



California Native Plant Society

East Bay Chapter
Conservation Committee

April 16, 2007

Susan Moore and Craig Aubrey
U.S. Fish and Wildlife Service,
Sacramento Fish and Wildlife Office,
2800 Cottage Way,
Room W-2605, Sacramento, CA 95825.
fwl1sfo5year@fws.gov

RE: 5 year review comments for 5 plant species

Dear Mrs. Moore and Mr. Aubrey:

The California Native Plant Society is a non-profit organization of more than 10,000 laypersons, professional botanists, and academics organized into 32 chapters throughout California. The Society's mission 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.

The East Bay Chapter of the California Native Plant Society (EBCNPS) has been carefully monitoring and encouraging species conservation for 5 species listed in the "5-year review - 2007". EBCNPS has carefully considered the 5 main points for reviewing species: *A. Species biology including, but not limited to, population trends, distribution, abundance, demographics, and genetics; B. Habitat conditions including, but not limited to, amount, distribution, and suitability; C. Conservation measures that have been implemented that benefit the species; D. Threat status and trends (see five factors under heading "How Do We Determine Whether a Species is Endangered or Threatened?"); and E. Other new information, data, or corrections including, but not limited to, taxonomic or nomenclatural changes, identification of erroneous information contained in the List, and improved analytical methods.*

Our goal is to help provide USFWS with local science-based information on the integrity of the species of concern, and its habitat. Upon reviewing current information and research on the following five species:

Antioch Dunes evening primrose	<i>Oenothera deltoides ssp. howellii</i>
Contra Costa goldfields	<i>Lasthenia conjugens</i>
Contra Costa wallflower	<i>Erysimum capitatum var. angustatum.</i>
Palmate-bracted bird's-beak	<i>Cordylanthus palmatus</i>
Suisun thistle	<i>Cirsium hydrophilum var. hydrophilum.</i>

EBCNPS does not recommend a change in status for any of the species. Please note, that with regard to (C) no species have been afforded a significant level of protection under a Habitat Conservation Plan. Specifically, we believe that it is precocious to assume that the East Contra Costa County HCP will be fully approved and therefore we do not consider this form of protection adequate at the time of writing this letter.

With development pressure heightening in key habitat areas, and urbanization increasing in the East Bay, the viability of extant populations, and the species under review, is not assured. Please see our individual species notes for further information.

Thank you for your consider and attention to this matter. I am happy to discuss this matter or provide more information as needed. Please feel free to call us at any time.

Sincerely,



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East Bay Chapter
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Cordylanthus palmatus – COPA

Palmate-bracted bird's beak, *Cordylanthus palmatus* (COPA), occupies a distinct habitat niche that is characterized by valley bottoms with a high ratio of soil-water evaporation to precipitation. Seven distinct populations of COPA have been mapped. The population in Livermore valley in Alameda County has been determined to carry approximately 85% of the genetic diversity of the entire species. This population is integral for the preservation of the species.

Currently, the status of this population is still in jeopardy because of a number of reasons: 1) inappropriate management by land owners of occupied habitat, arising from lack of stewardship funding and splintered ownership, 2) overutilization of habitat for recreational purposes such as the building of BMX bike trails and jumps, 3) changes in local hydrology through Zone 7 "improvements" to the Altamont creek which resulted in channel incision, has eliminated the natural flooding of the site, and has subsequently increased invasive plants in the area, and 4) increased development and land conversion pressures locally. Livermore valley is one of the fastest growing areas in CA and developers have shown an interest in nearly every parcel in North Livermore, including lots with COPA individuals.

As recently as 2005, Alameda County was entertaining a proposal to locate irrigated agriculture just upstream of the COPA habitat. With great efforts, this project has been placed on hold. Although this project is on hold, it is anticipated that future project proposals may be more successful if the species is down-listed.

At this time, we believe that removing, or reducing, regulatory protection for this plant would greatly imperil the Livermore COPA population, and the entire species.

Lasthenia conjugens – LACA

Contra Costa goldfields, *Lasthenia conjugens* (LACA), represents a species that is extremely closely tied to hydrology. As a vernal pool obligate, LACA requires a distinct amount of water and inundation period to ensure its viability. With current levels of development and disregard for natural vernal pools, LACA and associated vernal pool species have been extirpated, isolated, or relocated from most of their original locale.

