

May 24, 2018

City of Chico Planning Department Attn: Senior Planner Mike Sawley PO Box 3420, Chico, CA 95927 <u>mike.sawley@chicoca.gov</u>

Re: Stonegate Vesting Tentative Subdivision Map and General Plan Amendment / Rezone Draft Environmental Impact Report (SCH# 2016062049)

Dear Mr. Sawley:

AquAlliance submits the following comments and questions for the proposed Stonegate development project ("Project"). The *Stonegate Vesting Tentative Subdivision Map and General Plan Amendment / Rezone* Draft Environmental Impact Report ("DEIR") proposes 702 housing units¹ by subdividing 313 acres for 424 single-family residential units, 45 large-lot residential units, 13.4 acres for multi-family units, 36.6 acres of commercial development, 109 acres of open space, and 3.3 acres of public right-ofway.²

I. <u>Background</u>

The lead agency, the landowner, and the Chico community have known about the valuable vernal pool landscapes found in and around Chico for over two decades. For example, many of the lands in southeast Chico, including all of the Schmidbauer property, were designated as Resource Management Areas in the General Plan update from 1991-1994 due to the valuable natural resources found there. To implement the Chico General Plan, a two-year effort ensued from 1995 through 1996 to develop a Habitat and Resource Conservation Plan that revealed in more detail the significance of the habitats and species found in the planning area. Despite this extensive biological and wetland information, Chico Unified School District ("CUSD") was recruited by the developer to place a new high school on the Schmidbauer land. The community, the Chico City Council, state and federal agencies, the project proponents, and the CUSD all knew that the so-called 'preferred site' for the high school was heavily constrained by wetlands and the unique endangered species plant, Butte County meadowfoam, as well as other special status species.³ The tactic to use a high school as a wedge to further development on highly valuable wetlands backfired when newly elected CUSD Board members communicated directly with the

¹ DEIR p. IV.L-5.

² City of Chico 2018. *PUBLIC NOTICE OF AVAILABILITY DRAFT ENVIRONMENTAL IMPACT REPORT STONEGATE VESTING TENTATIVE SUBDIVISION MAP AND GENERAL PLAN AMENDMENT/REZONE (SCH # 201606204)* p. 1.

³ U.S. Fish and Wildlife Service 1998. Letter to Jim Mann, Schmidbauer consultant. "Butte County meadowfoam populations have been so reduced by past projects that the species' recovery depends upon all or substantial portions of all remaining populations. We also discussed some of the genetic work that shows the importance of each of the remaining populations for the long-term viability of the species..."

regulatory agencies. CUSD ceased collaboration with the Schmidbauer consultant and sought another site for a high school.⁴

II. <u>Biological Resources</u>

The City of Chico, landowners, state and federal agencies, and local residents have all been aware of resource constraints in the Project area since the update of the Chico General Plan in 1994 and the attempted Chico Habitat and Resource Conservation Plan ("HRCP") that followed.

The U.S. Fish and Wildlife Service ("Service") and the U.S. Environmental Protection Agency ("EPA") have repeatedly stated that the wetlands and endangered species in southeast Chico are treasures that have been entrusted to us. A letter from the Service dated February 24, 1998 to Schmidbauer's consultant, Jim Mann, states, "Butte County meadowfoam populations have been so reduced by past projects that the species' recovery depends upon all or substantial portions of all remaining populations. We also discussed some of the genetic work that shows the importance of each of the remaining populations for the long-term viability of the species..."

In a letter dated October 4, 2000 from EPA to Congressional Representative Wally Herger, it clearly states that the jurisdictional agencies are in agreement that the "preservation of the two [Schmidbauer] parcels located <u>east</u> of Bruce Road is necessary to adequately protect waters of the United States" (emphasis added). The EPA letter was a response to a July meeting called by Herger's office and the landowner's consultant. The letter goes on to say that, "Permitting development on even a portion of the eastern parcels will degrade the remaining resources through direct, indirect, and cumulative impacts." State and federal agencies used the same language during the HRCP process from 1995 through 1997. Additionally, the Butte Resource Conservation Plan (a Habitat Conservation Plan and a Natural Community Conservation Plan) ("BRCP") planned to protect the entire Schmidbauer property that encompasses the Project until the Project proponents surfaced very late in the process during the NEPA/CEQA public review and sought to be removed from the BRCP.⁵

