

**FIGURE 1. Project Site and Vicinity**

2007-213 South Lathrop 6a & 6b

## Existing Site Conditions

The site is comprised of relatively flat terrain and is situated at an elevation of approximately 5 to 15 feet above mean sea level. The majority of the project site is being used for agricultural practices (i.e., alfalfa (*Medicago sativa*), winter wheat (*Triticum aestivum*), and cattle grazing). The western portion is being utilized for alfalfa and winter wheat production, and an irrigated cattle pasture is located in the southern central portion of the project site. Several buildings are present on-site, including farmhouses and a number of commercial facilities on Guthmiller and Madruga Roads. A detention basin present to the north of the commercial facilities collects stormwater runoff from adjacent parking lots. The western border of the site is the San Joaquin River. The riverbank has been stabilized by rock riprap, and a disturbed riparian community has become established in the riprap.

The irrigated pasture is dominated by rose clover (*Trifolium hirtum*), Bermuda grass (*Cynodon dactylon*), barnyard grass (*Echinochloa crus-galli*), deergrass (*Muhlenbergia rigens*), plantain (*Plantago major*), birdsfoot trefoil (*Lotus corniculatus*), annual bluegrass (*Poa annua*), knotweed (*Polygonum arenastrum*), common frog-fruit (*Phyla nodiflora*), pennyroyal (*Marrubium vulgare*), and Kentucky fescue (*Festuca arundinacea*).

The riparian community along the western boundary of the site, adjacent to the San Joaquin River, is dominated by Fremont's cottonwood (*Populus fremontii*), valley oak (*Quercus lobata*), Goodding's willow (*Salix gooddingii*), sandbar willow (*S. exigua*), and arroyo willow (*S. lasiolepis*), Himalaya blackberry (*Rubus armeniacus*), Oregon ash (*Fraxinus latifolia*), California rose (*Rosa californica*), evening primrose (*Oenothera biennis*), Douglas' mugwort (*Artemisia douglasiana*), California tule pea (*Lathyrus jepsonii* var. *californicus*), water sedge (*Carex aquatilis* var. *dives*), white sweet clover (*Melilotus alba*), buttonbush (*Cephalanthus occidentalis*), soft rush (*Juncus effusus*), bristly foxtail (*Setaria gracilis*), South American vervain (*Verbena bonariensis*), annual rabbits-foot grass (*Polypogon monspeliensis*), and tall flatsedge (*Cyperus eragrostis*).

The eastern portion of the project site is occupied by annual grassland. The annual grassland community is dominated by yellow-star thistle (*Centaurea solstitialis*), telegraph weed

(*Heterotheca grandiflora*), common mallow (*Malva neglecta*), common tarweed (*Hemizonia pungens*), spreading alkali weed (*Cressa truxillensis*), alkali-mallow (*Malvella leprosa*), sacred thornapple (*Datura wrightii*), dodder (*Cuscuta* species), purple sandspurry (*Spergularia rubra*), saltgrass (*Distichlis spicata*), and Mediterranean barley (*Hordeum marinum*).

A wetland delineation was conducted on-site in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987). Potential waters of the U.S. mapped on-site include wetlands and other waters (Figure 2. *Wetland Delineation*) (ECORP 2005). Wetlands consist of seasonal wetlands and seasonal wetland swales. Other waters include a stock pond.

The seasonal wetlands and seasonal wetland swales are located within the irrigated pasture, and the vegetation within these features is not significantly different from that of the surrounding pasture.

The stock pond is primarily unvegetated, but species observed on the banks of the stock pond include cursed buttercup (*Ranunculus sceleratus*), water primrose (*Ludwigia peploides* var. *peploides*), annual bluegrass, and Fremont cottonwood (*Populus fremontii*).

