Appendix D:
Biological Resources Memo and Data

D.1 - Grasslands Memo and Data

Michael Brandman Associates

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August 1, 2012

Terry Vernon, Deputy Director
County of Yolo General Services
Facilities and Parks
120 West Main Street, Suite C
Woodland, CA 95695

Subject: **Biological Resources Survey and Habitat Assessment for the Yolo County Department of General Services Grasslands Project Yolo County, California**

Dear Mr. Vernon:

This letter report documents the results of the biological resources survey and habitat assessment conducted by Michael Brandman Associates (MBA) for the Yolo County Department of General Services Grasslands Project, hereafter referred to as "project site" or "site," located 2.5 miles south of the City of Davis, Yolo County, California. The biological survey and habitat assessment was conducted in order to identify all biological resources, including sensitive plant and wildlife species, which occur or have the potential to occur on the project site.

Project Site Location

The Grasslands site is located at 30475 County Road 104, approximately 2.5 miles south of the City of Davis (Figure 1). The Grasslands site consists of approximately 30 acres within Yolo County's Grasslands Regional Park at the southeastern corner of the intersection of Mace Boulevard/County Road 104 and County Road 35. The Grasslands site is generally bounded by County Road 35 and agricultural land (north); Grasslands Regional Park (east); Yolo Bowmen Archery Range and Sacramento Valley Soaring Society Flying Field (south); and Mace Boulevard/County Road 104 and agricultural land (west) (Figures 2 and 3).

Project Description

The Grasslands site would consist of a 5-megawatt AC solar panel array and an environmental education center. The solar panel array would comprise solar PV panels made of crystalline silicon with anti-reflective glass. The solar panel array would generate electricity directly from sunlight, collect it to a single point at the project substation, and interconnect it to the high-voltage transmission system for delivery to the utility buyer's customers. The environmental education center would consist of a modular building, park host building, and restroom facilities. The components of the PV array and education center are discussed separately.

Methodology

Analysis of the biological resources associated with the project site began with a thorough review of relevant literature, which provides a baseline from which to evaluate the biological resources potentially occurring on the project site as well as on the surrounding area.

The literature review included a review of current USGS 7.5-minute topographic quadrangle maps and aerial photographs as a preliminary analysis of the existing conditions within the project site and immediate vicinity. Information obtained from the review of the topographic maps included elevation, general watershed information, and potential drainage feature locations. Pertinent United States Department of Agriculture (USDA) soil survey maps were reviewed to determine the existing soil mapping units within the project site and to establish if soil conditions onsite are suitable for any sensitive plant or wildlife species.

Additionally, MBA compiled a list of threatened, endangered, and otherwise sensitive species previously recorded within the general area of the site. For the purpose of this report, "sensitive species" are defined as those protected by Federal Endangered Species Act (ESA) or California ESA, designated as a California Species of Special Concern, designated as Protected or Fully Protected by California Department of Fish and Game (CDFG); given a status of 1B, or 2 by the California Native Plant Society (CNPS); or designated as sensitive by City, County, or regional planning documents. A compilation of sensitive plant and wildlife species recorded in the vicinity of the site was derived from the CDFG's California Natural Diversity Database (CNDDB 2010). Additional recorded occurrences of plant species found on or near the site were obtained in the CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California database. The CNDDB GIS database was utilized, together with ArcGIS software, to determine sensitive species located within a 5-mile radius of the project site. Federal Register listings, protocols, and species data provided by the USFWS and CDFG were reviewed in conjunction with anticipated federal and state listed species potentially occurring in the vicinity.

Reconnaissance-Level Survey

The literature review was followed by a reconnaissance-level survey. The primary objective of the survey was to document existing site conditions and determine the potential presence of sensitive biological resources.

A qualified MBA biologist conducted the reconnaissance-level field survey on July 23, 2012, between the hours of 1245 to 0315. The reconnaissance-level survey was conducted on foot during daylight hours. The object of the survey was not to extensively search for every species occurring within the project site, but to ascertain general site conditions and identify potentially suitable habitat areas for various sensitive plant and wildlife species.

Plant Species

Common plant species observed during the reconnaissance-level survey were identified by visual characteristics and morphology in the field and recorded in a field notebook. Uncommon and less familiar plants were identified offsite using taxonomical guides. Taxonomic nomenclature used in this study follows Hickman (1993). Common plant names, when not available from Hickman (1993), were taken from other regionally specific references. In this report, scientific names are provided immediately following common names of plant species for the first reference only.

Wildlife Species

Wildlife species detected during the reconnaissance-level survey by sight, calls, tracks, scat, or other signs were recorded in a field notebook. Notations were made regarding suitable habitat for those sensitive species determined to potentially occur within the project site. Appropriate field guides were used to assist with species identification during surveys. Common names of wildlife species are standard; however, scientific names are provided immediately following common names for the first reference only.

Jurisdictional Waters and Wetlands

Prior to conducting the site visit, MBA's biologists reviewed USGS topographic maps and aerial photography to identify any potential natural drainage features and water bodies that may fall within the

jurisdiction of the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and/or CDFG. In general, all surface drainage features indicated as blue-line streams on USGS maps and linear patches of vegetation expected to exhibit evidence of flows are considered potentially subject to state and federal regulatory authorities as "waters of the US and/or State." The assessment was not intended as a formal delineation of waters of the U.S. or State but rather to identify areas that may require a formal delineation.

Wildlife Movement Corridors

Wildlife movement corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat, separating different populations of a single species. Corridors effectively act as links between these populations.

The project site was evaluated for evidence of a wildlife movement corridor. The scope of the biological resources survey did not include a formal wildlife movement corridor study such as the use of track plates, camera stations, scent stations, or snares. However, the focus of this study was to determine if the alteration of current land use on the project site would have significant impacts on the regional movement of wildlife. These conclusions are based on the information compiled from the literature review, including aerial photographs, USGS topographic maps, and resource maps for the vicinity, the reconnaissance-level surveys, and knowledge of desired topography and resource requirements for wildlife potentially utilizing the project site and vicinity.

Summary of Findings

MBA's biologist conducted a reconnaissance-level survey on July 23, 2012. Weather conditions during the survey included a temperature of 90 degrees Fahrenheit (°F), winds of 5 to 8 miles per hour (mph) and clear skies.

Environmental Setting

The project site is located within a relatively flat 30-acre property. The project site is undeveloped, and the site has been used in the past for foraging. Currently, the project site consists of upland vegetation grasses and forbs, considered natural open space. Grasslands Regional Park is identified in the Yolo County Parks and Open Space Master Plan as an important ecological and recreation area. Land uses surrounding the project consist of agricultural uses including row crops.

Topographic Features

The project site is comprised of relatively flat land with an elevation range of 33 feet above mean sea level (AMSL) in the southern portion of the property to 34 feet AMSL in the northern portion of the property. A man-made slope occurs along the northern project boundary along the roadway. There are no significant or natural topographic features within the project site.

Soils

The Yolo County soil surveys provide soils data for the project site including two independent soils series: Brentwood silty clay loam, 0 to 2 percent slopes; and Marvin silty clay loam. The project site is dominated by Brentwood silty clay loam, 0 to 2 percent slopes with a small inclusion of Marvin silty clay loam in the eastern portion of the project site.

Brentwood silty clay loam, 0 to 2 percent slopes occurs on nearly level to gently sloping fans, formed in valley fill from sedimentary rocks. This is a moderately well drained soil with associated vegetation such as annual grasses, forbs, and scattered oaks.

Marvin silty clay loam is found on nearly level floodplains at elevations of 10 to 100 feet under annual grasses and forbs. It is a moderately well to somewhat poorly drained soil, formed in fine textured alluvium from mixed sources.

Plant Communities

The vast majority of the 30-acre survey area consists of annual grassland that has been used in the past for grazing. This plant community is an upland plant community typically dominated by non-native annual grasses, but contains a diverse assemblage of native and nonnative grasses and forbs. Plants observed onsite included: yellow starthistle (*Centaurea solastis*), prickly lettuce (*Lactuca serriola*), barbed goat grass (*Aegilops triuncialis*), Italian rye grass (*Lolium multiflorum*), red-stemmed filaree (*Erodium cicutarium*).