EPA has also informed the U.S. Army Corps of Engineers that, "Vernal pools have been identified as Aquatic Resources of National Importance (ARNIs) in past Section 404(q) elevations."⁶

- a. The DEIR fails to disclose the vulnerability of small preserves in general, and small preserves surrounded by urban development in particular. For example, unless there is adequate protection of the uplands, the wetland values in a preserve area may be degraded. The close proximity of Project to the proposed vernal pool complex preserves invariably leads to excessive human and pet involvement in the landscape, habitat fragmentation, interrupted flow of water, and point source pollution.⁷ The DEIR's lack of detail and analysis on this topic requires the lead agency to revise and recirculate the DEIR.
- b. Butte County Meadowfoam

The DEIR's destruction of this important Doe Mill Core Area habitat (see Figure 1) cannot be properly mitigated to less-than-significant levels. "The endangered annual Limnanthes floccosa ssp. californica

⁴ USACE 2002. Public Notice Number 200100162 for Canyon View High School.

⁵ Butte County Association of Governments ("BCAG") 2015. *Figure 5-6. Chico Butte County Meadowfoam Preserve*. Exhibit B.

⁶ U.S. EPA 2017. Letter to U.S. Army Corps of Engineers re Stonegate. Exhibit C.

⁷ Volmar Consulting and AECOM 2009. *Effectiveness of Small Vernal Pool Preserves*. Prepared for the Placer County Land Trust. pp. 18-19. Exhibit D.

Arroyo is restricted to vernal pools in Butte County, California. Our study confirms previous isozyme results and suggests that any loss of occurrences represents a significant deficit in the species' genetic diversity, making it extremely vulnerable to chance catastrophes. Recovery requires active restoration of existing populations and permanent habitat protection.⁸ The lead agency should either revise the Project to avoid impacts to Butte County Meadowfoam or revise its determination that these impacts will be less than significant with mitigation.

III. <u>Hydrology</u>

a. Water Supply

There is great ambiguity in the description of the water available for the Project. Examples include: "Determining the actual supply available to Cal Water in any given year is complicated by several factors."⁹ The DEIR then appropriately explains that there has not been a comprehensive safe yield investigation or an adjudication of the groundwater basin. However, the DEIR asserts that this is "partly due to the relative abundance of groundwater resources in this region of the Sacramento Valley," but then admits that there has been a "general decline" in groundwater levels over time, yet not significant enough to "warrant immediate concern."¹⁰ The DEIR fails to provide justification for this and other conclusory statements. AquAlliance disagrees and provides the following table to demonstrate our enduring concerns about the status of the groundwater basin upon which all of Chico, and the majority of Butte County residents and orchardists depend.

Using the most current fall mapping available (DWR has yet to post 2017 fall maps as of May 23, 2018), Table 1 provides a summary of fall, county-level groundwater monitoring results from our region in the northern Sacramento Valley.¹¹ Tremendous declines are apparent.

County	Deep Wells (Max	Deep Wells (Max	Deep Wells (Avg.	Deep Wells (Avg.	
	decrease gwe)	decrease gwe)	decrease gwe)**	decrease gwe)**	
	Fall '04 - '15	Fall '04 - '16	Fall '04 - '15	Fall '04 - '16	
Butte	-20.6 (-12.7)*	-28.3	-12.8 (-10.5)*	-10.9	
Colusa	<mark>-87.3 (-59.5)*</mark>	-66.4	<mark>-35.0 (-59.5)*</mark> (only 1	-26.3	
			well monitored in 2014)		
Glenn	<mark>-89.9 (-79.7)*</mark>	-65.8	-40.1 (-44.3)*	-27.3	
Tehama***	-44.0 (-34.6)*	-35.8	-11.6 (-10.9)*	-10.3	

Table	1
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County	Intermediate Wells	Intermediate Wells	Intermediate Wells	Intermediate Wells
	(Max decrease gwe)	(Max decrease	(Avg. decrease	(Avg. decrease
	Fall '04 - '15	gwe) Fall '04 - '16	gwe)** Fall '04 - '15	gwe)** Fall '04 - '16
Butte	-26.0 (-23.0)*	-28.3	-12.9 (-9.4)*	-11.6
Colusa	<mark>-125.4 (-40.6)*</mark>	-78.9	-32.4 (-22.6)*	-23.2
Glenn	-58.0 (-57.2)*	-58.3	-26.7 (-25.0)*	-20.0
Tehama***	-35.9 (-30.2)*	-29.3	-13.6 (-12.4)*	-12.7

 ⁸ Sloop, Christina et al. 2010. Conservation Genetics of Butte County Meadowfoam (Limnanthes floccosa ssp. californica Arroyo), an Endangered Vernal Pool Endemic. Conference abstract. Exhibit E.
 ⁹ DEIR p. IV-P2.