According to the Soil Survey of San Joaquin County, California (U.S. Department of Agriculture, Soil Conservation Service 1992a), seven soil units, or types, have been mapped within the project site (Figure 3. *Natural Resource Conservation Service Soil Types*). These are: (109) Bisgani loam coarse sand, partially drained, 0 to 2 percent slopes, (142) Delhi loamy sand, 0 to 2 percent slopes, (148) Dello clay loam, drained, 0 to 2 percent slopes, overwashed, (153) Egbert silty clay loam, partially drained, 0 to 2 percent slopes, (166) Grangeville fine sandy loam, partially drained, 0 to 2 percent slopes, (169) Guard clay loam, drained, 0 to 2 percent slopes, and (196) Manteca fine sandy loam, 0 to 2 percent slopes. Soil units (109), (148) and (153) contain listed hydric components, and all of the soil units except (109) and (142) may contain hydric inclusions (U.S. Department of Agriculture, Soil Conservation Service 1992b).

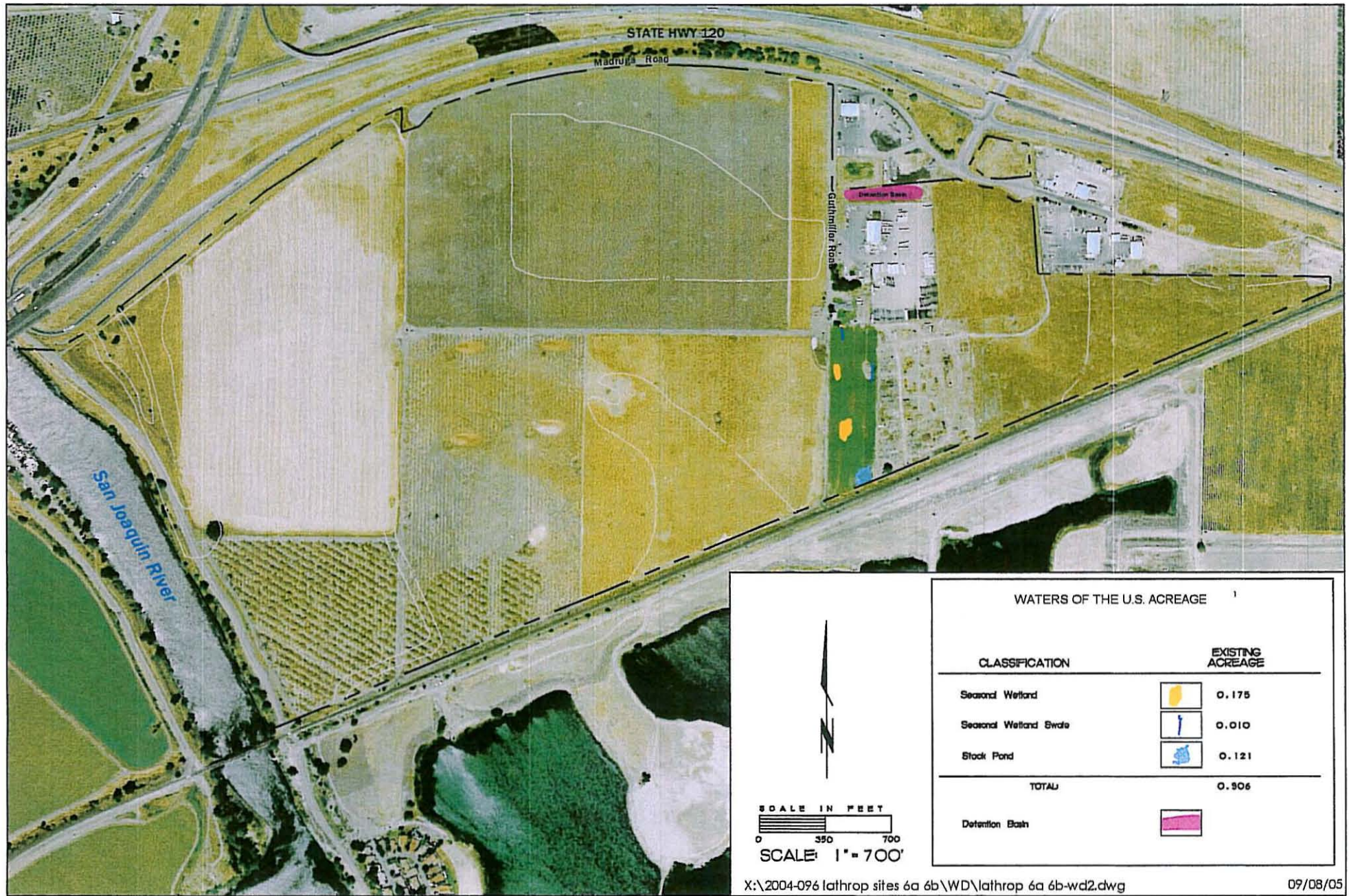
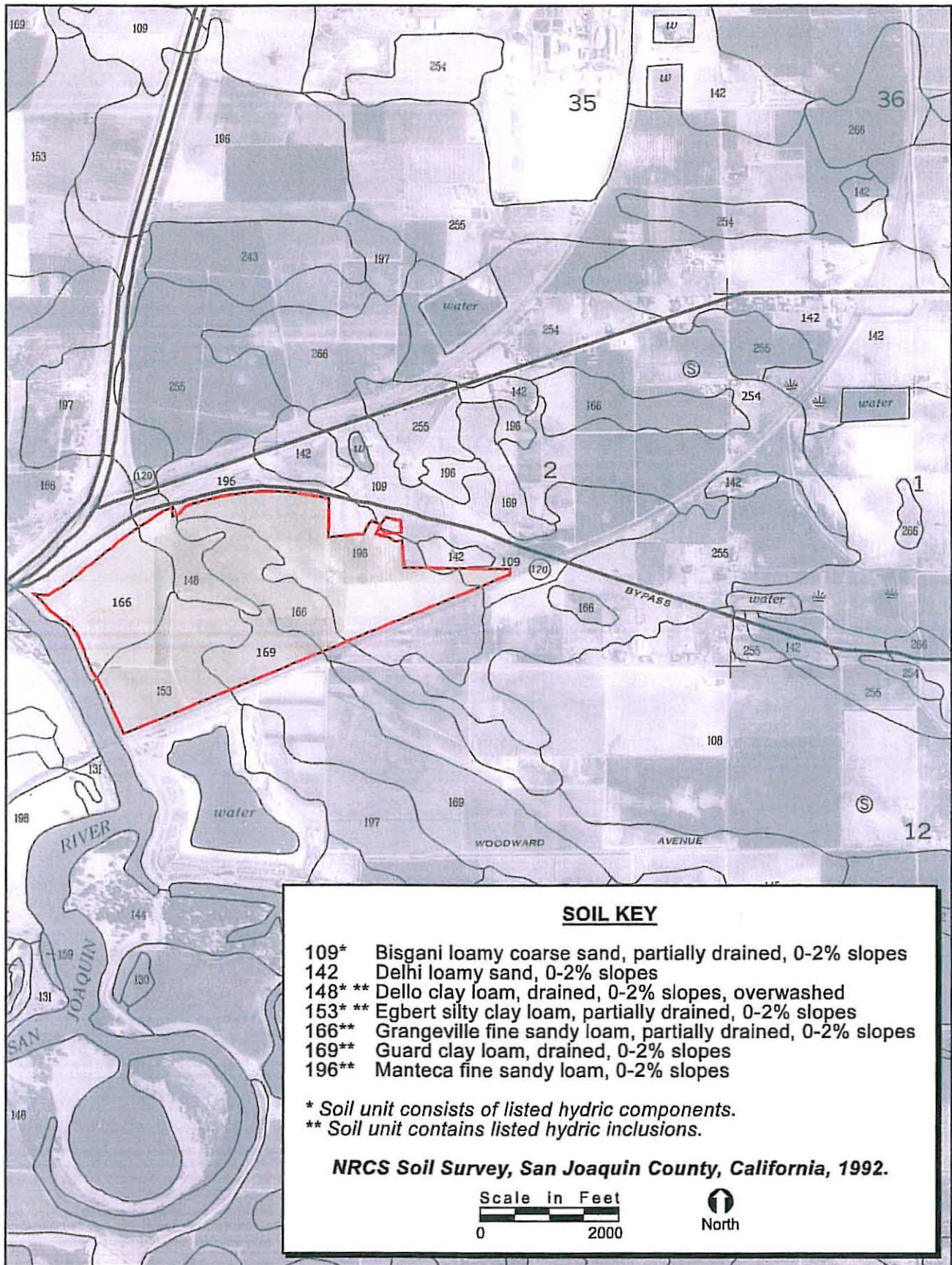