Wildlife

The project site provides suitable habitat for a number of common wildlife species known to occur within open space and agricultural settings in Yolo County. Two mammal species, California ground squirrel (*Spermophilus beecheyi*) and black-tailed jackrabbit (*Lepus californicus*), and a single reptile species, western fence lizard (*Sceloporus occidentalis*), were observed onsite during the survey. Avian species observed or otherwise detected include, red-tailed hawk (*Buteo jamaicensis*), mourning dove (*Zenaida macroura*), song sparrow (*Melospiza melodia*), house finch (*Carpodacus mexicanus*), Turkey Vulture (*Cathartes aura*), and northern mockingbird (*Mimus polyglottos*). The red-tailed hawk was observed soaring in the vicinity of the site, indicating that the project site and immediate vicinity provide suitable foraging habitat for raptor species.

Sensitive Biological Resources

Sensitive Plant Communities

The CNDDB identified 3 sensitive plant communities that occur within the Davis quad; Elderberry Savanna, Great Valley Cottonwood Riparian Forest, and Valley Oak Woodland. No sensitive plant communities were observed on the project site during the reconnaissance-level survey. Therefore, construction of the proposed project will not impact any sensitive plant communities.

Sensitive Plant Species

Several sensitive plant species were recorded as occurring within 5 miles of the project site. In particular, San Joaquin spearscale, Colusa grass, Solano grass, alkali milkvetch are known to occur southeast of project activities within Grasslands Regional Park. As such, construction of the proposed project may impact sensitive plant species. The complete CNDDB list of sensitive plant species, recorded within the Yolo quad evaluated for their potential to occur on the project site, is included as an enclosure to this letter report.

Sensitive Wildlife Species

The project site provides highly suitable habitat for two sensitive wildlife species: burrowing owl (*Athene cunicularia*) and Swainson's hawk (*Buteo swainsoni*). The project site is dominated by annual grassland and includes suitable California ground squirrel (*Spermophilus beecheyi*) burrows throughout the site. A number of occurrences of burrowing owl have been recorded within .5 miles of the project site. Therefore, the burrowing owl has a moderate potential to occur on the project site. In addition, Swainson's hawk has been recorded foraging within .5 miles of the project site. No other sensitive wildlife species known to occur in the region have a moderate or high potential to occur within the site. No sensitive wildlife species were observed on the project site during the reconnaissance-level survey. The complete CNDDB list of sensitive wildlife species, recorded within the Davis quad evaluated for their potential to occur on the project site, is included as an enclosure to this letter report.

Nesting Birds

The project site provides suitable nesting habitat for a number of ground-nesting avian species including Burrowing Owl. During the reconnaissance-level survey, no sightings or signs of burrowing owl (white wash, owl pellets, etc.) were found. Additionally, there are several trees towards the western portion of the project site as well as south of the project site (within off site areas) that may provide suitable nesting habitat for a number of common avian species. The project site also provides suitable foraging habitat for raptor species.

Jurisdictional Waters and Wetlands

Seasonal wetlands are plant communities typically characterized by any number of seasonal wetland generalist plants, many of which are non-native and adapted to frequent disturbance, and may be found within Grasslands Regional Park. The Yolo County Natural Heritage Program conducted mapping of wetlands within Grasslands Regional Park in 2010 and 2011. There is a former drainage channel that runs along the southern border of the project site; the channel was a former flood channel of Putah Creek and currently no longer supports wetlands as Putah Creek no longer floods the area due to flood levees. However, there is a mapped swale that is located above elevation of the channel that has surface deposits of clay loams to clay textured soils that retain water and salts located north of the channel. A mid-summer 2012 informal wetland determination was conducted by qualified MBA biologists to verify the findings of the County's mapping efforts. During this determination, MBA biologists, including one vernal pool specialist, found that the swale is a seasonal wetland; conditions observed (i.e. vegetation, soils, and hydrology) do not indicate that the swale is a vernal pool or supports vernal pool habitat. Species observed included rabbit's foot grass (*Polypogon monspeliensis*), Italian ryegrass (*Lolium perenne ssp. multiflorum*), curly dock (*Rumex crispus*), and perennial pepperweed (*Lepidium latifolium*).

Wildlife Movement Corridors

The project site is located within Grasslands Regional Park, in an area identified as open space, surrounded by active agricultural lands. The lands surrounding the site are open and vast, providing ample opportunity for wildlife movement across the general project area. As such, the project site does not function as an important wildlife corridor and construction of the proposed project would not create a significant physical alteration to the land that would impair the movement of wildlife. In addition, the project site does not provide narrow connectivity between large areas of open space on either a local or regional scale. The proposed project would not obstruct movement of terrestrial species because the project would be constructed in a manner to allow terrestrial movement below and in between the elevated solar panels.

Yolo County General Plan

The project site is located within the boundary of the Yolo County General Plan and the Grasslands Park Master Plan. The General Plan and Master Plan serve as the principal policy document for guiding future conservation and development within Grasslands Regional Park. These documents include goals, objectives, policies and actions which have been designed to implement the community's vision of Yolo County and Grasslands Regional Park. The project site was evaluated for consistency with the General Plan, specifically the guidelines stipulated in the Land Use Element and Open Space and Conservation sections of the General Plan.

Yolo County Natural Community Conservation Plan and Habitat Conservation Plan

The Yolo County NCCP/HCP Joint Powers Agency (JPA) is preparing the Yolo County Natural Heritage Program (NHP Plan), which is a county-wide conservation planning effort designated to serve as an effective comprehensive Habitat Conservation Plan (HCP) and Natural Community Conservation Plan (NCCP) for a 653,820 acre planning area. The NHP Plan will establish a mechanism for conserving the natural open space and agricultural landscapes that provide habitat for many species protected by FESA and CESA, and at-risk species found within the habitats and natural communities of the County.

Although the Yolo NHP is still in the planning and preparation stage, it will likely include a broad conservation strategy that promotes a diverse array of agricultural crop types and preserves riparian and upland areas that provide suitable habitat for a variety of species. This would include preservation of large blocks of contiguous habitat that provide linkages between species' habitats and buffers from less desirable areas. The NHP also will likely include opportunities to enhance riparian and upland habitats as part of the conservation program.

Swainson's Hawk Mitigation Program

The Yolo County NCCP/HCP Joint Powers Agency (JPA) administers a program for the County, and the cities of Davis, Woodland, Winters, and West Sacramento, to implement the agreement with CDFG regarding impacts to Swainson's hawk foraging habitat. The JPA reviews applications for development of open land within the NCCP/HCP planning area and collects acreage-based mitigation fees for development of the lands. The mitigation fees are to be sufficient to fund the acquisition, enhancement, and long-term management of one acre of Swainson's hawk foraging habitat for every one-acre of foraging habitat that is lost to urban development. The fee is currently $8,660 per acre. The interim program, which is dependant on the completion of the Yolo County NCCP/HCP, is limited to providing mitigation for impacts to foraging habitat and does not authorize incidental take of Swainson's hawks.

Findings and Recommendations

Several special status plants (San Joaquin spearscale, Colusa grass, Solano grass, alkali milkvetch) are known to occur southeast of project activities within the grasslands site. In order to address potential construction impacts to special status species plants, focused plant surveys should be performed for San Joaquin spearscale, Colusa grass, Solano grass, and alkali milkvetch within the project site due to the close-proximity and known occurrences within Grasslands Regional Park during the appropriate blooming or survey period. A survey report will be prepared by a qualified botanist and submitted to Yolo County prior to disturbance of the project area.

The burrowing owl has a high potential to occur on the project site due to moderately suitable habitat onsite and the recorded occurrences of burrowing owl within .5 miles of the project site. Therefore, a focused burrowing owl survey is recommended prior to construction activities to determine if burrowing owl occupies any portion of the project site. A focused burrowing owl survey must be conducted in accordance with the survey protocol outlined by the new CDFG 2012 Staff Report on Burrowing Owl Mitigation. If burrowing owls are detected on the project site further mitigation is required.

The open agricultural fields within the project site provide highly suitable foraging habitat for Swainson's hawk, a State Threatened species. The construction phase of the proposed project will result in a significant physical alteration to the existing land use and will result in the loss of Swainson's hawk foraging habitat. To offset impacts to suitable foraging habitat for Swainson's hawk, pursuant to the Solar Facility Ordinance of Yolo County, if more than 2.5 acres of Swainson's hawk foraging habitat is impacted, a Minor Use Permit shall be required and include conditions for mitigation for the permanent loss of such habitat as required under the Yolo Natural Heritage Program.

