the 265,500 acres of the Butte Subbasin (Bulletin 118). The Draft GSP doesn't appear to provide the areas monitored by each of these wells. If it is assumed that they are uniformly distributed, then each of the Primary Aquifer wells monitors an area of approximately 6,476 acres and the Very Deep Aquifer wells an area of 26,550 acres. The requirement that 25% of the monitoring wells continuously exceed their MTs for 24 months before an undesirable result is declared means that for the Primary Aquifer MT the area of exceedance of least 71,236 acres, or 111 square miles, (11 of 41 wells) and at least 79,650 acres in the Very Deep Aquifer, or 124 square miles (3 of 10 wells). Both of these minimum exceedance areas are greater than 25% of the total subbasin area, 66,375 acres. In addition, the undesirable result *all or none* requirement with MT exceedance for a continuous 24 months in 25% of the monitoring wells, appears to have no limitations on the maximum decline in groundwater that might occur in an area monitored by less than 25% of the wells. In other words, the Draft GSP has no limit to the maximum depth that groundwater can be drawn down too, when it occurs in less than 25% of the wells, or when the groundwater depth in the wells exceed their respective MT for a duration that's less than 24 continuous months. An uncontrolled maximum depth to groundwater in exceedance of the MTs can apparently continue indefinitely if depression remains smaller than an area covered by 25% of the wells or the groundwater level rises above the MT in at least one of 11 monitoring wells during a 24-month period.

- Questions: How does the requirement that 25% of the monitoring wells exceed their respective MTs for 24 continuous months with the lack of a maximum for the decline in groundwater depth ensure that the GSP and its management actions will achieve long-term subbasin sustainability? Could the occurrence of groundwater level declines greater than the MOs and MT in areas smaller than 25% of the wells cause undesirable results, such as drying up domestic wells? Could this concentrated groundwater level decline dewater more than the number of wells in the 7th percentile? How many domestic wells could be dewatered in areas

covered by less than 25% of the wells in Primary Aquifer? What management actions does the GSP require if a deep groundwater depression occurs in the Primary Aquifer that has an area less than 25% of the monitoring wells?

16. The MTs for Interconnected Surface Water monitoring wells are set *at 10 feet below the measured historical low for each of the representative monitoring wells. The additional 10 feet in depth below the measured historical low (during which no undesirable results were observed) is intended to provide an appropriate margin of operational flexibility during GSP implementation* (Section 4.3.6.1, pdf page 225). *Selected RMS wells had either a total depth of less than 150 feet bgs, or a top screen above 100 feet bgs and a bottom screen above 200 feet bgs* (pdf page 226). The decision to allow shallow groundwater levels near surface water bodies to decline 10 feet below the lowest measured historical depth doesn't appear to be based on the required rooting depth for the overlying vegetation or the potential losses in stream flow or stream habitat (see above Comments Nos. 7 through 10). The Draft GSP appears to be saying that *no undesirable results were observed* when the groundwater depth declined 10 feet below the historical low, but how can a groundwater decline be observed below the lowest measured historical depth? Table 4-3 lists the characteristics of the Interconnected Surface Water monitoring wells (pdf page 230). This table gives the total depth for 8 of the 12 monitoring wells, one being 465 feet deep, but leaves the other depths blank. The table provides no information on the top or bottom screen depths, so requirement that wells deeper than 150 feet total depth have screens above 100 feet can't be verified. A comparison of the MT depths for Interconnected Surface Water monitoring wells shown in Figure 4-5 (pdf page 227) with the MTs depths for adjacent Primary Aquifers monitoring wells shown in Figure 4-1 (pdf page 213) finds that 7 of the 12 MTs (58 percent) in the adjacent Primary Aquifer monitoring wells are deeper.

- Question: Why are the MTs for Interconnected Surface Water not set based on the maximum rooting depths of the overlying Groundwater Dependent Ecosystems, and/or the minimum instream flows for habitat protection?
- Question: Why is *operational flexibility* the main reason for setting the Interconnected Surface Water monitoring well MTs?
- Question: Was the fact that losses are predicted in *net stream gains from groundwater* during the next 50 years (see above Comments Nos. 7 through 10) considered when setting the Interconnected Surface Water monitoring well MTs at greater than the measured historical low?
- Question: What facts and issues were considered in determining that the predicted decrease in future stream flows was less important than the margin of operational flexibility?
- Question: How do the GSP management actions that occur when undesirable results happen at the Interconnected Surface Waters monitoring wells differ from actions taken when undesirable results occur at the adjacent, and sometime the same well, Primary Aquifer monitoring wells?
- Question: If 7 out of 12 Interconnected Surface Water monitoring wells with MTs that are shallower than an adjacent well and sometime within the same well, what effect will MTs for the Primary Aquifer monitoring wells have on determining that an undesirable result has occurred and the subsequent management actions to be taken?

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Response to Letter 52

Jason R. Flanders and Austin J. Sutta, Aqua Terra Aeris Law Group

52-1 The comment states the letter was prepared on behalf of the Sierra Clube Motherlode Chapter and notes opposition to the project. The comment asserts the project should be revised due to its "significant, unanalyzed, undisclosed, and unmitigated impacts to the rare and endangered biological communities in the project area."

The commenter's opinion that the proposed project should be revised is noted and forwarded to the decision makers for their consideration.

52-2 The comment supports adoption of the No Project (No Development) Alternative and denial of the proposed project due to the low-density design of the project.

The commenter's opinion that the project should be denied and the No Project Alternative adopted is noted and forwarded to the decision makers for their consideration.

52-3 The comment provides an overview of the purpose of an EIR as an informational document and the lead agency's responsibility to make a good-faith effort at full disclosure of the environmental effects a project may have on the environment. The comment also claims the Draft EIR does not meet this requirement and should be revised and recirculated.

The responses provided to this letter address all of the concerns regarding the adequacy of the Draft EIR raised by the commenter. The commenter's opinion is noted and forwarded to the decision makers for their consideration.

52-4 The comment asserts that the Draft EIR does not properly disclose, analyze and mitigate biological impacts of the project. The comment states that the project site contains vernal pools and associated biota, including Conservancy fairy shrimp, vernal pool tadpole shrimp, and vernal pool fairy shrimp, and asserts that the identified mitigation is insufficient. More specific comments by the same commenter provide more details on these introductory comments, as responded to below.

Section 4.3, Biological Resources, of the Draft EIR analyzes the impacts of the project on the biological resources that occur on the project site, and off-site resources that could also be affected by project activities. Please see Responses to Comments 52-5 through 52-53 for responses to specific comments on biological resources. Also, it should be noted that, as stated on page 4.3-50 of the Draft EIR, conservancy fairy shrimp, vernal pool tadpole shrimp, and vernal pool fairy shrimp were not found to occur on the project site during protocol-level surveys of vernal pool branchiopod species.

52-5 The comment notes a discrepancy in the Draft EIR describing the dates of BCM surveys and suggests that 2008 would be outdated information.

Please refer to Master Response 2 which responds to this comment and clarifies that Butte County Meadowfoam (BNM) surveys occurred at the site between 2006 and 2018. In terms of "relying upon outdated" BCM survey data, compiling many years of occurrences is helpful to gain an

understanding of the variability of plant locations within vernal pool areas year over year. The Draft EIR relies upon all the BCM survey data available for the project.

52-6 The comment summarizes and excerpts language from the Draft EIR.

The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required.

52-7 The comment excerpts language from mitigation measure BIO-1 in the Draft EIR.

No specific issue with the excerpted text is provided, and this comment serves to support later comments. Please see Response to Comment 52-8, below, and Master Response 2 regarding mitigation measure BIO-1. The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required.

52-8 The comment asserts that mitigation measure BIO-1 as provided in the Draft EIR constitutes improper deferral of mitigation.

The comment draws an unfair comparison by relating the strategy for avoiding BCM described in mitigation measure BIO-1 to an unrelated project. Mitigation measure BIO-1 contains a straightforward strategy and performance measures for avoiding BCM on the project site: before development in the area, provide a 250-foot buffer around the BCM wetland features, protect the resources with fencing, legal easements and land use controls, and preserve the resources with a perpetually funded operations plan that includes invasive weed control, surveying protocols and adaptive management. This gives the public and decision makers a clear picture of what the specific plan and mitigation require in terms of avoiding BCM.

Importantly, as noted in the Draft EIR on page 4.3-34, the project must also obtain permits and authorizations from state and federal agencies for stream crossings and wetland impacts, and those permitting processes will involve Endangered Species Act consultations (clearances) from the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW). As explained below, these are very detailed processes that are worked out between the resource agencies and project biologists, and the City's role is limited. Therefore, mitigation measure BIO-1 affords *proper* deference to these subsequent permitting processes by describing the basic elements of the proposed avoidance strategy (establishing a wetland preserve around the resource) and leaving the precise details for the subject-matter experts at resource agencies to specify.

Based on experience with prior projects such as Meriam Park, compliance with resource agency permits as required under mitigation measure BIO-1 would result in implementation of measures that are reasonably expected to complete the fine-grain details that will ensure an effective meadowfoam avoidance strategy is executed at the project site. In its 2007 Biological Opinion for the Meriam Park project (Service file number 1-1-06-F-0273), the USFWS required: (1) preparation of a monitoring and maintenance plan that established a monitoring schedule and maintenance plan to protect the preserve, including fencing and signs; (2) notifications to the Service prior to construction; (3) Service vetting of biological monitors; (4) bi-lingual worker environmental awareness training by a Service-approved biologist; (5) biological monitoring; (6) a stormwater pollution protection plan (SWPPP); (7) high-visibility construction fencing around environmentally

sensitive areas, with signage; (8) demarcation of vehicle/equipment access routes, (9) a Service-approved conservation easement on all preserve areas, to be held by a third party; (10) a Service-approved endowment fund to finance preserve maintenance, management, and monitoring with the revenue generated on the principal amount sufficient to cover the costs of activities including but not limited to alien plant species control, maintenance of fencing, habitat monitoring and remediation of indirect effects in perpetuity; (11) final versions of a Habitat Mitigation and Monitoring Plan and an Operations and Management Plan for the on-site preserves; (12) details for the on-site preserve plans such as establishing controls for runoff and maintenance of existing hydrology for the aquatic habitat, establishing a preserve manager, producing monitoring reports, listing prohibited activities (with nine examples, including trash deposits, storm water discharge, and use of pesticides, rodenticides and herbicides); (13) erection of permanent fencing around the preserves; (14) use of weed-free straw instead of typical hay bales for erosion control; (15) a prohibition of using erosion control fabric with monofilament netting; and (16) certain reporting requirements to ensure diligent execution of all the above.

Subsequently, a final Habitat Mitigation and Monitoring Plan and a final Operations and Management Plan for the on-site preserves at Meriam Park was accepted by the USFWS. The documents each comprise hundreds of pages and expand upon the requirements listed above from the Biological Opinion. A similar process is anticipated for the Valley's Edge project due to the need for permits from the Army Corps of Engineers for stream crossings within the project and the presence of BCM vernal pool habitats on the site. Therefore, it is reasonably expected that compliance with resource agency permits as required under mitigation measure BIO-1 would result in implementation of measures that include the specific details needed to ensure an effective meadowfoam avoidance strategy is executed at the project site.

Although it is premature to draft all the management criteria for the proposed BCM preserves, additional performance standards have been identified regarding the anticipated elements needed to ensure a successful BCM wetland preserve at the site. The text of mitigation measure BIO-1 has been revised and is included in Chapter 3, Changes to the Draft EIR. These revisions add detail and performance criteria to the measure such that its potential for effectively mitigating indirect effects from the project can be analyzed. Because no meadowfoam habitat restoration or creation activities are anticipated (the strategy is to simply avoid the resources), the Draft EIR revisions also clarify that the plan needed under mitigation measure BIO-1 is simply an "Operations Management Plan" as opposed to a "Habitat Mitigation and Monitoring Plan."

Since Mitigation measure BIO-1, as revised, does the following: (1) commits the City to mitigation; (2) includes the specific performance standard of no-net loss of meadowfoam as measured by 5-year rolling average through annual surveys; and (3) identifies the specific mitigation measure of creating preserves on the VESP site as a feasible achievement of the performance standards, a deferral of the specific details of the management plan is appropriate. Further, it is reasonably expected that compliance with resource agency permits as required under mitigation measure BIO-1 would result in implementation of measures that include the specific details needed to ensure an effective meadowfoam avoidance strategy is executed at the project site.

52-9 This comment continues to assert deferral of mitigation associated with mitigation measure BIO-1. Specifically, this comment objects to the measure not identifying a specific acreage requirement.

As noted in the Response to Comment 52-8 and mitigation measure BIO-1, final determinations concerning BCM preserve establishment and management will be made by the USFWS and CDFW during the respective permitting processes. It is appropriate for the City's mitigation measure to identify the specific measure to mitigate the impact (require meadowfoam preserves on the project site), describe the avoidance strategy (i.e., provide a 250-ft buffer with fencing, weed control, adaptive management, and include a trigger to ensure avoidance), set performance standards (no net loss of meadowfoam extent averaged over a five-year period), and to leave the exact details of the implementation of the mitigation measure for the resource agencies to specify based on future studies. For the subject preserve, the focus is on ensuring the BCM populations are preserved and identifying minimum distances from surrounding development, rather than identifying an arbitrary amount of land to be preserved. The USFWS, through its detailed review process involving the project biologist, may require different acreages or shapes for the preserves than reflected in the draft specific plan, based on specific factors relevant to the resources. Refer to revisions made to mitigation measure BIO-1 in Chapter 3, Changes to the Draft EIR. These revisions add detail and performance criteria to the measure such that its potential for effectively mitigating indirect effects from the project can be analyzed.

52-10 This comment continues to assert deferral of mitigation associated with mitigation measure BIO-1. Specifically, this comment objects to the measure not specifying what types of management techniques would be used.

As noted in the Response to Comment 52-8, and in the Draft EIR on page 2-41, implementation of the proposed VESP would require authorizations from the USFWS and CDFW, which are the most appropriate agencies to determine the specific types of management techniques to be used in wetland preserves containing endangered species. Alternatively, for example, the City could specify several known management techniques for wetland preserves, such as requiring annual cattle grazing and prohibiting any changes in topography. However, the USFWS may determine that the preserve should be mowed every other year instead of grazed annually, or that some specific grading is needed to restore habitat. The USFWS and CDFW regulate and study wetland preserves over time and are best qualified to make those judgements. The City's CEQA document intends to complement USFWS and CDFW permitting processes.

Mitigation measure BIO-1 contains a straightforward strategy for avoiding BCM on the project site: before development in the area, provide a 250-foot buffer around the BCM wetland features, protect the resources with fencing, legal easements and land use controls, and preserve the resources with a perpetually funded operations plan that includes invasive weed control, surveying protocols and adaptive management. This gives the public and decision makers a clear picture of what the specific plan and mitigation require in terms of avoiding BCM.