 $^{^{1010}}$ Id.

¹¹<u>http://wdl.water.ca.gov/groundwater/data_and_monitoring/northern_region/GroundwaterLevel/gw_level_monitoring.cfm</u>

County	Shallow Wells (Max	Shallow Wells (Max	Shallow Wells (Avg.	Shallow Wells (Avg.
	decrease gwe)	decrease gwe)	decrease gwe)**	decrease gwe)**
	Fall '04 - '15	Fall '04 - '16	Fall '04 - '15	Fall '04 - '16
Butte	-19.2 (-17.6)*	-18.3	-8.0 (-5.9)*	-5.2
Colusa	- <mark>51.4 (-36.7)*</mark>	-51.7	-10.5 (-7.6)*	-9.2
Glenn	-58.0 (-53.5)*	-59.6	-15.8 (-15.1)*	-12.7
Tehama***	-34.1 (-30.2)*	-36.3	-11.1 (-9.5)*	-10.5

1. * 2004-2014 monitoring results are in parentheses for comparison with 2015 results.

2. ** Some average well depth numbers are not accurately comparable between 2004-2014 and 2004-2015 due to a change in the number of wells monitored.

3. *** Tehama in the Sacramento Valley groundwater basin.

4. Highlighted in yellow are negative changes of over 10 feet from 2014 to 2015.

Significant concerns about fall 2015 groundwater levels were summarized in the Northern Sacramento Valley Integrated Regional Water Management Board meeting: "Bill Ehorn (Chief of Groundwater Section in Northern Region Office, DWR) gave an update on groundwater levels within the NSV region. Change maps for October groundwater levels show that in much of the northern valley the groundwater levels are lower than 2011 – going from bad to worse. Historic groundwater level hydrograph maps show that groundwater levels are the lowest ever on record. A wet winter will help the water tables rebound but deeper aquifers will take longer to rebound."¹² [emphasis added]

The 2004-2016 numbers provide mixed results. Deep wells appear to have improved in Colusa and Glenn counties from the 2004-2015 figures, but they were worse in Butte County. Tehama and Colusa counties' maximum decrease is still below the measurements for the 2004-2014 period.

- The intermediate wells maximum decrease worsened in Butte and Glenn counties from the 2004-2015 figures, Colusa's maximum improved by 45 feet, but still remained 80 feet below the 2004 level and Tehama's maximum improved slightly.
- The shallow wells maximum decrease worsened in Colusa, Glenn, and Tehama counties from the 2004-2015 figures and Butte's maximum improved slightly.

The absence of recently past and current groundwater conditions in the DEIR for the aquifer upon which it depends leaves the DEIR deficient under CEQA. This must be corrected in a revised and recirculated EIR.

b. Groundwater Management and Monitoring

Appendix F is the Water Supply Assessment ("WSA") for the Project completed by the California Water Service Company ("Cal Water"). It includes the following regarding groundwater management: "The Butte County Department of Water and Resource Conservation has developed a groundwater management plan. No safe yield has been established but policy decisions were made in an attempt to maintain groundwater levels and water quality. The management plan can be accessed on Butte County's website." What is noticeably missing are the Basin Management Objectives (BMOs) that were developed by Butte County and the monitoring results based on those BMOs. Interestingly, the WSA mentions that Glenn County has BMOs, but fails to provide any data on the objectives or the monitoring results. The omission of objectives and monitoring results for Butte County, where Chico and the Project are located, leaves the WSA and the DEIR completely inadequate and is yet another reason that AquAlliance provided Table 1 in these comments.

¹² December 7, 2015. Minutes from Northern Sacramento Valley Integrated Regional Water Management Board Meeting, p. 4 of 23.