FIGURE 2. Wetland Delineation



**FIGURE 3. Natural Resources Conservation Service Soil Types**

## METHODS

The special-status plant survey included a review of resource agency species lists, literature review, on-line database query, voucher specimen and reference population review, and field surveys. Background information was collected on the potential existence of the special-status plants within or near the site from a variety of sources including:

- California Department of Fish and Game's Natural Diversity Database (CNDDDB) record search for the "Lathrop, California" 7.5-minute quadrangle and the eight surrounding quadrangles (CDFG 2003);
- California Native Plant Society's Inventory of Rare and Endangered Plants record search for the "Lathrop, California" 7.5-minute quadrangle and the eight surrounding quadrangles (CNPS 2008);
- Species List for the "Lathrop, California" 7.5-minute quadrangle and the eight surrounding quadrangles created by the U.S. Fish and Wildlife Service (USFWS) (USFWS 2008);
- *Status of Rare, Threatened, and Endangered Animal and Plants of California 2000-2004* (CDFG 2005);
- *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2001);
- *Soil Survey of Sa Joaquin County, California* (U.S. Department of Agriculture, Soil Conservation Service 1992a);
- *Wetland Delineation for South Lathrop* (ECORP 2005); and
- *Special-Status Species Assessment for South Lathrop South Village* (ECORP 2006).

Field surveys were conducted in accordance with guidelines promulgated by U.S. Fish and Wildlife Service (USFWS 2000), California Department of Fish and Game (CDFG 1983), and California Native Plant Society (CNPS 2001). The determinate-level field surveys were conducted on 7 May and 19 June 2008, which coincided with the optimum blooming period for each of the potentially occurring special-status plants. ECORP botanists Daria Snider and Keith Kwan walked meandering transects throughout the site to ensure complete coverage of all suitable habitat, including all aquatic features on-site. A list of field personnel qualifications is included as Attachment A.

Reference populations for the target species were visited throughout the floristic season to assess bloom phenology and to observe species morphology. When reference populations were not available, mounted herbarium specimens were observed at the U.C. Davis Herbarium. Attachment B identifies the reference source for each of the target species including the location of the population, dates of visits, and phenological stage of the species at the time of the field visits.