Although it is premature to draft all the management criteria for the proposed BCM preserves, additional performance standards have been identified regarding the anticipated elements needed to ensure a successful BCM wetland preserve at the site. Please see revisions made to mitigation measure BIO-1 in Chapter 3, Changes to the Draft EIR. These revisions add detail and performance criteria to the measure such that its potential for effectively mitigating indirect effects from the project can be analyzed.

Because mitigation measure BIO-1, as revised, does the following: (1) commits the City to mitigation; (2) adopts the specific performance standard of no-net loss of meadowfoam as measured by 5-year rolling average through annual surveys; and (3) identifies the specific mitigation measure of creating preserves on the VESP site as a feasible achievement of the performance standards, a deferral of the specific details of the management plan is appropriate. Further, it is reasonably expected that compliance with resource agency permits as required under mitigation measure BIO-1 would result in implementation of measures that include the specific details needed to ensure an effective meadowfoam avoidance strategy is executed at the project site.

52-11 This comment asserts that the Draft EIR lacks detail on the monitoring methods that would be used to detect changes in BCM populations.

As noted in the Response to Comment 52-8 and mitigation measure BIO-1, final determinations concerning BCM preserve establishment and management will be made by the USFWS and/or CDFW. It is appropriate for the City's mitigation measure to describe the avoidance strategy (i.e., provide a 250-ft buffer with fencing, weed control, adaptive management, and include a trigger to ensure avoidance) and to leave the precise details for the subject-matter experts at USFWS to specify. The Draft EIR is clear in requiring a specific measure to mitigate the potential impact – a portion of the site would be set aside to preserve existing BCM populations, and the preserve area would be protected with legal easements, physical fencing, and ongoing management. The specific survey methodology and frequency used to document trends of BCM in the preserve are not necessary for informed decision making about moving forward with the avoidance strategy described in the VESP and bolstered by mitigation measure BIO-1. It is sufficient to know that avoidance is feasible and that a detailed plan would be prepared by a qualified biologist, subject to review and approval by the resource agencies.

However, some additional specificity has been identified and added to the mitigation to address some of the concerns raised by this commenter, such as surveying for BCM at least once annually and specifying a performance standard of no net loss of meadowfoam extent averaged over a five-year period. Please see revisions made to mitigation measure BIO-1 in Chapter 3, Changes to the Draft EIR. These revisions provide additional detail on what would be monitored on the preserves, the monitoring frequency (minimum of annual), and use of reference sites to determine changes in BCM populations within the preserves. The detailed plan would be subject to approval by USFWS or CDFW prior to issuance of grading permits by the City.

52-12 The comment asserts a lack of detail provided for the funding of the preserve management and monitoring. The comment also requests additional details for controls on introduction and spread of invasive plant species and how the controls will be monitored for effectiveness.

As noted in the Response to Comment 52-8, and in the Draft EIR on page 2-41, implementation of the proposed VESP would require authorization from the USFWS, which is best suited to determine the preferred funding mechanism for maintenance and the proper controls against invasive species in the BCM preserves. The USFWS and CDFW regulate and study wetland preserves and are best qualified to make judgements about appropriate funding mechanisms and measures to control invasive species for the preserve. For instance, the City could prescribe funding by the homeowners association for the preserve and annual grazing, then the USFWS could specify different funding and/or invasive species controls based on prior experiences and factors specifically weighed against biological considerations.

It is appropriate for the City's mitigation measure to describe the avoidance strategy (i.e., provide a 250-ft buffer with fencing, weed control, adaptive management, and include a trigger to ensure avoidance) and to leave the precise details for the subject-matter experts at USFWS to specify. The Draft EIR is clear in requiring a specific measure to mitigate the potential impact – a portion of the site would be set aside to preserve existing BCM populations, and the preserve area would be protected with legal easements, physical fencing, and ongoing management. The specific funding mechanism (e.g., homeowner's association, private endowment, etc.) is not necessary for informed decision making about moving forward with the avoidance strategy described in the VESP and bolstered by mitigation measure BIO-1. It is sufficient to know that avoidance of the resource is feasible and that a detailed plan would be prepared by a qualified biologist, subject to review and approval by the resource agencies.

Although the acceptable funding mechanism for preserve management would ultimately be determined by the resource agencies, mitigation measure BIO-1 has been revised to require that the VESP Operations Management Plan must include "a funding strategy such as a non-wasting endowment or property assessment to ensure that prescribed monitoring and management would be implemented in perpetuity to ensure efficacy of the preserves." Refer to Chapter 3, Changes to the Draft EIR for the revised text.

Mitigation measure BIO-1, as revised, does the following: (1) commits the City to mitigation; (2) adopts the specific performance standard of no-net loss of meadowfoam as measured by 5-year rolling average through annual surveys; and (3) identifies the specific mitigation measure of creating preserves on the VESP site as a feasible achievement of the performance standards; thus, a deferral of the specific details of the management plan is appropriate. Further, it is reasonably expected that compliance with resource agency permits as required under mitigation measure BIO-1 would result in implementation of measures that include the specific details needed to ensure an effective meadowfoam avoidance strategy is executed at the project site.

52-13 The comment suggests that the habitat mitigation and monitoring plan should be drafted and available during the review of the Draft EIR so that the public has a chance to provide input.

As noted in the Response to Comment 52-8 and mitigation measure BIO-1, final determinations concerning BCM preserve establishment and management would be made by the USFWS and/or CDFW. It is appropriate and sufficient for the City's mitigation measure to describe the avoidance strategy (i.e., provide a 250-ft buffer with fencing, weed control, adaptive management, and include a trigger to ensure avoidance), and to leave the precise details of the habitat mitigation and monitoring plan for the resource agencies to specify. The Draft EIR is clear in requiring a specific measure to mitigate the potential impact – a portion of the site would be set aside to preserve existing BCM populations, and the preserve area would be protected with legal easements, physical fencing, and ongoing management. A draft of the operations management plan is not necessary for informed decision making about moving forward with the avoidance strategy described in the VESP and bolstered by mitigation measure BIO-1. It is sufficient to know that avoidance of the resource is feasible and that a detailed management plan would be prepared by a qualified biologist, subject to review and approval by the resource agencies.

Although preparation of the operations management plan is premature at this time, some additional specificity has been identified and added to the mitigation measure to address some of the concern raised by this comment. Please see revisions made to mitigation measure BIO-1 in Chapter 3, Changes to the Draft EIR. These revisions add detail and performance criteria to the measure such that its potential for effectively mitigating indirect effects from the project can be analyzed, thus more-clearly meeting the requirements of CEQA. Because no meadowfoam habitat restoration or creation activities are anticipated (the strategy is to simply avoid the resources), the Draft EIR revisions also clarify that the future plan needed under mitigation measure BIO-1 is simply an "Operations Management Plan" as opposed to a "Habitat Mitigation and Monitoring Plan."

Since mitigation measure BIO-1, as revised, does the following: (1) commits the City to mitigation; (2) adopts the specific performance standard of no-net loss of meadowfoam as measured by 5-year rolling average through annual surveys; and (3) identifies the specific mitigation measure of creating preserves on the VESP site as a feasible achievement of the performance standards, a deferral of the specific details of the management plan is appropriate. Further, it is reasonably expected that compliance with resource agency permits as required under mitigation measure BIO-1 would result in implementation of measures that include the specific details needed to ensure an effective meadowfoam avoidance strategy is executed at the project site.

52-14 The comment states that because the habitat mitigation and monitoring plan isn't required at this time the developer has carte blanche to create one that it deems sufficient. The comment also states that even if the habitat mitigation plan were submitted to the City Council for approval, the actual terms of the mitigation would not be available for public review and consideration.

The operations management plan would only fulfill the requirements of mitigation measure BIO-1 if it is accepted by the USFWS or City after consulting with CDFW regarding its adequacy. Also, the plan must include certain elements, as described in the measure (e.g., a fenced buffer around the meadowfoam preserves). Therefore, the developer would not have complete freedom to determine the contents of the plan, it would be subject to review by the appropriate federal and/or state agencies with the relevant expertise and responsibilities under the Endangered Species Act, and the plan must include certain elements as specified by the mitigation measure.

In terms of public participation and informed decision making, there is little or no role for the public to play in reviewing or commenting on the fine-grain details of a meadowfoam avoidance plan, it is sufficient to know that such a plan would be prepared by a rare plant expert and subject to approval by the USFWS or CDFW. The Draft EIR is clear that a portion of the VESP site would be set aside as Primary Open Space to preserve existing BCM populations, and mitigation measure BIO-1 would reinforce protection of the preserve area with legal easements, physical fencing, and ongoing management as approved by the agencies. It is premature at the EIR stage and infeasible for the City to dictate the exact manner in which the preserve area should be managed prior to the resource agency permitting processes. To do so would create undue pressure upon the resource agencies to adopt the same management criteria already approved by the City and could result in conflicts between the EIR's mitigation measure and eventual agency permitting requirements. For these same reasons, portraying a detailed management plan in the City's EIR would either misguidedly usurp the resource agency's ambit under the Endangered Species Act or mislead the public by including details that are subject to being overridden during subsequent agency permitting processes. These alternative outcomes would not achieve the public participation ends sought by this comment.

52-15 The comment states that mitigation measure BIO-1 must be revised and recirculated and refers to case law regarding deferral of mitigation.

This comment again attempts to associate the BCM avoidance strategy described in mitigation measure BIO-1 with a mitigation measure for an unrelated project. Mitigation measure BIO-1 sets forth a clear strategy for avoiding BCM on the project site, as discussed above under Responses to Comment 52-10, 52-12 and 52-13.

These criteria for preserve establishment give the public and decision makers a clear picture of what the specific plan and mitigation require in terms of avoiding meadowfoam. The performance standards of providing a minimum 250-foot buffer unless otherwise approved and establishing the preserves prior to development within 500 feet, in conjunction with constructing physical barriers (fencing) and recording legal protections (easements) would avoid project impacts to BCM. Monitoring to detect changes in BCM populations over time and instituting adaptive management techniques are included to demonstrate efficacy of the measure and provide a means for correcting deficiencies that may be identified in the future.

Please see Master Response 2, Response to Comment 52-8 and revisions made to mitigation measure BIO-1 in Chapter 3, Changes to the Draft EIR. The revisions to mitigation measure BIO-1 provide additional detail and performance criteria to the measure such that its effectiveness for mitigating potential indirect effects from the project can be confirmed, or steps can be taken to remedy a lack of performance (adaptive management). Due to the complexities involved with interpreting rare plant survey data and deciding which steps are most appropriate to remedy a potential lack of meadowfoam performance, the City must rely upon expertise at USFWS and/or CDFW regarding these specific judgements. Based on prior experience (Meriam Park) it is reasonably expected that compliance with resource agency permits as required under mitigation measure BIO-1 would result in implementation of measures that include the specific details needed to ensure an effective meadowfoam avoidance strategy and ongoing management regime is executed at the project site.

With the additions to mitigation measure BIO-1, see Chapter 3, the City: has included all the details that can feasibly be identified at this stage, has committed to the mitigation, uses a specific performance standard of no-net loss of meadowfoam as measured by 5-year rolling average through annual surveys, and identifies the specific mitigation measure of creating preserves on the VESP site as a feasible achievement of the performance standards. With these factors in place, a deferral of the specific details of the management plan is appropriate.

52-16 The comment continues to assert inappropriate deferral of mitigation associated with mitigation measure BIO-1. Specifically, the comment quotes the CEQA Guidelines and a court decision (*Communities for a Better Environment v. City of Richmond*) regarding when deferred development of the details of a mitigation measure is permissible.

This comment provides context for subsequent comments, which are addressed in the responses below. Please see Responses to Comments 52-10, 52-12 and 52-13 regarding the specifics of mitigation measure BIO-1, as revised. Further, it is reasonably expected that compliance with resource agency permits as required under mitigation measure BIO-1 would result in

implementation of measures that include the specific details needed to ensure an effective meadowfoam avoidance strategy is executed at the project site.

52-17 The comment continues to assert inappropriate deferral of mitigation associated with mitigation measure BIO-1. Specifically, the comment argues that the mitigation measure is not adequate because (1) it is not impractical or infeasible to develop the Mitigation Plan now, and (2) the City has not adopted any specific and mandatory performance standards to ensure that the measures, as implemented, will be effective.

For reasons described in Master Response 2 and Responses to Comments 52-8, 52-9, 52-10, 52- 12, 52-14 and 52-15, it is not feasible for the City to prepare an Operations Management Plan for the meadowfoam preserves at this stage, prior to resource agency permitting processes.

With the additions made to amplify mitigation measure BIO-1, see Chapter 3, the City: has included all the details that can feasibly be included at this stage, has committed to the mitigation, uses a specific performance standard of no-net loss of meadowfoam as measured by 5-year rolling average through annual surveys, and identifies the specific mitigation measure of creating preserves on the VESP site as a feasible achievement of the performance standards. Further, it is reasonably expected that compliance with resource agency permits as required under mitigation measure BIO-1 would result in implementation of measures that include the specific details needed to ensure an effective meadowfoam avoidance strategy is executed at the project site. With these factors in place, a deferral of the specific details of the management plan is appropriate. Please see revisions made to mitigation measure BIO-1 in Chapter 3, Changes to the Draft EIR. These revisions add detail and performance criteria to the measure. With these revisions, the EIR provides the lead agency with specific and mandatory performance standards to ensure that the measures, as implemented, will be effective.

52-18 The comment cites a study regarding the genetic structure of BCM populations and asserts that the Draft EIR is deficient because it omits the results of that study. Specifically, that study shows that BCM populations in Chico are genetically distinct from those north and south of the City.

Although this information was not included in the Draft EIR, its omission does not make the analysis deficient. All BCM on the project site would be preserved; therefore, the genetic resources of these populations would be preserved. The comment does not indicate any way in which this additional information would change the analysis or affect the conclusions reached in the Draft EIR. Although the study cited could perhaps support dividing BCM into two separate species in the future, BCM is currently recognized by regulation as one species. The information contained in this comment is forwarded on to decision makers for their consideration.

52-19 The comment states that the Draft EIR did not refer to how the project relates to the USFWS 2006 Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. The comment further states that the EIR should include this information, as well as provide the distance to the nearest Critical Habitat area for BCM and vernal pool fairy shrimp. Finally, the comment states that the Draft EIR should describe whether the project site is designated as a Zone 1, 2, or 3 core habitat area for BCM or vernal pool fairy shrimp.

As the comment states, the project site is not within or adjacent to designated Critical Habitat, and thus does not analyze project effects to those designated areas. Although the project site is in and near the Doe Mill Core Recovery Area (a Zone 1 area), the Core Recovery Area classification should not be confused with a designation of "critical habitat," which has regulatory implications. Recovery Plan core areas are established for planning purposes for the USFWS and include hundreds of acres in the southeast Chico area (Doe Mill core area), north Chico area (Chico core area), and thousands of acres stretching north and south of Chico (Vina Plains and Oroville core areas, respectively) where vernal pool habitat exists or has previously existed. Although the project proposes to avoid and protect all known occurrences of BCM in preserves, the Draft EIR finds impacts to the species potentially significant due to the potential for indirect effects. This level of review and the specific mitigation proposed as part of mitigation measure BIO-1 reflect the narrow occurrence of this species and the importance of preserving existing occurrences, consistent with the Recovery Plan.

