APPENDIX A

California Natural Diversity Database Data – Special-Status Plant Species in the Study Area

Regional Special-Status Plant Species

Scientific Name **Common Name**	**Status**	**Potential to Occur in the Study Area**	**Rationale**
Alismataceae			
Sagittaria sanfordii Sanford's arrowhead	CNPS List 1B.2	High	Freshwater habitats are present in the special-status plant species study area and this species was found during April 2010 surveys within the special-status plant species study area. The CNDDB reports one presumed extant occurrence approximately 1.3 miles northeast of the special-status plant species study area (Occurrence 7; CNDDB 2003).
Apiaceae			
Eryngium racemosum Delta button-celery	CNPS List 1B.2	Moderate	Riparian scrub and vernal pool habitats are present, but there are no reported occurrences within 10 miles of the special-status plant species study area (CNDDB 2003).
Eryngium spinosepalum spiny-sepaled button-celery	CNPS List 1B.2	Moderate	Vernal pool habitat and moderate quality annual grassland habitat are present in the special-status plant species study area. There is one presumed extant occurrence reported within the special-status plant species study area (Occurrence 32; CNDDB 2003). Vernal pool habitat and moderate quality annual grassland habitat are present in the special-status plant species study area.
Asteraceae			
Calycadenia hooveri Hoover's calycadenia	CNPS List 1B.3	Moderate	California annual grassland habitat is present in the special-status plant species study area. There is one presumed extant occurrence reported 4.4 miles northeast of the special-status plant species study area (Occurrence 14; CNDDB 2003).
Lasthenia glabrata ssp. *Coulteri* Coulter's goldfields	CNPS List 1B.1	Moderate	Vernal pool habitat is present in the special-status plant species study area. There are no reported occurrences within 10 miles of the special-status plant species study area (CNDDB 2003).
Layia munzii Munz's tidy-tips	CNPS List 1B.2	Unlikely	Moderate quality annual grassland habitat is present in the special-status plant species study area; however, the special-status plant species study area is below the reported elevation range for this species. There are no reported occurrences within 10 miles of the special-status plant species study area (CNDDB 2003).

Scientific Name **Common Name**	**Status**	**Potential to Occur in the Study Area**	**Rationale**
Monolopia congdonii San Joaquin woollythreads	FE CNPS List 1B.2	Unlikely	There are no reported occurrences within 10 miles of the special-status plant species study area (CNDDB 2003), and the special-status plant species study area is out of this species current range (USFWS 2010). Moderate quality annual grassland habitat is present in the special-status plant species study area.
Pseudobahia bahiifolia Hartweg's golden sunburst	FE SE CNPS List 1B.1	Moderate	Moderate quality annual grassland habitat is present in the special-status plant species study area. There are no reported occurrences within 10 miles of the special-status plant species study area (CNDDB 2003).
Trichocoronis wrightii var. wrightii Wright's trichocoronis	CNPS List 2.1	Moderate	Riparian scrub and vernal pool habitats are present in the special-status plant species study area. There are no reported occurrences within 10 miles of the special-status plant species study area (CNDDB 2003).
Boraginaceae			
Cryptantha hooveri Hoover's cryptantha	CNPS List 1A	Unlikely	This species is presumed extinct in California. There is one historic (1939) reported occurrence within the special-status plant species study area (Occurrence 1; CNDDB 2003). However, based on review of recent aerial imagery, the habitat at the reported location has been entirely converted to agriculture (Google Earth 2010). Moderate quality annual grassland habitat is present in the special-status plant species study area.
Brassicaceae			
Caulanthus californicus California jewel-flower	FE CNPS 1B.1	Unlikely	This species is considered extirpated from the San Joaquin Valley. There are no reported extant occurrences within 10 miles of the special-status plant species study area; however, there is one historic extirpated occurrence of this species reported within the special-status plant species study area (Occurrence 38; CNDDB 2010). Moderate quality annual grassland habitat is present in the special-status plant species study area.
Lepidium latipes var. *heckardii* Heckard's pepper grass	CNPS 1B.2	Moderate	The nearest reported and presumed extant CNDDB occurrence of this species is located approximately 15.5 miles west of the special-status plant species study area (Occurrence #14, CNDDB 2003). The study area is within the species' known range and suitable habitat for this species occurs within the study area as well. Although presumed extant, there is moderate potential for it to occur in the study area (CNDDB).

Scientific Name **Common Name**	**Status**	**Potential to Occur in the Study Area**	**Rationale**
Tropidocarpum capparideum caper-fruited tropidocarpum	CNPS List 1B.1	High	One historic (1930) and presumed extant occurrence of this species is present in the special-status plant species study area (Occurrence 22; CNDDB 2003). Moderate quality annual grassland habitat is present within the special-status plant species study area.
Campanulaceae			
Downingia pusilla dwarf downingia	CNPS List 2.2	Moderate	Vernal pool habitat is present in the special-status plant species study area and there is one recent (2001) reported occurrence approximately 4.5 miles northeast of the special-status plant species study area (Occurrence 109; CNDDB 2003).
Chenopodiaceae			
Atriplex cordulata heartscale	CNPS List 1B.2	Moderate	Moderate quality annual grassland habitat is present in the special-status plant species study area. The CNDDB denotes two occurrences within the special-status plant species study area, both reported as extirpated (Occurrence 18 and 19; CNDDB 2003). Based on review of recent aerial imagery, habitat at both locations has been converted to agricultural uses (Google Earth 2010). The nearest presumed extant occurrence is located approximately 3.9 miles to the southwest (Occurrence 15; CNDDB 2003).
Atriplex depressa brittlescale	CNPS List 1B.2	Moderate	Vernal pool habitat and moderate quality annual grassland habitat are present in the special-status plant species study area. There are no reported occurrences within 10 miles of the special-status plant species study area (CNDDB 2003).
Atriplex joaquiniana San Joaquin spearscale	CNPS List 1B.2	Moderate	Moderate quality annual grassland habitat is present in the special-status plant species study area. The nearest occurrence is presumed extant and is located approximately 9.9 miles southwest of the special-status plant species study area (Occurrence 74; CNDDB 2003).
Atriplex minuscule lesser saltscale	CNPS List 1B.1	High	Moderate quality annual grassland habitat is present in the special-status plant species study area and there are two presumed extant occurrences within the special-status plant species study area (Occurrence 25 and 26; CNDDB 2003). Based on review of recent aerial imagery, most of the habitat at the reported locations for these populations has been converted to agricultural uses and residential development (Google Earth 2010).

Scientific Name **Common Name**	**Status**	**Potential to Occur in the Study Area**	**Rationale**
Atriplex persistens vernal pool smallscale	CNPS List 1B.2	Moderate	Vernal pool habitat is present in the special-status plant species study area. There is one historic (1926) occurrence approximately 2.3 miles from the special-status plant species study area that is reported as possibly extirpated (Occurrence 7; CNDDB 2003). The nearest presumed extant occurrence is located approximately 6.1 miles west of the right-of-way.
Atriplex subtilis subtle orache	CNPS List 1B.2	High	Moderate quality annual grassland habitat is present in the special-status plant species study area. There is one historic (1936) reported occurrence within the special-status plant species study area (Occurrence 4; CNDDB 2003). This occurrence is presumed extant. However, based on review of recent aerial imagery, habitat at the reported location has been entirely converted to agriculture (Google Earth 2010).
Atriplex vallicola Lost Hills crownscale	CNPS List 1B.2	Moderate	Vernal pool and moderate quality annual grassland habitat is present in the special-status plant species study area. There are no reported occurrences within 10 miles of the special-status plant species study area (CNDDB 2003).
Euphorbiaceae			
Chamaesyce hooveri **Critical Habitat** Hoover's spurge	FT CNPS List 1B.2	Moderate	Vernal pool habitat is present in the special-status plant species study area and there is one recently reported (1987) and presumed extant occurrence approximately 9.8 miles from the special-status plant species study area (Occurrence 22; CNDDB 2003). Designated Critical Habitat is not present in the special-status plant species study area but occurs approximately 7.95 miles from the special-status plant species study area.
Fabaceae			
Astragalus tener var. tener alkali milk-vetch	CNPS List 1B.2	Moderate	Vernal pool habitat and annual grassland are present in the special-status plant species study area and there is one recent (2002) reported occurrence approximately 9.2 miles from the special-status plant species study area (Occurrence 55; CNDDB 2003).This population is presumed extant.
Lupinus citrinus var. *citrinus* orange lupine	CNPS List 1B.2	Unlikely	Suitable habitat is not present in the special-status plant species study area and there are no reported occurrences within 10 miles of the special-status plant species study area (CNDDB 2003).
Hydrophyllaceae			
Phacelia ciliata var. opaca Merced phacelia	CNPS List 1B.2	High	There is one presumed extant occurrence of this species reported within the special-status plant species study area (Occurrence 6; CNDDB 2003). Moderate quality annual grassland is present within the special-status plant species study area.

Scientific Name **Common Name**	**Status**	**Potential to Occur in the Study Area**	**Rationale**
Lamiaceae			
Monardella leucocephala Merced monardella Pleasant Valley	CNPS List 1A	Unlikely	The special-status plant species study area is out of species current range (USFWS 1998), and this species presumed extirpated in California. There are no reported occurrences within 10 miles of the special-status plant species study area (CNDDB 2003). Moderate quality annual grasslands are present in the special-status plant species study area.
Liliaceae			
Calochortus clavatus var. *avius* mariposa lily	CNPS List 1B.2	Unlikely	Suitable habitat is not present in the special-status plant species study area and there are no reported occurrences within 10 miles of the special-status plant species study area (CNDDB 2003).
Malvaceae			
Sidalcea keckii **Critical Habitat** Keck's checkerbloom	FE CNPS List 1B.1	Moderate	Vernal pool habitat and moderate quality annual grassland is present in the special-status plant species study area. There is one reported occurrence approximately 6.5 miles from the special-status plant species study area (Occurrence 6; CNDDB 2003). This population was last reported seen in 2005 and is presumed extant. Designated Critical Habitat is more than 10 miles from the special-status plant species study area.
Onagraceae			
Clarkia rostrata beaked clarkia	CNPS List 1B.3	Moderate	Moderate quality annual grasslands are present in the special-status plant species study area. The nearest reported extant occurrence is located approximately 4.5 miles northeast of the special-status plant species study area (Occurrence 2; CNDDB 2003).
Poaceae			
Agrostis hendersonii Henderson's bent grass	CNPS List 3.2	Moderate	Vernal pool habitat and moderate quality annual grassland habitat is present in the special-status plant species study area. There is one historic (1935), possibly extirpated occurrence approximately 4.9 miles northeast of the special-status plant species study area (Occurrence 4; CNDDB 2003). The nearest presumed extant occurrence is located approximately 8.1 miles north of the special-status plant species study area (Occurrence 15; CNDDB 2003).
Imperata brevifolia California satintail	CNPS List 2.1	High	Riparian scrub is present in the special-status plant species study area and there is one presumed extant occurrence within the special-status plant species study area (Occurrence 22; CNDDB 2003).

Scientific Name **Common Name**	**Status**	**Potential to Occur in the Study Area**	**Rationale**
Neostapfia colusana **Critical Habitat** Colusa grass	FT SE CNPS List 1B.1	Moderate	Vernal pool habitat is present in the special-status plant species study area. There is one possibly extirpated occurrence located approximately 2.4 miles north of the special-status plant species study area (Occurrence 42; CNDDB 2003). The nearest presumed extant occurrence is located approximately 3.3 miles northeast of the special-status plant species study area (Occurrence 12; CNDDB 2003). Designated Critical Habitat is more than 10 miles from the special-status plant species study area.
Orcuttia inaequalis **Critical Habitat** San Joaquin Valley Orcutt grass	FT SE CNPS List 1B.1	High	Vernal pool habitat is present in the special-status plant species study area, and Designated Critical Habitat is present in the special-status plant species study area. There is one possibly extirpated occurrence located within the special-status plant species study area (Occurrence 10; CNDDB 2003). The nearest presumed extant occurrence is located approximately 0.7 miles from the special-status plant species study area (Occurrence 51; CNDDB 2003).
Orcuttia pilosa **Critical Habitat** hairy Orcutt grass	FE SE CNPS List 1B.1	High	Vernal pool habitat present in the special-status plant species study area. There is one presumed extant occurrence from 1986 located within the special-status plant species study area (Occurrence 19; CNDDB 2003). Designated Critical Habitat is not present in the special-status plant species study area but occurs approximately 2.59 miles from the special-status plant species study area.
Tuctoria greenei Greene's tuctoria	FE Rare CNPS List 1B.1	High	Vernal pool habitat present in the special-status plant species study area and there is one presumed extant occurrence within the special-status plant species study area (Occurrence 28; CNDDB 2003). Designated Critical Habitat is more than 10 miles from the special-status plant species study area.
Polemoniaceae			
Leptosiphon serrulatus Madera leptosiphon	CNPS List 1B.2	Unlikely	Cismontane woodland and coniferous forest habitat is no longer present in the special-status plant species study area. There are two historic (1889 and 1922) reported occurrences within the special-status plant species study area. These occurrences are presumed extant, although they are not well documented and require verification (Occurrences 10 and 23; CNDDB 2003). Aerial photos of occurrences show them to be in highly disturbed urban areas.
Navarretia myersii ssp. *Myersii* pincushion navarretia	CNPS List 1B.1	Moderate	Vernal pool habitat is present in the special-status plant species study area. The nearest reported occurrence is presumed extant and is located 5.8 miles northeast of the special-status plant species study area (Occurrence 14; CNDDB 2003).