The project site provides suitable nesting and foraging habitat for a number of common migratory birds and raptor species known to occur in the region. Therefore, to reduce any potential impacts resulting from construction of the proposed project, construction activity should avoid the avian nesting season (February through August). If construction activities must take place during the avian nesting season, a pre-construction clearance survey must be conducted by a qualified biologist to ensure direct or incidental take of any avian species does not occur during construction of the proposed project. If a nesting bird is found during the pre-construction survey, an adequate buffer area will be established by a biological monitor to protect the active nest during construction. Construction activity may commence only at the discretion of the biological monitor.

There is a mapped seasonal wetland swale that is located above elevation of the channel that has surface deposits of clay loams to clay textured soils that retain water and salts located north of the channel. A mid-summer 2012 informal wetland determination was conducted by qualified MBA biologists to verify the findings of the County's mapping efforts. During this determination, MBA biologists found that the swale is a seasonal wetland; conditions observed do not indicate that the swale is a vernal pool or supports vernal pool habitat. Species observed included rabbit's foot grass (*Polypogon monspeliensis*), Italian ryegrass (*Lolium perenne* ssp. *multiflorum*), curly dock (*Rumex crispus*), and perennial pepperweed (*Lepidium latifolium*). The Yolo County General Plan allows for loss of individual wetlands as long as the loss is fully mitigated. In order to achieve this goal, General Plan policies CO-2.1, CO-2.2, and CO-2.3 will be implemented. To replace the impacted seasonal wetland on the project site, a habitat restoration plan should be developed prior to the approval of grading plans and would identify appropriate mitigation areas onsite based on underlying soils and local hydrology. This data would be used to prioritize sites for enhancement or seasonal wetland creation (that is, the relocation of the seasonal wetland swale) within another portion of Grasslands Regional Park. Habitat acreage should be restored or replaced at a minimum of 1:1 ratio of those habitats permanently impacted.

The project site occurs within an area zoned for Open Space under the Land Use Element of the County General Plan. As currently designed, the proposed project is considered consistent with the land use, conservation, and resource planning goals of the Yolo County General Plan related to biological resources. Construction of the proposed project would not interfere with the goals and objectives of the General Plan as they pertain to biological resources.

If you have any questions or comments regarding the findings of this letter report, please feel free to contact me at 916.447.1100.

Sincerely,

Angela C. McIntire, JD
Regulatory Analyst
Michael Brandman Associates
2000 "O" Street, Suite 200
Sacramento, CA 95811

Enc: Figures 1, 2, and 3
CNDDB List of Sensitive Species
U.S. Fish and Wildlife Sensitive Species List
CNPS Sensitive Species List
Correspondence and Map Regarding Mapped Seasonal Wetland

Figures

Source: ESRI Aerial, MBA Field Survey and GIS Data, 2012.

Figure 3
Local Vicinity Map - Aerial Base
Beamer-Cottonwood Site

Michael Brandman Associates

NORTH

1,000 500 0 1,000 Feet

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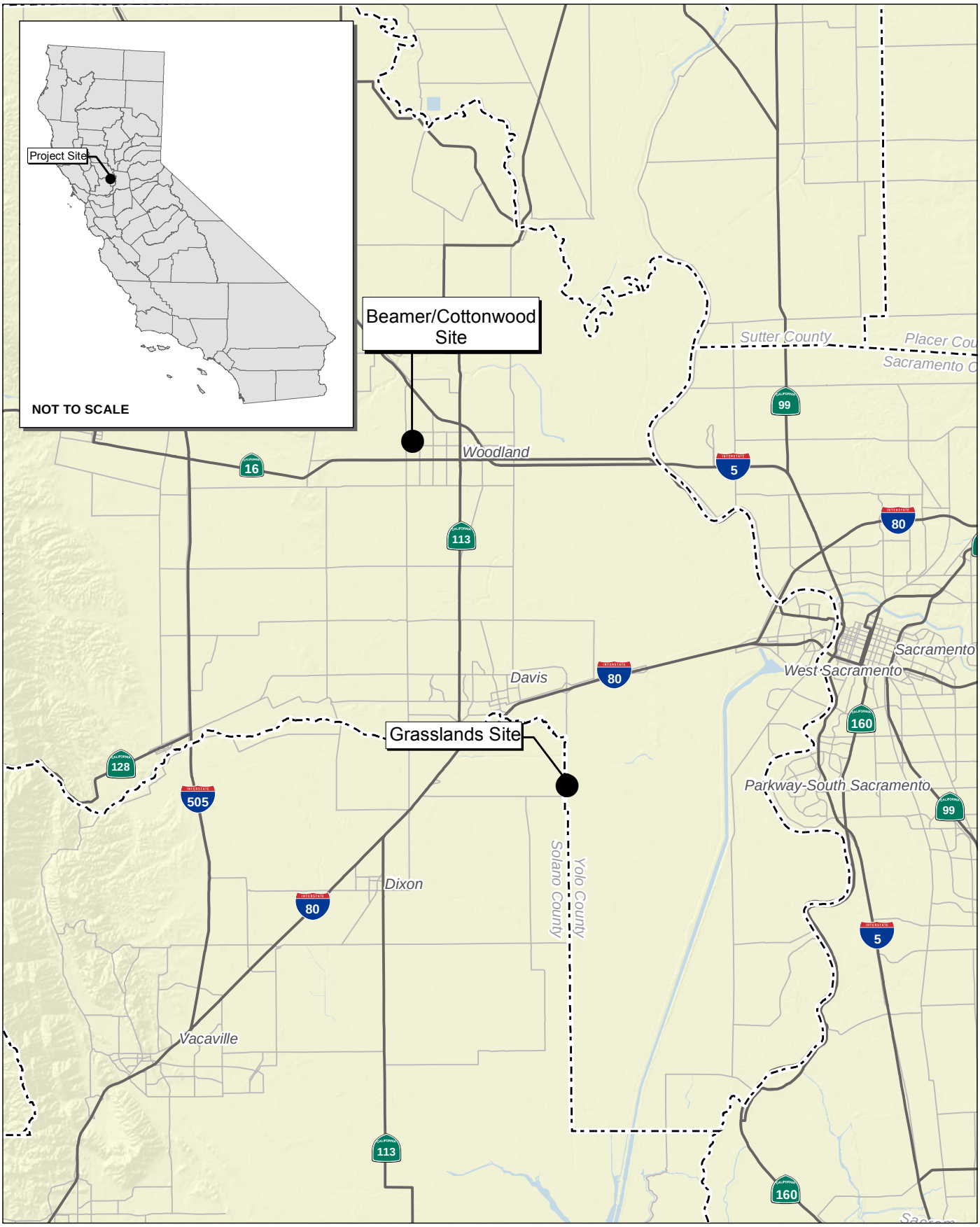
Figure-3_local_vicinity_beamer-cottonwood.mxd

NATIONAL PARKS SERVICE
COUNTY OF YOLO DEPARTMENT OF GENERAL SERVICES LAND RELEASE
BIOLOGICAL RESOURCES SURVEY



Source: Census 2000 Data, The CaSIL, MBA GIS 2012.

NORTH

5 2.5 0 5 Miles

Michael Brandman Associates

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Figure 1
Regional Location Map

NATIONAL PARKS SERVICE
COUNTY OF YOLO DEPARTMENT OF GENERAL SERVICES LAND RELEASE
BIOLOGICAL RESOURCES SURVEY

Source: ESRI Aerial, MBA Field Survey and GIS Data, 2012.