52-20 The comment requests that the Draft EIR include a description of whether the project site has "prime soil type for BCM recovery", citing a CDFW comment letter on the adjacent Stonegate project as having provided that soil information for that project.

The information referenced in the comment is sourced from the Butte Regional Conservation Plan (BRCP). The BRCP mapping does not show the project site as being "suitable habitat" (BRCP Figure A.21-1). The importance or utility of any soil map or habitat-based analysis of the project site is much lower than the multiple years of protocol-level surveys for BCM which have been conducted on the project site and which are the basis of the impact analysis and mitigation in the Draft EIR.

52-21 The comment states that the omission of information highlighted in comments 52-18 through 52- 20 is a violation of CEQA because it deprives the public and decision makers necessary information to fully evaluate and consider the project's true impacts on BCM.

Please see Responses to Comments 52-18, 52-19, and 52-20, explaining the accuracy of the project's environmental effects. This comment fails to account for the fact that BCM on the project site would be avoided by the project design bolstered by mitigation measure BIO-1, reducing the need for the public and decision makers to review exhaustive information about the nuanced biological characteristics of the endangered species and habitat being avoided. Also see Master Response 2.

52-22 The comment suggests the lack of any discussion regarding the BCM Recovery Plan in the Draft EIR is concerning along with an asserted lack of evidence that the proposed preserves are adequate to mitigate potential impacts to BCM. The comment further asserts that inclusion of two 20-acre preserve areas appears arbitrary.

Please see Master Response 2 that addresses BCM preserve size. The approximate acreage for the proposed meadowfoam preserves is derived by providing a 250-foot buffer around the aquatic features that support BCM. Such buffers have been used for establishing previous buffers around BCM habitat (e.g., Meriam Park and Stonegate), unless site-specific hydrological studies show that a lesser separation would be equally effective (e.g., roadway widening projects on State Route 32 and Bruce Road).

52-23 The comment cites Appendix C of the Draft EIR, Valley's Edge Project Biological Resource Assessment, and claims that no substantial evidence supports the assertion that a 200 to 250-foot buffer is sufficient to prevent adverse effects to BCM. The comment also claims that no mitigation measure is designed to address indirect impacts to meadowfoam, such as runoff, dust or invasive plant species.

Please see Master Response 2 which addresses BCM preserve sizes, and Response to Comment 52-8 which describes the reasonable expectations of subsequent permitting processes involving the USFWS to address specific details for properly implementing mitigation measure BIO- 1. The Valley's Edge Project Biological Resource Assessment (Appendix C of the Draft EIR) was prepared by biological resource experts from Gallaway Enterprises, Inc., and its contents comprise substantial evidence insofar as the document presents facts, reasonable assumptions predicated upon facts, or expert opinion supported by facts. Gallaway Consulting is also the firm which obtained approvals from the USFWS for the Meriam Park project, as described in the Response to Comment 52-8. In this case, the Valley's Edge Biological Resource Assessment documents that Gallaway biologists conducted protocol-level botanical surveys for BCM at the site in 2006, 2007, 2008, 2010, 2012, 2013, 2015, 2016 and 2017, in addition to several years of aquatic resource mapping as reflected in the hundreds of pages of wetland surveying data. BCM plants were found in the same general area over the years, as shown on Figure 4.3-4 (see Chapter 3, Changes to the Draft EIR). Thus, the statement from Gallaway Consulting that the minimum 200 to 250-foot buffer from planned construction activities is adequate for the project to have no effect on BCM constitutes expert opinion supported by factual knowledge about the hydrology of the project site, the species and where it occurs on site, and the permitting requirements for projects involving BCM preserves adjacent to future development. The statement by the project biologist referenced in this comment constitutes substantial evidence.

52-24 The comment asserts that mitigation measure BIO-1 does not specifically address the issue of indirect effects from runoff, dust or introduction of invasive plant species.

Please see Master Response 2 which addresses BCM preserve sizes, and Response to Comment 52-8 which describes the reasonable expectations of subsequent permitting processes involving the USFWS to address specific details for properly implementing mitigation measure BIO- 1, including but not limited to specific dust control requirements. Also, see dust control measures that are routinely confirmed at the building/grading plan stage and implemented at all construction sites in the Draft EIR on pages 4.2-31, 4.2-32, and SWPPP requirements on page 4.9-28 which also include dust control measures.

52-25 The comment argues that the asserted omissions outlined in comments 52-18 through 52-24 render the Draft EIR insufficient and that it must be recirculated.

Please see Responses to Comments 52-18 through 52-24. This comment fails to account for the fact that BCM on the project site would be avoided by the project design (establishing Primary Open Space around the resources), bolstered by mitigation measure BIO-1 (setting the framework for known elements of the avoidance strategy), and finally fleshed out by resource agency permits that would address the detailed list of concerns described in Response to Comment 52-8. Also see Master Response 2.

52-26 The comment excerpts text from the Draft EIR related to vernal pool branchiopod species.

No specific issue with the excerpted text is provided. The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required.

52-27 The comment asserts that the Draft EIR does not evaluate indirect effects to avoided vernal pools from adjacent or nearby development activities.

The Draft EIR discusses indirect effects to vernal pool branchiopods on page 4.3-50, and more generally to wetlands and other aquatic resources on pages 4.3-61 and 4.3-62, including the vernal pools that would be surrounded by development. Other discussions of indirect effects to aquatic resources are provided in Section 4.9 Hydrology, Water Quality, Drainage such as on page 4.9-29. Finally, see Response to Comment 52-8 which describes the reasonable expectations of subsequent permitting processes involving the USFWS to address specific details regarding indirect effects to vernal pools and other wetlands that would also be considered by pursuant to mitigation measure BIO-10.

52-28 The comment questions the survey coverage of vernal pool branchiopod sampling described in the Draft EIR.

Of the 132 wetlands delineated on the project site, 67 were determined to be potentially suitable habitat for invertebrates. This determination in the Biological Resources Assessment (Draft EIR Appendix C, Gallaway 2020) was based on a lack of sufficient ponding to support the life cycle of large branchiopods, or flow velocities that would make the presence of branchiopods infeasible. Of the 67 features with potentially suitable habitat, there are 11 features that were not fully sampled because they were planned for avoidance. Since that initial iteration, the preserve design has been revised and now one of these unsampled pools may be directly or indirectly impacted. Of the 56 pools that have been surveyed during both wet and dry season conditions, none have resulted in positive observations of listed vernal pool branchiopods. These survey findings, plus the lack of documented occurrences at adjacent properties, support the EIR conclusion that listed vernal pool branchiopods have a low potential to occur within the project site.

52-29 The comment excerpts text from the Draft EIR related to wetlands and expected project avoidance.

No specific issue with the excerpted text is provided. The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required.

52-30 The comment requests that the Draft EIR explicitly state the location of all proposed development in relation to wetlands and habitat for listed vernal pool branchiopods and BCM.

Specifically, the comment requests that more specificity be used to describe whether permanent development would avoid 5 out of 6.25 acres of wetlands, that the Draft EIR states whether absolute wetland avoidance is or is not feasible; and whether the estimated impacted 1.25 acres of wetlands contain potential habitat for listed species.

Regarding the precise locations and configurations of development proposed under the VESP, these are not available for a Specific Plan level analysis. Areas designated as Primary Open Space would avoid direct impacts to vernal pools and other wetlands. Land use designations that would likely result in impacts to wetlands overlap approximately 1.25 acres of mapped wetlands on site. From

the Draft EIR page 4.3-61: "Based on the VESP Land Use Plan (see Chapter 2, Figure 2-3, Land Use Plan), permanent development areas appear to avoid approximately 5 acres of the approximately 6.25 acres of wetlands mapped on the project site." Because of the conceptual nature of the specific plan, it is inappropriate to provide a higher level of certainty regarding wetland impacts or avoidance of the VESP. However, based on the proposed land use classifications it is anticipated direct impacts to wetlands would not be greater than 1.25 acres. The feasibility of avoiding wetlands in future development areas is not for the EIR to determine, but that would be considered by the Army Corps of Engineers during permitting, consistent with a determination of the Least Environmentally Damaging Practicable Alternative. Any impacts to wetlands from development of the project would need to be permitted through the USACE (with consultation with USFWS for endangered species), Regional Water Quality Control Board or CDFW and comply with the conditions of those permits, plus a no-net-loss standard as required under mitigation measure BIO-10. The Draft EIR relies on several years of surveys to determine lack of presence of listed vernal pool branchiopods in the vernal pools on site, as described on page 4.3-50. Similarly, multiple years of surveys for BCM have resulted in well-known boundaries for BCM populations on site. These populations would be avoided in preserves under plans approved by USFWS and/or the City in consultation with CDFW.

52-31 The comment reiterates a prior comment regarding USFWS Critical Habitat and Core Recovery Areas for vernal pool branchiopod species.

Please see Response to Comment 52-19.

52-32 The comment reiterates a prior comment regarding a lack of discussion of Core Recovery Areas for vernal pool branchiopod species.

Please see Response to Comment 52-19.

52-33 The comment expresses a concern that the Draft EIR did not specifically analyze edge effects to potentially occurring western spadefoot within preserved habitat.

The analysis in the Draft EIR assumes that the distance from aquatic features in the preserve to adjacent development would be sufficient to minimize indirect effects to the species (Draft EIR p.4.3-50). The potential upland habitat on the project site is limited to the areas in and near the lowermost vernal pool preserve. Elsewhere within the project site, topsoil is generally very thin and soil layers below are clayey and would prevent digging by spadefoot toad. As noted in Baumberger et al. 2019, spadefoots strongly select against burrowing in soils with higher clay content – preferring instead friable soils with high sand/loam content. Further, there is no regulatory mandate to provide a buffer distance from aquatic habitat for western spadefoot. However, note that the vernal pool preserve established to protect BCM populations and associated upland would also function to preserve potential upland habitat for western spadefoot. Refer to Chapter 3, Changes to the Draft EIR for revisions to the western spadefoot impact analysis and changes to mitigation measure BIO-1 that establishes requirements for the preserves.

52-34 The comment asserts that the Draft EIR lacks sufficient analysis of project impacts to foraging habitat for Swainson's hawk, bats, burrowing owl, and other raptors. The comment also asserts that the cumulative analysis of impacts to these species is insufficient.

The Draft EIR analyzes effects to Swainson's hawk on page 4.3- 51. Typically, Swainson's hawk forage within 10 miles of nesting sites. Since there are no recent nesting occurrences within

10 miles of the project site, it is reasonable to assume that the project site does not currently provide foraging habitat for this species. Further, the species tends to nest and forage on the valley floor and near agricultural operations, so loss of a portion of the grassland and oak savannah habitat on the project site would not constitute a significant impact to the species. Nonetheless, the Draft EIR does include mitigation measure BIO-4 which requires conducting surveys for nesting Swainson's hawk and avoid them if found. Regarding burrowing owl, this species is considered in the Draft EIR as highly likely to occur on the project site and the Draft EIR notes on page 4.3-20, that active burrows and adult burrowing owls were observed on the project site in 2006. The Draft EIR therefore considers impacts to burrowing owl potentially significant. Mitigation measure BIO-3 in the Draft EIR is targeted at avoiding and minimizing effects to burrowing owl. Regarding bats, the Draft EIR states on page 4.3-53 that "tree removal could reduce roosting habitat, and permanent development could fragment foraging and roosting habitat for bats". The Draft EIR includes mitigation measure BIO-5 to avoid impacts to roosting bats, though it is assumed that bat foraging could continue within the preserved and open space portions of the project site. Similarly, for raptors and other nesting birds, the mitigation focus is on avoiding impacts to nests rather than foraging habitat, because foraging habitat is locally abundant and the focus is on avoiding conflicts with the Migratory Bird Treaty Act.

52-35 The comment questions the Draft EIR statement that there is low potential for Swainson's hawk to use the project site, because the species was not detected during site surveys, although the Draft EIR also states that no focused surveys for Swainson's hawk were conducted.

Both of these statements in the Draft EIR are correct. No focused surveys for Swainson's hawk have been conducted on the project site, as the grasslands of the site were determined by the biological experts to provide only marginal foraging habitat and there are no recent database occurrences for the species within 10 miles of the project site. The species tends to nest and forage on the valley floor and near agricultural operations. The opinion of Gallaway Consulting contained in the Biological Resources Assessment, Appendix C of the Draft EIR, that there is "only a low potential for Swainson's hawk presence" within the site represents substantial evidence, as it comprises expert opinion based on facts acquired through multiple in-person field assessments of habitats and bird observations conducted by trained biologists, many of whom also conduct Swainson's hawk surveys. Thirty-eight other bird species were observed at the site during April 5 and June 1, 2017, surveys which occurred during times when Swainson's hawk is present in California (generally March through August) and detecting the species would be relatively easy.

52-36 The comment continues from comment 52-35 related to asserted deficiencies in the baseline description and impact analysis of Swainson's hawk.

Please see Response to Comment 52-35.

52-37 The comment asserts there are deficiencies in mitigation measure BIO-4 for Swainson's hawk related to provisions for continued monitoring of nests, that mitigation is improperly deferred, and that a minimum buffer distance from occupied Swainson's hawk nests should be defined.

As noted in the Draft EIR and above under Responses to Comments 52-34 and 52-35, there is a low potential for Swainson's hawk to occur at the project site. Under the contingency that an active Swainson's hawk nest is identified near the project, mitigation measure BIO-4 involves consultation

with CDFW regarding the establishment of an adequate buffer. However, to address some of the concerns raised in this comment, please see revisions to mitigation measure BIO-4 provided in Chapter 3, Changes to the Draft EIR. These revisions include additional specificity for various circumstances, including details on buffer distances and monitoring if an active nest is detected. The Draft EIR retains the potential to have a smaller buffer distance but provides additional details, including specific approvals of the buffer distance from CDFW. Retaining this option does not constitute deferral because the appropriate distance for a buffer from a nest would depend on several factors that cannot be known at the time of EIR preparation, such as topography, type of construction, natural barriers between the construction activity and nest, etc. A qualified biologist can determine what the appropriate buffer would be to protect the nesting birds based on those factors, in consultation with CDFW. Please note that mitigation measure BIO-4 has also been revised to require monitoring through the nesting season to determine when young have fledged. Please also see Master Response 2 regarding deferral of mitigation.

52-38 The comment excerpts text from the Draft EIR related to western red bat and asserts that the Draft EIR does not explain why surveys were not conducted for bats and does not analyze the impacts of habitat fragmentation and reduction on bat species.

Additional text has been provided related to these impacts in Chapter 3, Changes to the Draft EIR describing how the foraging habitat used by western red bat would be avoided by the project and the grassland foraging habitat used by pallid bat would remain present in the project area as well as regionally abundant. Mitigation measure BIO-5 does require pre-construction roost assessments for the project as it is developed, which would detect roosts that are in use and that would be affected by project activities.

52-39 The comment asserts that mitigation measure BIO-5 improperly defers mitigation for impacts on bat species and should provide the full content of a bat mitigation and monitoring plan as part of the Draft EIR so that it can be publicly reviewed.