Scientific Name **Common Name**	**Status**	**Potential to Occur in the Study Area**	**Rationale**
Navarretia nigelliformis ssp. *Radians* shining navarretia	CNPS List 1B.2	Moderate	Moderate quality annual grassland is present in the special-status plant species study area. There is one recent (2001) reported occurrence approximately 0.6 miles northeast of the special-status plant species study area (Occurrence 44; CNDDB 2003). This occurrence is presumed extant.
Navarretia prostrate prostrate vernal pool navarretia	CNPS List 1B.1	Moderate	Vernal pool habitat and moderate quality annual grassland is present in the special-status plant species study area. There is one recent (1999) reported occurrence approximately 9.4 miles southwest of the special-status plant species study area (Occurrence 24; CNDDB 2003).
Ranunculaceae			
Delphinium recurvatum recurved larkspur	CNPS List 1B.2	Moderate	Moderate quality annual grassland is present in the special-status plant species study area. There is one historic (1955) reported occurrence within the special-status plant species study area (Occurrence 77; CNDDB 2003). This occurrence is possibly extirpated. Based on review of recent aerial imagery, the reported location has been converted to agriculture (Google Earth 2010). The nearest presumed extant location is located approximately 5.0 miles west of the special-status plant species study area (Occurrence 78; CNDDB 2003).
Myosurus minimus ssp. *Apus* little mousetail	CNPS List 3.1	Moderate	Vernal pool habitat and moderate quality annual grasslands are present in the special-status plant species study area but there are no reported occurrences within 10 miles of the special-status plant species study area (CNDDB 2003).
Scrophulariaceae			
Castilleja campestris ssp. succulenta **Critical Habitat** succulent owl's-clover	FT SE CNPS List 1B.2	High	Vernal pool habitat is present in the special-status plant species study area and there are two presumed extant occurrences reported within the special-status plant species study area (Occurrences 62 and 64; CNDDB 2003). Designated Critical Habitat is present in the special-status plant species study area.
Cordylanthus palmatus palmate-bracted bird's-beak	FE SE CNPS List 1B.1	Moderate	Moderate quality annual grassland is present within the special-status plant species study area. The nearest reported occurrence is presumed extant and is located approximately 7.4 miles south of the special-status plant species study area (Occurrence 26; CNDDB 2003).

Scientific Name **Common Name**	**Status**	**Potential to Occur in the Study Area**	**Rationale**
Gratiola heterosepala Boggs Lake hedge-hyssop	SE CNPS List 1B.2	Moderate	Vernal pool habitat is present in the special-status plant species study area. The nearest reported occurrence is presumed extant and is located approximately 7.2 miles north of the special-status plant species study area (Occurrence 83; CNDDB 2003).

-- = No status designation.

Federal

FE = Listed as endangered under the federal Endangered Species Act.

FT = Listed as threatened under the federal Endangered Species Act.

State

SE = Listed as endangered under the California Endangered Species Act.

ST = Listed as threatened under the California Endangered Species Act.

Rare = Listed as rare under the California Endangered Species Act.

CNPS

LIST 1A = Presumed extinct in California.

LIST 1B = Rare, threatened, or endangered in California and elsewhere.

LIST 2 = Rare, threatened, or endangered in California, but more common elsewhere.

LIST 3 = More information about this plant (Review List).

0.1: Seriously endangered in California.

0.2: Fairly endangered in California.

0.3 Not very endangered in California.

Source CNPS 2009 Electronic Inventory.

Definitions:

Unlikely to occur - no suitable habitat AND no known occurrences.

Low potential to occur - disturbed/marginal habitat in core study area, but no known occurrence in core study area.

Moderate potential to occur - suitable habitat present, but no known occurrence in core study area.

High potential to occur - suitable habitat and known occurrence in core study area.

References:

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APPENDIX B

Photographs of Reference Sites

Pixley Vernal Pool Preserve
March 11, 2011

San Joaquin Spearscale (*Atriplex joaquiniana*)
Pixley Vernal Pool Preserve
April 1, 2011

Great Valley Grasslands State Park
April 1, 2011

Boggs Lake hedge-hyssop (*Gratiola heterosepala*)
Flying M Ranch
April 17, 2011

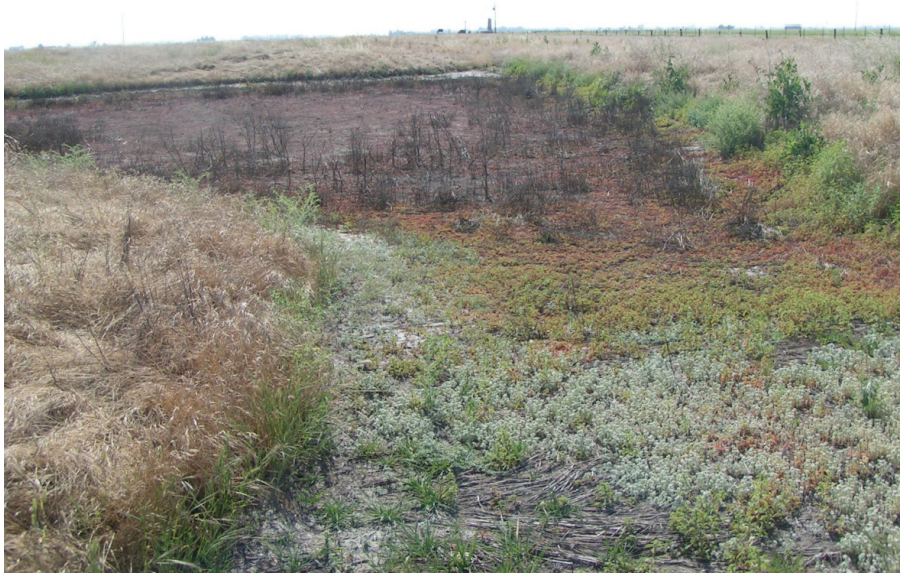
Succulent's owl's-clover (*Castilleja campestris* ssp. *succulent*)
Flying M Ranch
April 17, 2011

Beaked clarkia (*Clarkia rostrata*) Habitat
Flying M Ranch
April 17, 2011

Pincushion navarretia (*Navarretia myersii* ssp. *myersii*)
Flying M Ranch
April 17, 2011

San Joaquin Valley Orcutt grass (*Orcuttia inaequalis*) Habitat
Flying M Ranch
April 17, 2011

Pixley Vernal Pool Preserve
May 23, 2011



Pixley Vernal Pool Preserve
May 23, 2011

APPENDIX C

Staff Qualifications

Paul Andreano - AECOM

Mr. Andreano is an accomplished field biologist with an emphasis on endangered and threatened wildlife. Mr. Andreano's combined work experience and education provide a wide range of expertise in ecology and biological resource assessment. He has over nine years of experience working in the fields of wildlife management, botany, ecosystem inventory, biological assessment, and biological monitoring. Mr. Andreano has served as the field team lead for biological surveys on several large scale projects throughout the United States and also conducted field work on the Channel and Farallon Islands of California, Central Mexico, and Mongolia. Mr. Andreano has conducted special-status plant surveys and plant community mapping throughout Southern and Central California. His involvement in surveying for special-status plant species was extensive in the Angeles, Los Padres and San Bernardino National Forests, Mojave Desert, Sierra Nevada foothills, and the Northern Channel Islands for National Park Service and Nature Conservancy projects on private and federal land. Mr. Andreano is well versed in utilizing ArcGIS and ArcPad for field mapping and navigation.

Rocky Brown – AECOM

Mr. Brown has over eight years of experience in environmental consulting in a wide variety of biological topics throughout Southern and Central California. Mr. Brown's experience includes protocol-level surveys (USFWS), conducting habitat assessments/constraints analyses, jurisdictional delineations and wetland permitting; habitat restoration/revegetation planning and implementation monitoring. Mr. Brown has extensive experience with tree and vegetation surveys/mapping; sensitive species surveys and construction monitoring. Additional experiences include GPS photography, telemetry and mapping as well as GIS data compilation and analyses.

Dave Charlton – AECOM

Mr. Charlton has over 30 years of experience in plant identification and vegetation classification from Central and Southern California, Mexico, Arizona, New Mexico, Utah, Colorado, Texas, Florida, and Montana. He has nearly 10 years of plant science teaching experience at the high school, adult education, and college levels on topics such as general plant science, weed identification and control, range management, vegetable production, agriculture and the environment, and garden history. He is a recognized expert in desert flora management and has written several management plans for sensitive plant communities in the Mojave and Chihuahua Deserts. Mr. Charlton has conducted field research projects for Lane Mountain milkvetch (*Astragalus jaegerianus*), desert cymopterus (*Cymopterus deserticola*), Barstow woolly sunflower (*Eriophyllum mohavense*), and alkali mariposa lily (*Calochortus striatus*).

Bryan Chevillet – AECOM

Mr. Chevillet, AECOM Staff Biologist, has experience conducting Biological and Environmental Assessments and preparing EIS and critical areas reports. Mr. Chevillet also has experience with GPS and GIS applications, cartography, transecting, field surveying and mapping, sampling, environmental condition of property data collections, VSI, wetland delineations and functional assessments, monitoring, data collections and research. Mr. Chevillet is familiar with wetland habitats and associated species, and has conducted baseline plant, soils and hydrology surveys, as well as wetland delineations in five states (AK, WA, OK, CA and TX). He has served as field chief and GIS/GPS expert for many these projects responsible for data collection and management.

Robert Conohan – AECOM

Robert Conohan, Wildlife Biologist, has approximately eight years of experience working as a field biologist with an expertise in conducting wildlife surveys. Mr. Conohan specializes in conducting avian surveys for raptors and nesting songbirds, but also has extensive experience conducting herpetological, small mammal and bat surveys. Mr. Conohan has conducted extensive biological investigations in the deserts of San Bernardino, Kern, Riverside and Imperial Counties and has participated in a variety of projects including environmental assessments, environmental impact studies, natural science inventories

and habitat assessments for rare and endangered species and wetland delineations. Mr. Conohan is trained in GIS data collection and management, as well as Trimble GPS mapping techniques/applications.

Virginia Dains

Virginia Dains is a veteran botanist who conducts special-status plant surveys, wetland delineations, impacts analyses and vernal pool assessments for State, Federal and private projects in California and western Nevada. Ms. Dains has conducted riparian vegetation mapping, quantitative sampling and interpretations related to stream flow dynamics in the Sierra Nevada Range and has served as an expert witness before California State Water Resources Control Board staff on riparian vegetation of the Lower American River. Ms. Dains is a Wetland Plant Identification Instructor for EPA, US Fish and Wildlife Service, and California Native Plant Society. Further experience includes wetland mitigation design and implementation and monitoring of seasonal wetlands, vernal pools, riparian, and salt marsh habitats. Ms. Dains is experienced with ARCView GIS/GPS mapping and interpretation, mitigation measures, and conservation guidelines.

Holly Hill – AECOM

A Project Biologist with AECOM, Ms. Hill has extensive management and survey experience on environmental projects throughout Southern and Central California, including the San Joaquin and Antelope Valleys, Mojave Desert, and Sierra Nevada foothills. Ms. Hill's experience includes agency consultation and project planning, biological resource assessment, permitting, and regulatory compliance at local, State and federal levels. Ms. Hill has also conducted numerous biological surveys, including protocol-level rare plant surveys at Elk Hills Naval Petroleum Reserves 1 and 2, Tejon Ranch, Newhall Ranch, the City of Malibu and the Angeles, San Bernardino, Sequoia Kings and Los Padres National Forests. Additional experiences include AOCE wetland delineation certification, stream corridor restoration training, GIS/GPS data collection and mapping applications and familiarity with San Joaquin Valley Threatened and Endangered species and regulatory framework.

Robin Murray – AECOM

Ms. Murray, a cross trained Botanist and wildlife biologist, has over five years of experience in the environmental consulting field. Ms. Murray's work in California has involved conducting rare plant and wildlife surveys, performing habitat assessments, organizing field crews, and training crews in the identification and habitat requirements for target species. Ms. Murray has extensive experience characterizing and evaluating plant communities in rough and remote terrain, including creating vegetation community maps and conducted target species surveys on thousands of acres. She has a strong knowledge of plant and wildlife species of the Central and Northern coasts of California, as well as the San Joaquin Valley and Mojave Desert. Ms. Murray has generated reports identifying and delineating numerous rare and sensitive plant and wildlife species, and coordinated avoidance and minimization measures for project planning and implementation. Ms. Murray also holds California Department of Fish and Game Scientific Collecting Permit SC-10928 and California Department of Fish and Game Authorization to Collect Voucher Specimens of State-Listed Endangered, Threatened, and Rare Plants Permit #2081(a)-09-73-V.