What Cal Water should have provided, so the lead agency could disclose the conditions of local groundwater in the DEIR, is that the Chico Urban Area is a designated BMO area and has had serious groundwater concerns for many years. Noted in Figure 2 of the 2017 annual BMO report (Exhibit A) is that of all the BMO areas, Chico has the greatest average depth to groundwater at 90 feet, the greatest depth to groundwater at 160 feet, and the greatest minimum depth to groundwater at approximately 50 feet. This is a serious condition that has been known by water and government agencies for decades. Maybe Cal Water, and therefore the lead agency, fails to understand the seriousness of groundwater depletion because as the largest water utility west of the Mississippi it has deep pockets to dig deeper wells if needed. However, Butte County's annual reporting for water year 2017 indicates that, "Overall hydrographs indicate that groundwater levels in the California Water Service area of the Chico Urban Area Sub-Inventory Unit have generally declined 10-20 feet between 1988 and 2017."¹³

Cal Water's failure to disclose the existing conditions of groundwater and interactions between aquifer strata in Chico and Butte County at a minimum, let alone the entire Tuscan groundwater basin, is their failure. However, it does not obviate the lead agency from its responsibility to provide the public and policy makers with crucial and very relevant current and long-term implications from a dropping groundwater table including, but not limited to:

- Root stranding for urban forests has the serious potential to increase heat impacts and fire danger to all residents in the City of Chico if the urban canopy is frayed.
- Well stranding for individual well owners that passes on significant costs to deepen or dig new wells.
- Flow depletion in creeks and rivers that lead to impacts to wetlands, riparian habitat, and aquatic, terrestrial, and avian species.

Related to the three impact areas above is the importance of describing the regional groundwater extraction infrastructure that was developed before the aquifer system was accurately and scientifically characterized (it still has not been thoroughly characterized) and before a network of shallow monitoring wells was developed to detect changes in water levels over the shallowest portion of the aquifer. North state water agencies and districts were cognizant of the long-term health of riparian vegetation, wetland species, and number of other native habitat are commonly associated with maintaining a minimum range of groundwater levels and an appropriate level of interaction between surface water and groundwater resources.¹⁴ The water agencies' failure to implement the *Sacramento Valley Water Resource Monitoring, Data Collection and Evaluation Framework* means that all lead agencies are deprived of valuable groundwater and habitat impact reporting and analysis in their jurisdictions. Nonetheless, it does not negate the lead agency's responsibility to disclose for public review and comment how a seriously diminishing groundwater table that will be tapped once again for this Project, continues the reverberating impacts to individual, community, and public trust resources

That the DEIR failed to provide such significant detail and analysis on these topics requires the lead agency to revise and recirculate the DEIR.

1. Groundwater Age and Implications for Recharge

Cal Water withdraws groundwater from the deep portion of the Tuscan Aquifer. However, AquAlliance was unable to locate any material in the DEIR discussing the age of groundwater or recharge in the Chico Urban Area or Butte County. Notwithstanding the absence of disclosure in the WSA and the

¹³ Butte County 2018. BASIN MANAGEMENT OBJECTIVES CHICO URBAN AREA p. 4. Exhibit F

¹⁴ McManus, Dan (DWR) et al., 2007. Sacramento Valley Water Resource Monitoring, Data Collection and Evaluation Framework. Pgs. 5-6. Exhibit G.

DEIR regarding the age of groundwater or recharge anywhere locally or regionally, research by the academic community exists. For example, according to Professor Jean Moran regarding the mid Sacramento Valley, "Wells with top perforations below 300 ft bgs do not contain tritium. The large volume of old groundwater produced at drinking water wells has implications for groundwater management since recharge to these wells takes place over periods greater than 50 years. Relatively rapid groundwater flow is limited to the shallow regime in localized areas near the major streams and in fan sediments."¹⁵

Dr. Moran's *Groundwater Ambient Monitoring Assessment* report also demonstrated that except for fairly rapid recharge near streams in Chico, "Drinking water wells that back up to the foothills to the east, and wells to the north of Lindo Channel produce almost exclusively pre-modern groundwater."¹⁶ This was also the case for "[d]eep monitoring wells, especially to the west of the Sacramento River, [that] produce paleowater that recharged more than ten thousand years ago."¹⁷ "This implies that there is currently no active recharge to the Lower Tuscan aquifer system (M.D. Sullivan, personal communication, 2004)," explained Dr. Karin Hoover. She continued by stating, "If this is the case, then water in the Lower Tuscan system may constitute fossil water with no known modern recharge mechanism, and, once it is extracted, it is gone as a resource."¹⁸