The mitigation measure does include contents of the plan, which would be prepared only if a bat roosting and maternity colony is present and cannot be fully avoided. However, mitigation measure BIO-5 has been revised with substantial additional detail on the steps to be followed in the event that a bat roost is discovered (see Chapter 3, Changes to the Draft EIR). In any event, the plan would be subject to CDFW approval, which provides adequate assurance that any such plan would meet the requirements of the relevant wildlife agency prior to implementation. There is little or no role for the public to play in reviewing or commenting on the details of a bat colony avoidance plan, it is sufficient for the public to know that such a plan would be prepared by a bat expert and subject to approval by CDFW. For further responses to assertions of deferred mitigation, please also see Master Response 2 and Response to Comment 52-8.

52-40 The comment expresses concern that enforcement may be difficult for mitigation measure BIO-3 because it does not provide for continued biological monitoring to verify that burrowing owl young have fledged. The comment claims that without continued biological monitoring the city would be unable to know if young have fledged and work can continue.

In practice, it is not difficult to enforce a pre-construction surveying requirement when it turns up actively nesting birds. When a construction project or area is placed on hold due to a positive finding for an active nest by a biologist, it is readily understood by all involved that commencing

construction depends upon the City receiving a negative finding for active nests from the same biologist. Nonetheless, this comment provides an opportunity to add some clarifying language to the measure, please see revisions to mitigation measure BIO-3 provided in Chapter 3, Changes to the Draft EIR. These revisions require that a qualified biologist determine that the young have fledged but does not require continuous monitoring. If the project applicant wishes to conduct work within the exclusion zone as early as possible, they may opt to have continuous monitoring so that they are alerted when young have fledged. However, the mitigation is no less protective to the species if a biologist simply verifies that young have fledged prior to resumption of work within the exclusion zone.

52-41 The comment excerpts Draft EIR text regarding impacts to nesting bird species and asserts that mitigation measure BIO-2 should be revised to include additional detail regarding minimum avoidance buffer distances and specific methods used to delineate the limits of construction in the field. The comment also asserts that mitigation is improperly differed.

Please see revisions to mitigation measure BIO-2 provided in Chapter 3, Changes to the Draft EIR, which adds standard buffer distances for passerines and raptors, and retains some flexibility as this comment suggests. However, the text regarding establishing the limits of construction in the field have been left unchanged, because it is not necessary for the EIR to be that prescriptive. The appropriate type of limit marker would depend on the construction activities occurring in that location. Instead, additional monitoring has been provided in the revised measure that would ensure the avoidance buffer is maintained, regardless of the specific methods used to delimit the construction limits. For further responses to assertions of deferred mitigation, please also see Master Response 2.

52-42 The comment assert that mitigation measure BIO-2(d) constitutes impermissible deferral of mitigation because it does not define the action that will be taken if a nest is discovered during construction.

The mitigation measure does require that construction must be halted and a qualified biologist would decide, based on the species involved and the site-specific conditions, to either establish a no-disturbance buffer or provide full time monitoring to ensure adverse effects to the nest are prevented. This provides adequate detail to determine efficacy of the mitigation measure, and thus does not defer mitigation. Also, see Response to Comment 52-40.

52-43 The comment excerpts Draft EIR text regarding the western pond turtle and requests that mitigation measure BIO-6 provide additional details or performance criteria to evaluate the efficacy of the mitigation. The comment also requests that continual monitoring be included to confirm effectiveness. The comment suggests that there is sufficient detail regarding construction activities to specify how western pond turtles would be protected.

The characterization that sufficient detail is available regarding construction activities is not correct. At the time of EIR preparation, plans for off-site utility work were mostly conceptual. The decision on whether to relocate or simply avoid western pond turtles is best made by a trained biologist who is on site at the time of construction and able to determine what is most protective for the species. Please see revisions to mitigation measure BIO-6 provided in Chapter 3, Changes to the Draft EIR regarding minimum avoidance buffer distances and requirements for ongoing monitoring.

52-44 The comment asserts potential deficiencies in mitigation proposed for impacts to Valley elderberry longhorn beetle. Specifically, the comment states the mitigation measure lacks performance criteria, does not require a qualified biologist to establish the avoidance buffer, does not specify the interval for monitoring, and suggests rather than mandates that construction activities not occur near elderberry shrubs during March through July.

Please see revisions made to mitigation measure BIO-7 in Chapter 3, Changes to the Draft EIR. These changes establish a minimum frequency for monitoring and mandate the avoidance area. The measure does retain some flexibility in implementation because the specifics of the infrastructure construction in the off-site areas have not yet been developed. As revised, the measure provides sufficient detail and performance standards such that it cannot be fairly argued to constitute improper deferral of mitigation. Note also that mitigation measure BIO-7 adapts recommended measures directly from the Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (USFWS 2017).

52-45 The comment excerpts portions of the Draft EIR text regarding the BRCP and how it could be used to mitigate project impacts in the event it were adopted.

No specific issue with the excerpted text is provided. The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required.

52-46 The comment states that the BRCP was not included as part of the Draft EIR and asserts that this lack of detail is an omission that violates CEQA.

Please see revisions made to the references for Section 4.3, Biological Resources in Chapter 3, Changes to the Draft EIR. The Butte Regional Habitat Conservation Plan is a publicly available document linked from BCAG's website (see, e.g., http://www.buttehcp.com/, http://www.bcag.org/). The Draft EIR describes the BRCP on page 4.3-42 in sufficient detail that most readers could have easily found the document online.

In accordance with CEQA Regulations, another document may be incorporated by reference, with the incorporated language considered to be set forth in full as part of the text of the EIR (CEQA Guidelines Section 15150). The EIR must state where the incorporated documents are available for inspection and shall be briefly summarized when possible. The Draft EIR has been revised to include this information. Please see Chapter 3, Changes to the Draft EIR. Further, even if the above revisions were not made, the mere absence of information does not per se preclude informed decision making and informed public participation. Both the future BRCP and the VESP are widely available public documents, with the BRCP being available for public review since 2019. These publicly available documents provide adequately provide the public and public decision makers with information needed to make an informed decision. Any procedural shortcomings of the Draft EIR are first corrected through an incorporation by reference in the Final EIR, and second not a prejudicial abuse of discretion, as asserted in the conclusory comment (*Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540).

Regarding use of the BRCP in the Draft EIR, many other CEQA documents allow use of a yet-to-be-adopted HCP as an alternative mitigation strategy. An example is the Placer Vineyards Specific Plan (Placer County 2006), which states: "In lieu of the above-described measures, the Specific Plan or

subsequent phases of the Specific Plan may fulfill mitigation requirements by compliance with the terms of the adopted PCCP. Such compliance, as determined by Placer County, shall constitute sufficient mitigation that will obviate the need to comply with this mitigation measure, to the extent that an affected agricultural and/or biological resource is addressed in the PCCP." Further, the BRCP is subject to CEQA review and approval by Butte County Association of Governments (BCAG) as well as the USFWS, National Marine Fisheries Service and CDFW, who are responsible for ensuring that mitigation strategies for biological resources covered by the BRCP are adequate. Where an HCP is used to mitigate project impacts, a project EIR relies on the HCP CEQA document to provide analysis of the effectiveness of the HCP conservation strategy.

The Draft EIR provided for the BRCP to serve as an alternative means for handling biological resource impacts of the project for the practical purpose of enabling the Valley's Edge project to integrate into the BRCP, should the two large planning efforts proceed in tandem. The BRCP is currently on pause, however, if the BRCP is adopted before VESP permitting is complete then it remains preferable to allow for the possibility, however remote, of the BRCP to cover the project site as contemplated by the Draft EIR. It would be in the public's best interest to see the BRCP succeed, should it be adopted, and its success would be enhanced by participation from large projects like Valley's Edge.

52-47 The comment asserts that because the BRCP is not adopted, it cannot be relied upon as mitigation in the Draft EIR.

The Draft EIR does not rely solely on the BRCP as mitigation, it provides an entirely independent set of project-specific mitigation measures to reduce biological impacts to less than significant in the event the BRCP is not available or not used. The Draft EIR explains on pages 4.3-53 and 4.3- 54 that "If future project developers do not opt to seek coverage under the BRCP, or if the BRCP is not adopted prior to development, then the following mitigation measures would be implemented to avoid and/or substantially lessen impacts to special-status plant and wildlife species." The BRCP has gone through a separate CEQA review process and if the project proceeds under the coverage of the BRCP then it would be relying upon that CEQA process regarding public notification of the biological impacts and mitigations associated with the adopted BRCP. If the BRCP is adopted, then it would stand to benefit from potentially including the Valley's Edge project, and the Draft EIR supports that possible future integration.

52-48 The comment further asserts that inclusion of the BRCP as an option of mitigation of impacts to biological resources is deferral of mitigation and violates CEQA.

Please see Responses to Comments 52-8, 52-46 and 52-47 as well as Master Response 2 regarding deferral of mitigation. The Draft EIR provided for the BRCP to serve as an alternative means for handling biological resource impacts of the project for the practical purpose of enabling the Valley's Edge project to integrate into the BRCP, should the two large planning efforts proceed in tandem. The BRCP is currently on pause, however, if the BRCP is adopted before project permitting is complete, then it remains preferable to allow for the possibility, however remote, of the BRCP to cover the project site as contemplated by the Draft EIR. It would be in the public's best interest to see the BRCP succeed, and its success would be enhanced by participation from large projects like Valley's Edge.

52-49 The comment asserts that the Draft EIR's mitigation for impacts to trees is not sufficient and the efficacy of that mitigation is not analyzed in the document. In summary, the comment states that the OWMMP/VETPP is not included in the Draft EIR, does not analyze the specific ways by which the OWMMP/VETPP measures will avoid or minimize impacts from removal of trees, and does not identify the specific procedures to be followed to protect avoided trees when roots are cut.

The Oak Woodland Mitigation and Management Plan is included as Appendix E of the VESP, which is evaluated in this Draft EIR. The VESP and its appendices is available for public review alongside the Draft EIR and other project documents on the City's website at https://chico.ca.us/post/valleys-edge-specific-plan (Draft EIR p. 1-3). The Oak Woodland Mitigation and Management Plan, now re-titled the Valley's Edge Tree Preservation Program, is largely modeled after the City's Municipal Code Chapter 16.66 (Tree Preservation Regulations). The Introduction of the Program states the following: "In establishing these regulations, it is the intent of the Valley's Edge Specific Plan (VESP) to preserve the maximum number of trees possible, with the reasonable use and enjoyment of private property, and to provide for a healthy urban forest that will absorb carbon dioxide, helping reduce urban impacts on global warming." In other words, the main purpose of the Program is to disincentivize excessive removal of individual trees during the initial phases of project development, and to require replacement trees when removal is necessary or otherwise occurs during project buildout. Where tree preservation is not practical, replacement trees are required to help provide a healthy urban forest that will support carbon sequestration. The Program also offers that replacement trees in the VESP can enhance and/or expand oak woodlands at the project site by selectively planting in open space areas set aside by the Land Use Plan. To avoid this sort of misunderstanding in the future, the name of Appendix E of the VESP has been changed to the "Valley's Edge Tree Preservation Program".

The Draft EIR states on page 4.3-58 that the OWMMP (Valley's Edge Tree Preservation Program, or VETPP) requires trees removed or damaged by the project to be replaced by planting on site, off site or paying an in-lieu fee. Then, to further minimize potential tree removal from project activities, the Draft EIR imposes mitigation measure BIO-9 to ensure protection of trees during construction. Further, tree replacement quantities and requirements are specified in the Tree Preservation Program, Appendix C of the Valley's Edge Specific Plan. The VESP, including its Appendix C, is the focus of review for this EIR and the document is available in conjunction with the Draft EIR to facilitate informed decision making. See also Responses to Comments 6-26 and 6-27.

52-50 The comment reiterates objection to the omission of the OWMMP/VETPP from the Draft EIR, and the asserted lack of analysis of the OWMMP/VETPP as mitigation for impacts on oak trees.

Please see Response to Comment 52-49.

52-51 The comment reiterates objection to the omission of the OWMMP/VETPP from the Draft EIR and requests additional detail be provided regarding the OWMMP/VETPP.

Please see Response to Comment 52-49. The tree replacement requirements from Appendix E of the VESP are modeled after Chico Municipal Code Chapter 16.66, which has been successfully implemented citywide for many years. Having replacement requirements for tree removal doesn't save all trees, but it strongly incentivizes the retention of existing mature trees within project sites.

52-52 The comment quotes the OWMMP/VETPP and requests that additional detail and performance criteria be provided.

The OWMMP/VETPP (Tree Preservation Program) is part of the VESP rather than a mitigation measure. Please see Response to Comment 52-49. Also, note that the Tree Preservation Program in Appendix E of the VESP has been updated to add details regarding pre-construction procedures, references to biological mitigation measures, differentiate urban replacement trees from oak woodland replacement trees, and to better describe the HOAs oak tree regeneration program.

52-53 The comment provides a concluding sentence to comments 52-49 through 52-52.

Please see Response to Comment 52-49.

52-54 The comment asserts that the Draft EIR fails to align its analysis with the significance threshold regarding potential substantial depletion of groundwater supplies such that the project may impede sustainable groundwater management of the basin.

The project's Water Supply Assessment (WSA, Draft EIR Appendix J), the 2015 Cal Water – Chico/ Hamilton Urban Water Management Plan (UWMP), and the Sustainable Groundwater Management Act (SGMA) protocol were used as a basis in determining the level of significance to evaluate potential impacts to groundwater. (Note: the updated 2020 UWMP was reviewed and the findings were generally the same as the 2015 UWMP.)

The Vina groundwater subbasin is not in critical overdraft, but it is a high priority basin with respect to SGMA, indicating the basin must achieve groundwater sustainability by 2042. As indicated on page 4.9-11 of the Draft EIR, the main factors driving the high priority designation of the Vina Subbasin include population growth (4 out of 5 possible ranking points), production well density (5 out of 5 possible points), irrigated acreage per square mile (4 out of 5 possible points), and groundwater reliance (5 out of 5 possible points). Based on these factors, current groundwater withdrawals are not critical (or substantial) but must be addressed by 2042. The draft Groundwater Sustainability Plan (GSP) for the Vina Subbasin was finalized December 15, 2021 and was anticipated to be reviewed for approval in January 2022. However, as of June 2022 it does not appear the GSP has been approved. The projected growth in the GSP is based on the Butte County 2030 (estimates of population and per capita water use over time).

A determination of the adequacy of groundwater supplies for the proposed project would not be directly dictated by the GSP. Rather, the GSP evaluates current conditions in the Vina Subbasin, establishes sustainable groundwater management criteria, includes provisions for ongoing groundwater data gathering and analysis, and summarizes the findings. The provisions in the GSP will be evaluated annually and every five years (in more detail) and updated as necessary. GSP implementation will begin upon submittal of the document to the Department of Water Resources. The Vina and Rock Creek Reclamation District GSAs will continue their efforts with public engagement and to secure funding to monitor and manage groundwater resources.