Chris Powers – AECOM

Chris Powers, Project Manager with AECOM, has over eight years of experience in the environmental sciences and consulting fields. Mr. Powers' experience includes management of biological constraints analyses, biological resource surveys, habitat assessments and land use planning studies throughout California. Mr. Powers is trained in GIS data collection, management and analysis, Trimble GPS mapping techniques/applications and has instructed field crews in the use of such applications for large-scale survey efforts. Mr. Powers also has extensive experience conducting habitat assessments and protocol-level field surveys for listed vernal pool branchiopods (fairy/tadpole shrimp) throughout California.

APPENDIX D

Surveyed Parcels – March, April, and May 2011 Special-Status Plant Surveys

Page(s) redacted to protect
potentially sensitive information

APPENDIX E

APN Survey Data/Field Survey Forms

March 2011 Survey Effort

APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
0[redacted] - Madera	3/16/2011	BCHH	cloudy, breeze	59	Visual	nonexistent	absent	UNK	canal has been filled	02 - Agricultural Land	13 - Rural Residential	Rural residential
[redacted] - Madera	3/16/2011	BCHH	cloudy, breeze	56	Visual	nonnative	absent	Sagittaria sanfordii	recently flooded	12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] - Madera	3/15/2011	BCHH	foggy	55	Visual	brome, erodium, milk thistle	present	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] - Madera	3/16/2011	BCHH	rain breeze	58	Visual	fescue, arundo	present	Sagittaria sanfordii	house and yard in floodplain	05 - Other Riparian	16 - Other Riparian	Arundo
[redacted] - Madera	3/17/2011	RBDC	sunny, light breeze	64	Meandering Transect	Bromus diandrus	absent	None	Not suitable for ss plants. Parcel adjacent to mixed willow riparian w/ substantial amount of arundo	02 - Agricultural Land	12 - Inactive Agriculture	Inactive farmland
[redacted]3 - Madera	3/15/2011	BCHH	sunny	58	Visual	milk thistle, arundo	absent	UNK	cottonwoods, willow, arundo, some eucs	05 - Other Riparian	16 - Other Riparian	Arundo
[redacted] - Madera	3/15/2011	BCHH	partly sunny	57	Visual	arundo	absent	UNK		05 - Other Riparian	16 - Other Riparian	Arundo
[redacted] - Madera	3/15/2011	PARM	sunny	70	Meandering Transect	pop fre	present	Imperata brevifolia		04 - Great Valley Mixed Riparian Forest	15 - Mixed Riparian	Mixed riparian forest and woodland

March 2011 Survey Effort

APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] - Madera	3/16/2011	BCHH	cloudy windy	57	Visual	nonexistent	absent	Sagittaria sanfordii		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	3/15/2011	BCHH	sunny	65	Visual	mimulus	present	UNK	mustard, monkey flowers, rumex	12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	3/15/2011	BCHH	sunny	65	Visual	monkey flowers	present	UNK		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	3/16/2011	BCHH	cloudy windy	54	Visual	brome, Sheppard's purse	absent	UNK	empty parcel	02 - Agricultural Land	13 - Rural Residential	Rural residential
[redacted] - Madera	3/16/2011	BCHH	cloudy windy	56	Visual	brome	absent	UNK	Visual survey for 027-051-001 and 027-051-002	12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] - Madera	3/15/2011	BCHH	sunny	67	Visual	stinging nettle	absent	UNK	old silo, pre-existing buildings, rubble piles, trash dumps, animals using as shelter (i.e. rabbits, CA ground squirrels, fence lizards, possible burrowing owl	07 - Ruderal Vegetation	18 - Ruderal	Ruderal
027-051-006 - Madera	3/17/2011	RBDC	sunny, light breeze	56	Meandering Transect	Bromus diandrus	absent	None	Not suitable for ss plants.	01 - Developed Area	02 - Commercial/ Industrial	Commercial

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	3/17/2011	RBDC	sunny, breezy, cool	55	Meandering Transect	Bromus hordeaceous	absent	None	Not suitable for ss plants.	01 - Developed Area	03 - Transportation Corridor	Roadway
[redacted] Madera	3/15/2011	BCHH	sunny, breeze	68	Visual	rumex, spiked rush	present	Myosurus minimus ssp. Apus	possible mitigation site; no sign of riverine attachment	02 - Agricultural Land	13 - Rural Residential	Rural residential
[redacted] - Madera	3/16/2011	BCHH	cloudy windy	68	Visual	brome	absent	UNK		02 - Agricultural Land	13 - Rural Residential	Rural residential
[redacted] Madera	3/15/2011	PARM	sunny	75	Visual	none	present	UNK		12 - Constructed Watercourse	23 - Constructed Basin	Canal
[redacted] Madera	3/16/2011	BCHH	cloudy, breeze	59	Visual	nonexistent	absent	Sagittaria sanfordii		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	3/15/2011	PARM	sunny	78	Visual	none	present	UNK		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	3/16/2011	BCHH	cloudy windy	57	Visual	brome	absent	UNK		01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Madera	3/15/2011	BCHH	sunny, breeze	76	Visual	sagittaria	present	Sagittaria sanfordii		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	3/17/2011	BCHH	sunny, breeze	50	Visual	fescue	absent	UNK		02 - Agricultural Land	13 - Rural Residential	Rural residential

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	3/16/2011	BCHH	cloudy windy	65	Visual	mustard	absent	UNK		01 - Developed Area	01 - Urban	Residential
[redacted] Madera	3/15/2011	BCHH	sunny, breeze	72	Visual	rumex	present	Sagittaria sanfordii		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	3/15/2011	RBDC	partly cloudy	79	Meandering Transect	Salix spp.	absent	UNK	Not suitable for ss plants.	12 - Constructed Watercourse	23 - Constructed Basin	Tailwater pond
[redacted] Madera	3/15/2011	RBDC	partly cloudy	79	Meandering Transect	Bromus hordeaceo us	present	Navarreti a myersii ssp. myersii	suitable for vernal pool ss plants	09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Vernal Pool
[redacted] Madera	3/16/2011	RBDC	cloudy, light rain, windy	53	Meandering Transect	Festuca megalura	absent	UNK	Not suitable for ss plants.	01 - Developed Area	03 - Transportatio n Corridor	Railway
[redacted] Madera	3/15/2011	BCHH	sunny, breeze	70	Visual	American vetch, mustard, viopia	present	UNK	Has been mowed, harrowed; surface water runoff collection pond. No water present	07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	3/16/2011	BCHH	cloudy, breeze	68	Visual	brome	absent	UNK		01 - Developed Area	03 - Transportatio n Corridor	Roadway

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	3/16/2011	BCHH	cloudy, breeze	60	Visual	asphalt	absent	UNK		01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Madera	3/15/2011	RBDC	partly cloudy	79	Meandering Transect	Festuca megalura	present	Navarretia myersii ssp. myersii	suitable for vernal pool ss plants	02 - Agricultural Land	07 - Field Crop	Dry land grain crop
[redacted] Madera	3/15/2011	RBDC	partly cloudy	81	Meandering Transect	Festuca megalura	present	Navarretia myersii ssp. myersii	suitable for vernal pool ss plants	02 - Agricultural Land	07 - Field Crop	Dry land grain crop
[redacted] Madera	3/15/2011	RBDC	partly cloudy	80	Meandering Transect	Bromus hordeaceous	absent	UNK		02 - Agricultural Land	07 - Field Crop	Dry land grain crop
[redacted] Madera	3/16/2011	RBDC	cloudy, light rain, windy	53	Meandering Transect	Bromus hordeaceous	absent	UNK	Not suitable for ss plants.	01 - Developed Area	03 - Transportation Corridor	Railway
[redacted] Madera	3/16/2011	BCHH	cloudy, breeze	70	Visual	brome	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	3/16/2011	BCHH	cloudy windy	68	Visual	mustard, American vetch	absent	UNK		02 - Agricultural Land	12 - Inactive Agriculture	Inactive farmland
[redacted] Madera	3/16/2011	BCHH	cloudy, breeze	68	Visual	brome	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	3/17/2011	BCHH	sunny, breeze	50	Visual	typha	absent	Sagittaria sanfordii		11 - Natural Watercourse	22 - Natural Watercourse	Riverine
[redacted] Madera	3/15/2011	RBDC	mostly sunny	68	Meandering Transect	Typha angustifolia	present	Sagittaria sanfordii		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	3/16/2011	RBDC	cloudy, light rain, windy	53	Meandering Transect	Salix spp.,	absent	UNK	Not suitable for ss plants.	11 - Natural Watercourse	22 - Natural Watercourse	Riverine
[redacted] Madera	3/15/2011	RBDC	mostly sunny	65	Meandering Transect	Bromus hordeaceous	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	3/15/2011	RBDC	mostly sunny	63	Meandering Transect	Bromus hordeaceous	absent	UNK	Not suitable for ss plants.	01 - Developed Area	04 - Barren	Barren
[redacted] Madera	3/15/2011	RBDC	mostly sunny	65	Meandering Transect	Bromus hordeaceous	absent	UNK	Not suitable for ss plants.	12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	3/17/2011	RBDC	sunny, cool	51	Meandering Transect	Amsinckia spp.	absent	None	Not suitable for ss plants.	02 - Agricultural Land	12 - Inactive Agriculture	Inactive farmland
[redacted] Madera	3/15/2011	RBDC	mostly sunny	70	Meandering Transect	Salix spp.	absent	UNK	Not suitable for ss plants.	05 - Other Riparian	16 - Other Riparian	Willow riparian forest and woodland

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	3/16/2011	RCVD	overcast	64	Meandering Transect	salix exigua	absent	UNK		05 - Other Riparian	16 - Other Riparian	Willow riparian forest and woodland
[redacted] Madera	3/16/2011	RCVD	overcast	60	Meandering Transect	rat-tailed fescue, rip-gut brome	present	Delphinium recurvatum		02 - Agricultural Land	12 - Inactive Agriculture	Inactive farmland
[redacted] Merced	3/16/2011	PARM	cloudy	60	Meandering Transect	lol mul	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Merced	3/16/2011	PARM	cloudy	60	Visual	none	absent	UNK		01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Madera	3/16/2011	PARM	rainy	60	Meandering Transect	bro dia	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	3/17/2011	PARM	clear	65	Meandering Transect	bro dia	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted]- Merced	3/16/2011	PARM	cloudy	60	Visual	none	absent	UNK		01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Merced	3/16/2011	PARM	cloudy	60	Visual	none	absent	UNK		01 - Developed Area	02 - Commercial/ Industrial	Commercial

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Merced	3/16/2011	PARM	cloudy	60	Visual	none	absent	UNK		01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Merced	3/17/2011	RCVD	sunny	64	Visual	none	present	UNK	no natural habitat	01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Madera	3/16/2011	RBDC	cloudy, windy	55	Meandering Transect	Erodium bothrys	absent	UNK	Amtrak stop, parking lot and retention basin constructed on parcel since aerial photo. Not suitable for ss plants.	01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Madera	3/16/2011	RCVD	overca st, rain	58	Meandering Transect	erodium	present	Layia munzii	plowed seasonal wetland	03 - California Annual Grassland	14 - California Annual Grassland	California annual grassland
[redacted] Madera	3/16/2011	RCVD	light rain	58	Meandering Transect	bromus hord	present	Layia munzii		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	3/17/2011	BCHH	sunny	53	Visual	nonexisten t	absent	UNK		01 - Developed Area	04 - Barren	Barren
[redacted] Madera	3/16/2011	PARM	rainy	59	Meandering Transect	ams int	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Merced	3/16/2011	PARM	cloudy	60	Visual	none	absent	UNK		01 - Developed Area	02 - Commercial/ Industrial	Commercial