The DEIR failed to provide significant detail and analysis on groundwater age and recharge, which therefore requires the lead agency to revise and recirculate the DEIR.

c. Wastewater

The DEIR states that, "The General Plan EIR acknowledges that additional wastewater treatment and infrastructure capacity improvements would be needed to serve future development,"¹⁹however, the "[P]roposed project represents a little more than three (3) percent of flows received from the Cal Water service area..." is insignificant.²⁰ On what basis is three percent deemed insignificant? The DEIR should also explain whether or not the Project's landowners have paid sewer assessment fees in the past or will in the future and at what level. How these charges may be passed on to homeowners should also be explained.

IV. <u>Cumulative Impacts</u>

An EIR must discuss significant cumulative impacts. CEQA Guidelines §15130(a). Cumulative impacts are defined as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. CEQA Guidelines § 15355(a). "[I]ndividual effects may be changes resulting from a single project or a number of separate projects. CEQA Guidelines § 15355(a). A legally adequate cumulative impacts analysis views a particular project over time and in conjunction with other related past, present, and reasonably foreseeable future projects whose impacts might compound or interrelate with those of the project at hand. Cumulative impacts can

¹⁵ Moran, Jean et al., 2005. *California GAMA Program: Groundwater Ambient Monitoring and Assessment Results for the Sacramento Valley and Volcanic Provinces of Northern California*, p. 46. Exhibit H.

¹⁶ *Id.* p. 34.

¹⁷ *Id.* p. 46.

¹⁸ Hoover, Karin A. 2008. Concerns Regarding the Plan for Aquifer Performance Testing of Geologic Formations Underlying Glenn-Colusa Irrigation District, Orland Artois Water District, and Orland Unit Water Users Association Service Areas, Glenn County, California. White Paper. California State University, Chico. Exhibit I.
¹⁹ DEIR 2018. p. IV-P2.

²⁰ *Id.* p. IV.P-10.

result from individually minor but collectively significant projects taking place over a period of time. CEQA Guidelines § 15355(b). The cumulative impacts concept recognizes that "[t]he full environmental impact of a proposed . . . action cannot be gauged in a vacuum." *Whitman v. Board of Supervisors* (1979) 88 Cal. App. 3d 397, 408 (internal quotation omitted).

a. The Lead Agency Failed to Consider the Cumulative Impacts of Other Groundwater Development Projects Affecting the Tuscan Aquifer

The WSA doesn't discuss the increasing demands on the groundwater basin outside the Cal Water service area, but the lead agency must contemplate how the Project's impact to groundwater, however small compared to what is used annually in the City of Chico, may be a cumulatively considerable impact.

Here is a list of water development projects, many of which include groundwater from the Tuscan aquifer. While it may seem far afield from a proposed residential and commercial development project, the increased use of groundwater in the Sacramento Valley from the 1920s to 2009 caused our major rivers and creeks to become losing streams.²¹

- 1991. WY Critical. Reported transfers amounted to 820,000 af.²²
- 1992. WY Critical. Reported transfers amounted to 193,000 af. (*Id.*)
- 1994. WY Critical. Reported transfers amounted to 220,000 af. (*Id.*)²³
- 2002. WY Dry. Settlement Contractors in the Sacramento Valley received 100% of their allocation. Reported transfers amounted to 172,000 af.²⁴
- 2003. WY Above Normal. Settlement Contractors in the Sacramento Valley received 100% of their allocation. Reported transfers amounted to 206,000 af. (*Id.*)
- 2004. WY Below Normal. Settlement Contractors in the Sacramento Valley received 100% of their allocation. Reported transfers amounted to 120,500 af. (*Id.*)
- 2005. WY Above Normal. Settlement Contractors in the Sacramento Valley received 100% of their allocation. Reported transfers amounted to 5 af. (*Id.*)

²¹ Custis 2014. Comparison of Groundwater Pumping and Accretion, Sacramento Valley, 1920s to 2009. Exhibit J.