Because adequacy of groundwater supplies for the project would not be directly dictated by the iterative GSP process, the project-specific WSA, which is based on the Chico/Hamilton UWMP, has been used to establish whether the project would result in groundwater withdrawals substantial

enough to impede sustainable groundwater management of the basin. The UWMP concludes that there is sufficient groundwater supplies to meet future demands of the District in normal and multiple dry year periods through 2045. *The 2020 UWMP specifically references the VESP project in the water demand projections* (page 36), as adding 2,900 new residential and commercial services by 2040 and 1,750 AFY of additional water demand. As a result, there is sufficient water for the project, in combination with other proposed growth in the area, and the project would not substantially deplete groundwater supplies and impede sustainable management of the groundwater basin.

In addition, see Response to Comment 10-24 with respect to the Draft Vina Groundwater Subbasin GSP.

52-55 The commenter asserts that the Draft EIR's conclusion (on Impact 4.9-2) that impacts would not be "unreasonable" is vague, subjective, wrong, and not language included in the significance threshold. In addition, the comment asserts that the Draft EIR inappropriately uses a lack of critical overdraft as reasoning for impacts being less than significant.

Regarding the latter part of the comment, please see Response to Comment 52-54.

With respect to impacts not being "unreasonable", although this term is not directly used in the significance threshold, the threshold seeks to determine whether groundwater withdrawals would impede sustainability of the basin. As indicated in Response to Comment 52-54, sustainability is in part defined by the Sustainable Groundwater Management Act, which in turn introduces several terms to measure sustainability. As indicated in the Vina Subbasin Groundwater Sustainability Plan (GSP), "unreasonable" is used in defining sustainability indicators (SIs) and undesirable results. As indicated in the Vina Subbasin GSP on pages ES-11 and ES-12: "SIs refer to any of the effects caused by groundwater conditions occurring throughout the Vina Subbasin that, when significant and unreasonable, cause undesirable results. The six SIs identified by DWR are:

1. Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply if continued over the planning and implementation horizon
2. Significant and unreasonable reduction of groundwater storage
3. Significant and unreasonable degraded water quality
4. Significant and unreasonable land subsidence that substantially interferes with surface land uses
5. Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water
6. Significant and unreasonable seawater intrusion

Undesirable results are the significant and unreasonable occurrence of conditions that adversely affect groundwater use in the Vina Subbasin, including reduction in the long-term viability of domestic, agricultural, municipal, or environmental uses of the Vina Subbasin's groundwater. Categories of undesirable results are defined through the SIs." The use of the term "unreasonable" to describe what could happen if pumping of groundwater were to increase is used appropriately in this context.

In addition, see Response to Comment 10-24 with respect to the Draft Vina Groundwater Subbasin GSP.

52-56 The comment asserts that the Draft EIR does not support its conclusion that adding to the rate of groundwater lowering would not interfere with sustainable groundwater management, and that the Draft EIR's conclusions are improper as a matter of law, and unsupported by fact or reason.

Please see Responses to Comments 52-54 and 52-55.

52-57 The comment asserts that the Draft EIR fails to assess loss of recharge for perched and seasonal groundwater, with respect to sustaining groundwater dependent ecosystems.

The relevant environmental threshold is "a significant impact would occur if development of the project would substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin." Any potential project related interference with recharge of localized perched lenses of groundwater would not interfere substantially with groundwater recharge such that the project would impede sustainable groundwater management of the basin. This threshold applies to potential areas of substantial recharge, such as highly permeable sands and bedrock with high permeability rates. As indicated in Impact 4.9-2 on page 4.9-30 of the Draft EIR, the 2010 preliminary hydrogeologic assessment of the project site found that a relatively impermeable layer of well lithified lahar rock of the Tuscan formation unit C underlies the majority of the project site. Alluvial materials that underlie creeks on the site could potentially recharge shallow aquifers on and near the project site were limited to areas that have been excluded from proposed future development and are proposed to remain in their natural state. The 2010 preliminary assessment concluded the development restriction should mitigate on-site impacts to groundwater recharge in these areas. Any recharge related impacts to areas of seasonal groundwater flow, as indicated by trees along certain slope breaks, would not constitute a substantial impediment to groundwater recharge such that the basin could not be sustainably managed.

With respect to potential biological impacts associated with construction, see Response to Comment 9-32.

52-58 The comment asserts that the project's water supply assessment (WSA) relies on unsupported projections that water demand will increase in near-term future years, but will decrease on a longer horizon, per Table 5 of the WSA. In addition, the comment indicates the Draft EIR minimizes project effects and skews its findings by assuming groundwater extraction decreases over time. The comment also indicates the Draft EIR fails to adequately address impacts during drought years, such as during 2013 to 2015, by averaging the data over time.

As included in the footnotes to Table 5 of the WSA (Draft EIR, Appendix J), the projected water demands were provided by Cal Water in November 2019. As stated on pages 11 and 12 of the WSA, the updated water demand projections incorporate increased water efficiency in the estimates, which in turn would reduce demand. The updated water demand projections also incorporate current and historical water usage within the Chico District, which reflect Cal Water's best efforts to include the development and growth that has occurred within the District to date. Therefore, the updated Chico District demands presented in Table 5 are inclusive of all identified development, as well as additional anticipated development within the current service area, based on Caltrans (2017). In addition, the recently adopted 2020 UWMP specifically references the project in the water demand projections (page 36), as adding 2,900 new residential and

commercial services by 2040 and 1,750 AFY of additional water demand. The WSA is based on the 2015 UWMP, which is similar to the updated 2020 UWMP in its conclusions.

With respect to including the 2013 to 2015 drought in the analysis, page 11 of the WSA indicates that "as illustrated in the chart in Table 6, the 2015 UWMP projections are consistent with historical usage through 2013; however, water demands dropped significantly after 2013 due to the historic drought. While demands have rebounded somewhat, they have remained significantly lower than pre-drought demands." As such, this drought period was acknowledged in the historical and projected demands analysis.

52-59 The comment asserts that that the draft Butte Subbasin Groundwater Sustainability Plan (GSP) demonstrates the severity of groundwater mismanagement in this subbasin and provides a clearer analysis of the baseline and future conditions that will affect the project. The comment indicates that the No Project alternative is the only responsible and defensible course of action considering the past and ongoing depletion of groundwater.

Although the hydrogeology of the Butte and Vina Subbasins is similar, management of the two basins will be completed in accordance with two different GSPs, under different Groundwater Sustainability Agencies. The draft Vina Subbasin GSP, which was published on December 15, 2021 and is slated to be reviewed for adoption in January 2022, establishes sustainable management criteria that are not the same as the Butte Subbasin GSP. As a result, the Butte Subbasin GSP is not appropriate for making a determination regarding groundwater impacts for the project. Please also see Responses to Comments 52-54 and 52-55.

52-60 The comment asserts that the No Project Alternative is the best alternative due to the significant and unavoidable project impacts, and that the environmental losses are not in the public interest, and cannot support the required Findings of Fact and Statement of Overriding Considerations.

The commenter's opinion that the No Project Alternative should be adopted is noted and forwarded to the decision makers for their consideration. As identified in the Draft EIR, implementation of the proposed VESP would result in significant and unavoidable project level and cumulative impacts due to changes in visual character and increase in greenhouse gas emissions. Given the size of this project a total of four significant and unavoidable impacts (project and cumulative visual impacts and project greenhouse gas impacts) would not be considered numerous, as stated in the comment. Nor does the comment indicate how the project would result in "massive environmental losses" as stated in the comment.

CEQA requires that an EIR describe and analyze the relative environmental effects of alternatives to the proposed project and evaluate their comparative impacts and merits. The EIR must consider a range of reasonable alternatives that can feasibly attain most of the basic project objectives and avoid or substantially lessen one or more significant effects. The alternatives analysis must identify the potential alternatives and include sufficient information about each to allow meaningful evaluation, analysis, and comparison with the proposed project. CEQA Guidelines Section 15126.6(e) requires that an EIR evaluate a "No Project Alternative," which is intended to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The Draft EIR evaluates both No Project/No Development Alternative in which the project site remains in its existing condition, remains under the jurisdiction of Butte County and would not be annexed into

the City and no new development occurs for the foreseeable future. However, CEQA Guidelines Section 15126.6(e)(3)(B) establishes that "If disapproval of the project under consideration would result in predictable actions by others such as the proposal of some other project, this 'no project' consequence should be discussed." Thus, the EIR considers that the project site would be developed as assumed in the City's 2030 General Plan under Alternative 2, No Project/2030 General Plan. The comment supports the No Project/No Development Alternative which would preserve open space areas and natural landforms, but would otherwise fail to achieve the proposed project objectives such as creating a specific plan that is beneficial to the community and economically viable, providing housing to the area and new employment opportunities through commercial uses. Therefore, it is not considered a feasible alternative.

Approval of a project with significant impacts requires that findings be made by the lead agency pursuant to CEQA, and the State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3 Sections 15043, 15091, and 15093). CEQA Guidelines Section 15092(b) states that a public agency shall not approve or carry out a project for which an EIR was prepared and which identified significant effects unless: (1) significant effects are mitigated to less-than-significant levels as feasible by the mitigation measures identified in the EIR; and (2) if there are residual significant impacts after implementation of mitigation measures identified in the EIR, the agency finds that the unavoidable impacts are acceptable through a Statement of Overriding Considerations, supported by substantial evidence in the record, which includes the documents, materials, and other evidence. The City is required to prepare the Findings of Fact for those impacts that can be reduced to less than significant with mitigation and a Statement of Overriding Considerations for any significant and unavoidable impacts. The lead agency must consider the Final EIR and the evidence in the record, to determine if the overriding economic, legal, social, technological and other benefits of the project outweigh the significant and unavoidable effects of the project.

52-61 The comment claims that if any iteration of the project is approved, CEQA requires the City to approve only a project that has increased density and increased open space. The comment also states that Alternative 4 prevents significant and avoidable damage to the environment and that other alternatives have been proposed that are feasible and superior to Alternative 4 and should be adopted.

The CEQA Guidelines requires that an EIR describe and analyze the relative environmental effects of alternatives to the proposed project and evaluate their comparative impacts and merits. The EIR must consider a range of reasonable alternatives that can feasibly attain most of the basic project objectives and avoid or substantially lessen one or more significant effects (14 CCR 15126.6(a)). The EIR's alternatives analysis is prepared in support of CEQA's goals to foster informed decision making and public participation (14 CCR 15126.6(a)). The alternatives analysis does not need to consider "every conceivable alternative" to a project (14 CCR 15126.6(a)). The EIR evaluated a reasonable range of project alternatives (four) and the final decision regarding the feasibility of alternatives lies with the decision makers who must make the necessary findings addressing the feasibility of alternatives for avoiding or substantially reducing a project's significant environmental effect (California Public Resources Code, Section 21081; also see 14 CCR 15091). While CEQA does require adoption of the environmentally superior alternative if it is feasible and achieves most of the project objectives, there is no requirement in the CEQA Guidelines that requires an increased density and open space alternative be adopted. The comment does not propose any other alternatives for evaluation.

52-62 The comment provides an overview of Alternative 4 and references additional alternatives that are asserted to be feasible and meet the project objectives but does not include a description of the proposed alternatives.

The comment provides general commentary but does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required.

52-63 The comment indicates support for Alternative 4 because it would feasibly avoid or substantially lessen the project's significant environmental effect and also attain most of the basic project objectives.

The commenter's opinion that the Alternative 4 should be adopted is noted and forwarded to the decision makers for their consideration.

52-64 The comment reiterates support for Alternative 4 and its feasibility. The comment also states the EIR analysis of Alternative 4 should be applied equally to other alternatives proposed in comments.

The commenter's support for Alternative 4 is noted and forwarded to the decision makers for their consideration. The comment does not specify what other alternatives should be evaluated, so no response is possible.

52-65 The comment makes general assertions of a feasible alternative (addressed under Comment 52- 66) that would further protect biological resources.

The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required.

52-66 The comment reiterates support for an increased open space and higher density alternative because it would minimize impacts to biological resources; protect oak woodlands; reduce ground disturbance and erosion; and eliminate the road to access the very low density residential (Equestrian Ridge) in the southeast portion of the plan area.

The Draft EIR includes an Increased Open Space and Higher Density Residential Alternative (Alternative 4) in Chapter 6, starting on page 6-24. This alternative shifts the very low density residential proposed on 82 acres in the southeast portion of the site (65 units), including the "Equestrian Ridge area" to other planning areas and the land would be designated for open space. It appears the comment is discussing the merits of Alternative 4 and why the commenter believes this is the preferred site plan to adopt in lieu of the proposed project. The comment is noted and forwarded to the decision makers for their consideration.

52-67 The comment discusses the benefits of an increased open space and higher density alternative on traffic and notes this alternative would decrease traffic and greenhouse gas emissions.

The commenter's support for Alternative 4 is noted and forwarded to the decision makers for their consideration.

52-68 The comment supports an alternative that increases density, such as Alternative 4 because it will reduce the overall development footprint and reduce environmental impacts.

The commenter's support for Alternative 4 is noted and forwarded to the decision makers for their consideration.

52-69 The comment suggests that an increased open space and higher density alternative should be adopted because it will reduce project impacts and meet most of the project objectives.

The commenter's opinion that an alternative that increases open space and higher density should be adopted is noted and forwarded to the decision makers for their consideration.

Public Comments

City of Chico Planning Commission

November 18, 2021, 6 p.m.

VESP DEIR Public Hearing

Public Comment Speaker Summaries:

1. Mallory Borrego – Senior at Chico State, student intern for the Community Legal Information Center, Environmental Advocates Department. Pleasantly surprised by the adequacy of the Draft EIR, didn't expect so many topic areas, the miles of creek to be preserved in open space, keeping more than 5,000 oak trees. Feel like this Draft EIR is adequate and we should focus our efforts toward conservation and sustainability within development because it is not avoidable at this point with the housing crisis Chico is facing. PC-1

2. Susan Tchudi – I co-host Ecotopia on KZFR and convene the Environment Coalition of Butte County, however I am speaking just for myself. The proposed Valley's Edge development in the southeastern foothills, superficially, looks beautiful. Parks, ponds, green spaces and walking trails amidst a huge neighborhood, including apartments and housing for seniors. However, I think this project is in the wrong time and in the wrong place. PC-2

   The Draft EIR notes two impacts that are un-mitigatable. The GHG emissions are un-mitigatable; construction emissions and automobile travel into town. This pristine riparian woodland area with its birds, reptiles, animals, and plants will be slashed through with 2,777 housing units with an anticipated population of 5,654. I think that the impact on natural resources in the EIR is inadequate. It's a huge wildlife area, a huge ecosystem, it has big value for our community. PC-3

   Valley's Edge stands in contradiction to a lot of Chico's guiding principles and documents. The current General Plan calls for infill and compact, mixed-use development. General Plan quote: "*The urban form is compact, with a clear distinction between the City and its surrounding lands.*" We call this a site, but it's a reach to happen where it is. PC-4

   This is a 1,448-acre project, which is the opposite of compact urban form, it is urban sprawl. The Climate Action Plan, approved by the City Council just a few weeks ago, calls for zero-net emissions by 2045. According to the Draft EIR, the project would result in GHG emissions of approximately 3.13 megatons of CO2 emissions per capita, exceeding the 2030 efficiency target of 2.76 megatons of CO2 emissions per capita per year. This project is taking us in exactly the wrong direction. We're trying to reduce emissions, and this will increase emissions City of Chico's CAP thresholds by 2045 and the project being held to the 2030. PC-5

   And, finally, not so much for the Draft EIR but a significant thing to look at, is that the City will soon approve the Housing Element Update, which emphasizes the need for affordable housing. This project is intended for those who can afford HOA dues and costly amenities. According to every measure I have seen, Chico needs housing for its low-income residents. The Valley's Edge development, with its beautiful vision, is not for those in need, but for those with deep pockets. PC-6

3. Jake Morley – Been in development and land use for almost 20 years. I'd like to submit to the record Appendix C of the General Plan, that talks about this growth area and how the project itself expands upon this small page of the General Plan. It's a fantastic project that meets the lion's share of the General Plan policy goals and action items. It's a fantastic property. It's a wonderful project in a post-COVID world where the outdoor space is even more important than before. The adequacy of the EIR is definitely on-point, with thousands of pages of expert opinions on everything from GHG to aesthetics.