A glance at development projects and required permits from the California Department of Fish and Game indicates that vernal pools are often mitigated for, rather than avoided. The following list of significant projects in the two county area illustrate this case: 1) Pacific Commons EIR/EIS – Fremont, CA, 2) Dublin Ranch Villages EIR - Dublin, CA, 3) The Villages – Dublin, CA, 4) Seven Vines EIR – Livermore, CA (under review), and 5) El Charro EIR – Livermore, CA (under review), to name a few "negative, biologically significant" developments from the past half decade.

Only one original population remains in Contra Costa and Alameda counties near the Byron airport. This area will not be protected by the recent HCP, and is under large development pressure from the local airport, a highway, and a burgeoning city. Additionally, it is possible that the hydrological landscape might be influenced by the recent proposal to expand Los Vaqueros reservoir.



As development continues to fragment our East Bay landscape, the hydroperiod and volumes of water flowing into vernal pool environments is always at risk. With postage stamp preserves such as Warm Springs, Fremont, CA, the population may not respond well to additional threats such as increased urbanization near the proposed “Fremont A’s stadium”. Although the mitigation population is fairing well, the proposed land use change (commercial and residential) immediately adjacent to this site may greatly increase negative direct and indirect effects on this vernal pool ecosystem.

Although a recovery plan was released on February 10, 2006 in the federal register, EBCNPS believes it is hasty to consider changing any designation for an annual species based on one or two years of data and monitoring.

Erysimum capitatum var. angustatum - ERCA

The Contra Costa wallflower, *Erysimum capitatum var. angustatum* (ERCA), is a species with an extremely limited distribution near, and in, Antioch, CA. This mustard is restricted to less than a handful of populations located on sand dunes. Although the one population resides in the protected Antioch Dunes National Wildlife Refuge, competition from non-native species along with below average recruitment do not bode well for even this managed and monitored population. Additionally, mustards are known to have large population swings based on nutrient availability and management techniques.

The cities that skirt the delta have been growing as quickly as any city in the US. The towns of Antioch, Brentwood, and Oakley all have sited housing developments on dune environments and sandy soils that are required substrate for this species. With additional fragmentation of the delta dunes environment, dispersal of individuals to new patches is highly unlikely, thus effectively isolating the remaining populations.

In the wake of such development pressure in the delta, EBCNPS would not recommend any change in listing for the species.

Oenothera deltoides ssp. Howellii - OEDE

The Antioch Dunes evening primrose, *Oenothera deltoides ssp. Howellii* (OEDE), is similarly constrained by development of suitable habitat in the bay-delta area. One of the only remaining natural stands of OEDE is located within the Antioch Dunes National Wildlife refuge. This plant was once more common throughout the bay-delta sand dunes, and due to its short lived nature, it is more difficult to survey. Therefore, there is hope that additional sites with OEDE may be found on private property, or poorly surveyed areas. With great development pressure in the delta area of Contra Costa county, including 1,000 acre projects that have destroyed intact sand dunes in East Oakley, the protection of this species and habitat is of vital importance. Maintaining the federally endangered status of this plant is reasonable, since there is no guarantee that any of the extant populations, bar the ADNWR, will remain. Successful outplanting of this species is hopeful for the eventual reestablishment of numerous genetically viable populations of this species.



Cirsium hydrophilum var. hydrophilum - CIHY

The suisun thistle, *Cirsium hydrophilum var. hydrophilum* (CIHY), is predominantly confined to one population in Solano County. This perennial herb resides in the upper reaches of tidal marshes. The key requirement for CIHY habitat is that the tidal marshland remains undiked and unregulated. As recently as 1996, one extant population in the Peytonia Slough Ecological reserve crashed to a single individual. This population is in jeopardy of becoming extinct, thus underscoring the delicate nature of this species and its need for specific habitat requirements. Although no populations are found in Contra Costa County, there is potential habitat where the species could reside. EBCNPS recommends maintaining the endangered status of this plant.