 ²² USBR, 2008. Draft Environmental Assessment for the Option Agreement Between Glenn-Colusa Irrigation District, Bureau of Reclamation, and the San Luis & Delta-Mendota Water Authority for 2008 Operations. (p.17)
 ²³ In 1994, following seven years of low annual precipitation, the state continued a Drought Water Bank program, which

²³ In 1994, following seven years of low annual precipitation, the state continued a Drought Water Bank program, which allowed water districts to sell surface water and continue growing rice with ground water. Western Canal Water District and Richvale Irrigation District exported 105,000 af of river water to buyers outside of the area and substituted groundwater from the Tuscan aquifer to continue growing rice. This early experiment in the *conjunctive use* of the groundwater resources – conducted without the benefit of project specific environmental review – caused a significant and immediate adverse impact to orchards, residents, and the environment (Msangi 2006). Until the time of the 1994 water transfers, groundwater levels had dropped, but the Tuscan aquifer had sustained the normal demands of domestic and agricultural users. The water districts' extractions, however, an abnormal demand on the groundwater, lowered groundwater levels throughout the Durham and Cherokee areas of eastern Butte County (Msangi 2006). The water level fell and the water quality deteriorated in the municipal wells serving the town of Durham (Scalmanini 1995) and even shallow residential wells dried up tens of miles away from the pumping. Irrigation wells failed on several orchards in the Durham area. One farm never recovered from the loss of its crop and later entered into bankruptcy.

²⁴ Western Canal Water District, 2012. *Initial Study and Proposed Negative Declaration for Western Canal Water District* 2012 Water Transfer Program. (p. 25)

- 2007. WY Dry. Settlement Contractors in the Sacramento Valley received 100% of their allocation. Reported transfers amounted to 147,000 af. (*Id.*)
- 2008. WY Critical. Settlement Contractors in the Sacramento Valley received 100% of their allocation. GCID alone planned an 85,000 af transfer²⁵ of an expected cumulative total from the Sacramento Valley of 360,000 af.²⁶ Another source revealed that the actual transfers for that year were 233,000 af.²⁷
- 2009. WY-Dry. Settlement Contractors in the Sacramento Valley received 100% of their allocation. The Bureau approved a 1-year water transfer program under which a number of transfers were made. Regarding NEPA, the Bureau issued a FONSI based on an EA. DWR opined that, "As the EWA's exclusive mechanism in 2009 for securing replacement water for curtailed operations through transfers, the DWB is limited to the maximum 600,000 acre feet analyzed in the EIS/EIR for the program."²⁸ Reported transfers amounted to 274,000 af.²⁹
- 2010/2011. WYs Below Normal/Wet. Settlement contractors in the Sacramento Valley received 100% of their allocation for both years. The Bureau approved a 2-year water transfer program through an Environmental Assessment/FONSI. The 2010-2011 Water Transfer Program sought approval for 200,000 AF of CVP related water transfers and suggested there would be a cumulative total of 395,910 af of CVP and non-CVP water.³⁰ The Bureau asserted in that no actual transfers were made under the 2010/2011 Water Transfer Program, however, a Western Canal Water District Negative Declaration declared that 303.000 af were transferred from the Sacramento Valley and through the Delta in 2010.³¹
- 2012. WY Below Normal. Settlement contractors in the Sacramento Valley received 100% of their allocation. The Bureau planned 2012 water transfers of 76,000 AF of CVP water all through groundwater substitution, but it is unclear if CVP transfers occurred. ³² SWP contractors and the Yuba County Water Agency ("YCWA") did transfer water and the cumulative total transferred is stated to be 190,000 af.³³
- 2013. WY Dry. Settlement contractors in the Sacramento Valley received 100% of their allocation. The Bureau approved a 1-year water transfer program, again issuing a FONSI based on an EA. The EA incorporated by reference the environmental analysis in the 2010-2011 EA.

²⁵ GCID, 2008. Initial Study and Proposed Negative Declaration for *Option Agreement Between Glenn-Colusa Irrigation District, San Luis & Delta-Mendota Water Authority and the United States Bureau of Reclamation for 2008 Operations, and Related Forbearance Program.*

²⁶ USBR, 2008. Draft Environmental Assessment for the *Option Agreement Between Glenn-Colusa Irrigation District, Bureau of Reclamation, and the San Luis & Delta-Mendota Water Authority for 2008 Operations.* (pp. 4 and 17)

²⁷ Western Canal Water District, 2015. *Initial Study and Proposed Negative Declaration for Western Canal Water District* 2015 Water Transfer Program. (p. 21)