PC-7

4. Erica Spangler – I laid our digital product and UX teams for a home improvement company locally, that has a lot of remote associates that are always looking for housing. Stayed in Chico after college, enjoys Chico's outdoor spaces. Pleasantly excited about Valley's Edge because of the open space, and that the open space was instrumental in the design. It provides smart growth, and a bigger vision for our future. It really embodies this post-COVID world, where we develop our careers indoors and need to enjoy the outdoors more than ever. Roughly half of the total land space is designated for parks, open space, and public uses. That is very rare for a lot of the development areas, which are more for housing. Having that balance of housing meeting housing needs and outdoor and really embodying the Chico area is something that I support.

PC-8

5. Brent Silberbauer – Used to live on 20th Street, just north of the project, familiar with site. Two thumbs up with regard to the Draft EIR. Liked where the EIR took note of all the on-site trees, those ribbons of trees. I've seen the flooding in past, so glad to see the hydrology is planning to deal with that. I am a real estate agent by trade and houses are now going for $50-60,000 dollars over the asking price. Have to give potential buyers lots of bad news. There's a severe housing shortage given the Camp Fire and we have built a small amount since then to replace those units. We need large projects to capture the units we lost in Paradise. We need housing at every single level from cottage homes to luxury homes. The CO2 emissions is necessary to provide the houses. There is no supply to fill the gap, so prices will continue to rise as demand stays constant.

PC-9

6. Noah Zoppi – Young real estate entrepreneur. Valley's Edge team worked hard to reduce impacts. For example, 80% of the trees will be kept in their wild community. Why would we pass up an opportunity to have a developer that is environmentally focused? If this group doesn't do it, then someone else will in the future. Sometimes we have to make the best decision we have based on the options presented.

PC-10

7. Jim Stevens – Formerly on the General Plan Task Force. VESP is implementing the General Plan, the site was identified as a growth area 11 years ago. It has a light footprint on the environment. Just over 2 units per acre due to the open space. Regarding GHG, the concern I have is that we have such a significant housing crisis here, if we don't provide the local housing, across the range… Chico is still going to become the employment center within 50 miles, I think, and if people cannot find or afford a house locally, then they will look in Orland, Gridley, Biggs, Oroville, Red Bluff, and Corning. Imagine the GHG impact if we have people commuting in from the outlying areas.

PC-11

8. David Welch – From Chico. A member of the senior demographic and an lifelong cyclist. I see a conflict between my experience and what the EIR sees as the role of active transportation in reducing vehicle miles traveled and mitigating the traffic and climate impact of the project. The combination of the large physical size of the project, with very low-density housing in most of the project area, the concentration of commercial at one corner, and the steep terrain of most of the project tell me that the bike path network will be used recreationally by a few sport cyclists like as myself, but will likely play almost no role in the actual transportation mix of the project. Neither typical seniors, nor young parents with children in tow are going to climb those hills coming home from commercial services or employment sites within or beyond the project area.

   At the same time, the increases in auto traffic on surrounding major roads, such as 20th Street, as a result of the project will actually work to discourage the use of active transportation by residents of nearby areas that are better suited for it, like Meriam Park.

   On a broader scale, the comparison used in the EIR for assessing the significance of vehicle miles traveled is a very dubious one. It is not at all clear what area was used as a regional standard. It's a big area, but the population numbers tell us it's larger than all of Butte County. And it had to include a lot of rural areas where people drive long distances by necessity. A comparison to the City of Chico, or another similar urban area if the numbers aren't available for Chico, would be a much more valid standard for vehicles miles traveled.

   I would also say that the assumption that the senior portion of the project population dives substantially less than a younger working population is probably outdated and erroneous for this population. Not only is retirement age steadily rising, but there's good evidence that high-income seniors, the kind that will live in a high-cost project like this, generate high levels of vehicle miles traveled for leisure and other pursuits even during retirement.

   Finally, the EIR discusses the active recreational amenities provided within the project, which sound wonderful, but it is never made clear to what extent those amenities will be made available to the general public, or only to project residents. Project residents will add to the burden of existing parks and recreational facilities in Chico, it seems only right that the rest of us should be compensated for that by a commitment making sure that all the parks and trails in the project are open to everyone. And that's not clear in the EIR.

9. Jared Geiser – I got a degree in Geography and Planning from Chico State and work as a conservation planner.

   The Draft EIR describes this development as "mixed use" when it's not mixed use. I don't think it falls in line with the City's definition of mixed use that I read in the General Plan, and I don't think it falls in line with any reasonable person's definition of mixed use, which is clearly inferring the mix of uses whereas the Valley's Edge Draft Specific Plan EIR clearly shows that the uses will not be mixed, they will be separated. Commercial will be down low, residential will be

PC-12

PC-13

PC-14

PC-15

PC-16

PC-17

up high. Mixed use relates to smart growth principles, which is the idea that, in order to avert environmental issues, climate issues, issues of automobile dependency, we need to grow in a smart way, infill, compact urban form, so people can walk and bike to get where they need to go. And mixed uses have a component of that, so this entails having commercial on the bottom and residential on top as a common example. And the value of that is that you have people right next to, in immediate proximity to commercial uses. So it's going to be boosting economics as well as promoting walkability. As well as promoting safety, which is often overlooked thing in our community. When you have single-use developments like the Valley's Edge Specific Plan DEIR, you have low-density residential homes where people are mostly going to be inside their home throughout the day and nighttime. But when you really do smart growth, with mixed use development, there's going to be more activity on the streets, more eyes on the streets, more people looking at what's going on. So the mixed use is highly valuable and I think the EIR misuses that term.

PC-17 Cont.

In the overview of causes for climate change, the EIR mentions the two main causes: (1) fossil fuel use and (2) land use changes. Then the EIR only acknowledges the GHGs that will result from use of fossil fuels, they don't acknowledge the GHG that will be remitted into the atmosphere from the land use change they are proposing. They acknowledge that land use changes cause climate change, but the EIR fails to analyze how this project's land use change will exacerbate climate change. And it indubitably will because soil is a major carbon pool on this planet, and by converting soil, which is capturing carbon through photosynthesis of the grassland plants and trees, by converting that soil that holds carbon into asphalt, into roads, into houses, into parking lots, you reduce the photosynthetic capacity of the landscape. So the landscape cannot use photosynthesis to capture carbon how it used to, so you're reducing carbon capture from this development, but also causing carbon emissions directly from the grading of the landscape.

PC-18

The climate impacts to this area are severe. Page 4.7-5 reference; extreme heat that will kill people. Page 4.7-6 the regulatory settings cites Massachusetts court case – endangerment finding. Despite the fact that GHG emissions is significant an unavoidable, I still will argue that the threshold of significance is inadequate because it uses the 2030 targets from the Climate Action Plan Update, but the project will not become operational, according to the EIR, until 2045. If the project isn't operational until 2045, then the operational emissions of the project need to be weighed against the threshold of significance of the 2045 Climate Action Plan goals, which is zero metric tons of CO2-equivalent emitted per person per day in the whole City. CARB's Scoping Plan states: "local government as essential partners". This body and the Council and the other entities at the City have the responsibility to protect and plan for current populations.

PC-19

EO B-55-18, the statewide policy for achieving carbon neutrality no later than 2045. This project will obstruct the attainment of this policy, which is important because the EIR, on page 4.7-10, claims the project is consistent with and will not obstruct attainment. This project, as identified by its significant and unavoidable greenhouse gas emissions, will obstruct the attainment of this executive order. That is not acknowledged in the EIR, I think it needs to be.

PC-20

Wildfire is an issue that hits close to home for everyone. I don't believe that the mitigation measures contained in the EIR, specifically Mitigation Measure WFIRE-1, would reduce wildfire risks faced by future residents. It does a good job of trying, but it's severely inadequate nonetheless because future residents will still be exposed to wildfire hazards due to its location in the Cal-Fire Moderate fire hazard severity zone. PC-21

Hydrology – The DEIR states that the project will not alter the hydrology in a way that would negatively affect groundwater recharge, but it does not justify that conclusion. The EIR explains that the lahar flows are relatively impermeable and underlie the site, and that cracks in the lahar flows are not large enough to contribute significantly to recharge, but they don't show where the lahar flows are in relation to the impermeable surfaces proposed to be developed. Says lahar on majority of site, but is it 51%? Is it 99%? It doesn't specify that, or where the groundwater recharge is or isn't occurring. PC-22

Wetland impacts – the DEIR fails to acknowledge how the development will hydrologically interrupt the wetlands located at the northwest of the site. And it does not acknowledge how it will affect the wetlands located further west of the site, in Stonegate. The DEIR states that the VESP site is hydrologically separated from the Stonegate site, but I was just out there and there are culverts under the bike path that provide a hydrological connection between the sites. There are preserves for meadowfoam on the Stonegate site because it's an endangered species. The EIR fails to acknowledge how the development of residential housing up above the wetlands sites, and in one case on top of a spring, will impact the water flowing into the wetlands. The wetlands on in Primary Open Space, however, the wetland preserves are only going to be meaningful if they're hydrologically connected to the land above them, because the water that drains into them is essential for their functionality. PC-23

Threatened and Endangered species – appalled at the mitigation to remove the species. The EIR mitigation is inadequate by not reducing the take of the habitat and only reducing the take of the species. For example, avoid Swainson's hawk impacts to individuals, but then come in and destroy their foraging and nesting habitat. My understanding of the Endangered Species Act is that habitat destruction would constitute "take" of habitat, which is prohibited. PC-24

Inconsistency with local documents, principally the City of Chico General Plan, the City of Chico Climate Action Plan, and the Butte County 2016 Regional Transportation Plan/Sustainable Communities Strategy – EIR claims consistency with the General Plan Sustainability Element where it speaks to emphasizing public health in making land use decisions. Yet, the EIR does not acknowledge how its significant and unavoidable impact to climate change will negatively impact public health. In the Land Use Element, reinforce the City's compact urban form, and the EIR says consistent because it's in an identified growth area and clusters development to maintain large areas of the site undeveloped. While partly true, this project does not relate to the compact urban form of the City of Chico. This development is still a large, sprawling development, up into the foothills, that will be automobile-dependent, no doubt. Especially when you're talking about senior citizens that are over 55 years old and have reduced ability to use active transportation. PC-25 PC-26

Ensure sustainable land use patterns, Policy LU 2.3. Significant and unavoidable GHG impacts is not sustainable. To be sustainable, we must be able to do the same thing indefinitely. By using the finite resource of fossil fuels, which is causing climate change and exacerbating several public health issues, it's not sustainable. Sustainable would be something that would not contribute significantly to climate change. PC-27

LU 2.5, protect areas with known sensitive resources. EIR says the project is consistent, despite all of the known resources on the site. PC-28

Complete neighborhoods, policy LU 3.1. EIR claims consistent, and nobody who's thinking reasonably can argue that this project will "reduce auto trips and support walking, biking and transit use." The density is about 4 units per acre, or closer to 2 units per acre if you count all the land area. That's not dense enough to support bus service. Reducing auto trips will not occur if you develop such a large area, with such long streets, sprawling so high up into the foothills. Other General Plan policies I'd like to argue: Goal CD 1.1, CD-1.1.1, CD-2.1, CD-2.1.1, CD-2.4, CD-2.4.1, Goal CD-3. PC-29

Transportation Plan calls for enhancing regional transit and mass transit, getting people from place to place without cars, with things like busses and trains. This project is not going to do that with this layout or by its location. PC-30

Climate Action Plan calls for three measures that the EIR says is consistent and it is clear not. Improve active transportation infrastructure to achieve greater than 6% bicycle mode share by 2030 and 12% bicycle mode share by 2045. This project does not improve active bicycle infrastructure, it provides recreational biking opportunities for residents. Measure T-1 is inconsistent with this project, and the EIR needs to reflect that. PC-31

Measure T-5: Support implementation of the City's General Plan that promotes sustainable infill development and mixed-use development in new growth areas to reduce VMT of the VMT. The project is not mixed-use development and is clear not infill development since it's surrounded by open space and grazing land. PC-32

Measure S-1: Increase carbon sequestration by increasing urban canopy cover at least 10% by 2030 through new greenscaping programs. EIR claims consistency with this measure by noting the project's street tree program, but that's not what the measure is saying. The measure says to increase carbon sequestration. This project will not increase carbon sequestration, it will decrease carbon sequestration by destroying the grasslands present at the site and removing 1,100 trees. Yes, they will plant more trees, but that will not increase carbon sequestration. Carbon sequestration will be reduced, indubitably. Thus, the project will be inconsistent with these plans. PC-33

10. Caitlin Dalby – BEC, Butte Environmental Council, is not against development or planning. We want to be smart about development.