Michael Brandman Associates

NORTH

1,000 500 0 1,000

Feet

Figure 2
Local Vicinity Map - Aerial Base
Grasslands Site

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NATIONAL PARKS SERVICE
COUNTY OF YOLO DEPARTMENT OF GENERAL SERVICES LAND RELEASE
BIOLOGICAL RESOURCES SURVEY

CNDDB List of Sensitive Species

Selected Elements by Scientific Name

California Department of Fish and Game

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFG SSC or FP
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	None	G2G3	S2	SSC
Ambystoma californiense California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	SSC
Ammodramus savannarum grasshopper sparrow	ABPBXA0020	None	None	G5	S2	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Archoplites interruptus Sacramento perch	AFCQB07010	None	None	G3	S1	SSC
Ardea alba great egret	ABNGA04040	None	None	G5	S4	
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Astragalus tener var. ferrisiae Ferris' milk-vetch	PDFAB0F8R3	None	None	G1T1	S1	1B.1
Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1	None	None	G2T2	S2	1B.2
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S2	SSC
Atriplex cordulata var. cordulata heartscale	PDCHE040B0	None	None	G3T2	S2.2?	1B.2
Atriplex depressa brittlescale	PDCHE042L0	None	None	G2Q	S2.2	1B.2
Atriplex joaquinana San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
Branchinecta conservatio Conservancy fairy shrimp	ICBRA03010	Endangered	None	G1	S1	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S2S3	
Branchinecta mesovallensis midvalley fairy shrimp	ICBRA03150	None	None	G2	S2	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S2	
Carex comosa bristly sedge	PMCYP032Y0	None	None	G5	S2	2.1
Charadrius alexandrinus nivosus western snowy plover	ABNNB03031	Threatened	None	G4T3	S2	SSC
Charadrius montanus mountain plover	ABNNB03100	Proposed Threatened	None	G2	S2?	SSC
Chloropyron palmatum palmate-bracted bird's-beak	PDSCR0J0J0	Endangered	Endangered	G1	S1	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFG SSC or FP
Cicindela hirticollis abrupta Sacramento Valley tiger beetle	IICOL02106	None	None	G5TH	SH	
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Candidate	Endangered	G5T3Q	S1	
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
Egretta thula snowy egret	ABNGA06030	None	None	G5	S4	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3	FP
Elderberry Savanna Elderberry Savanna	CTT63440CA	None	None	G2	S2.1	
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Falco columbarius merlin	ABNKD06030	None	None	G5	S3	WL
Fritillaria pluriflora adobe-lily	PMLIL0V0F0	None	None	G3	S3	1B.2
Great Valley Cottonwood Riparian Forest Great Valley Cottonwood Riparian Forest	CTT61410CA	None	None	G2	S2.1	
Hibiscus lasiocarpos var. occidentalis woolly rose-mallow	PDMAL0H0R3	None	None	G4	S2.2	1B.2
Juglans hindsii Northern California black walnut	PDJUG02040	None	None	G1	S1.1	1B.1
Lasionycteris noctivagans silver-haired bat	AMACC02010	None	None	G5	S3S4	
Lasiurus cinereus hoary bat	AMACC05030	None	None	G5	S4?	
Lepidium latipes var. heckardii Heckard's pepper-grass	PDBRA1M0K1	None	None	G4T1	S1.2	1B.2
Lepidurus packardi vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G3	S2S3	
Lilaeopsis masonii Mason's lilaeopsis	PDAPI19030	None	Rare	G2	S2	1B.1
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G3	S2S3	
Myrmosula pacifica Antioch multilid wasp	IIHYM15010	None	None	GH	SH	
Navarretia leucocephala ssp. bakeri Baker's navarretia	PDPLM0C0E1	None	None	G4T2	S2	1B.1
Neostapfia colusana Colusa grass	PMPOA4C010	Threatened	Endangered	G2	S2	1B.1

Selected Elements by Scientific Name

California Department of Fish and Game

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFG SSC or FP
Nycticorax nycticorax black-crowned night heron	ABNGA11010	None	None	G5	S3	
Oncorhynchus tshawytscha chinook salmon - Central Valley spring-run ESU	AFCHA0205A	Threatened	Threatened	G5	S1	
Oncorhynchus tshawytscha chinook salmon - Sacramento River winter-run ESU	AFCHA0205B	Endangered	Endangered	G5	S1	
Plagiobothrys hystriculus bearded popcorn-flower	PDBOR0V0H0	None	None	G1G2	S1S2	1B.1
Plegadis chihi white-faced ibis	ABNGE02020	None	None	G5	S1	WL
Pogonichthys macrolepidotus Sacramento splittail	AFCJB34020	None	None	G2	S2	SSC
Progne subis purple martin	ABPAU01010	None	None	G5	S3	SSC
Symphyotrichum lentum Suisun Marsh aster	PDASTE8470	None	None	G2	S2	1B.2
Taxidea taxus American badger	AMAJF04010	None	None	G5	S4	SSC
Thamnophis gigas giant garter snake	ARADB36150	Threatened	Threatened	G2G3	S2S3	
Trifolium hydrophilum saline clover	PDFAB400R5	None	None	G2	S2	1B.2
Tuctoria mucronata Crampton's tuctoria or Solano grass	PMPOA6N020	Endangered	Endangered	G1	S1	1B.1
Valley Oak Woodland Valley Oak Woodland	CTT71130CA	None	None	G3	S2.1	
Vireo bellii pusillus least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	
Xanthocephalus xanthocephalus yellow-headed blackbird	ABPBXB3010	None	None	G5	S3S4	SSC

Record Count: 57

U.S. Fish and Wildlife Service Species List

U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 120801042024

Database Last Updated: September 18, 2011

Quad Lists

Listed Species

Invertebrates

Branchinecta conservatio
Conservancy fairy shrimp (E)

Branchinecta lynchi
vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus
valley elderberry longhorn beetle (T)

Lepidurus packardi
Critical habitat, vernal pool tadpole shrimp (X)
vernal pool tadpole shrimp (E)

Fish

Acipenser medirostris
green sturgeon (T) (NMFS)

Hypomesus transpacificus
Critical habitat, delta smelt (X)
delta smelt (T)

Oncorhynchus mykiss
Central Valley steelhead (T) (NMFS)
Critical habitat, Central Valley steelhead (X) (NMFS)

Oncorhynchus tshawytscha
Central Valley spring-run chinook salmon (T) (NMFS)
Critical Habitat, Central Valley spring-run chinook (X) (NMFS)
Critical habitat, winter-run chinook salmon (X) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Ambystoma californiense
California tiger salamander, central population (T)

Rana draytonii
California red-legged frog (T)

Reptiles

Thamnophis gigas
giant garter snake (T)

Birds

Charadrius alexandrinus nivosus
western snowy plover (T)

Vireo bellii pusillus
Least Bell's vireo (E)

Plants

Cordylanthus palmatus
palmate-bracted bird's-beak (E)

Neostapfia colusana
Colusa grass (T)
Critical habitat, Colusa grass (X)

Tuctoria mucronata
Critical habitat, Solano grass (=Crampton's tuctoria) (X)
Solano grass (=Crampton's tuctoria) (E)

Candidate Species

Birds

Coccyzus americanus occidentalis
Western yellow-billed cuckoo (C)

Quads Containing Listed, Proposed or Candidate Species:

CLARKSBURG (497A)
SAXON (497B)
DIXON (498A)
TAYLOR MONUMENT (513A)
GRAYS BEND (513B)
DAVIS (513C)
SACRAMENTO WEST (513D)
WOODLAND (514A)
MERRITT (514D)

County Lists

No county species lists requested.

Key:

(E) *Endangered* - Listed as being in danger of extinction.
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(P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.
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(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
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Important Information About Your Species List

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Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. More info

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6520.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be October 30, 2012.