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Merced	3/17/2011	RCVD	sunny	72	Meandering Transect	oats	absent	UNK		02 - Agricultural Land	07 - Field Crop	Irrigated grain crop and seed crop
[redacted] Merced	3/15/2011	PARM	cloudy	55	Meandering Transect	ave bar	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	3/15/2011	PARM	sunny	75	Visual	vineyard	absent	UNK	cultivated vineyard	02 - Agricultural Land	06 - Vineyard	Vineyard
[redacted] Madera	3/16/2011	RBDC	cloudy, windy	54	Meandering Transect	Bromus diandrus	absent	UNK	Not suitable for ss plants.	02 - Agricultural Land	12 - Inactive Agriculture	Inactive farmland
[redacted] Madera	3/16/2011	RBDC	cloudy, windy	55	Meandering Transect	Bromus diandrus	absent	UNK	Parcel does not contain potential habitat. Adjacent parcel identified on map sheet as having potentially suitable ruderal habitat.	01 - Developed Area	01 - Urban	Residential
[redacted] Madera	3/16/2011	RBDC	cloudy, windy	56	Meandering Transect	Bromus diandrus	absent	UNK	Not suitable for ss plants.	02 - Agricultural Land	12 - Inactive Agriculture	Inactive farmland
[redacted] Madera	3/16/2011	RBDC	cloudy, light rain, windy	54	Meandering Transect	Poa annua	absent	UNK	No potential habitat shown within this parcel on the map. Potential habitat shown on adjacent parcel.	01 - Developed Area	01 - Urban	Residential

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	3/16/2011	PARM	rainy	60	Visual	none	absent	UNK		01 - Developed Area	01 - Urban	Residential
[redacted]- Madera	3/16/2011	RCVD	overcast	58	Meandering Transect	Bromus diandrus	absent	UNK		09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Seasonal wetland
[redacted]- Madera	3/16/2011	RCVD	light rain	58	Meandering Transect	arundo, bromus diandrus	absent	UNK		05 - Other Riparian	16 - Other Riparian	Arundo
[redacted]- Madera	3/16/2011	PARM	rainy	56	Visual	none	absent	UNK		01 - Developed Area	04 - Barren	Barren
[redacted] Madera	3/16/2011	RCVD	overcast	58	Meandering Transect	amsinckia	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	3/17/2011	PARM	clear	70	Meandering Transect	bro dia	absent	UNK		04 - Great Valley Mixed Riparian Forest	15 - Mixed Riparian	Mixed riparian forest and woodland
[redacted] Madera	3/17/2011	PARM	clear	70	Meandering Transect	bro dia	absent	UNK		04 - Great Valley Mixed Riparian Forest	15 - Mixed Riparian	Mixed riparian forest and woodland
[redacted] Merced	3/16/2011	PARM	cloudy	60	Meandering Transect	none	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Merced	3/15/2011	RCVD	sunny	74	Meandering Transect	milk thistle	absent	UNK		01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Merced	3/17/2011	RCVD	sunny	63	Meandering Transect	salix exigua	present	Sagittaria sanfordii		11 - Natural Watercourse	22 - Natural Watercourse	Riverine
[redacted] Merced	3/15/2011	RCVD	sunny	73	Meandering Transect	populus fremont	absent	UNK		10 - Fremont Cottonwood Forested Wetland	21 - Fremont Cottonwood Forested Wetland	Palustrine forested wetland
[redacted] Merced	3/15/2011	RCVD	sunny	72	Meandering Transect	Bromus diandrus	absent	UNK		05 - Other Riparian	16 - Other Riparian	Black walnut riparian
[redacted] Merced	3/15/2011	RCVD	sunny	70	Meandering Transect	black walnut	absent	UNK		05 - Other Riparian	16 - Other Riparian	Black walnut riparian
[redacted] Merced	3/15/2011	RCVD	pc light wind	68	Meandering Transect	Bromus hordeaceo us	present	Downingi a pusilla		03 - California Annual Grassland	14 - California Annual Grassland	California annual grassland
[redacted] Merced	3/17/2011	RCVD	sunny	60	Meandering Transect	eryngium castrense	present	Gratiola heterose pala	No ponded water. Return visit needed.	11 - Natural Watercourse	22 - Natural Watercourse	Riverine
[redacted] Merced	3/17/2011	RCVD	sunny	60	Meandering Transect	walnut	absent	UNK		05 - Other Riparian	16 - Other Riparian	Black walnut riparian

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Merced	3/16/2011	PARM	closely	60	Meandering Transect	none	absent	UNK		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Merced	3/15/2011	RCVD	sunny	74	Visual	doveweed	absent	UNK		01 - Developed Area	04 - Barren	Barren
[redacted] Merced	3/15/2011	RCVD	sunny	74	Visual	rye grass	absent	UNK		01 - Developed Area	04 - Barren	Barren
[redacted] Fresno	3/16/2011	PARM	rainy	60	Visual	none	absent	UNK		01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Fresno	3/16/2011	PARM	rainy	68	Visual	none	absent	UNK		01 - Developed Area	01 - Urban	Urban
[redacted] Fresno	3/17/2011	PARM	clear	48	Meandering Transect	bro mad	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Fresno	3/17/2011	PARM	clear	48	Visual	none	absent	UNK	No permission to access property	07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Fresno	3/16/2011	PARM	rainy	60	Visual	hor mur	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Fresno	3/17/2011	PARM	clear	60	Meandering Transect	pop fre	present	Myosurus minimus ssp. apus		04 - Great Valley Mixed Riparian Forest	15 - Mixed Riparian	Mixed riparian forest and woodland
[redacted] Fresno	3/17/2011	PARM	clear	60	Meandering Transect	bro dia	absent	UNK		06 - Eucalyptus Woodland	17 - Eucalyptus	Eucalyptus

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Fresno	3/16/2011	PARM	rainy	60	Visual	none	absent	UNK		01 - Developed Area	02 - Commercial/ Industrial	Commercial

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	4/19/2011	CPHH	sunny	58	Visual	nonexistent	absent	UNK	Gravel parking lot adjacent to steak house.	01 - Developed Area	04 - Barren	Barren
[redacted] Madera	4/19/2011	CPHH	sunny	60	Meandering Transect	rye, avena	absent	UNK	Retention basin adjacent to gasoline station.	12 - Constructed Watercourse	23 - Constructed Basin	Retention basin
[redacted] Madera	4/18/2011	CPHH	sunny	61	Visual	malva	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	4/18/2011	CPHH	partly cloudy	62	Meandering Transect	ripgut	absent	UNK		04 - Great Valley Mixed Riparian Forest	15 - Mixed Riparian	Mixed riparian forest and woodland
[redacted] Madera	4/18/2011	CPHH	sunny, partly cloudy	62	Visual	nonexistent	present	Sagittaria sanfordii		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Merced	4/18/2011	RCVD	overca st	59	Visual	epilobium	absent	UNK	Not suitable special-status plant habitat.	01 - Developed Area	04 - Barren	Barren
[redacted] Madera	4/21/2011	CPHH	sunny	68	Meandering Transect	nonexistent	present	Sagittaria sanfordii		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	4/18/2011	CPHH	sunny	62	Visual	nonexistent	absent	UNK	Freshly plowed.	02 - Agricultural Land	08 - Row Crop	Irrigated field and row crop
[redacted] Madera	4/20/2011	CPHH	partly cloudy	68	Visual	erodium	absent	UNK		01 - Developed Area	01 - Urban	Residential

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	4/20/2011	CPHH	sunny	70	Visual	nonexistent	present	Sagittaria sanfordii		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	4/19/2011	CPHH	partly cloudy	60	Meandering Transect	ripgut	present	UNK		04 - Great Valley Mixed Riparian Forest	15 - Mixed Riparian	Mixed riparian forest and woodland
[redacted] Madera	4/20/2011	CPHH	sunny	77	Meandering Transect	nonexistent	absent	UNK	Recently and routinely scraped.	01 - Developed Area	04 - Barren	Barren
[redacted] Madera	4/20/2011	CPHH	partly cloudy	75	Visual	erodium	absent	UNK		02 - Agricultural Land	13 - Rural Residential	Rural residential
[redacted] Madera	4/20/2011	CPHH	cloudy	58	Meandering Transect	erodium	present	Sagittaria sanfordii		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	4/18/2011	CPHH	partly cloudy	62	Meandering Transect	plagiobothrys hordeum	present	UNK		09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Vernal Pool
[redacted] Madera	4/20/2011	CPHH	partly cloudy	75	Meandering Transect	hordeum avena	present	UNK	Suitable for vernal pool special-status plants.	09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Vernal Pool
[redacted] Madera	4/20/2011	CPHH	sunny	78	Meandering Transect	plagiobothrys	absent	UNK	No suitable special-status plant habitat.	02 - Agricultural Land	13 - Rural Residential	Rural residential

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	4/20/2011	CPHH	partly cloudy	75	Visual	hordeum	absent	UNK	Vacant lot grazed by goats.	02 - Agricultural Land	13 - Rural Residential	Rural residential
[redacted] Madera	4/18/2011	CPHH	sunny	62	Meandering Transect	hordeum	present	UNK		09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Vernal Pool
[redacted] Madera	4/18/2011	CPHH	sunny, breeze	62	Visual	nonexistent	present	Sagittaria sanfordii		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	4/21/2011	CPHH	sunny	70	Visual	nonexistent	present	Sagittaria sanfordii		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	4/18/2011	CPHH	sunny	68	Visual	nonexistent	present	Sagittaria sanfordii		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	4/22/2011	CPHH	sunny	73	Visual	ripgut	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	4/22/2011	CPHH	sunny	77	Visual	ripgut	absent	Tuctoria greenei		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	4/20/2011	RCVD	sunny	76	Binocular	salix exigua	absent	UNK		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	4/19/2011	CPHH	sunny	75	Meandering Transect	plagiobothrys	present	UNK		09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Vernal Pool
[redacted] Madera	4/19/2011	CPHH	sunny	75	Meandering Transect	plagiobothrys wooly marble	present	UNK		09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Vernal Pool
[redacted] Madera	4/22/2011	CPHH	partly cloudy	73	Visual	hordeum	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	4/22/2011	CPHH	sunny	74	Visual	nonexistent - asphalt	absent	UNK	Commercial lot.	01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Madera	4/18/2011	CPHH	sunny	70	Meandering Transect	oats	present	UNK		09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Vernal Pool
[redacted] Madera	4/19/2011	CPHH	sunny	74	Meandering Transect	plagiobothrys	present	UNK		09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Vernal Pool

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	4/19/2011	CPHH	sunny	74	Meandering Transect	avena, fescue	absent	UNK		03 - California Annual Grassland	14 - California Annual Grassland	California annual grassland
[redacted] Madera	4/20/2011	RCVD	sunny	72	Meandering Transect	eryngium castrense	present	Downingi a pusilla		09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Vernal Pool
[redacted] Madera	4/20/2011	RCVD	sunny	76	Visual	bromus diandrus	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	4/18/2011	CPHH	sunny	70	Meandering Transect	plagiobothr ys mimulus	present	Eriastrum hooveri		09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Seasonal wetland
[redacted] Madera	4/22/2011	CPHH	sunny	78	Meandering Transect	ripgut fiddleneck some clarkia	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	4/22/2011	CPHH	sunny	77	Visual	ripgut mustard	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	4/21/2011	CPHH	cloudy	70	Meandering Transect	fescue	present	Sagittaria sanfordii		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal

April 2011 Survey Effort

APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	4/22/2011	CPHH	sunny	77	Visual	typha, walnut	absent	UNK		05 - Other Riparian	16 - Other Riparian	Black walnut riparian
[redacted] Madera	4/21/2011	RCVD	partly cloudy	68	Meandering Transect	salix lasiolepis	absent	UNK		05 - Other Riparian	16 - Other Riparian	Willow riparian forest and woodland
[redacted] Madera	4/21/2011	RCVD	partly cloudy	62	Meandering Transect	juncus	present	Sagittaria sanfordii	Canal with in-stream vegetation.	12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	4/21/2011	RCVD	partly cloudy	62	Meandering Transect	eleocharis	absent	UNK	Surrounded by annual grassland dominant by bromus diandrus.	12 - Constructed Watercourse	23 - Constructed Basin	Retention basin
[redacted] Madera	4/21/2011	RCVD	partly cloudy	62	Meandering Transect	bromus diandrus	absent	UNK	Canal and seasonal wetland also present on site.	03 - California Annual Grassland	14 - California Annual Grassland	California annual grassland
[redacted] Madera	4/21/2011	RCVD	partly cloudy	70	Meandering Transect	rumex crispus	absent	UNK		09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Vernal Pool
[redacted] Madera	4/21/2011	RCVD	partly cloudy	68	Meandering Transect	scirpus acutus	absent	UNK		08 - Coastal and Valley Freshwater Marsh	19 - Coastal and Valley Freshwater Marsh	Freshwater emergent wetland

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	4/20/2011	RCVD	sunny	75	Visual	bromus diandrus	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	4/20/2011	RCVD	sunny	75	Visual	lythrum hysopifolia	present	Downingi a pusilla		12 - Constructed Watercourse	23 - Constructed Basin	Retention basin
[redacted] Madera	4/20/2011	CPHH	cloudy	63	Meandering Transect	erodium	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Merced	4/19/2011	RCVD	sunny	68	Visual	landscaping	absent	UNK		01 - Developed Area	01 - Urban	Residential
[redacted] Merced	4/19/2011	RCVD	sunny	68	Visual	landscaping	absent	UNK		01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Merced	4/19/2011	RCVD	sunny	68	Visual	landscaping	absent	UNK		01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Merced	4/19/2011	RCVD	sunny	68	Meandering Transect	landscaping	absent	UNK		01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Merced	4/18/2011	RCVD	partly cloudy	62	Visual	landscaping	absent	UNK	Parking lot with landscaping. No natural habitat.	01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Merced	4/19/2011	RCVD	sunny	70	Meandering Transect	bromus diandrus	present	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal