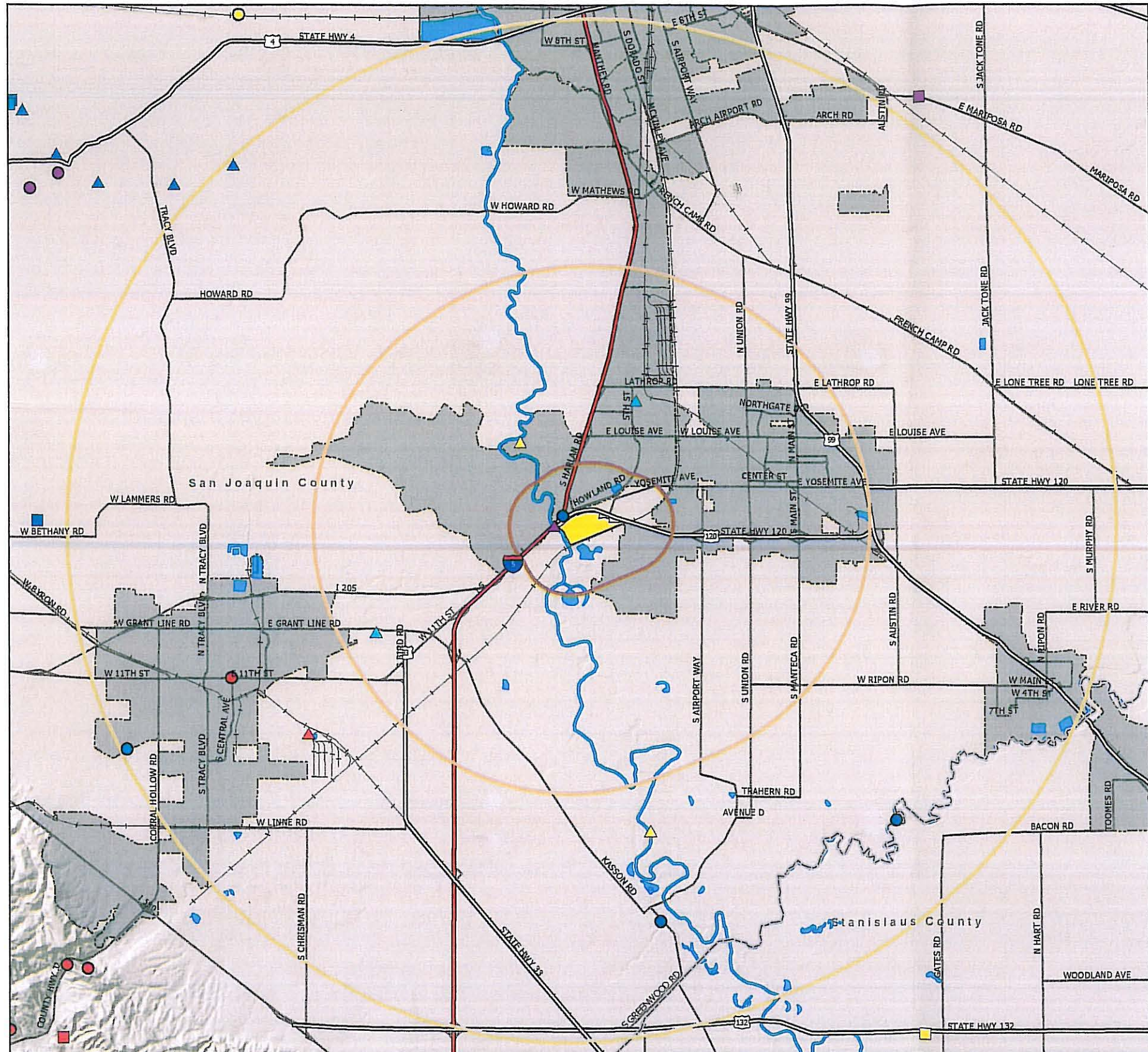
Plant species identification, nomenclature, and taxonomy followed *The Jepson Manual: Higher Plants of California* (Hickman 1993). Vegetation community classification was based on the classification systems presented in *A Manual of California Vegetation* (Sawyer and Keeler-Wolf 1995), *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986), and *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer Jr. 1988).

## RESULTS AND DISCUSSION

### Previously Documented Special-Status Plant Occurrences

There are no previously documented occurrences of special-status plants within the site in the CNDDDB (CDFG 2003). However, several special-status plant species occurrences have been documented within an approximate 10-mile radius of the site (Figure 4. *CNDDDB Occurrences of Special-Status Plant Species*). These are:

- big tarplant (*Blepharizonia plumosa*, CNPS List 1B),
- round-leaved filaree (*California macrophylla*, CNPS List 1B),
- slough thistle (*Cirsium crassicaule*, CNPS List 1B),
- Delta button-celery (*Eryngium racemosum*, California endangered, CNPS List 1B),
- woolly rose-mallow (*Hibiscus lasiocarpus*, CNPS List 2),
- Suisun Marsh aster (*Symphotrichum lentus*, CNPS List 1B),
- Wright's trichocoronis (*Trichocoronis wrightii*, CNPS List 2), and
- caper-fruited tropidocarpum (*Tropidocarpum capparideum*, CNPS List 1B).