²⁸ DWR, 2009. Addendum to the Environmental Water Account Environmental Impact Statement/Environmental Impact Report <u>http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=107</u> Re: 2009 Drought Water Bank Transfers State Clearinghouse #1996032083. (p. 3)

²⁹ Western Canal Water District, 2012. *Initial Study and Proposed Negative Declaration for Western Canal Water District* 2012 Water Transfer Program. (p. 25)

³⁰ AquAlliance, 2010. Comments on the Draft Environmental Assessment and Findings of No Significant Impact for the 2010-2011 Water Transfer Program. (pp. 1-2)

³¹ Western Canal Water District, 2012. *Initial Study and Proposed Negative Declaration for Western Canal Water District* 2012 Water Transfer Program. (p. 25)

³² USBR 2012. Memo to the Deputy Assistant Supervisor, Endangered Species Division, Fish and Wildlife Office, Sacramento, California regarding Section 7 Consultation.

³³ Western Canal Water District, 2015. *Initial Study and Proposed Negative Declaration for Western Canal Water District* 2015 Water Transfer Program. (p. 21)

The *2013 Water Transfer Program* proposed the direct extraction of up to 37,505 AF of groundwater (pp. 8, 9, 11, 28, 29, 35), the indirect extraction of 92,806 AF of groundwater (p. 31), and the cumulative total of 190,906 (p. 29).³⁴ Reported transfers amounted to 210,000 af.³⁵

- 2014. WY Critical. Federal Settlement Contractors in the Sacramento Valley received 75% and State Settlement Contractors received 100% of their allocations. Total maximum proposed northto-south transfers were 378,733 af and total maximum proposed north-to-north transfers were 295,924 af.³⁶ Reported north-to-south transfers amounted to 198,000 af.³⁷
- The 10-Year Water Transfer Program (2015-2024) could send up to 600,000 acre-feet of Sacramento Valley water south of the Delta each year. ³⁸ When combined with additional state approved transfers, the total could be over 800,000 acre-feet each year. If history is any guide, half of the transfer water may come from groundwater substitution. ³⁹

The lead agency must weigh how individual impacts from the Project exacerbate declining groundwater levels in the Tuscan Aquifer and how the cumulative impacts reverberate through:

- The hydrologic system of creeks and rivers.
- The biologic systems of aquatic, terrestrial, and avian species.
- The human community that depends on groundwater for wells, shade trees, domestic and yard use, and creeks and rivers for recreation.
- The economic system where lower groundwater levels lead to increased pumping or replacement costs for well owners.

A revised and recirculated DEIR could satisfy CEQA concerning cumulative impacts to groundwater and the reverberating impacts to hydrology, species, humans, and economies.

b. The Lead Agency Failed to Consider the *Recovery Plan for Vernal Pool Ecosystems* in California and Southern Oregon

The DEIR repeats a falsehood on page V-5: "The 2030 General Plan Update EIR concluded that buildout of the General Plan would result in no impact related to HCPs, recovery plans, natural community conservation plans, local ordinances or other approved policies intended to protect biological resources. Therefore, impacts from the proposed project with buildout of the General Plan related to policies and plans related to biological resource protection are *not cumulatively considerable*." (emphasis in the original) What was missed in the 2030 General Plan Update, and is perpetuated in the DEIR, is that the Doe Mill Core Area in the 2006 *Recovery Plan for Vernal Pool Ecosystems in California and Southern Oregon* includes the Schmidbauer property and many more acres in southeast Chico (Figure 1). The

 ³⁴ USBR, 2013. Draft Environmental Assessment and Findings of No Significant Impact for the 2013 Water Transfers. (p. 29)

³⁵ Western Canal Water District, 2015. *Initial Study and Proposed Negative Declaration for Western Canal Water District* 2015 Water Transfer Program. (p. 21)

³⁶ AquAlliance, 2014. 2014 Sacramento Valley Water Transfers. (Data from: 1) USBR, 2014 EA for 2014 Tehama-Colusa Canal Authority Water Transfers; 2) USBR and SLDMWA, 2014. EA/Negative Declaration, 2014 San Luis & Delta Mendota Water Authority Transfers.)

³⁷ Western Canal Water District, 2015. *Initial Study and Proposed Negative Declaration for Western Canal Water District* 2015 Water Transfer Program. (p. 21)

³⁸ 600,000 acre-feet <u>each year</u> for 10 years is equivalent to what a city of 100,000 people would use in 200 years.