CNPS Species List

CNPS California Native Plant Society Inventory of Rare and Endangered Plants

Plant List

22 matches found. *Click on scientific name for details*

Search Criteria

Found in 9 Quads around 38121E6

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank
Astragalus pauperculus	depauperate milk-vetch	Fabaceae	annual herb	4.3	S3.3	G3
Astragalus tener var. ferrisiae	Ferris' milk-vetch	Fabaceae	annual herb	1B.1	S1	G1T1
Astragalus tener var. tener	alkali milk-vetch	Fabaceae	annual herb	1B.2	S2	G2T2
Atriplex cordulata var. cordulata	heartscale	Chenopodiaceae	annual herb	1B.2	S2.2?	G3T2
Atriplex depressa	brittlescale	Chenopodiaceae	annual herb	1B.2	S2.2	G2Q
Atriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb	1B.2	S2	G2
Carex comosa	bristly sedge	Cyperaceae	perennial rhizomatous herb	2.1	S2	G5
Centromadia parryi ssp. rudis	Parry's rough tarplant	Asteraceae	annual herb	4.2	S3.2	G4T3
Chloropyron palmatum	palmate-bracted bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	1B.1	S1	G1
Fritillaria pluriflora	adobe-lily	Liliaceae	perennial bulbiferous herb	1B.2	S3	G3
Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	Malvaceae	perennial rhizomatous herb	1B.2	S2.2	G4
Juglans hindsii	Northern California black walnut	Juglandaceae	perennial deciduous tree	1B.1	S1.1	G1
Lepidium latipes var. heckardii	Heckard's pepper-grass	Brassicaceae	annual herb	1B.2	S1.2	G4T1
Lessingia hololeuca	woolly-headed lessingia	Asteraceae	annual herb	3	S3	G3
Lilaeopsis masonii	Mason's lilaeopsis	Apiaceae	perennial rhizomatous herb	1B.1	S2	G2
Myosurus minimus ssp. apus	little mousetail	Ranunculaceae	annual herb	3.1	S2.2	G5T2Q
Navarretia leucocephala ssp. bakeri	Baker's navarretia	Polemoniaceae	annual herb	1B.1	S2	G4T2
Neostapfia colusana	Colusa grass	Poaceae	annual herb	1B.1	S2	G2
Plagiobothrys hystriculus	bearded popcorn-flower	Boraginaceae	annual herb	1B.1	S1S2	G1G2
Symphyotrichum lentum	Suisun Marsh aster	Asteraceae	perennial			

			rhizomatous herb	1B.2	S2	G2
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	1B.2	S2	G2
Tuctoria mucronata	Crampton's tuctoria or Solano grass	Poaceae	annual herb	1B.1	S1	G1

Suggested Citation

California Native Plant Society (CNPS). 2012. Inventory of Rare and Endangered Plants (online edition, v8-01a). California Native Plant Society. Sacramento, CA. Accessed on Wednesday, August 01, 2012.

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Information
About the Inventory
About the Rare Plant Program
CNPS Home Page
About CNPS
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Jenkins Family
Bilisoly Bequest Grant
California Natural Diversity Database
The Calflora Database
Studio Simple
TRC

Correspondence Regarding Seasonal Wetland

Chryss Meier - Fwd: FW: Questions re conserved lands, conservation measures, and impacts

From: Angela McIntire
To: Chryss Meier
Date: 8/2/2012 4:22 PM
Subject: Fwd: FW: Questions re conserved lands, conservation measures, and impacts
Attachments: Grasslands Park northwest corner.JPG; Grasslands Park northwest corner 1950s.JPG

FYI

>>> Jennifer Santos <Jennifer.Santos@yolocounty.org> 8/2/2012 10:48 AM >>>
Trevor,
Let's chat about this when you have time.
Thanks,

Jen Santos
530. 406. 4886
jennifer.santos@yolocounty.org

From: Maria Wong
Sent: Thursday, August 02, 2012 10:01 AM
To: Terry Vernon; Jennifer Santos
Subject: FW: Questions re conserved lands, conservation measures, and impacts

FYI

Maria

From: Gerlach, John D. Jr. [mailto:JOHN.D.GERLACH.JR@saic.com]
Sent: Thursday, August 02, 2012 9:56 AM
To: Maria Wong
Subject: RE: Questions re conserved lands, conservation measures, and impacts

Maria attached are a couple aerials of the northwest corner of Grasslands Park showing a mapped swale (Brent Helm did this mapping for the County) and the drainage channel. The swale is actually located above the elevation of the channel as the channel has coarser textured soil while the uplands have surface deposits of clay loams to clay textured soils that retain water and salts. I have electronic copies of the elevation surveys for the entire site that were conducted by the air force. The channel was a former flood channel of Putah Creek and currently no longer supports wetlands as Putah Creek no longer floods the area due to the flood control levees. The clay soils in the uplands pond from precipitation.

The swale is mapped vernal pool habitat under the NHP and there would have to be a minimum 250 foot setback (indicated on one image) for any solar project in the area.

- John

From: btv1==5603719630a==Maria.Wong@yolocounty.org [mailto:btv1==5603719630a==Maria.Wong@yolocounty.org] **On Behalf Of** Maria Wong
Sent: Wednesday, August 01, 2012 2:36 PM
To: Gerlach, John D. Jr.
Subject: RE: Questions re conserved lands, conservation measures, and impacts

Hi John,

The proposed solar facility is in the NW corner of Grassland park (under the word "Grasslands" on your map. The county has no plans for the Davis Communication site other than passive trails and interpretive elements sometime in the future.

The Hunt and Wesson site is not protected.

I'll get back to you on the Woodland Park site.

Maria

From: Gerlach, John D. Jr. [mailto:JOHN.D.GERLACH.JR@saic.com]
Sent: Wednesday, August 01, 2012 1:33 PM
To: Maria Wong
Subject: Questions re conserved lands, conservation measures, and impacts

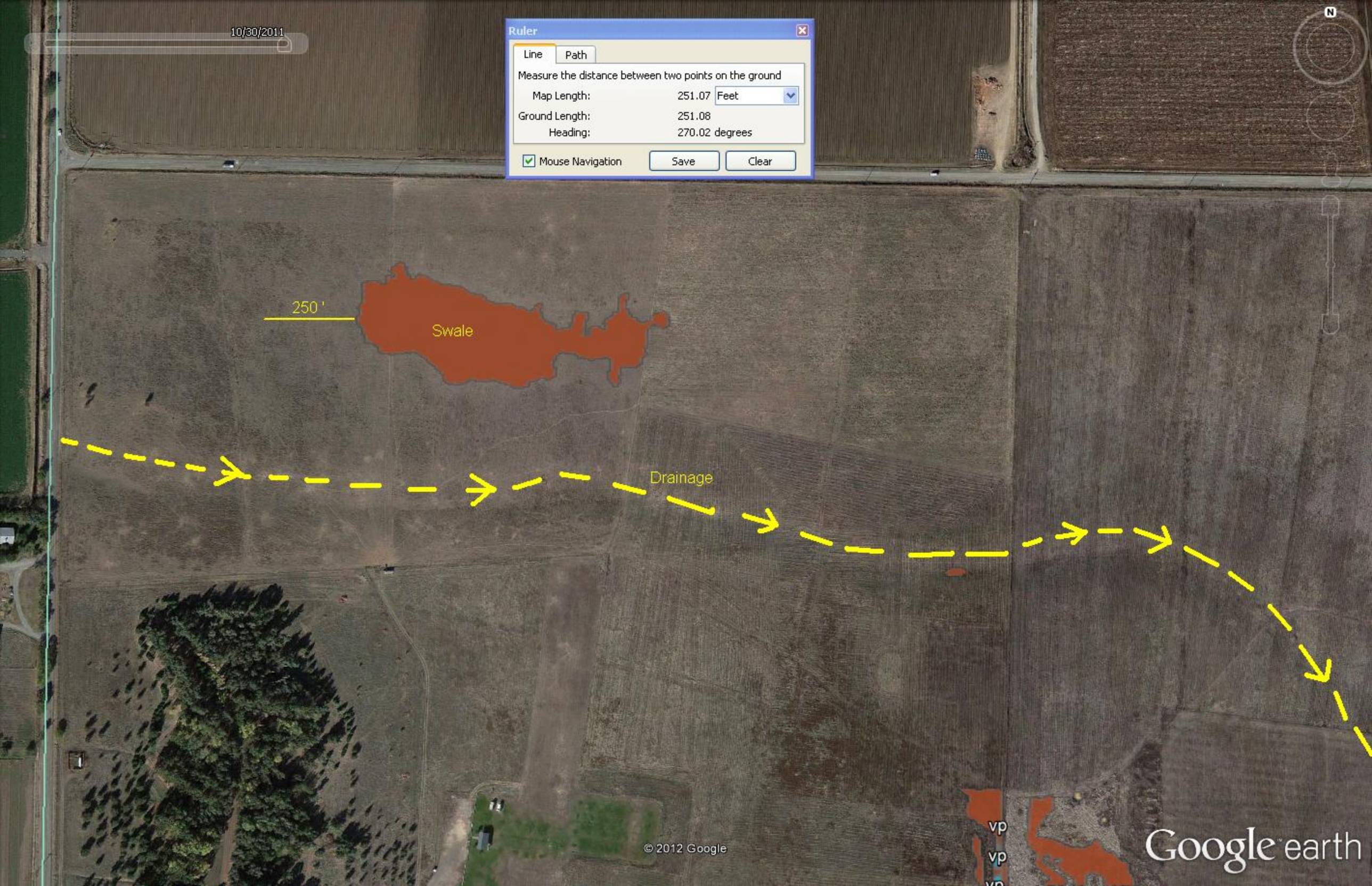
Hi Maria,

I've attached three screen shots with questions written on each. This information is important for our current work on the conservation measures and impact analysis.