April 2011 Survey Effort

APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Merced	4/21/2011	RCVD	cloudy	60	Binocular	none	absent	UNK		12 - Constructed Watercourse	23 - Constructed Basin	Retention Basin
[redacted] Merced	4/21/2011	RCVD	cloudy	60	Meandering Transect	cottonwood	absent	UNK		05 - Other Riparian	16 - Other Riparian	Cottonwood willow riparian
[redacted] Madera	4/19/2011	CPHH	sunny	75	Visual	nonexistent	present	Sagittaria sanfordii		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	4/21/2011	CPHH	partly sunny	73	Visual	nonexistent	absent	UNK	Vacant lot.	01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Madera	4/21/2011	CPHH	partly sunny	73	Visual	erodium, hordeum	absent	UNK		01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Madera	4/20/2011	CPHH	cloudy	63	Meandering Transect	ripgut, hordeum , erodium	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	4/20/2011	CPHH	cloudy	63	Visual	nonexistent	absent	UNK		01 - Developed Area	03 - Transportatio n Corridor	Roadway
[redacted] Madera	4/20/2011	CPHH	cloudy	63	Meandering Transect	hordeum, fiddleneck, erodium	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	4/20/2011	CPHH	cloudy	63	Visual	nonexistent	absent	UNK		02 - Agricultural Land	12 - Inactive Agriculture	Inactive farmland
[redacted] Madera	4/20/2011	CPHH	cloudy	63	Visual	hordeum malva	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Merced	4/19/2011	RCVD	partly sunny	69	Visual	bromus rubens	absent	UNK		01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Merced	4/19/2011	RCVD	cloudy	68	Meandering Transect	oats	absent	UNK		02 - Agricultural Land	07 - Field Crop	Irrigated grain and seed crops
[redacted] Merced	4/19/2011	RCVD	overca st	67	Visual	oats	absent	UNK		02 - Agricultural Land	07 - Field Crop	Irrigated grain and seed crops
[redacted] Madera	4/20/2011	CPHH	cloudy	64	Meandering Transect	hordeum erodium	absent	UNK		02 - Agricultural Land	11 - Pasture	Pasture
[redacted] Madera	4/20/2011	CPHH	cloudy	65	Meandering Transect	nonexistent	absent	UNK		02 - Agricultural Land	06 - Vineyard	Vineyard
[redacted] Madera	4/20/2011	CPHH	cloudy	65	Meandering Transect	nonexistent	absent	UNK	Area between railway and vineyard.	01 - Developed Area	03 - Transportatio n Corridor	Railway
[redacted] Madera	4/18/2011	RCVD	sunny	65	Meandering Transect	bromus	present	Downingi a pusilla	Survey is a little early. Plants not in bloom.	03 - California Annual Grassland	14 - California Annual Grassland	California annual grassland

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	4/21/2011	RCVD	sunny	72	Meandering Transect	avena	absent	UNK	Few small seasonal wetlands.	07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	4/21/2011	RCVD	partly cloudy	70	Meandering Transect	polypogon	absent	UNK		09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Vernal Pool
[redacted] Madera	4/21/2011	RCVD	partly cloudy	76	Meandering Transect	eleocharis	present	Sagittaria sanfordii		11 - Natural Watercourse	22 - Natural Watercourse	Riverine
[redacted] Madera	4/21/2011	RCVD	sunny	70	Binocular	avena	absent	UNK	Visual survey from road.	07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	4/18/2011	RCVD	sunny	68	Meandering Transect	avena	present	Downingi a pusilla	Tiger salamander larvae in pond.	03 - California Annual Grassland	14 - California Annual Grassland	California annual grassland
[redacted] Madera	4/20/2011	CPHH	cloudy	63	Visual	nonexistent	absent	UNK	Asphalt paved roadway.	01 - Developed Area	03 - Transportatio n Corridor	Roadway
[redacted] Madera	4/21/2011	CPHH	partly cloudy	75	Visual	nonexistent	present	Sagittaria sanfordii		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	4/20/2011	CPHH	cloudy	63	Visual	nonexistent	absent	UNK	Pacific Ethanol, Inc. industrial plant.	01 - Developed Area	02 - Commercial/ Industrial	Commercial

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	4/21/2011	CPHH	partly sunny	78	Meandering Transect	erodium hordeum	absent	UNK	Farm equipment storage lot.	01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Madera	4/22/2011	CPHH	sunny	78	Visual	ripgut	absent	UNK	Disked field.	07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	4/22/2011	CPHH	sunny	78	Visual	hordeum ripgut	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Merced	4/18/2011	RCVD	overca st	60	Meandering Transect	hordeum sp.	absent	UNK	Plowed annually	07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Merced	4/18/2011	RCVD	overca st	59	Meandering Transect	hordeum sp.	absent	UNK	Plowed annually	07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Merced	4/19/2011	RCVD	overca st	74	Meandering Transect	hordeum sp.	absent	UNK	Area sprayed with herbicide	07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Merced	4/19/2011	RCVD	partly cloudy	72	Meandering Transect	silybum marianum	present	Sagittaria sanfordii		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Merced	4/19/2011	CPHH	partly cloudy	62	Meandering Transect	cottonwood willow	present	Sagittaria sanfordii		10 - Fremont Cottonwood Forested Wetland	21 - Fremont Cottonwood Forested Wetland	Palustrine forested wetland
[redacted] Merced	4/20/2011	RCVD	overca st	59	Meandering Transect	lolium	present	Sagittaria sanfordii		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Merced	4/21/2011	RCVD	sunny	72	Meandering Transect	salix exigua	absent	UNK		05 - Other Riparian	16 - Other Riparian	Willow riparian forest and woodland
[redacted] Merced	4/19/2011	CPHH	partly cloudy	68	Visual	cottonwood willow	present	Sagittaria sanfordii		10 - Fremont Cottonwood Forested Wetland	21 - Fremont Cottonwood Forested Wetland	Palustrine forested wetland
[redacted] Merced	4/19/2011	CPHH	partly cloudy	69	Visual	cottonwood willow	present	Sagittaria sanfordii		10 - Fremont Cottonwood Forested Wetland	21 - Fremont Cottonwood Forested Wetland	Palustrine forested wetland
[redacted] Merced	4/20/2011	RCVD	overca st	60	Meandering Transect	walnut	present	Clarkia rostrata		05 - Other Riparian	16 - Other Riparian	Black walnut riparian
[redacted] Merced	4/20/2011	RCVD	overca st	60	Visual	black walnut	absent	UNK		05 - Other Riparian	16 - Other Riparian	Black walnut riparian
[redacted] Merced	4/20/2011	RCVD	overca st	65	Meandering Transect	bromus hordecous	present	Downingi a pusilla		03 - California Annual Grassland	14 - California Annual Grassland	California annual grassland
[redacted] Merced	4/18/2011	RCVD	sunny	63	Meandering Transect	eryngium	present	Gratiola heterose pala	Surveyed at correct time period.	09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Vernal Pool

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Merced	4/20/2011	RCVD	overcast	61	Binocular	walnut	absent	UNK		05 - Other Riparian	16 - Other Riparian	Black walnut riparian
[redacted] Merced	4/20/2011	RCVD	overcast	60	Meandering Transect	salix exigua	absent	UNK		05 - Other Riparian	16 - Other Riparian	Cottonwood willow riparian
[redacted] Merced	4/19/2011	RCVD	cloudy	69	Meandering Transect	epilobium	present	Sagittaria sanfordii		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Fresno	4/21/2011	CPHH	partly cloudy	65	Meandering Transect	erodium	absent	UNK	Residential lot.	07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Fresno	4/21/2011	CPHH	sunny	80	Visual	asphalt	absent	UNK	Asphalt-paved lot of automotive repair shop.	01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Fresno	4/21/2011	CPHH	partly cloudy	73	Meandering Transect	ripgut, erodium	absent	UNK	Asphalt paved lot within industrial property. Ruderal vegetation growing over old pavement.	01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Fresno	4/21/2011	CPHH	partly cloudy	80	Meandering Transect	erodium	absent	UNK	Vacant lot within commercial area.	01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Fresno	4/21/2011	CPHH	sunny	83	Visual	brome	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal

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[redacted] Fresno	4/21/2011	CPHH	sunny	70	Meandering Transect	erodium mustard ripgut	present	UNK	Shooting range.	07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Fresno	4/21/2011	CPHH	sunny	78	Meandering Transect	erodium ripgut	absent	UNK		04 - Great Valley Mixed Riparian Forest	15 - Mixed Riparian	Mixed riparian forest and woodland
[redacted] Fresno	4/21/2011	CPHH	partly sunny	83	Visual	mustard erodium	present	UNK		12 - Constructed Watercourse	23 - Constructed Basin	Retention basin

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	5/26/2011	BCHH	sunny	51	Visual	tractor trailer, weeds	absent	UNK		01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Madera	5/26/2011	BCHH	sunny	51	Visual	wild oat	absent	UNK		01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Madera	5/26/2011	BCHH	sunny breeze	68	Visual	wild oats	absent	UNK		02 - Agricultural Land	12 - Inactive Agriculture	Inactive farmland
[redacted] Merced	5/25/2011	BCHH	overcast humid	77	Visual	none	absent	Sagittaria sanfordii	Do not re-VISIT constructed canal	12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	5/26/2011	BCHH	sunny breeze	72	Visual	none	absent	Sagittaria sanfordii		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	5/25/2011	CPVD	sunny	68	Visual	nonexistent	absent	UNK		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	5/25/2011	CPVD	sunny	62	Visual	arundo	absent	UNK		05 - Other Riparian	16 - Other Riparian	Arundo
[redacted] Madera	5/25/2011	CPVD	cloudy	70	Visual	brome	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	5/26/2011	CPVD	sunny	58	Meandering Transect	arundo	present	Sagittaria sanfordii		05 - Other Riparian	16 - Other Riparian	Arundo

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	5/25/2011	CPVD	partly cloudy	79	Meandering Transect	nonexistent	absent	UNK		01 - Developed Area	01 - Urban	Residential
[redacted] Madera	5/25/2011	CPVD	sunny	70	Meandering Transect	rumex	absent	UNK	Canal at south - ag tailwater. North end - buried pipe, no canal.	12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	5/25/2011	CPVD	sunny	64	Meandering Transect	bromus	absent	UNK	Borders Ash Slough, but does not include it. dense annual grass	07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	5/24/2011	CPVD	sunny	68	Meandering Transect	lolium	absent	UNK	No canal present at north border of property. larger canal at south end of parcel is more of a retention basin	12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	5/24/2011	CPVD	sunny	65	Meandering Transect	polygonum	present	Sagittaria sanfordii		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	5/24/2011	CPVD	sunny	64	Visual	hordeum	absent	UNK		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	5/24/2011	CPVD	sunny	65	Visual	nonexistent	absent	UNK		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	5/24/2011	CPVD	sunny	65	Visual	nonexistent	absent	UNK		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	5/24/2011	CPVD	sunny	60	Visual	barren	absent	UNK	steep-sided canal - no emergent veg.	12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	5/24/2011	CPVD	sunny	64	Visual	cyperus	present	Sagittaria sanfordii	some emergent veg - canal likely too dry/shallow	12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	5/24/2011	CPVD	sunny	60	Visual	polygonum	present	Sagittaria sanfordii	low probability but emergent vegetation is present	12- Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	5/26/2011	CPVD	sunny	59	Meandering Transect	arundo, cottonwood	present	Cryptantha hooveri		05 - Other Riparian	16 - Other Riparian	Cottonwood willow riparian
[redacted] Madera	5/26/2011	CPVD	sunny	60	Meandering Transect	arundo	present	Cryptantha hooveri		05 - Other Riparian	16 - Other Riparian	Arundo
[redacted] Madera	5/26/2011	BCHH	sunny breeze	69	Visual	willow cottonwood	absent	Sambucus mexicana		05 - Other Riparian	16 - Other Riparian	Cottonwood willow riparian
[redacted] - Madera	5/24/2011	CPVD	sunny	64	Visual	nonexistent	absent	UNK		01 - Developed Area	04 - Barren	Barren
[redacted] - Madera	5/24/2011	CPVD	sunny	60	Visual	erodium	absent	UNK		02 - Agricultural Land	13 - Rural Residential	Rural residential