³⁹ Groundwater substitution transfers take place when a water district sells its river water that is normally used to irrigate rice and instead continues growing rice by pumping well water. The grower makes money on both the water sale and the rice that is grown

recovery plan also designated a Chico Core Area that encompasses significant acreage in north Chico. Buildout of any of these acres would *significantly* impact the *Recovery Plan for Vernal Pool Ecosystems in California and Southern Oregon*, contradicting the statement quoted above. The DEIR must not rely on inaccuracies from the City's general plan update, but disclose, evaluate, and consider this important information.

Figure 1. Map of the Doe Mill and Oroville Core areas that include the Project footprint. (Source the U.S. Fish and Wildlife Service's *Recovery Plan for Vernal Pool Ecosystems in California and Southern Oregon*.



Figure III-9c. Doe Mill, Oroville, Richvale, and Palermo core areas within the Northeastern Sacramento Valley vernal pool region.

c. The Lead Agency Failed to Disclose the Cumulative Impacts to Waters of the U.S., Uplands, and Dependent Species.

The City of Chico must provide an accounting of the losses of wetlands, uplands, and wetland dependent species in its jurisdiction, so the public and policy makers have an opportunity to consider how the Project is but one of many projects that have destroyed native vernal pool landscapes. This is most assuredly a significant cumulative impact within the City of Chico, in the region, and in the State of California.

In addition to the cumulative direct losses of Waters of the U.S., upland habitat losses are cumulatively significant as well. Uplands are not only vital for hydrologic connectivity, but also for species survival. For example, loss of pollinators can seriously impact special status plants. "Although Limnanthes floccosa ssp. californica is capable of setting seed in the absence of insect pollinators, continuing adaptation to environmental changes is not possible without the genetic recombination that occurs during cross-pollination. Considering the widespread habitat destruction and degradation in the area where L. floccosa ssp. californica is endemic, breeding habitat for pollinators could well be declining."⁴⁰

The DEIR must disclose, evaluate, and consider cumulative impacts to Waters of the U.S., uplands, and species dependent on the vernal pool landscape.

V. Specific Additional Issues

- 1. Mitigation Measure BIO-2A is inadequate.
 - a. It seems very odd that the lead agency is preparing for impacts to BCM instead of requiring strict avoidance.⁴¹ What will the lead agency consider "temporarily impacted habitat,"⁴² how does the lead agency envision temporary impacts occurring, what time frame is considered temporary, and to what degree will the lead agency allow impacts? The public and policy makers deserve to have the topic elucidated in a recirculated DEIR.
 - b. What scientific information was used to suggest that, "BCM habitat will be created through a site specific restoration plan to mitigate at a 1.5:1 ratio for permanent impacts..."?⁴³ How did the lead agency reach the ratio? AquAlliance believes that creation of BCM habitat started and stopped with the Farm Credit Project from the 1990s. If this is the case it should be disclosed, and if it is not the case, AquAlliance requests that the lead agency provide a list of examples with details about the extent of BCM habitat creation and the status of the effort(s).
 - c. It is helpful that the lead agency is cognizant that creation of BCM habitat may fall short,⁴⁴ but the DEIR fails to explain the backup plan such as where a "BCM mitigation bank" may be located and how many credits are available for purchase. With the lead agency counting on a mitigation bank for the potential failure to create BCM habitat, the public and policy makers must have some assurance of mitigation bank potential.

⁴⁰ USFWS 2006. *Recovery Plan for Vernal Pool Ecosystems in California and Southern Oregon*. p. II-43.

⁴¹ City of Chico 2018. *Stonegate Vesting Tentative Subdivision Map and General Plan Amendment / Rezone Draft Environmental Impact Report.* p. II-23.

⁴² City of Chico 2018. *Stonegate Vesting Tentative Subdivision Map and General Plan Amendment / Rezone Draft Environmental Impact Report.* p. II-23.

⁴³ *Id.* p. IV.D-53.

AquAlliance respectfully requests notification of any meetings that address the proposed Project. In addition, please send AquAlliance any additional documents that pertain to this project, including a possible notice of determination through the U.S. Postal Service and e-mail.

Sincerely,

B. Vlanna

Barbara Vlamis Executive Director AquAlliance