Thanks,

John

John Gerlach Jr., PhD, JD
Conservation Ecologist
SAIC
2600 Capitol Avenue, Suite 140
Sacramento, CA 95816
916-541-8504 (cell)
916-446-2730 (office)
gerlachjd@saic.com
www.saic.com


10/30/2011
Ruler
Line
Path
Measure the distance between two points on the ground
Map Length: 251.07 Feet
Ground Length: 251.08
Heading: 270.02 degrees
Mouse Navigation
Save
Clear
250 '
Swale
Drainage
vp
vp
© 2012 Google
Google earth

D.2 - Beamer-Cottonwood Data

Selected Elements by Scientific Name

California Department of Fish and Game

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFG SSC or FP
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	None	G2G3	S2	SSC
Ambystoma californiense California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	SSC
Ammodramus savannarum grasshopper sparrow	ABPBXA0020	None	None	G5	S2	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Archoplites interruptus Sacramento perch	AFCQB07010	None	None	G3	S1	SSC
Ardea alba great egret	ABNGA04040	None	None	G5	S4	
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Astragalus tener var. ferrisiae Ferris' milk-vetch	PDFAB0F8R3	None	None	G1T1	S1	1B.1
Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1	None	None	G2T2	S2	1B.2
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S2	SSC
Atriplex cordulata var. cordulata heartscale	PDCHE040B0	None	None	G3T2	S2.2?	1B.2
Atriplex depressa brittlescale	PDCHE042L0	None	None	G2Q	S2.2	1B.2
Atriplex joaquinana San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
Branchinecta conservatio Conservancy fairy shrimp	ICBRA03010	Endangered	None	G1	S1	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S2S3	
Branchinecta mesovallensis midvalley fairy shrimp	ICBRA03150	None	None	G2	S2	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S2	
Carex comosa bristly sedge	PMCYP032Y0	None	None	G5	S2	2.1
Charadrius alexandrinus nivosus western snowy plover	ABNNB03031	Threatened	None	G4T3	S2	SSC
Charadrius montanus mountain plover	ABNNB03100	Proposed Threatened	None	G2	S2?	SSC
Chloropyron palmatum palmate-bracted bird's-beak	PDSCR0J0J0	Endangered	Endangered	G1	S1	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFG SSC or FP
Cicindela hirticollis abrupta Sacramento Valley tiger beetle	IICOL02106	None	None	G5TH	SH	
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Candidate	Endangered	G5T3Q	S1	
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
Egretta thula snowy egret	ABNGA06030	None	None	G5	S4	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3	FP
Elderberry Savanna Elderberry Savanna	CTT63440CA	None	None	G2	S2.1	
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Falco columbarius merlin	ABNKD06030	None	None	G5	S3	WL
Fritillaria pluriflora adobe-lily	PMLIL0V0F0	None	None	G3	S3	1B.2
Great Valley Cottonwood Riparian Forest Great Valley Cottonwood Riparian Forest	CTT61410CA	None	None	G2	S2.1	
Hibiscus lasiocarpos var. occidentalis woolly rose-mallow	PDMAL0H0R3	None	None	G4	S2.2	1B.2
Juglans hindsii Northern California black walnut	PDJUG02040	None	None	G1	S1.1	1B.1
Lasionycteris noctivagans silver-haired bat	AMACC02010	None	None	G5	S3S4	
Lasiurus cinereus hoary bat	AMACC05030	None	None	G5	S4?	
Lepidium latipes var. heckardii Heckard's pepper-grass	PDBRA1M0K1	None	None	G4T1	S1.2	1B.2
Lepidurus packardi vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G3	S2S3	
Lilaeopsis masonii Mason's lilaeopsis	PDAPI19030	None	Rare	G2	S2	1B.1
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G3	S2S3	
Myrmosula pacifica Antioch multilid wasp	IIHYM15010	None	None	GH	SH	
Navarretia leucocephala ssp. bakeri Baker's navarretia	PDPLM0C0E1	None	None	G4T2	S2	1B.1
Neostapfia colusana Colusa grass	PMPOA4C010	Threatened	Endangered	G2	S2	1B.1

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Nycticorax nycticorax black-crowned night heron	ABNGA11010	None	None	G5	S3	
Oncorhynchus tshawytscha chinook salmon - Central Valley spring-run ESU	AFCHA0205A	Threatened	Threatened	G5	S1	
Oncorhynchus tshawytscha chinook salmon - Sacramento River winter-run ESU	AFCHA0205B	Endangered	Endangered	G5	S1	
Plagiobothrys hystriculus bearded popcorn-flower	PDBOR0V0H0	None	None	G1G2	S1S2	1B.1
Plegadis chihi white-faced ibis	ABNGE02020	None	None	G5	S1	WL
Pogonichthys macrolepidotus Sacramento splittail	AFCJB34020	None	None	G2	S2	SSC
Progne subis purple martin	ABPAU01010	None	None	G5	S3	SSC
Symphyotrichum lentum Suisun Marsh aster	PDASTE8470	None	None	G2	S2	1B.2
Taxidea taxus American badger	AMAJF04010	None	None	G5	S4	SSC
Thamnophis gigas giant garter snake	ARADB36150	Threatened	Threatened	G2G3	S2S3	
Trifolium hydrophilum saline clover	PDFAB400R5	None	None	G2	S2	1B.2
Tuctoria mucronata Crampton's tuctoria or Solano grass	PMPOA6N020	Endangered	Endangered	G1	S1	1B.1
Vireo bellii pusillus least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	
Xanthocephalus xanthocephalus yellow-headed blackbird	ABPBXB3010	None	None	G5	S3S4	SSC

Record Count: 56

U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 120801041841

Database Last Updated: September 18, 2011

Quad Lists

Listed Species

Invertebrates

Branchinecta conservatio
Conservancy fairy shrimp (E)

Branchinecta lynchi
vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus
valley elderberry longhorn beetle (T)

Lepidurus packardi
Critical habitat, vernal pool tadpole shrimp (X)
vernal pool tadpole shrimp (E)

Fish

Acipenser medirostris
green sturgeon (T) (NMFS)

Hypomesus transpacificus
Critical habitat, delta smelt (X)
delta smelt (T)

Oncorhynchus mykiss
Central Valley steelhead (T) (NMFS)
Critical habitat, Central Valley steelhead (X) (NMFS)

Oncorhynchus tshawytscha
Central Valley spring-run chinook salmon (T) (NMFS)
Critical Habitat, Central Valley spring-run chinook (X) (NMFS)
Critical habitat, winter-run chinook salmon (X) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)

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Ambystoma californiense
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giant garter snake (T)

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Critical habitat, Colusa grass (X)

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Critical habitat, Solano grass (=Crampton's tuctoria) (X)

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Western yellow-billed cuckoo (C)

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DAVIS (513C)
WOODLAND (514A)
MADISON (514B)
WINTERS (514C)
MERRITT (514D)
KNIGHTS LANDING (529C)
DUNNIGAN (530B)
ELDORADO BEND (530D)

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If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our Map Room page.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. More info

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6520.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be October 30, 2012.