The DEIR lacks an assessment of the impact this development will have on the imbalance of our regional housing needs. Goes back to more density, more infill, closer to facilities and public transportation. PC-34

The Draft EIR needs to incorporate a thorough and meaningful consultation with the Mechoopda Tribe on the plan area's ecological resources, in addition to its archaeological resources. Tribe is active in ecosystem restoration and monitoring, including flooding. Not just the 100-year flooding, which we are past at this point. We're now looking at 200-year, 500, 10,000 and 30,000-year flood events coming in the next 50 years. They are also knowledgeable about the wildfire regime in this area. Final EIR should include that additional consultation. Neither the DEIR or VESP clarify what areas will be restricted to the public. PC-35

Transportation impacts need to be re-evaluated, with the Chico Urban Area as the standard, not comparing the project to the County or beyond Butte County. PC-36

GHG impact needs to be re-evaluated with an assessment of how the expected demographics will be traveling. Fifty-five or older may drive more than a younger demographic.
Would like to see a 5th alternative with a greater density, pull residential from northern and add to lower portions of the site. PC-37

11. Maggie Scarpa – studied geography at Chico State, now a County Land Use Planner.
GHG impacts; increase in extreme heat, increase in deadly and devastating wildfires; we cannot approve projects with significant and unavoidable impacts. PC-38

Transportation: need to be about 14-20 du/ac to support local transit. Threshold area analyzed is the County and the threshold needs to be the Chico Urban Area. Transit and commute patterns are different in Chico than Magalia, yet they are viewed as equal. PC-39
Thresholds of significance: the City uses the State's, or 15%. We should use the recently adopted a CAP, should use the 2045 targets, not the 2030 targets. PC-40

There is no analysis for land use and population impacts. Appendix G checklist requires analysis of potential project impacts that could induce growth. This project will induce population growth. PC-41

There are many endangered, threatened and sensitive species onsite (burrowing owl, western pond turtle, and bats). Passive relocation per mitigation can result in "take," and take of an endangered species is prohibited. PC-42

The project needs to be denser and remove Equestrian Ridge. Needs to be denser to support transit. More density would reduce VMT and would reduce GHGs. Would like to see a more detailed protections for endangered species in the Final EIR. PC-43

12. Addison Winslow – advocate for housing, board member of the Northern California Environmental Defense Center.

    Social and psychological effects of this plan on the surrounding community. The largest concentration of land identified for affordable housing is in southeast Chico, primarily along Highway 32 and Bruce Road. Six out of seven of the pending, subsidized affordable housing projects are also located within or immediately adjacent to Meriam Park. The plan for Valley's Edge includes just 9 acres zoned Medium-High Density Residential, or about 5% of the total number of units in the project. It's not helpful for the dramatic imbalance of housing units Chico is experiencing. If successful in attracting higher income buyers, the project would exacerbate the geographic reflection of Chico's socio-economic divide, and further concentrate the placement of workforce housing along the highway and a major arterial where those families will experience the worst air quality impacts, the traffic noise, and the roadway danger that will come from building low density housing on the edge of an urban area. PC-44

    The custom houses overlooking Upper Park, down through California Park, the private road into Stilson Canyon, the Valley's Edge Site, the homes blocking access to Butte and Comanche Creek along Honey Run Road, and the Butte Creek Country Club. The area on the Valley floor undergoing the largest expansion of working-class housing is being enclosed and hemmed in by restricted-access developments in the foothills. Didn't know about lakes in California Park, I guess you need to carry an ID, and I don't know if that is the same intention for this HOA. Similarly, Stilson Canyon isn't accessible for the normal child. We are, to that extent, impoverished of the natural endowment of our area. For generations, if this project were to go though, kids will share the same schools but some will have the freedom to explore in the foothills while others will not. PC-45

    The applicants tout this plan as the largest conservation effort since Bidwell Park, but if this plan is approved without any condition requiring public access to the parks and the paths, it will be more like the largest privatization effort since the Mexican Land Grants. PC-46

    Equestrian Ridge is totally separate and unrelated to the rest of the site, it probably deserves its own environmental impact report. PC-47

    There's an inconsistency where the VESP says Equestrian Ridge will be Phase 2 and DEIR says Phase 1, multi-generational. PC-48

    Just like Meriam Park was required to build the multi-family first, then the single-family later, the City should first require development of the Core in Valley's Edge, then up from there, and should hold the developer to a development agreement. PC-49

13. Joshua Pierce – Resident of south Chico, builder in Doe Mill with a 25-year history of urban development and climate solutions. I want to describe the limitations under CEQA. California is currently undergoing a massive de-carbonization process, investing over a billion dollars in improving utilities, and the federal government is going into decarbonizing the building stock and decarbonizing transportation. That is not taken into account in the EIR's calculations of GHG PC-50

emissions and VMT, and the impact of those vehicle miles traveled. That means that, in ten years when these new homes are built, they will be all-electric, they will use heat pump technologies rather than natural gas, and more and more people will be driving and using electric vehicles. Those calculations are not considered in the way that they'll apply in California in the future, if we come anywhere near our climate goals.

PC-51

Infill is important, but not the entire solution. Infill generally does not provide parks and open space. It generally does not support inter-generational housing and uses the existing resources and infrastructure. May not be in the EIR but will impact the development.

PC-52

The poor soils and carbon sequestration. The project will cause a net increase in the number of trees onsite over a 15-year time horizon, due to the development and addition of street trees and landscaping on individual lots. The development, by necessity, will tear up the lahar flows and cemented cobble on the site. That will increase the surface area for potential water infiltration. Additional riparian areas will be created because of the development, and additional seasonal wetland areas that will be created due to the low impact development aspects mentioned in the EIR. The trenching for infrastructure, for sewer lines and storm drainpipes, will also disrupt the lahar flows and create additional opportunities for infiltration of the surface hydrology.

PC-53

Lastly, master planning is hard to do and we're not very good at it in the City of Chico, and generally in the North State. Most of the developments around Chico are small-plot subdivisions, generally built on verdant soils. Valley's Edge represents a once-in-a-generation opportunity, by creating opportunities for development that do not build on prime farmland, that do not build on sensitive habitat, and preserve as much of it as possible. We have seen this too much in the past. I have not seen a more thoughtful, well-planned legacy building project in our community in the 40 years that I've lived here. Thank you for you time.

PC-54

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4.4 Planning Commission Hearing – November 18, 2021

PC-1 The comment states general support for the project and acknowledges the adequacy of the EIR and the topic areas discussed. The commenter expresses a desire for the City to focus on sustainable development, as housing is ultimately needed to address the City's housing crisis.

The commenter's opinion is noted and forwarded to the decision makers for their consideration. The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required.

PC-2 This commenter states an opinion that the project is "in the wrong time and in the wrong place".

The commenter's opinion is noted and forwarded to the decision makers for their consideration. The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required.

PC-3 The comment states that the Draft EIR identifies two significant and unavoidable impacts and expresses an opinion that the EIR's analysis of the project's impact on natural resources is inadequate.

The commenter is correct, the Draft EIR identifies two significant and unavoidable impacts specific to an increase in GHG emissions and change in visual character of the site. The commenter does not specify what areas of the Draft EIR the commenter believes are inadequate; therefore, no response can be provided. The commenter's opinion is noted and forwarded to the decision makers for their consideration.

PC-4 The comment states that the proposed project contradicts the City's guiding principles and regulations but does not elaborate.

Please see Response to Comment 21-2 that addresses this comment.

PC-5 The comment states an opinion that the project is urban sprawl. The comment also notes that the proposed project's estimated GHG emissions of approximately 3.13 MT CO2e per capita would exceed the City's 2030 efficiency target of 2.76 MT CO2e per capita per year.

Please see Response to Comment 21-3 that addresses this comment.

PC-6 The comment states that City Council is set to adopt its Housing Element Update, which emphasizes the need for affordable housing.

The comment does not address the accuracy or adequacy of the Draft EIR; therefore and no further response is required. Please see Response to Comment 21-4 for additional information.

PC-7 The comment states general support for the project and commends the adequacy of the Draft EIR.

The commenter's support is noted. The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required.

PC-8 The comment states general support for the project and its smart growth design. The commenter particularly supports the project's proposed parks, open space, and public uses.

The commenter's support is noted. The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required.

PC-9 The comment states general support for the project and commends the adequacy and thorough analysis of the EIR. The comment acknowledges the housing shortage in Chico and expresses support for large residential development projects to capture housing lost due to the Camp Fire.

The commenter's support is noted. The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required.

PC-10 The comment acknowledges that the City worked hard to reduce and avoid impacts, where possible. The commenter acknowledges that if the VESP is not implemented, the project site would be developed in the future regardless.

The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required.

PC-11 The comment states support for the project and acknowledges the housing crisis that Chico is facing. The commenter also expresses concern that employee commute distances from outlying areas into the City will increase if housing is not provided in the City, which would increase GHG emissions.

The commenter's concern is noted and forwarded to the decision makers for their consideration. The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required.

PC-12 The commenter believes the project, as designed and due to the topography, would not encourage use of bicycles by future residents.

The commenter's concern is noted and forwarded to the decision makers for their consideration. The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required. Please see Response to Comment 23-3.

PC-13 The comment states that the increase in vehicle traffic on surrounding major roads, such as E. 20th street, will discourage the use of active transportation.

The commenter's opinion is noted and forwarded to the decision makers for their consideration. Please see Responses to Comments 9-49, 9-77 and 23-4 for more information.

PC-14 The comment asserts that the comparison used in the EIR for assessing the significance of VMT is not clear, and a comparison to the City or other similar urban area would be a more valid standard for VMT.

Please see Response to Comment 9-45.

PC-15 The comment states that the assumption that the senior portion of the project population drives less and results in fewer vehicle miles traveled (VMT) than younger population is an outdated and erroneous assumption. The comment also states there is evidence that high-income seniors generate high levels of VMT for leisure and travel.

Please see Responses to Comments 9-46 and 9-50.

PC-16 The comment states that the EIR discusses active recreational amenities, but it is not clear as to which amenities will be made available to the general public, and that the increase in project residents will burden existing recreational facilities in Chico.

Impacts related to recreation and parks are evaluated in Section 4.11, Public Services and Recreation of the Draft EIR. As described therein, the increase in population associated with the project would not create a significant impact on city parks outside of the project site such that there would be substantial deterioration or a need for new or expanded parks, as the new parks would be highly accessible for all project residents. Further, as discussed under Impact 4.11-7, policies and actions included in the 2030 General Plan support continued cooperation with Chico Area Recreation District and other agencies to provide parks and recreation facilities that offer recreation opportunities for the community (Policy PPFS-1.1). New population associated with the project is expected to be adequately served by existing and proposed expansions to recreational amenities and open space fields included as part of the project. With an increase in 5,654 individuals over the planning horizon, and with consideration of the new and expanded recreational facilities to be built as part of the proposed project, the project's contribution to impacts associated with the provision of new or expanded parks or other public facilities would not be cumulatively considerable. Therefore, no further impacts to the Draft EIR are required and impacts would remain less than significant. Please see Response to Comment 23-7 regarding public access to the project's parks and other amenities.

PC-17 The comment states that the project does not align with the City's General Plan definition of "mixed-use" and does not represent the smart growth principles of a mixed use development.

As discussed in the Draft EIR in Chapter 2, Project Description, the VESP will implement the City's General Plan for the Doe Mill/Honey Run Special Planning Area. The General Plan envisions a recreation oriented, mixed-use development offering a broad range of housing types and densities within SPA-5. As stated in the General Plan, the SPA will include a village core, retail along Skyway, a variety of residential densities (including very low, low, medium, and medium-high density), open space areas on the SPA's east side, a community park, neighborhood and pocket parks, public uses (potentially an elementary school site), and preserve areas with creekside corridors. Roadways, trails, and bikeways will be integrated into the natural landscape to connect the residential areas to parks, open space, offices, public facilities, and services. The VESP proposes up to 2,777 dwelling units, ranging from 0.54 dwelling unit per acre (du/ac) to 18.0 du/ac on approximately 668 acres. The VESP also allows for approximately 447,155 square feet (sf) of commercial development on approximately 56 acres. The remainder of the project site is proposed to be parks, open space, public facilities, and roadway infrastructure.

As explained on page 3-14 in the Land Use and Planning chapter of the Draft EIR, the analysis of consistency with the General Plan focuses on "whether the project is in harmony with the overall intent of the City's 2030 General Plan goals and policies. It is within the City's purview to decide if

the proposed project is consistent or inconsistent with applicable City goals or policies. The discussions in this Draft EIR on the subject of General Plan consistency represent the best attempt of City staff to advise the City Council of its opinions as to whether the proposed project is consistent with identified goals and policies of the City's General Plan.

PC-18 The comment states the EIR mentions climate change is caused by fossil fuels and land use, yet the EIR only discusses fossil fuels contributing to an increase in GHGs and does not address changes in land use. The comment also discusses the conversion of soils contributing to a reduction on the photosynthetic capacity of the environment.

The direct and indirect impacts associated with development and a change in land use are evaluated in the various technical sections in the Draft EIR. This includes impacts attributed to construction activities and also an increase in people contributing to an increase in vehicle trips and demand on local utilities. Many of these activities both directly and indirectly affect the worldwide challenge of climate change. Contrary to the suggestion under this comment, the soils at the project site are mostly lithified lahar rock with very low organic matter and therefore lower potential for carbon sequestration. Please see Responses to Comments 9-1 and 9-2 that address concerns associated with carbon sequestration.

PC-19 The comment questions the adequacy of the City's GHG thresholds because the thresholds are using targets set in the City's 2030 Climate Action Plan (CAP) and not the City's recently adopted CAP Update.

The City adopted a CAP Update in 2021, which is intended to guide the City towards reducing GHG emissions consistent with the state goal to reduce GHG emissions 40% below 1990 levels by 2030, established by SB 32, and to make progress towards meeting the state's long term goal of carbon neutrality by 2045, established by EO B-55-18. As explained on page 4.1-17 in Section 4.7, Greenhouse Gases, the CAP Update adopts a GHG emissions target for 2030, and a long-term GHG emissions goal for 2045. The City's targets are to reduce mass emissions 45% below 1990 levels by 2030 and to achieve carbon neutrality by 2045. As the lead agency, the City has the discretion to choose the significance threshold for discretionary projects. An efficiency metric approach, which is the basis for the GHG emission reduction targets established in the City's 2021 CAP Update, was used for the proposed project because it measures the project's emissions on a per-person basis to determine its overall GHG efficiency relative to regulatory GHG reduction goals. The project's GHG emissions are evaluated relative to the City's reduction target. The City's 2030 reduction target of 2.76 MT CO_2e per capita per year was used to evaluate the proposed project because it represents the City's goal to reduce GHG emissions to 40% below the 1990 levels by 2030. The use of this threshold is adequate and is consistent with the recently adopted CAP Update.

PC-20 The comment suggests the project would obstruct attainment of EO B-55-18 because it would generate GHG emissions in excess of the City's threshold.

The project's increase in GHG emissions is evaluated in Section 4.7 under Impact 4.7-1 starting on page 4.7-29. The project would exceed the City's threshold leading to a significant and unavoidable impact; however, there are various aspects of future conservation and energy efficiency metrics that have not been accounted for in the model. For example, as the vehicle fleet continues to move towards more electric vehicles and higher fuel efficiency standards it is

anticipated there would be reduction in GHG's. In addition, as the state's building code (CalGreen) is further updated all new development occurring in 2028, for example will be required to be more energy efficient than under the current building standards. It is anticipated as the project is developed it will be required to comply with more stringent energy requirements that will help reduce the project's GHG emissions that are not able to be captured as part of this EIR. Please see Responses to Comments 9-3 and 9-4.

PC-21 The comment relates to wildfire and the commenter does not believe the mitigation proposed to address wildfire concerns would reduce the risks and would still expose future residents to the hazards of wildfire.

Please see Master Response 1 that addresses concerns associated with wildfire.

PC-22 The commenter does not agree that the project would not affect hydrology or groundwater recharge because the analysis does not specify where groundwater recharge is occurring on the site and how the project could potentially affect groundwater recharge capability.

Please see Responses to Comments 39-4 and 9-56 that address this comment.

