

California Native Plant Society

December 6, 2004

Mr. Chris Bazar
Planning Director
Alameda County Community Development Agency
224 W. Winton Avenue, Room 111
Hayward, CA 94544

RE: North Livermore Intensive Agriculture Draft Environmental Impact Report

Dear Mr. Bazar,

The East Bay Chapter of the California Native Plant Society would greatly appreciate the opportunity to comment on the *North Livermore Intensive Agriculture Draft Environmental Impact Report* (DEIR). We realize the comment period has passed, but CNPS was only recently alerted to the DEIR and is concerned about the potential impacts of the proposed project on the Alkali Sink.

The California Native Plant Society (CNPS) is a non-profit organization of more than 10,000 laypersons and professional botanists organized into 32 chapters throughout California. The mission of the CNPS is to increase the understanding and appreciation of California's native plants and to preserve them in their natural habitat through scientific activities, education, and conservation.

We consider the Springtown Alkali Sink, and the associated grasslands and vernal pools, to be one of the most important sites for botanical conservation in the East Bay. The biological and ecological value of Springtown is of global significance with three natural community types considered globally rare and worthy of protection by the California Natural Diversity Database (Northern claypan vernal pools, alkali sink scrub, and alkali grassland), and six federally listed or CNPS List 1B plant species, including the state and federally threatened palmate-bracted bird's beak (*Cordylanthus palmatus*). In addition, it is habitat for the federally threatened California tiger salamander (*Ambystoma californiense*), the California red-legged frog (*Rana aurora draytonii*), and vernal pool fairy shrimp (*Branchinecta lynchi*).

We hope that you will take the time to consider the following comments:

1. The Springtown population of palmate-bracted bird's beak is critical for conservation and recovery of this species. It is the most genetically diverse population of this species known in the world, with almost all genetic variability known in the species occurring at this site. Furthermore, the palmate-bracted bird's beak population is one of the largest of the seven extant meta-populations, with 19% of the overall world population.¹
2. The palmate-bracted bird's beak depends on specific, intact hydrologic regimes. According to the Endangered Species Recovery Program, "[s]easonal overland

¹ Endangered Species Recovery Program. California State University of Stanislaus
<http://esrpweb.csustan.edu/publications/pubhtml.php?doc=sjvrp&file=chapter02B00.html>. Accessed on 11/18/04



flooding may disperse seeds and promote seed germination by diluting the saline soils (Coats et al. 1993)...However; prolonged flooding would not be conducive to survival of palmate-bracted birds-beak (A. Howald pers. comm.).” In addition to prolonged flooding, accidental flooding by agricultural activities, during the wrong time of year, could result in mortality of germinated plants and failed reproduction. As a result of the sensitive hydrologic considerations of this important bird’s beak population, altering the land use anywhere within the watershed of and around the population could be detrimental to the species. Many of the other species occurring at Springtown Alkali Sink and associated vernal pools are similarly intolerant to changes in hydrology.

3. Furthermore, the Endangered Species Recovery Program lists agriculture and urban conversion as the biggest threat to palmate-bracted bird’s beak survival: “Agricultural conversion eliminated the formerly known palmate-bracted bird’s beak populations near College City, Kerman, and southeast of Mendota; reduced the size of the Woodland population; and destroyed extensive areas of potential habitat in the Sacramento and San Joaquin Valleys. Urban development was responsible for the destruction of the Stockton occurrence.”² Because of the history of the species decline related to agriculture and development, CNPS strongly recommends that no agriculture or development take place in the watershed surrounding the bird’s beak population. As described in more detail below, to avoid potential impacts to the Alkali Sink and palmate-bracted bird’s beak, CNPS recommends excluding irrigated agriculture and development in the Controlled Management Zones and the Development Exclusion Zone.
4. Research suggests that irrigated agriculture increases salt content in soils. According to Food and Agriculture Organization of the United Nations, of the current 230 million hectares (ha) of irrigated land, 45 million ha, or 19.5 percent, are salt-affected soils.³ CNPS is concerned that irrigated agriculture within and around the Management Zone will alter the salt concentration in water and soil within the watershed of the Sink and associated wetlands. Altering the salt concentration in water and soils could affect the rare palmate-bracted bird’s beak population. According to the Center for Conservation Biology, laboratory tests indicate that seed germination rates are significantly higher for palmate-bracted bird’s beak in low salinity than high salinity solutions.⁴ In order to fully protect this sensitive species, CNPS recommends excluding irrigated agriculture in the Controlled Management Zones and the Development Exclusion Zone.
5. The DEIR states on page 63 that without mitigation, “[i]ndirect impacts resulting from modifications of local hydrology, changes in the Sink’s salt balance, and increased concentration of nutrients and pesticides could have deleterious effects on the unique flora and fauna of the Sink.” CNPS is impressed that the DEIR addresses these potential indirect impacts of the Alkali Sink with on-site mitigation measures that offer Controlled Management Zones and a Development Exclusion Zone to decrease contamination of pesticides, lessen

² Endangered Species Recovery Program. California State University of Stanislaus <http://esrpweb.csustan.edu/publications/pubhtml.php?doc=sjvrp&file=chapter02B00.html>

³Food and Agriculture Organization of the United Nations. Land and Plant Nutrient Management Service. <http://www.fao.org/ag/aql/aqll/spush/topic2.htm>. Accessed on 11/18/04.