CNPS California Native Plant Society Inventory of Rare and Endangered Plants

Plant List

13 matches found. *Click on scientific name for details*

Search Criteria

Found in 9 Quads around 38121F7

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank
Astragalus pauperculus	depauperate milk-vetch	Fabaceae	annual herb	4.3	S3.3	G3
Astragalus tener var. tener	alkali milk-vetch	Fabaceae	annual herb	1B.2	S2	G2T2
Atriplex cordulata var. cordulata	heartscale	Chenopodiaceae	annual herb	1B.2	S2.2?	G3T2
Atriplex depressa	brittlescale	Chenopodiaceae	annual herb	1B.2	S2.2	G2Q
Atriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb	1B.2	S2	G2
California macrophylla	round-leaved filaree	Geraniaceae	annual herb	1B.1	S2	G2
Centromadia parryi ssp. rudis	Parry's rough tarplant	Asteraceae	annual herb	4.2	S3.2	G4T3
Chloropyron palmatum	palmate-bracted bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	1B.1	S1	G1
Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	Malvaceae	perennial rhizomatous herb	1B.2	S2.2	G4
Lepidium latipes var. heckardii	Heckard's pepper-grass	Brassicaceae	annual herb	1B.2	S1.2	G4T1
Lessingia hololeuca	woolly-headed lessingia	Asteraceae	annual herb	3	S3	G3
Navarretia leucocephala ssp. bakeri	Baker's navarretia	Polemoniaceae	annual herb	1B.1	S2	G4T2
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	1B.2	S2	G2

Suggested Citation

California Native Plant Society (CNPS). 2012. Inventory of Rare and Endangered Plants (online edition, v8-01a). California Native Plant Society. Sacramento, CA. Accessed on Wednesday, August 01, 2012.

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D.3 - Special-Status Species Tables

Table 1: Sensitive Plant Species

Species		Status			Preferred Habitat	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	CNPS			
Astragalus tener var. ferrisiae	Ferris' milk-vetch	None	None	1B.1	Subalkaline flats on overflow land in meadows and valley and foothill grasslands. Usually seen in dry adobe soil at elevations from 5 to 75 meters.	April – May	**Low** for Grasslands site. This species was not observed onsite and there is minimal suitable habitat for this species. There are two known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Astragalus tener var. tener	Alkali Milk-Vetch	None	None	1B.2	Low ground, alkali flats, and flooded lands in alkali playas, grasslands, and vernal pools at elevations from 1 to 170 meters.	April – October	**Low** for Grasslands site. There is minimal habitat for this species onsite and it was not observed during site visits. This species has been recorded within Grasslands Regional Park. **Low** for Beamer/Cottonwood site. No suitable habitat found within project area.
Atriplex cordulata var. cordulata	Heartscale	None	None	1B.2	Alkaline flats and scalds within chenopod scrub, grassland, and meadows. Sandy soils at elevations from 1 to 150 meters in elevation.	April - October	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no occurrences of this species within 5 miles of the Beamer/Cottonwood site.

Table 1 (cont.): Sensitive Plant Species

Species		Status			Preferred Habitat	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	CNPS			
Atriplex depressa	Brittlescale	None	None	S2.2	Alakli scalds or alkaline clay meadows or annual grasslands in chenopod scrubs, playas, and valley and foothill grasslands, meadows, and sometimes vernal pools at elevations from 1 to 320 meters.	April – October	**Low** for Grasslands site. This species was not observed onsite and there is minimal suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are 2 occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Atriplex joaquinana	San Joaquin spearscale	None	None	1B.2	Seasonal alkali wetlands or alkali sink scrub in chenopod scrub, alkalie meadow, and grasslands at elevations from 1 to 250 meters.	April – October	**Moderate** for Grasslands site. While not observed onsite, this species has been recorded within Grasslands Regional Park. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are 2 occurrences of this species within 5 miles of the Beamer/Cottonwood site.
California macrophylla	Round-leaved filaree	None	None	1B.1	Areas with clay soils in cismontane woodlands and grasslands at 15 to 1,200 meters in elevation.	March – May	**Low** for Grasslands site. This species was not observed onsite and there is minimal suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of

Table 1 (cont.): Sensitive Plant Species

Species		Status			Preferred Habitat	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	CNPS			
							this species within 5 miles of the Beamer/Cottonwood site.
Chloropyron plamatum	Palmate-bracted bird's beak	FE	SE	1B.1	Alkaline soils in chenopod scrub and grassland at 5 to 155 meters in elevation.	May – October	**Low** for Grasslands site. This species was not observed onsite and there is minimal suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are 2 known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Fritillaria pluriflora	Adobe-lily	None	None	1B.2	Clay or serpentine soils in chaparral, cismontane woodland, and grassland at 60 to 705 meters in elevation.	February – April	**Low** for Grasslands site. This species was not observed onsite and there is minimal suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Hibiscus lasiocarpos var. occidentalis	Woolly rose-mallow	None	None	1B.2	Freshwater marshes along river banks a nd islands in sloughs. Moist, freshwater-soaked river banks & low peat islands in sloughs. In California, known from the Delta watershed. 0 to 150 meters in elevation.	June – September	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site.

Table 1 (cont.): Sensitive Plant Species

Species		Status			Preferred Habitat	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	CNPS			
							Low for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Lepidium latipes var. heckardii	Heckard's pepper-grass	None	None	1B.2	Grasslands and vernal pools; prefers alkaline soils at 2 to 200 meters in elevation.	March – May	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Lilaeopsis masonii	Mason's lilaeopsis	None	SR	1B.1	Freshwater and brackish marshes, riparian scrub in tidal zones, in muddy or silty soil formed through river deposition or river bank erosion. 0 to 10 meters in elevation.	April - November	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Navarretia leucocephala ssp. bakeri	Baker's navarretia	None	None	1B.1	Vernal pools and swales within cismontane woodland, meadows and seeps, vernal pools grassland, and lower montane coniferous forest. Adobe or alkaline soils at 5 to 1,740 meters in elevation.	April – June	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are 2 known occurrences of

Table 1 (cont.): Sensitive Plant Species

Species		Status			Preferred Habitat	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	CNPS			
							this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Neostapfia colusana	Colusa grass	FT	SE	1B.1	Large vernal pools (adobe)	May – August	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Plagiobothrys hystriculus	Bearded popcorn flower	None	None	1B.1	Grows in mesic grasslands at the upper edges of vernal pools.	April – May	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Symphyotrichum lentum	Suisun Marsh aster	None	None	1B.2	Brackish or freshwater marshes and along the banks of sloughs and watercourses.	May – November	**Low** for Grasslands site. This species was not observed onsite and there is no suitable

Table 1 (cont.): Sensitive Plant Species

Species		Status			Preferred Habitat	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	CNPS			
							habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Trifolium hydrophilum	Saline clover	None	None	1B.2	Grows in salt marshes and alkaline soils in moist valley and foothill grasslands and vernal pools. Grown at the margins of vernal pools and along swales.	April – June	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Tuctoria mucronata	Crampton's tuctoria/Solano grass	FE	SE	1B.1	Clay bottoms of vernal pools and lakes in grasslands. 5 to 10 meters in elevation.	April – August	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.

Table 1 (cont.): Sensitive Plant Species

Species		Status			Preferred Habitat	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	CNPS			
ESA FE Federally listed endangered FT Federally listed threatened FPE Federally proposed endangered FPT Federally proposed threatened FC Federal candidate		**CESA** SE State listed endangered ST State listed threatened SR State listed rare			**CNPS** 1A Presumed extinct in California. 1B Rare, threatened, or endangered in California and elsewhere. 2 Rare, threatened, or endangered in California, but more common elsewhere.		

Species Present - The species was observed on the project site at the time of the survey or during a previous biological survey.
High Potential to Occur - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the project site, within 3 miles.
Moderate Potential to Occur - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the project site, but there is not a recorded occurrence of the species within the immediate vicinity, within 3 miles. Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.
Low Potential to Occur - There is a historical record of the species in the vicinity of the project site and potentially suitable habitat onsite, but existing conditions, such as density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation, substantially reduce the possibility that the species may occur. The site is above or below the recognized elevation limits for this species.

Table 2: Sensitive Wildlife Species

Species		Status			Preferred Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	Other		
Invertebrates						
Branchinecta n. sp.	Midvalley Fairy shrimp	None	None	None	Often found with vernal pool fairy shrimp; they are found in vernal pools and shallow depressions. They can survive if the pool's temperature is between 43 °F (6 °C) and 68 °F (20 °C).	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Branchinecta conservation	Conservancy fairy shrimp	FE	None	None	Vernoal pools in the grasslands of the Central Valley.	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Branchinecta lynchi	Vernal pool fairy shrimp	FT	None	None	Vernal pool fairy shrimp are found in vernal pools and shallow depressions. They can survive if the pool's temperature is between 43 °F (6 °C) and 68 °F (20 °C).	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.