PC-23 The commenter asserts that the Draft EIR fails to discuss how the project would hydrologically affect the wetlands located northwest of the site and the wetlands located to the west in the adjacent Stonegate property. The comment expresses concern that development would impact water flowing into wetlands affecting their ability to function.

Please see Responses to Comments 9-34, 49-9 and Master Response 2 that address these concerns.

PC-24 The commenter claims the mitigation for protected species is inadequate and that removal of habitat would constitute a "take" of the species.

Impacts to biological resources is included in Section 4.3, Biological Resources. The comment does not indicate what mitigation measures are inadequate; therefore, this response generally discusses what is required to be evaluated in a CEQA document. As described in the section, Butte County Meadowfoam (BCM) is a protected plant species in addition to the species listed on pages 4.3-19 through 4.3-29. As explained on page 4.3-34, "[T]he "take" of a species is defined under the Federal Endangered Species Act (FESA) as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" (16 USC 1532 (19)). With respect to any endangered species of plant, Sections 9(a)(2)(A) and 9(a)(2)(B) prohibit the possession, sale, and import or export, of any such species, and prohibits any action that would "remove and reduce to possession any such species from areas under federal jurisdiction; maliciously damage or destroy any such species on any such area; or remove, cut, dig up, or damage or destroy any such species on any other area in knowing violation of any law or regulation of any State or in the course of any violation of a state criminal trespass law." Pursuant to FESA Section 10(a)(1)(B), the USFWS may issue a permit for the take of threatened or endangered species provided that such taking is "incidental to, and not the purpose of, the carrying out of an otherwise lawful activity."" As discussed under Impact 4.3-1 on page 4.3-49, only one federally ESA-listed species, BCM, has been identified on the site. The populations of this species, as well as their habitat, is proposed to be preserved in BCM preserves on site. Wildlife species with other

varying special-status designations are either known to occur (e.g., burrowing owl) or have potentially suitable habitat on site (e.g., western spadefoot). As discussed, the project could impact protected bat species and protected nesting birds. To address potential impacts to these species and their habitats, mitigation measures BIO-1 through BIO-10 are provided which include protection of individuals and/or habitat features on site. The mitigation measures provided, as modified (see Chapter 3, Changes to the Draft EIR), would adequately mitigate potential impacts consistent with federal and state requirements.

PC-25 The commenter asserts that the project is inconsistent with the City's General Plan, the City's CAP and the Butte County RTP/SCS because the project would result in a significant and unavoidable GHG impact.

Please see Responses to Comments 45-1, PC-17 and PC-20.

PC-26 The commenter states that the project conflicts with the City's desire to see compact development and states an opinion that the project is large, auto-dependent and does not relate to compact development in the City.

The comment is referring to General Plan Goal LU-1, which calls for reinforcing the City's "compact urban form, establish growth limits, and manage where and how growth and conservation will occur." As stated on page 3-17 of the Draft EIR, the "project site is identified in the City's General Plan as a growth area, and the Specific Plan proposes clustering development to maintain large areas of the site in open space." Ultimately, it is within the City's purview to decide if the proposed project is consistent or inconsistent with applicable City goals or policies. The discussions in this Draft EIR on the subject of General Plan consistency represent the good faith reasoned analysis required under CEQA to inform the public and the decision makers as to whether the proposed project is consistent with identified goals and policies of the City's General Plan.

PC-27 The comment refers to General Plan Policy LU 2.3 and claims because the project results in a significant and unavoidable GHG impact it is not sustainable.

General Plan Policy LU-2.3 states: Ensure sustainable land use patterns in both developed areas of the city and new growth areas. As stated on page 3-17 of the Draft EIR, the "project is designed consistent with the General Plan and includes a mix of residential and commercial uses designed to promote a healthy and sustainable lifestyle and community. This includes an extensive network of multi-use trails, energy efficient, resource efficient, and fire-resistant buildings, housing and options for a variety of lifestyles, incomes and ages." As noted in Response to Comment PC-26, ultimately it is up to the City to determine if the project, overall, is consistent with the General Plan goals and policies and the values set forth in the General Plan.

PC-28 The comment notes Policy LU-2.5 and questions how the project can be consistent with this policy given all the resources on the site.

General Plan Policy LU-2.5 calls for protecting areas with known sensitive resources. As stated in the Draft EIR on page 3-17, the "project has been designed to minimize tree removal, maintain on-site rock walls, preserve known cultural resources, preserve the on-site Butte County meadowfoam plant, and preserve approximately half of the site in open space or parks." The City will determine if the project is consistent with this policy as stated in prior responses.

PC-29 The comment lists other General Plan policies and questions how the project can be consistent with these policies.

Please see Responses to Comments PC-17 and 9-5.

PC-30 The commenter states an opinion that the project is not going to support transit given its design and location.

The commenter's opinion is noted and forwarded to the decision makers for their consideration. The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required.

PC-31 The comment refers to three measures included in the City's CAP which call for improving the City's active transportation network to enhance infrastructure that supports bicycles. The comment goes on to state the project does not improve active bicycle infrastructure and CAP measure T-1.

Please see Responses to Comments 23-4 and PC-17. In addition, it is important to note measure T-1 sets forth goals that are inclusive of the entire City and each project is not required to individually meet a citywide goal.

PC-32 The comment refers to measure T-5 included in the City's CAP and does not believe the project meets the intent of this measure.

Please see Responses to Comments PC-17, PC-20 and PC-31.

PC-33 The commenter claims the project will not increase carbon sequestration and is inconsistent with Measure S-1 from the City's CAP.

Please see Responses to Comments 9-1, 9-2, 45-2 and PC-17.

PC-34 The comment asserts the Draft EIR does not address regional housing needs.

Please see Responses to Comments 9-66 and 10-6.

PC-35 The comment requests that the City consult with the Mechoopda Tribe regarding the ecological resources on the site and also requests clarification as to what areas would be restricted to the public.

In compliance with AB 52, the City sent letters to eight tribes, including the Mechoopda Indian Tribe of Chico Rancheria (Tribe). The Tribe responded to the City and requested that a Mechoopda Indian Monitor be present during all earth moving and grading activities to ensure that any potential tribal cultural resources found during project ground disturbance be protected. No formal consultation was requested by the Tribe (Draft EIR p. 4.4-8). The Tribe did not comment on the Draft EIR.

PC-36 The comment requests that transportation impacts be re-evaluated using the Chico Urban Area as the standard and not the larger region.

Please see Response to Comment 9-45.

PC-37 The comment requests an additional alternative be included which includes more density and shifts the residential development from the northern to the southern portion of the site.

Please see Responses to Comments 9-50 and 9-84.

PC-38 The commenter states an opinion that due to climate change and potential for wildfire the City cannot approve projects with significant and unavoidable impacts.

The commenter's opinion is noted and forwarded to the decision makers for their consideration. The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required.

PC-39 The comment suggests a density of 14-20 dwelling units per acre is required to support transit and appears to question the threshold used to evaluate VMT.

The commenter's opinion regarding density is noted and forwarded to the decision makers for their consideration. Regarding the VMT threshold, please see Response to Comment 9-45.

PC-40 The comment refers to the City's VMT threshold and requests that the threshold for GHG should be the City's 2045 target and not the 2030 target.

The commenter's reference to the City's VMT threshold is noted. Regarding the GHG threshold, please see Response to Comment PC-19.

PC-41 The comment refers to land use and population and states the project would induce population growth.

The Draft EIR describes existing and planned land uses within and adjacent to the project site, current land uses, land use designations, zoning, and analyzes the consistency of the proposed project with existing land use plans and policies and identifies any potential conflicts with applicable plans, policies or regulations adopted for the purpose of avoiding or mitigating an environmental effect in Chapter 3, Land Use and Planning. The increase in population resulting from the project does not necessarily cause direct adverse physical environmental effects; however, indirect physical environmental effects such as an increase in vehicle trips and associated increases in air pollutant emissions and noise along with an increased demand for public services and utilities could occur and have been evaluated in the technical sections included in Chapter 4. The growth inducing impacts of the project were addressed in Chapter 5, Other CEQA Considerations, starting on page 5-3.

PC-42 The comment states there are protected species on the site and passive relocation can result in "take" of the species which is prohibited.

Please see Response to Comment PC-24 for information regarding biological resources.

PC-43 The commenter suggests that the project needs to be more dense to support transit and reduce VMT and GHG emissions, Equestrian Ridge needs to be removed, and requests that additional mitigation for protected resources be provided.

The commenter's opinion regarding the proposed project is noted and forwarded to the decision makers for their consideration. Please see Chapter 3, Changes to the Draft EIR for more information on updates to the biological resource mitigation measures and other updates to the project.

PC-44 The comment refers to the types of residential units proposed as part of the project and expresses concern that the project would affect the city's "socio-economic divide".

The commenter's opinion regarding the proposed project is noted and forwarded to the decision makers for their consideration. The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required. However, CEQA does not require an analysis of the socioeconomic effects of a project. Economic or social effects of a project shall not be treated as significant effects on the environment (CEQA Guidelines section 15131).

PC-45 The commenter discusses general concepts regarding housing and access to the foothills.

The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required.

PC-46 The comment expresses a concern regarding public access to any proposed parks and trails.

Please see Response to Comment 9-77.

PC-47 The commenter notes the Equestrian Ridge neighborhood is separate from the rest of the site and asserts that it deserves its own EIR.

The Draft EIR for the project evaluates the whole of the action as required under CEQA, which prohibits piecemealing or segmentation of project impact analysis. Comprehensive evaluation of the entire proposed project ensures that impacts are not understated and the environmental effects of implementing the project are fully disclosed and mitigated to the extent feasible. Please see Chapter 3, Changes to the Draft EIR for more information on updates to the project.

PC-48 The comment states a potential discrepancy regarding how the project's phasing is described in the VESP and in the Draft EIR specific to the Equestrian Ridge planning area.

The comment does not indicate where in the Draft EIR there is discrepancy in how the Equestrian Ridge neighborhood is described, as compared to the VESP. It is possible the commenter is confused about the use of the term "multi-generational" depicted on Figure 7-1 in the VESP. All residences that are not part of the Senior Housing are considered "multi-generational" or "Family Housing" which accurately characterizes the Equestrian Ridge neighborhood. Please see Chapter 3, Changes to the Draft EIR for more information on updates to the project.

PC-49 The commenter requests that the City require the Village Core and Village Commercial portions of the site be developed first. The commenter also suggests that the City should require a development agreement.

The commenter's desire to see the commercial components be developed first is noted and forwarded to the decision makers for their consideration. The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required. To clarify, the City and the project applicant are preparing a development agreement (Draft EIR p. 2-41).

PC-50 The comment refers to future changes anticipated by the state to further bolster reductions in GHG emissions which are not able to be captured in the GHG modeling conducted for the project.

The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required.

PC-51 The commenter states that infill development is good but it does not provide new parks or open space or support inter-generational housing.

The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required.

PC-52 The comment notes the project would increase the number of trees on the site and would increase water infiltration due to the removal of the lahar flows to trench for infrastructure and general development. The commenter notes the removal of the lahar would also create additional seasonal wetland areas.

The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required.

PC-53 The commenter states an opinion that the City is not good at large-scale planning and that most projects are small-lot subdivisions. The commenter is supportive of the project design.

The commenter's opinion is noted and forwarded to the decision makers for their consideration. The comment does not address the accuracy or adequacy of the Draft EIR; therefore, no further response is required.

4.5 References

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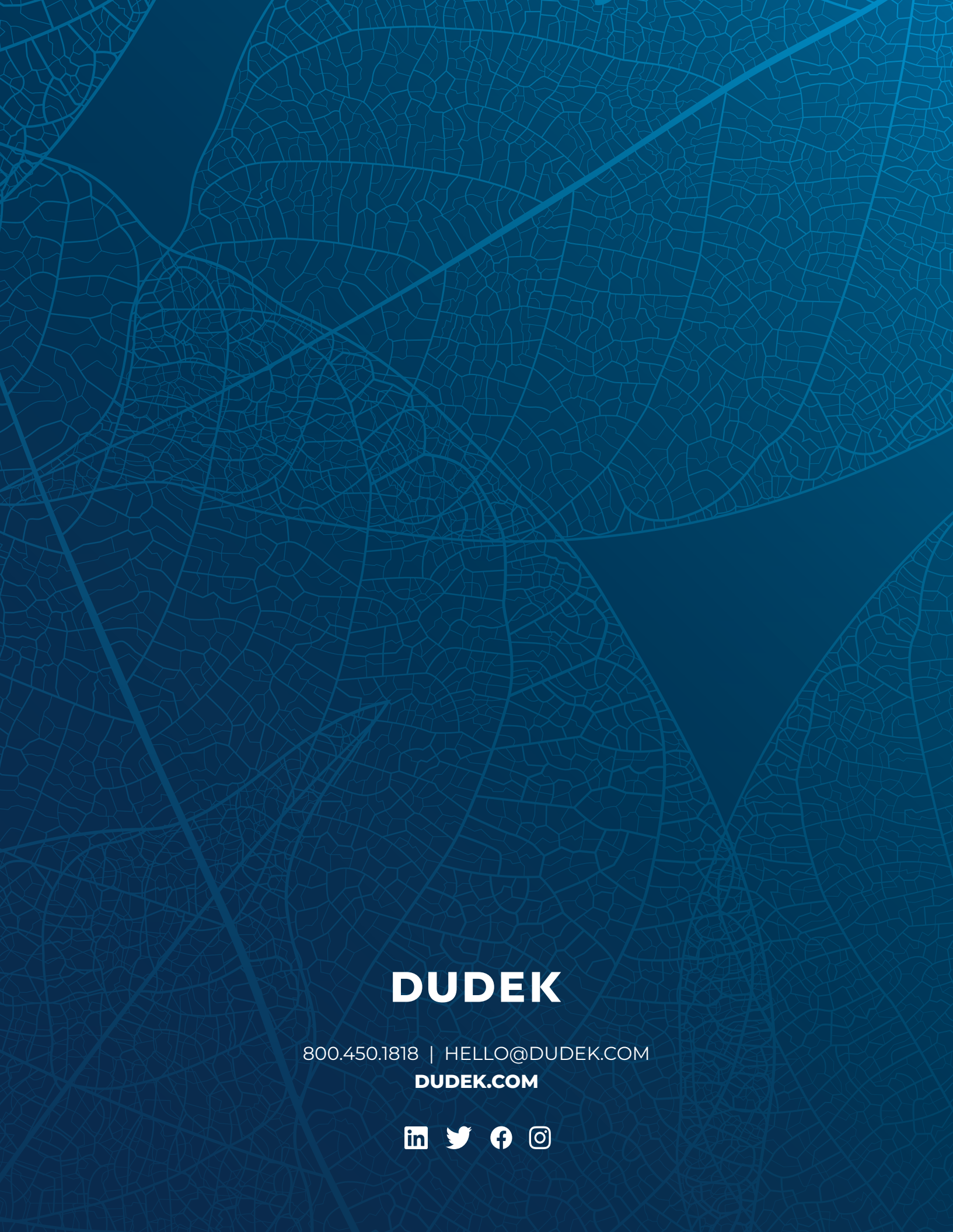

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