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	5/24/2011	CPVD	sunny	60	Meandering Transect	nonexistent	absent	UNK		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	5/24/2011	CPVD	sunny	57	Meandering Transect	brome	absent	UNK		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	5/24/2011	CPVD	sunny	57	Meandering Transect	hordeum	absent	Tuctoria greenei		09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Vernal Pool
[redacted] Madera	5/24/2011	CPVD	sunny	57	Meandering Transect	hordeum	present	Downingia pusilla		09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Vernal Pool
[redacted] Madera	5/25/2011	CPVD	cloudy	70	Visual	nonexistent	absent	UNK		01 - Developed Area	01 - Urban	Residential
[redacted] Madera	5/25/2011	CPVD	cloudy	70	Visual	nonexistent	absent	UNK	Goats	02 - Agricultural Land	13 - Rural Residential	Rural residential
[redacted] Madera	5/24/2011	CPVD	sunny	55	Meandering Transect	hordeum	absent	Tuctoria greenei		09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Vernal Pool

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[redacted] Madera	5/25/2011	CPVD	sunny	59	Visual	nonexistent	absent	UNK		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	5/25/2011	CPVD	sunny	59	Visual	nonexistent	absent	UNK		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	5/25/2011	CPVD	sunny	59	Visual	nonexistent	absent	UNK		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	5/25/2011	CPVD	sunny	59	Visual	brome	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	5/25/2011	CPVD	sunny	59	Visual	nonexistent	present	Sagittaria sanfordii		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	5/25/2011	CPVD	sunny	59	Visual	hordeum	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	5/25/2011	CPVD	sunny	59	Visual	nonexistent	present	Sagittaria sanfordii		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	5/24/2011	BCHH	sunny	75	Visual	cottonwood , willow	absent	UNK	fenced pond, palm trees	01 - Developed Area	02 - Commercial/ Industrial	Commercial

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	5/25/2011	CPVD	sunny	55	Meandering Transect	plagiobothrys	present	UNK		09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Vernal Pool
[redacted] Madera	5/25/2011	CPVD	sunny	55	Meandering Transect	plagiobothrys	present	UNK		09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Vernal Pool
[redacted] Madera	5/26/2011	CPVD	sunny	55	Visual	typha	present	Sagittaria sanfordii		11 - Natural Watercourse	22 - Natural Watercourse	Riverine
[redacted] Madera	5/25/2011	CPVD	sunny	59	Visual	nonexistent	absent	UNK		01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Madera	5/24/2011	BCHH	sunny	80	Meandering Transect	oats	absent	UNK	Ruderal at vernal pool site #1 - site entirely within oat field.	02 - Agricultural Land	07 - Field Crop	Irrigated hay crops
[redacted] Madera	5/26/2011	CPVD	sunny	80	Meandering Transect	plagiobothrys	present	UNK	low ssp habitat value	09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Seasonal wetland
[redacted] Madera	5/24/2011	BCHH	cloudy	60	Visual	none	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal

May 2011 Survey Effort

APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	5/24/2011	BCHH	sunny	75	Meandering Transect	e. castrense	present	Downingia pusilla	disturbed, mostly barren	07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	5/26/2011	CPVD	sunny	74	Meandering Transect	hordeum	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	5/26/2011	CPVD	sunny	74	Visual	brome	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	5/26/2011	CPVD	sunny	74	Meandering Transect	plagiobothrys	present	UNK		09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Seasonal wetland
[redacted] Madera	5/24/2011	CPVD	sunny	79	Visual	brome	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	5/24/2011	CPVD	Sunny	79	Visual	brome	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	5/24/2011	CPVD	sunny	78	Meandering Transect	typha	present	Sagittaria sanfordii		08 - Coastal and Valley Freshwater Marsh	19 - Coastal and Valley Freshwater Marsh	Freshwater emergent wetland
[redacted] Madera	5/24/2011	CPVD	sunny	70	Meandering Transect	typha	present	Sagittaria sanfordii		05 - Other Riparian	16 - Other Riparian	Black walnut riparian
[redacted] Madera	5/24/2011	BCHH	sunny	75	Meandering Transect	ripgut	present	Sagittaria sanfordii	small drainage pond	12 - Constructed Watercourse	23 - Constructed Basin	Retention basin

May 2011 Survey Effort

APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	5/24/2011	BCHH	sunny	75	visual	pomegranate trees	absent	UNK		02 - Agricultural Land	05 - Orchard	Deciduous orchard
[redacted] Madera	5/25/2011	CPVD	cloudy	78	Meandering Transect	willow	absent	UNK		05 - Other Riparian	16 - Other Riparian	Willow riparian forest and woodland
[redacted] Madera	5/27/2011	BCHH	sunny breeze	56	Visual	none	absent	UNK		01 - Developed Area	03 - Transportation Corridor	Railway
[redacted] Madera	5/26/2011	BCHH	sunny breeze	74	Visual	none	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Merced	5/25/2011	BCHH	slightly overcast	66	Visual	asphalt	absent	UNK	No habitat - do not revisit. DOWNTOWN MERCED	01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Merced	5/25/2011	BCHH	slightly overcast	66	Visual	asphalt	absent	UNK		01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Merced	5/25/2011	BCHH	slightly overcast	66	Visual	roses ornamental	absent	UNK	Do not revisit. DOWNTOWN MERCED	01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Merced	5/25/2011	BCHH	slightly overcast	66	Visual	asphalt	absent	UNK		01 - Developed Area	02 - Commercial/ Industrial	Commercial

May 2011 Survey Effort

APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Merced	5/25/2011	BCHH	slightly overcast	66	Visual	brome	absent	UNK		02 - Agricultural Land	09 - Fallow Field	Fallow
[redacted] Merced	5/26/2011	BCHH	sunny breeze	56	Visual	none	absent	UNK		03 - California Annual Grassland	14 - California Annual Grassland	California annual grassland
[redacted] Merced	5/26/2011	BCHH	sunny breeze	56	Visual	ornamental trees	absent	Sagittaria sanfordii		11 - Natural Watercourse	22 - Natural Watercourse	Riverine
[redacted] Madera	5/26/2011	CPVD	sunny	75	Visual	nonexistent	present	Sagittaria sanfordii	Schmidt Creek	11 - Natural Watercourse	22 - Natural Watercourse	Riverine
[redacted] Madera	5/25/2011	CPVD	partly sunny	82	Visual	nonexistent	absent	UNK	Commercially developed area. plowed field	07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	5/25/2011	CPVD	partly sunny	82	Visual	brome	absent	UNK	commercially developed area	07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	5/26/2011	BCHH	sunny breeze	74	Visual	none	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	5/26/2011	BCHH	sunny breeze	74	Visual	none	absent	UNK		02 - Agricultural Land	13 - Rural Residential	Rural residential
[redacted] Madera	5/26/2011	BCHH	sunny breeze	74	Visual	none	absent	UNK	Do not re-VISIT	02 - Agricultural Land	11 - Pasture	Pasture
[redacted] Merced	5/25/2011	BCHH	slightly overcast	66	Visual	wild oats	absent	UNK		02 - Agricultural Land	07 - Field Crop	Irrigated field and row crop

May 2011 Survey Effort

APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	5/25/2011	BCHH	slightly overcast	66	Visual	recycled materials	absent	UNK		01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Merced	5/25/2011	BCHH	slightly overcast	66	Visual	hay	absent	n/a	Do not revisit. DOWNTOWN MERCED	01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] - Madera	5/26/2011	BCHH	sunny breeze	74	Visual	none	absent	UNK		01 - Developed Area	01 - Urban	Residential
[redacted] Madera	5/26/2011	BCHH	sunny breeze	74	Visual	dirt	absent	railroad rock	Do not revisit	01 - Developed Area	03 - Transportatio n Corridor	Roadway
[redacted] - Madera	5/26/2011	BCHH	sunny	74	visual	vitas	absent	UNK		02 - Agricultural Land	06 - Vineyard	Vineyard
[redacted] Madera	5/26/2011	BCHH	sunny breeze	76	Visual	wild oats	absent	UNK		02 - Agricultural Land	13 - Rural Residential	Rural residential
[redacted] Madera	5/26/2011	BCHH	sunny breeze	73	Visual	none	absent	UNK		09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Vernal Pool
[redacted] Madera	5/24/2011	BCHH		63	Visual	none	absent	UNK		01 - Developed Area	01 - Urban	Residential
[redacted] Madera	5/26/2011	CPVD	sunny	75	Visual	hordeum	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal

May 2011 Survey Effort

APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Madera	5/26/2011	CPVD	sunny	75	Visual	hordeum	absent	UNK		09 - Vernal Pool and Other Seasonal Wetland	20 - Vernal Pool and Other Seasonal Wetland	Seasonal wetland
[redacted] Madera	5/26/2011	CPVD	sunny	75	Visual	hordeum	present	Sagittaria sanfordii	Schmidt Creek	11 - Natural Watercourse	22 - Natural Watercourse	Riverine
[redacted] Madera	5/26/2011	BCHH	sunny breeze	73	Visual	asphalt	absent	UNK		01 - Developed Area	01 - Urban	Residential
[redacted] Madera	5/25/2011	CPVD	sunny	84	Visual	nonexistent	absent	UNK		12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Madera	5/25/2011	CPVD	sunny	84	Visual	arundo	absent	UNK		05 - Other Riparian	16 - Other Riparian	Arundo
[redacted] Madera	5/25/2011	CPVD	sunny	82	Visual	vitis	absent	UNK	canal mapped - Not Present	02 - Agricultural Land	06 - Vineyard	Vineyard
[redacted] Madera	5/25/2011	CPVD	sunny	82	Visual	brome	absent	UNK	Viewed from road - no need for access. Scraped.	07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	5/25/2011	CPVD	Sunny	82	Visual	brome	present	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Madera	5/26/2011	CPVD	sunny	72	Visual	brome	absent	UNK	south facing slope across the river from shooting range	03 - California Annual Grassland	14 - California Annual Grassland	California annual grassland

May 2011 Survey Effort

APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Merced	5/25/2011	BCHH	slightly overcast	66	Visual	none	absent	UNK		02 - Agricultural Land	09 - Fallow Field	Fallow
[redacted] Merced	5/25/2011	BCHH	slightly overcast	66	Visual	weeds	absent	UNK		01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Merced	5/26/2011	BCHH	sunny breeze	65	Visual	none	absent	Sagittaria sanfordii		02 - Agricultural Land	07 - Field Crop	Irrigated field and row crop
[redacted] Merced	5/25/2011	BCHH	sunny	62	Visual	milk thistle	absent	Sagittaria sanfordii		05 - Other Riparian	16 - Other Riparian	Willow riparian forest and woodland
[redacted] Merced	5/26/2011	BCHH	sunny breeze	60	Visual	cotton wood willow	absent	Sagittaria sanfordii		05 - Other Riparian	16 - Other Riparian	Cottonwood willow riparian
[redacted] Merced	5/26/2011	BCHH	sunny breeze	60	Visual	cotton wood willow	absent	Sagittaria sanfordii		05 - Other Riparian	16 - Other Riparian	Mixed riparian forest and woodland
[redacted] Merced	5/26/2011	BCHH	sunny breeze	64	Visual	brome and Bermuda grass	absent	Sagittaria sanfordii		02 - Agricultural Land	11 - Pasture	Pasture
[redacted] Merced	5/26/2011	BCHH	sunny breeze	61	Visual	wheat	absent	UNK		02 - Agricultural Land	07 - Field Crop	Irrigated grain and seed crop

May 2011 Survey Effort

APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Merced	5/25/2011	BCHH	overcast	74	Visual	euc	absent	UNK		05 - Other Riparian	16 - Other Riparian	Mixed riparian forest and woodland
[redacted] Merced	5/25/2011	BCHH	sunny	55	Visual	willow	absent	UNK		05 - Other Riparian	16 - Other Riparian	Willow riparian forest and woodland
[redacted] Merced	5/25/2011	CPVD	partly cloudy	77	Visual	nonexistent	absent	UNK	ag drain	12 - Constructed Watercourse	24 - Constructed Watercourse	Canal
[redacted] Merced	5/25/2011	BCHH	slightly overcast	66	Visual	weeds	absent	UNK		02 - Agricultural Land	12 - Inactive Agriculture	Inactive farmland
[redacted] Fresno	5/26/2011	CPVD	sunny	74	Visual	nonexistent	absent	UNK	Sal's auto repair	01 - Developed Area	02 - Commercial/ Industrial	Commercial
[redacted] Fresno	5/26/2011	CPVD	sunny	74	Visual	brome	absent	UNK		07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Fresno	5/26/2011	CPVD	sunny	64	Meandering Transect	brome	absent	UNK	shooting range	07 - Ruderal Vegetation	18 - Ruderal	Ruderal
[redacted] Fresno	5/26/2011	CPVD	sunny	67	Meandering Transect	cottonwood, brome	present	Sagittaria sanfordii		05 - Other Riparian	16 - Other Riparian	Cottonwood willow riparian

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APN	Date	Team	Weather	Temp	Survey Method	Dominant	Suitable Habitat	Special-Status Plant Species with Potential to Occur	Comments	EIS/BRWTR Name	Database Name	Field Markup Name
[redacted] Fresno	5/26/2011	CPVD	sunny	70	Visual	brome	absent	UNK	basin within commercially developed area	12 - Constructed Watercourse	23 - Constructed Basin	Retention basin