⁴ Center for Conservation Biology. 1991. Conservation of the palmate-bracted bird’s beak: a most unusual endangered wetland annual. *Cent. Conserv. Biol. Update* 5(2):1-2.

erosion, maintain groundwater and surface water quality and quantity and nutrient transport. However, CNPS is concerned that even with mitigation, the palmate-bracted bird's beak will be harmed. Page 65 of the Biological Resources section, under Mitigation Measures for Springtown Alkali Sink, the DEIR states, "[c]reation of a 50 ft. buffer between any residential or agricultural development and/or infrastructural improvement associated with the project and the Sink...[t]he buffer will be maintained as natural habitat and planted with native plants to function as final barrier or filter for pesticides, nutrients, and/or sediment potentially entering the Sink." According to recent research, pesticide concentration above the reference exposure level (REL) can be found up to 500 feet from the application area.⁵ Furthermore, research shows that palmate-bracted bird's beak pollinators, bumblebees (*Bombus californicus*, *B. occidentalis*, and *B. vosnesenskii*), nest in uplands more than 100 meters (328 feet) from the bird's beak population.⁶ Scientists working on the Placer County HCP/NCCP recommend using 500 foot buffers: "[t]his buffer width (500 feet) was selected because it may have some relationship to distances needed for insect dispersal required for plant pollination."⁷ Considering pesticide drift and pollinator distance requirements, CNPS recommends the creation of a minimum of a 500 foot buffer zone between any residential development or agricultural activities and/or infrastructural improvements associated with the project and the Sink.

6. According to page 8, in the Hydrology Report of the DEIR, "[b]ecause significant changes have been made by local residential development and Altamont Creek modifications, a greater proportion of the surface water and groundwater now enters the Sink's lowland habitats from sub-basins that are to the north and northwest." Because the hydrology is now largely dependent on drainage from the proposed project area, CNPS is concerned that an increase in development and agriculture in areas within the Management Zone would result in immitigable damage to the hydrology of the Sink. The cumulative impacts of allowing intensive irrigated agriculture north of the Management Zone, as well as allowing mitigated agriculture within the Management Zone should be considered. Will the Final Environmental Impact Report (FEIR) consider the cumulative impacts of allowing agriculture and development adjacent to this unique area? According to the California Environmental Quality Act (CEQA)⁸, it is a requirement to adequately investigate impacts to unique areas:

Article 9. Contents of EIR. Section 15125(d) Environmental Setting: "Knowledge of the regional setting is critical to the assessment of environmental impacts. Special emphasis should be placed on environmental resources that are rare or unique to that region and would be affected by the project. The EIR must demonstrate that the significant environmental impacts of the proposed project were adequately investigated and discussed and it must permit the significant effects of the project to be considered in the full environmental context."

⁵ Kegley, S. Anne Katten, & Marion Moses, 2003. *Secondhand Pesticides: Airborne Pesticide Drift in California*. Californians for Pesticide Reform.

⁶ Center for Conservation Biology. 1991. Conservation of the palmate-bracted bird's beak: a most unusual endangered wetland annual. *Cent. Conserv. Biol. Update* 5(2):1-2.

⁷ Finn, Jeff. Loren Clark. Tom Reid. 2002. Methodology for a Process to Review interim Projects: Western Placer County (NCCP/HCP Phase I). Discussion Draft.

⁸ California Environmental Quality Act. CEQA Guidelines.