Table 2 (cont.): Sensitive Wildlife Species

Species		Status			Preferred Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	**Common Name**	**ESA**	**CESA**	**Other**		
Desmocerus californicus dimorphus	Valley elderberry longhorn beetle	FT	None	None	Found on elderberry bushes along rivers and streams. Females lay their eggs on the bark and larvae hatch and burrow into the stems.	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. One blue elderberry bush is found within the project area. There is one known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Lepidrus packardi	Vernal pool tadpole shrimp	FE	None	None	Found in vernal pools and other seasonal wetlands that temporarily pond for a sufficient duration to maintain conducive water temperatures to allow the species to complete their life cycle (between 50 °F (10 °C) and 59 °F (15 °C).	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Fish						
Pogonichthys macrolepidotus	Sacramento splittail	None	None	CDFG: CSC	Minnow native to the upper San Francisco Estuary and Central Valley. Primarily freshwater fish but can tolerate moderately salty water. Are found in slow-moving marshy sections of rivers and dead-end sloughs, though floodplains are important for spawning.	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Amphibians						
Ambystoma californiense	California tiger salamander	FT	Candidate	CDFG: CSC	Frequents grassland, oak savanna, and edges of mixed woodland and lower	**Low** for Grasslands site. This species was not observed onsite and there is no suitable

Table 2 (cont.): Sensitive Wildlife Species

Species		Status			Preferred Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	Other		
			SE		elevation coniferous forest where suitable aquatic breeding sites area present.	habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Reptiles						
Actinemys marmorata	western pond turtle	None	None	CDFG: CSC	The western pond turtle inhabits permanent or nearly permanent bodies of water in many habitat types below 6,000 feet. Requires basking sites such as partially submerged logs, vegetation mats, or open mud banks. Needs suitable nesting sites.	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There is one known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Thamnophis gigas	Giant garter snake	FT	ST	None	Agricultural wetlands and other waterways in the Central Valley (irrigation and drainage canals, sloughs, ponds, small lakes, streams).	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Birds						
Agelaius tricolor	tricolored blackbird	None	None	CDFG: CSC	Tricolored blackbirds are associated with dairies, grain fields, and rice producing areas. They nest in cattail marshes.	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of

Table 2 (cont.): Sensitive Wildlife Species

Species		Status			Preferred Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	Other		
						the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There is one known occurrence of this species within 5 miles of the Beamer/Cottonwood site.
Ammodramus savannarum	Grasshopper sparrow	None	None	CDFG: CSC	Depends on dense grasses for foraging and nesting cover. Found in upland meadows, pastures, hayfields, and croplands.	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Athene cunicularia	Burrowing owl	None	None	CDFG: CSC	The burrowing owl is commonly found in open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. This species is a subterranean nester, dependant upon burrowing mammals, most notably the California ground squirrel.	**Moderate** for Grasslands site. Suitable foraging habitat is found onsite as well as suitable burrows. The project site is adjacent to a burrowing owl conservation area at Grasslands Regional Park. No burrowing owl sign was observed. **Low** for Beamer/Cottonwood site. Suitable foraging habitat is found onsite as well as suitable burrows. No burrowing owl sign was observed and the area surrounding the site is highly developed and disturbed.
Buteo swainsoni	Swainson's hawk	None	ST	None	The largest population breeding within California is located in the midsection of the Central Valley in the area between Sacramento and Modesto, and in the northern San Joaquin Valley. Swainson's hawks construct their nests in a wide variety of trees species, existing as riparian forest,	**High** for Grasslands site. Annual grasslands onsite provide suitable foraging habitat for the species in the region. There are more than 10 known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. Annual

Table 2 (cont.): Sensitive Wildlife Species

Species		Status			Preferred Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	Other		
					remnant riparian trees, planted windbreaks, shade trees at residences and along roadsides, and solitary upland oaks.	grasslands and ruderal vegetation onsite provides suitable foraging habitat for the species in the region. There are more than 10 known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Charadrius alexandrinus nivosus	Western snowy plover	FT	None	CDFG: CSC	Western snowy plovers make nests on sand spits, dune-backed beaches, beaches at creek and river mouths, and the banks of lagoons and estuaries. Nests are made in small depressions and are constructed using pebbles, shell fragments, fish bones, mud chips, vegetation fragments, or invertebrate skeletons.	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Charadrius montanus	Mountain plover	Proposed FT	None	CDFG: CSC	Breeds on flat, bare ground in shortgrass prairies with sparse, short vegetation as well as agricultural fields	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Coccyzus americanus occidenalis	Western yellow-billed cuckoo	None	SE	None	Nests in riparian forests along braod, flood-bottoms of large river systems.	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.

Table 2 (cont.): Sensitive Wildlife Species

Species		Status			Preferred Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	Other		
Elanus leucurus	White-tailed kite	None	None	CDFG: FP	Yearlong resident of coastal and valley lowlands; particularly agricultural areas, grasslands, marshes, savannas, and other wooded areas.	**Low/Moderate** for Grasslands site. Annual grasslands onsite may provide suitable foraging habitat for the species in the region. **Low** for Beamer/Cottonwood. Annual grasslands and ruderal vegetation onsite provides suitable foraging habitat for the species in the region.
Plegadis chihi	White-faced Ibis	FSC	None	CDFG: CSC	Prefers to feed in fresh emergent wetland, shallow lacustrine waters, muddy ground of wet meadows, and irrigated or flooded pastures and croplands. Nests in dense, fresh emergent wetlands.	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There is one known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Progne subis	Purple martin	None	None	CDFG: CSC	Colonial nester, often uses valley foothill and montaine hardwood, valley foothill and montaine hardwood-conifer, and riparian habitats. Also occurs in coniferous habitats, including closed-cone pine-cypress, ponderosa pine, Douglas-fir, and redwood.	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Riparia riparia	Bank swallow	None	ST	None	Colonial nester, found in riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with fine-textured or sandy soils, into which it digs nesting holes.	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area.

Table 2 (cont.): Sensitive Wildlife Species

Species		Status			Preferred Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	**Common Name**	**ESA**	**CESA**	**Other**		
						There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Vireo bellii pusillus	Least bell's vireo	FE	SE	None	Lowland riparian habitat, ranging from coastal Southern California through Sacramento and San Joaquin valleys.	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Xanthocephalus xanothephalus	Yellow-headed blackbird	None	None	CDFG: CSC	Freshwater wetlands with emergent vegetation and abundant invertebrate prey, including lakes and ponds.	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Mammals						
Antrozous pallidus	Pallid bat	None	None	CDFG: CSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open dry habitats with rocky areas for roosting. Man-made roosts are also used.	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.

Table 2 (cont.): Sensitive Wildlife Species

Species		Status			Preferred Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	**Common Name**	**ESA**	**CESA**	**Other**		
Lasiurus blossevilli	Western red bat	None	None	CDFG: CSC	Occurs in riparian woodland and forages over water and riparian vegetation. Roosts in foliage, does not form colonies.	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are no known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.
Taxidea taxus	American Badger	None	None	CDFG: CSC	Dry, open shrublands, forest, and grasslands with friable soils.	**Low** for Grasslands site. This species was not observed onsite and there is no suitable habitat for this species. There are known occurrences of this species within 5 miles of the Grasslands site. **Low** for Beamer/Cottonwood. No suitable habitat is found within the project area. There are no known occurrences of this species within 5 miles of the Beamer/Cottonwood site.

ESA		**CESA**		**Other**	
FE	Federally listed endangered	SE	State listed endangered	CDFG:CSC	California Species of Concern
FT	Federally listed threatened	ST	State listed threatened	CDFG:FP	Fully Protected Species
FPE	Federally proposed endangered			CDFG:P	Protected Species
FPT	Federally proposed threatened				
FC	Federal candidate				
FSC	Federal species of concern				

Species Present - The species was observed on the project site at the time of the survey or during a previous biological survey.
High Potential to Occur - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the project site, within 3 miles.
Moderate Potential to Occur - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the project site, but there is not a recorded occurrence of the species within the immediate vicinity, within 3 miles. Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.
Low Potential to Occur - There is a historical record of the species in the vicinity of the project site and potentially suitable habitat onsite, but existing conditions, such as density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation, substantially reduce the possibility that the species may occur. The site is above or below the recognized elevation limits for this species.