APPENDIX F

Observed Plant Species List

Scientific Name	Common Name	Group	Family
Azolla filiculoides	mosquito fern	FERNS & FERN ALLIES	AZOLLACEAE
Marsilea vestita	hairy waterclover	FERNS & FERN ALLIES	MARSILEACEAE
Pilularia americana	American pillwort	FERNS & FERN ALLIES	MARSILEACEAE
*Cupressus sempervirens "Glauca"**	Italian cypress	GYMNOSPERMS	CUPRESSACEAE
*Sambucus nigra ssp. caerulea **	elderberry	DICOTS	ADOXACEAE
*Amaranthus albus**	pigweed amaranth	DICOTS	AMARANTHACEAE
Amaranthus sp.	pigweed	DICOTS	AMARANTHACEAE
*Pistacia atlantica**	pistachio	DICOTS	ANACARDIACEAE
*Schinus molle**	Peruvian pepper	DICOTS	ANACARDIACEAE
*Conium maculatum**	poison hemlock	DICOTS	APIACEAE
Eryngium castrense	Great Valley button-celery	DICOTS	APIACEAE
*Foeniculum vulgare**	sweet fennel	DICOTS	APIACEAE
*Torilis arvensis**	field hedge parsley	DICOTS	APIACEAE
*Nerium oleander**	oleander	DICOTS	APOCYNACEAE
Asclepias fascicularis	narrow-leafed milkweed	DICOTS	ASCLEPIADACEAE
Achyrachaena mollis	blow-wives	DICOTS	ASTERACEAE
*Ambrosia acanthicarpa**	annual bursage	DICOTS	ASTERACEAE
Ambrosia psilostachya	western ragweed	DICOTS	ASTERACEAE
*Anthemis cotula**	dog-fennel	DICOTS	ASTERACEAE
Artemisia douglasiana	mugwort	DICOTS	ASTERACEAE
Aster subulatus var. *ligulatus*	slim aster	DICOTS	ASTERACEAE
Baccharis salicifolia	mulefat	DICOTS	ASTERACEAE
*Carduus pycnocephalus**	Italian thistle	DICOTS	ASTERACEAE
*Centaurea solstitialis**	yellow star-thistle	DICOTS	ASTERACEAE
Centromadia fitchii	Fitch's spikeweed	DICOTS	ASTERACEAE

Scientific Name	Common Name	Group	Family
Centromadia pungens ssp. *pungens*	common spikeweed	DICOTS	ASTERACEAE
*Cirsium vulgare**	bull thistle	DICOTS	ASTERACEAE
Conyza canadensis	common horseweed	DICOTS	ASTERACEAE
Deinandra kelloggii	Kellogg's tarweed	DICOTS	ASTERACEAE
*Filago gallica**	meditteranean herba impia	DICOTS	ASTERACEAE
*Gnaphalium luteo-album**	common cudweed	DICOTS	ASTERACEAE
Gnaphalium palustre	Western marsh cudweed	DICOTS	ASTERACEAE
Gnaphalium sp.	cudweed	DICOTS	ASTERACEAE
Grindelia camporum	gumplant	DICOTS	ASTERACEAE
Helianthus annuus	common sunflower	DICOTS	ASTERACEAE
Hemizonia congesta	hayfield tarweed	DICOTS	ASTERACEAE
Heterotheca grandiflora	telegraph weed	DICOTS	ASTERACEAE
Holocarpha virgata ssp. *virgata*	narrow tarplant	DICOTS	ASTERACEAE
*Hypochaeris glabra**	smooth cat's ear	DICOTS	ASTERACEAE
*Hypochaeris radicata**	rough cat's ear	DICOTS	ASTERACEAE
*Lactuca serriola**	prickly lettuce	DICOTS	ASTERACEAE
Lasthenia californica	common goldfields	DICOTS	ASTERACEAE
Layia fremontii	Fremont's tidy tips	DICOTS	ASTERACEAE
*Matricaria matricarioides**	pineapple weed	DICOTS	ASTERACEAE
Micropus californicus	slender cottonweed	DICOTS	ASTERACEAE
Psilocarphus brevissimus	woolly marbles	DICOTS	ASTERACEAE
Psilocarphus tenellus	slender wooly-heads	DICOTS	ASTERACEAE
Senecio vulgaris	common groundsel	DICOTS	ASTERACEAE
*Silybum marianum**	milk thistle	DICOTS	ASTERACEAE
*Sonchus oleraceus**	common sowthistle	DICOTS	ASTERACEAE

Scientific Name	Common Name	Group	Family
Stephanomeria virgata	wire lettuce	DICOTS	ASTERACEAE
*Taraxicum officinale**	dandelion	DICOTS	ASTERACEAE
*Xanthium strumarium**	cocklebur	DICOTS	ASTERACEAE
Amsinckia intermedia	common fiddleneck	DICOTS	BORAGINACEAE
Amsinckia lycopsoides	tarweed fiddleneck	DICOTS	BORAGINACEAE
Heliotropium curassavicum	seaside heliotrope	DICOTS	BORAGINACEAE
Plagiobothrys bracteatus	bracted popcornflower	DICOTS	BORAGINACEAE
Plagiobothrys sp.	popcorn flower	DICOTS	BORAGINACEAE
Plagiobothrys nothofulvus	popcorn flower	DICOTS	BORAGINACEAE
Plagiobothrys stipitatus var. *micranthus*	vernal pool popcorn flower	DICOTS	BORAGINACEAE
*Brassica juncea**	India mustard	DICOTS	BRASSICACEAE
*Brassica nigra**	black mustard	DICOTS	BRASSICACEAE
*Capsella bursa-pastoris**	Sheperd's purse	DICOTS	BRASSICACEAE
*Hirschfeldia incana**	shortpod mustard	DICOTS	BRASSICACEAE
Lepidium nitidum	Shining peppergrass	DICOTS	BRASSICACEAE
Lepidium strictum	peppergrass	DICOTS	BRASSICACEAE
*Raphanus raphanistrum**	jointed charlock	DICOTS	BRASSICACEAE
*Raphanus sativus**	wild radish	DICOTS	BRASSICACEAE
*Sisymbrium altissimum**	tall tumblemustard	DICOTS	BRASSICACEAE
*Sisymbrium orientale**	London rocket	DICOTS	BRASSICACEAE
Downingia cuspidata	toothed downingia	DICOTS	CAMPANULACEAE
Herniaria hirsuta spp. *cinerea**	hairy rupturewort	DICOTS	CARYOPHYLLACEAE
Polycarpon tetraphyllum	four-leaved allseed	DICOTS	CARYOPHYLLACEAE
*Silene gallica**	windmill pink	DICOTS	CARYOPHYLLACEAE
Spergularia macrotheca	large flowered sand spurry	DICOTS	CARYOPHYLLACEAE

Scientific Name	Common Name	Group	Family
Spergularia marina	salt sand-spurry	DICOTS	CARYOPHYLLACEAE
*Spergularia rubra**	red sand-spurry	DICOTS	CARYOPHYLLACEAE
Stellaria media *	common chickweed	DICOTS	CARYOPHYLLACEAE
*Chenopodium album**	lamb's quarters	DICOTS	CHENOPODIACEAE
*Chenopodium vulvaria**	stinking goosefoot	DICOTS	CHENOPODIACEAE
*Salsola tragus**	Russian thistle	DICOTS	CHENOPODIACEAE
*Convolvulus arvensis**	bindweed	DICOTS	CONVOLVULACEAE
Cressa truxillensis	spreading alkali weed	DICOTS	CONVOLVULACEAE
Crassula aquatica	water pygmyweed	DICOTS	CRASSULACEAE
Crassula connata	Pygmyweed	DICTOS	CRASSULACEAE
Cucurbita foetidissima	calabazilla	DICOTS	CUCURBITACEAE
Cuscuta sp.	dodder	DICOTS	CUSCUTACEAE
*Chamaesyce maculata**	spotted spurge	DICOTS	EUPHORBIACEAE
Chamaesyce ocellata ssp. *ocellata*	valley spurge	DICOTS	EUPHORBIACEAE
*Chamaesyce prostrata**	prostrate spurge	DICOTS	EUPHORBIACEAE
*Chamaesyce serpens**	creeping spruge	DICOTS	EUPHORBIACEAE
Croton setigerus	turkey mullein	DICOTS	EUPHORBIACEAE
Acacia sp.*	acacia tree	DICOTS	FABACEAE
Lotus corniculatus	bird's foot trefoil	DICOTS	FABACEAE
Lotus purshianus var. *purshianus*	Spanish-clover	DICOTS	FABACEAE
Lupinus bicolor	miniature lupine	DICOTS	FABACEAE
Lupinus formosus var. *robustus*	summer lupine	DICOTS	FABACEAE
Lupinus microcarpus	chick lupine	DICOTS	FABACEAE
Lupinus microcarpus var. *densiflorus*	chick lupine	DICOTS	FABACEAE
*Medicago polymorpha**	burclover	DICOTS	FABACEAE

Scientific Name	Common Name	Group	Family
*Melilotus indicus**	sourclover	DICOTS	FABACEAE
Trifolium albopurpureum	Indian clover	DICOTS	FABACEAE
*Trifolium hirtum**	rose clover	DICOTS	FABACEAE
Vicia americana var. *Americana**	American vetch	DICOTS	FABACEAE
Vicia sp.	vetch	DICOTS	FABACEAE
Quercus lobata	Valley oak	DICOTS	FAGACEAE
*Erodium botrys**	broadleaf filaree	DICOTS	GERANIACEAE
*Erodium cicutarium**	red-stemmed filaree	DICOTS	GERANIACEAE
*Elodea Canadensis**	common water weed	DICOTS	HYDROCHARITACEAE
Nemophila menziesii	Baby blue eyes	DICOTS	HYDROPHYLLACEAE
Phacelia ramosissima	branching phacelia	DICOTS	HYDROPHYLLACEAE
*Hypericum perforatum**	Klamathweed	DICOTS	HYPERICACEAE
Juglans hindsii	Northern California black walnut	DICOTS	JUGLANDACEAE
*Juglans regia**	English walnut	DICOTS	JUGLANDACEAE
Juncus acuminatus	taper tip rush	DICOTS	JUNCACEAE
*Lamium amplexicaule**	hen's bit	DICOTS	LAMIACEAE
*Marrubium vulgare**	horehound	DICOTS	LAMIACEAE
*Mentha arvensis**	wild mint	DICOTS	LAMIACEAE
Trichostema lanceolatum	vinegarweed	DICOTS	LAMIACEAE
*Lythrum hyssopifolia**	hyssop loosestrife	DICOTS	LYTHRACEAE
*Malva neglecta**	common mallow	DICOTS	MALVACEAE
*Malva nicaeensis**	bull mallow	DICOTS	MALVACEAE
Sidalcea hirsuta	hairy checkerbloom	DICOTS	MALVACEAE
*Mollugo verticillata**	carpet weed	DICOTS	MOLLUGINACEAE
*Ficus carica**	common fig	DICOTS	MORACEAE

Scientific Name	Common Name	Group	Family
*Anagallis arvensis**	scarlet pimpernel	DICOTS	MYRSINACEAE
*Eucalyptus globulus**	blue gum tree	DICOTS	MYRTACEAE
Fraxinus latifolia	Oregon ash	DICOTS	OLEACEAE
Fraxinus velutina	Velvet ash	DICOTS	OLEACEAE
*Olea europaea**	olive	DICOTS	OLEACEAE
Camissonia sp.	suncups	DICOTS	ONAGRACEAE
Epilobium brachycarpum	tall annual willowherb	DICOTS	ONAGRACEAE
Epilobium densiflorum	dense flowered Boisduvalia	DICOTS	ONAGRACEAE
Epilobium foliosum	California willowherb	DICOTS	ONAGRACEAE
Epilobium sp.	willow herb	DICOTS	ONAGRACEAE
Ludwigia peploides	floating water primrose	DICOTS	ONAGRACEAE
*Oxalis laxa**	dwarf woodsorrel	DICOTS	OXALIDACEAE
Eschscholzia californica	California poppy	DICOTS	PAPAVERACEAE
*Fumaria parviflora**	fine-leaved fumitory	DICOTS	PAPAVERACEAE
*Phytolacca americana**	American pokeweed	DICOTS	PHYTOLACCACEAE
Plantago erecta	dwarf plantain	DICOTS	PLANTAGINACEAE
*Plantago lanceolata**	English plantain	DICOTS	PLANTAGINACEAE
Veronica peregrina ssp. *xalapensis**	speedwell	DICOTS	PLANTAGINACEAE
Platanus racemosa	California sycamore	DICOTS	PLATANACEAE
Eriogonum nudum	naked buckwheat	DICOTS	POLYGONACEAE
*Polygonum arenastrum**	common knotweed	DICOTS	POLYGONACEAE
Polygonum hydropiperoides	mild water pepper	DICOTS	POLYGONACEAE
Polygonum punctatum	water smartweed	DICOTS	POLYGONACEAE
Polygonum sp.	knotweed	DICOTS	POLYGONACEAE
*Rumex crispus**	curly dock	DICOTS	POLYGONACEAE