http://ceres.ca.gov/topic/env_law/ceqa/guidelines/. Accessed on 11/30/04

7. While CNPS commends the Plan for designating an Alkali Sink Protected Area with the majority of wetlands within the protected area, Figure 5.4 indicates that seasonal wetlands exist outside of the Alkali Sink Protected Area. A policy of CNPS is to “support all efforts to preserve and conserve wetlands of all types” and “oppose projects that adversely affect wetlands of any type unless there is a demonstrated net gain, in-kind, of wetlands prior to project impacts.” There is significant evidence that more vernal pool and wetland acreage has been lost to development than any other habitat type in California. According to the U.S. Environmental Protection Agency, less than 1% of the wetlands and 10% of vernal pools remain in the world,⁹ and the vernal pools at Springtown may be the last ones remaining in eastern Alameda County. Based on this, CNPS recommends that the *Livermore Intensive Agriculture DEIR* protect all wetlands in the project area from disturbance or development.
8. The impact area and the adjacent Sink have not been recently surveyed for sensitive species and habitats, and some areas have never been surveyed. CNPS is encouraged to see that the DEIR plans for special-status plant surveys. To avoid impacts to special-status plants, CNPS recommends that for all individual projects, the assessment for special-status plant habitat be thoroughly conducted in the field without too much reliance on the existing habitat mapping as shown in Figure 5.1. CNPS is concerned that this habitat mapping is outdated and too broad to reliably determine the presence of suitable habitats for special-status plants at individual project sites, and therefore detailed ground truthing is needed to make that assessment. CNPS also recommends that the FEIR require that all occurrences of special-status plants found during these surveys be reported to CNPS and CNDDDB for inclusion in their databases. Furthermore, CNPS would like the FEIR to provide more details describing when and how surveys were conducted for the Alkali Grassland south of the protected area and how the biologists concluded that there is no suitable habitat there for the palmate-bracted bird’s beak.
9. In regard to Figure 5.2, CNPS is pleased to see that the map of special-status species includes the rare palmate-bracted bird’s beak in the project area, but CNPS requests that the FEIR also include a map of the known locations of brittlescale (*Atriplex depressa*) in the project area. CNPS also requests that more detailed information be provided in the FEIR regarding palmate-bracted bird’s beak and brittlescale. Page 5-25 refers to palmate-bracted bird’s beak and states that “A small portion of the Sink population occurs ... within the Project Area.” Please provide more details on the number of individual plants or acres of the population in the project area in comparison to the rest of the population in the Sink outside of the project area. How does the quality of habitat for this species within the project area compare to its habitat in the Sink outside the project area? Providing more details about these two rare plant species will help the reader make a more accurate assessment of the significance of these occurrences in the project area.
10. Because CNPS, the California Department of Fish and Game (CDFG), and the U.S. Fish and Wildlife Service have not been involved with the CEQA process

⁹ Environmental Protection Agency. Wetlands. <http://www.epa.gov/owow/wetlands/>. Accessed on October 20, 2004

thus far, CNPS is concerned that the *North Livermore Intensive Agriculture FEIR* will not include input from important stakeholders. According to CEQA (CEQA Guidelines 2004), CDFG is required to comment in writing:

Section 21104.2: Department of Fish and Game consultation on any endangered or threatened species: “The state lead agency shall consult with, and obtain written findings from, the Department of Fish and Game in preparing an Environmental Impact report on a project, as to the impact of the project on the continued existence of any endangered species or threatened species pursuant to Article 4 (commencing with Section 2090) of Chapter 1.5 of Division 3 of the Fish and Game Code.” (CEQA Guidelines 2004)

11. CNPS is concerned with erroneous information in the DEIR. For example, the distribution of Livermore Valley tarplant (*Deinandra bacigalupii*), a CNPS List 1B plant, is stated to include “Brushy Peak Regional Preserve near Fricke Lake” (page 25) and states the reference for this information as *Madrono*.¹⁰ In fact, that publication does not cite any location information for Brushy Peak, and to our knowledge, this plant does not occur there. This erroneous information could lead readers to think that this species is more widespread than the three known localities. The incorrect subspecific epithet (subsp. *mollis*) used for hispid bird’s beak (*Cordylanthus mollis* subsp. *hispidus*) on page 14 of the Biological Resource section DEIR is another example of inaccurate information in the DEIR.
12. Text in the DEIR in Section 5.2.4 Special-status Plants contains some inaccurate numbers, and the discussion about which special-status plants actually occur in the project area and outside the project area is confusing. On page 5-16, the DEIR states that “Five special-status plants are known to occur or have the potential to occur with the project area.” According to Table 5.1, 34 species, not 5 species, are known to occur or have the potential to occur in the project area. Page 5-16 states: “One species, palmate-bracted bird’s beak, is known to occur within the Project Area.”, but page 5-26 states that brittlescale, a CNPS List 1B species, is also located in “... the portion of the Sink within the Project Area.” Then, the statement on page 5-16 that “Nine species were identified as having high to moderate potential to occur ...” needs rewording. On page 5-14, the list of special-status plants known to occur in the Sink also needs clarification to indicate that some of these plants occur in the Sink within the project area and some of them occur in the Sink outside the project area.
13. CNPS would like to suggest an additional mitigation measure to prevent potential impacts to palmate-bracted bird’s beak. The population in the project area should be quantitatively monitored on an annual basis to determine trends in the population size and habitat quality. If the population declines, more detailed research could be necessary to determine if the decline is a result of the proposed project.
14. CNPS would like to inquire about the long-term management of the Springtown Alkali Sink Protection Area. How will Alameda County protect this area from

¹⁰ Baldwin, B. G., 1999. *Deinandra bacigalupii* (Compositae—Madiinae), A New Tarweed from Eastern Alameda County, California. *Madrono* 46:55-57.

impacts potentially caused by activities at the FCC Monitoring Facility and along the eastern boundary of the Sink Protection Area? Will there be any long-term cooperative management plans with the FCC Facility or the adjacent Emax Natural Communities Preserve?

Thank you for the opportunity to participate in this important process. If you have any questions, please contact me at (415) 488-4851.

Sincerely,

Jessica J. Olson
East Bay Conservation Analyst
California Native Plant Society

CC: U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, California Department of Fish and Game