Scientific Name	Common Name	Group	Family
*Rumex pulcher**	fiddle dock	DICOTS	POLYGONACEAE
Calandrinia ciliata	red maids	DICOTS	PORTULACACEAE
Claytonia parviflora	narrow leaved miner's lettuce	DICOTS	PORTULACACEAE
Portulaca oleracea	common purslane	DICOTS	PORTULACACEAE
*Prunus dulcis**	almond	DICOTS	ROSACEAE
Rosa californica	California rose	DICOTS	ROSACEAE
*Rubus discolor**	Himalayan blackberry	DICOTS	ROSACEAE
Cephalanthus occidentalis var. *californicus*	button willow	DICOTS	RUBIACEAE
Galium aparine	common bedstraw	DICOTS	RUBIACEAE
Galium sp.	bedstraw	DICOTS	RUBIACEAE
Galium tricornutum	rough bedstraw	DICOTS	RUBIACEAE
Populus fremontii	Fremont cottonwood	DICOTS	SALICACEAE
*Salix babylonica**	weeping willow	DICOTS	SALICACEAE
Salix exigua	narrowleaf willow	DICOTS	SALICACEAE
Salix laevigata	red willow	DICOTS	SALICACEAE
Salix spp.	willow spp.	DICOTS	SALICACEAE
Castilleja attenuata	Valley tassels	DICOTS	SCROPHULARIACEAE
Castilleja exserta	purple owl's clover	DICOTS	SCROPHULARIACEAE
Mimulus guttatus	seep monkeyflower	DICOTS	SCROPHULARIACEAE
Mimulus pilosus	false monkeyflower	DICOTS	SCROPHULARIACEAE
Mimulus tricolor	vernal pool monkeyflower	DICOTS	SCROPHULARIACEAE
Verbascum blattaria	moth mullein	DICOTS	SCROPHULARIACEAE
*Verbascum thapsus**	woolly mullein	DICOTS	SCROPHULARIACEAE
*Ailanthus altissima**	tree of heaven	DICOTS	SIMAROUBACEAE
Datura wrightii	jimsonweed	DICOTS	SOLANACEAE

Scientific Name	Common Name	Group	Family
*Nicotiana glauca**	tree tobacco	DICOTS	SOLANACEAE
Solanum americanum	common nightshade	DICOTS	SOLANACEAE
*Tamarix sp**	saltcedar	DICOTS	TAMARICACEAE
*Urtica dioica**	stinging nettle	DICOTS	URTICACEAE
*Urtica urens**	annual stinging nettle	DICOTS	URTICACEAE
Phoradendron macrophyllum	big leaf mistletoe	DICOTS	VISCACEAE
Phoradendron villosum	oak mistletoe	DICOTS	VISCACEAE
Vitis spp.*	grape	DICOTS	VITACEAE
*Tribulus terrestris**	puncture vine	DICOTS	ZYGOPHYLLACEAE
Alisma plantago-aquatica	water plantain	MONOCOTS	ALISMATACEAE
Sagittaria sanfordii	Sanford's arrowhead	MONOCOTS	ALISMATACEAE
*Washingtonia filifera**	fan palm	MONOCOTS	ARECACEAE
Cyperus eragrostis	umbrella sedge	MONOCOTS	CYPERACEAE
Eleocharis macrostachya	Spikerush	MONOCOTS	CYPERACEAE
Eleocharis sp.	spikerush	MONOCOTS	CYPERACEAE
Kyllinga brevifolia	shortleaf spikesedge	MONOCOTS	CYPERACEAE
Schoenoplectus acutus var. *occidentalis*	common tule	MONOCOTS	CYPERACEAE
Schoenoplectus americanus	American tule	MONOCOTS	CYPERACEAE
Schoenoplectus sp.	Sedge species	MONOCOTS	CYPERACEAE
Juncus balticus	wire rush	MONOCOTS	JUNCACEAE
Juncus bufonius	toad rush	MONOCOTS	JUNCACEAE
Juncus effusus	common bog rush	MONOCOTS	JUNCACEAE
Juncus oxymeris	pointed rush	MONOCOTS	JUNCACEAE
Juncus spp.	rush	MONOCOTS	JUNCACEAE
Lemna sp.	duckweed	MONOCOTS	LEMNACEAE

Scientific Name	Common Name	Group	Family
Brodiaea elegans	harvest brodiaea	MONOCOTS	LILIACEAE
Triteleia hyacinthina *	white hyacinth	MONOCOTS	LILIACEAE
Triteleia sp.		MONOCOTS	LILIACEAE
*Aira caryophyllea**	silver european hair grass	MONOCOTS	POACEAE
*Arundo donax**	giant reed	MONOCOTS	POACEAE
*Avena barbata**	slender wild oats	MONOCOTS	POACEAE
*Avena fatua**	wild oats	MONOCOTS	POACEAE
*Avena sativa**	cultivated oats	MONOCOTS	POACEAE
*Bromus diandrus**	ripgut brome	MONOCOTS	POACEAE
*Bromus hordeaceus**	soft chess	MONOCOTS	POACEAE
*Bromus madritensis**	red brome	MONOCOTS	POACEAE
*Bromus tectorum**	cheatgrass	MONOCOTS	POACEAE
*Cenchrus incertus**	sandbur grass	MONOCOTS	POACEAE
*Crypsis schoenoides**	swamp pricklegrass	MONOCOTS	POACEAE
*Crypsis vaginiflora**	African pricklegrass	MONOCOTS	POACEAE
*Cynodon dactylon**	Bermuda grass	MONOCOTS	POACEAE
*Dactyloctenium aegyptium**	Egyptian grass	MONOCOTS	POACEAE
Deschampsia danthonioides	annual hairgrass	MONOCOTS	POACEAE
*Digitaria sanguinalis**	crabgrass	MONOCOTS	POACEAE
Distichlis spicata	saltgrass	MONOCOTS	POACEAE
*Echinochloa colona**	jungle rice	MONOCOTS	POACEAE
Elymus glaucus	blue wildrye	MONOCOTS	POACEAE
Hordeum marinum ssp. *gussoneanum**	mediterranean barley	MONOCOTS	POACEAE
*Hordeum murinum**	foxtail barley	MONOCOTS	POACEAE
Leymus triticoides	creeping wild-rye	MONOCOTS	POACEAE

Scientific Name	Common Name	Group	Family
*Lolium multiflorum**	Italian ryegrass	MONOCOTS	POACEAE
*Lolium perenne**	perennial ryegrass	MONOCOTS	POACEAE
*Paspalum dilatatum**	Dallis grass	MONOCOTS	POACEAE
Phalaris lemmonii	Lemmon's canarygrass	MONOCOTS	POACEAE
Phalaris sp.		MONOCOTS	POACEAE
*Piptatherum miliaceum**	smilo grass	MONOCOTS	POACEAE
*Poa annua**	Annual bluegrass	MONOCOTS	POACEAE
*Polypogon monspeliensis**	rabbit's-foot grass	MONOCOTS	POACEAE
*Secale cereal**	Cultivated rye	MONOCOTS	POACEAE
*Sorghum halepense**	Johnsongrass	MONOCOTS	POACEAE
*Ventenata dubia**	North African grass	MONOCOTS	POACEAE
*Vulpia bromoides**	brome fescue	MONOCOTS	POACEAE
Vulpia microstachys	small fescue	MONOCOTS	POACEAE
Vulpia myuros var. *myuros**	rat-tail fescue	MONOCOTS	POACEAE
Typha angustifolia	narrow-leaved cattail	MONOCOTS	TYPHACEAE
Typha domingensis	southern cattail	MONOCOTS	TYPHACEAE
Typha spp.	cattail	MONOCOTS	TYPHACEAE

(*) Non-Native Species

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potentially sensitive information

APPENDIX G

Photographs of Special-Status Plant Species Study Area

Looking northwest in the direction of the Chowchilla River Riparian Bank
Madera County, March 15, 2011

Natural watercourse surrounded by Fremont cottonwood (*Populus fremontii*) with mistletoe (*Phoradendron macrophyllum*) on tree limbs. The understory is a mixture of riparian shrubs including Himalayan blackberry (*Rubus armeniacus*) and willows (*Salix* sp.). Small depressional features were lined by soft rush (*Juncus effusus*) and monkey flower (*Mimulus ringens*).

Looking northeast along Berenda Slough
Madera County, March 17, 2011

Natural watercourse contains dense clumps of California bulrush (*Scirpus* sp.) and stands of Arroyo willow (*Salix lasiolepis*) on the northern bank. Groves of swamp mahogany (*Eucalyptus robusta*) are found along the southern bank.

Looking northwest along the perennial pool toward a mixed forest riparian edge
Fresno County, March 16, 2011

Medium sized perennial pond with a distinct vegetation break on either side. Large English walnuts (*Juglans regia*) are found on the southern edge with an herbaceous layer on the northern side. The herbaceous layer is composed of milk thistle (*Silybum marianum*) along the upper portions of the high water mark and transitions to emergent stands of small-fruited bulrush (*Scirpus microcarpus*).

Looking south along an unnamed irrigation canal
Madera County, March 15, 2011

Canal (unnamed) full of water to irrigate deciduous stone fruit orchards on either side. No emergent plants were growing inside the canal.

Looking southeast at a natural shallow vernal pool
Merced County, March 15, 2011

Natural vernal pool found in a grazed fallow field with herbaceous and aquatic plants. The dominant species around the border is hyssop loosestrife (*Lythrum hyssopifolia*), and the aquatic plant is flowering quillwort (*Lilaea scilloides*). The pools contain California tiger salamander (*Ambystoma californiense*) larvae.

Looking northeast at a stormwater collection pond
Madera County, March 15, 2011

Ruderal field along the SR 99 corridor. Species observed included American vetch (*Vicia americana*), wild oats (*Avena* sp.), fiddleneck (*Amsinkia* sp.), fescue (*Vulpia* sp.), and Mediterranean barley (*Hordium murianum*). These areas are often used as temporary drainage basins for roadway runoff.

Looking southwest along an inactive canal
Fresno County, March 16, 2011

Canal in the middle of an active agricultural field full of wild oats (*Avena sativa*). This canal could potentially provide habitat for California satintail (*Imperata brevifolia*) and Sanford's arrowhead (*Sagittaria sanfordii*) if filled with water in the future. However, it was dry at the time of the survey.

Looking north along an unnamed irrigation canal
Madera County, April 18, 2011

Canal (unnamed) full of water to irrigate grain fields on either side. Potential habitat for Sanford's arrowhead (*Sagittaria sanfordii*).

Looking northwest at a natural shallow vernal pool
Madera County, April 18, 2011

Natural vernal pool in a cultivated barley field with herbaceous plants. The dominant species around the border is popcorn flower (*Plagiobothrys* sp.).

Looking northwest at a natural shallow vernal pool
Madera County, April 19, 2011

Vernal pool in ruderal field adjacent to Golden State Boulevard. Dominant species along the border are popcorn flower (*Plagiobothrys* sp.) and woolly marbles (*Psilocarphus brevissimus*).

Looking north in the direction of the San Joaquin River
Fresno County, April 20, 2011

Natural watercourse surrounded by Fremont cottonwood (*Populus fremontii*) with mistletoe (*Phoradendron macrophyllum*) on tree limbs. The understory is a mixture of riparian shrubs including Himalayan blackberry (*Rubus armeniacus*) and willows (*Salix* sp.).

Looking northeast along an unnamed irrigation canal
Madera County, April 21, 2011

Canal (unnamed) full of water to irrigate deciduous stone fruit orchards to the west. Potential habitat for Sanford's arrowhead (*Sagittaria sanfordii*).

Looking west in the direction of Ash Slough
Madera County, May 25, 2011

Natural watercourse surrounded by Fremont cottonwood (*Populus fremontii*). The understory is dominated by arundo.

Looking southwest at a natural shallow vernal pool
Madera County, May 24, 2011

Natural vernal pool in a cultivated barley field with herbaceous plants. The dominant species along the border is popcorn flower (*Plagiobothrys* sp.).

Looking west at a natural vernal pool
Madera County, May 24, 2011

Natural vernal pool. Dominant species are popcorn flower (*Plagiobothrys* sp.) and woolly marbles (*Psilocarphus brevissimus*).

Looking south at a shallow vernal pool
Madera County, May 26, 2011

Vernal pool in ruderal field adjacent to SR 99 and Chowchilla Boulevard. Dominant species are popcorn flower (*Plagiobothrys* sp.) and woolly marbles (*Psilocarphus brevissimus*).