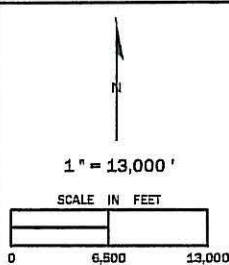
**Map Features**

- |                                  |                              |                       |                         |
|----------------------------------|------------------------------|-----------------------|-------------------------|
| <b>Administrative Boundaries</b> | <b>Distance From Project</b> | <b>Transportation</b> | <b>Aquatic Features</b> |
| Project Boundary <sup>1</sup>    | 1 mile                       | Interstate            | Lakes and Reservoirs    |
| City Boundary                    | 5 mile                       | State Highway         | Rivers                  |
| County Boundary                  | 10 mile                      | Roads                 |                         |
|                                  |                              | Railroads             |                         |

**CNDDB Occurrences <sup>2</sup>**

- Big Tarplant
- Bristly Sedge
- Caper-fruited Tropicocarpum
- Delta Button-celery
- Delta Mudwort
- Diamond-petaled California Poppy
- Lesser Saltscale
- Marsh Skullcap
- Mason's Lilaeopsis
- Recurved Larkspur
- Round-leaved Filaree
- Slough Thistle
- Suisun Marsh Aster
- Woolly Rose-mallow
- Wright's Trichocoronis

*This map may include multiple species' occurrences at each location, some of which may not be visible on this graphic. The CNDDB occurrences shown may not reflect the actual location of the occurrence.*



NOTES	
<sup>1</sup>	Project Boundary: San Joaquin Parcel Database
<sup>2</sup>	CDFG California Natural Diversity Database (CNDDDB), July 2008 Update (GIS Shapefile)
CNDDB Occurrences Located on USGS 7.5' Quadrangles: Avena, Clifton Court Forebay, Holt, Lathrop, Manteca, Midway, Peters, Ripon, Salda, Stockton East, Stockton West, Tracy, Union Island, Vernalls, Woodward Island.	

N:\2007\2007-213 South Lathrop 6a 6b\MAPS\CNDDB\SL6\_CNDDB\_Plant\_July08.mxd 07/25/2008 GIS Specialist: ECK

**Figure 4. CNDDB Occurrences of Special-Status Plant Species**

2007-213 South Lathrop 6a/6b





The results of the CNDDDB query for the "Lathrop, California" 7.5-minute quadrangle are included as Attachment C. Each of the special-status plant species known to occur within the vicinity of the site was evaluated for its potential to occur on-site.

Several additional species located outside of the 10-mile radius around the site were also evaluated for their potential to occur on-site due to the presence of suitable habitat. These species are: San Joaquin saltbush (*Atriplex joquiniana*, CNPS List 1B), lesser saltscale (*Atriplex minuscula*, CNPS List 1B), and recurved larkspur (*Delphinium recurvatum*, CNPS List 1B).

### **Target Species**

Based on the information listed above, vegetation communities and conditions present within the site, and data on known species' distribution, a list of potentially occurring special-status plants was developed. The target special-status plant species for this survey were San Joaquin saltbush, lesser saltscale, round-leaved filaree, recurved larkspur, and Wright's trichocoronis (Table 1).

### *Excluded Species*

Six species (i.e., big tarplant, slough thistle, Delta button-celery, woolly rose-mallow, Suisun marsh aster, and caper-fruited tropidocarpum) were not included as target species, although there are documented occurrences of these species in the vicinity of the site. Big tarplant is known to occur primarily in the Diablo Mountain Range, at elevations above 100 feet above MSL. The project site is situated on the floor of the San Joaquin Valley at an elevation of 5-15 feet above MSL, below the elevational range of big tarplant. Slough thistle, delta button-celery, woolly rose-mallow, and Suisun marsh aster require chenopod scrub, riparian scrub, or marshes (CNPS 2001), none of which are present on-site. Although riparian vegetation is present on-site, it occurs within rock riprap and would not be accurately considered riparian scrub. In addition, there are no shallow water habitats with sediment accumulation for marsh species to establish. Caper-fruited tropidocarpum occurs on alkaline hills in valley and foothill grassland. Although alkaline grassland habitat is present in the eastern portion of the site, this species is considered extirpated from the San Joaquin Valley, and is currently known only from Fort

**Table 1 – Potentially Occurring Special-Status Plants**

Common Name	Scientific Name	Federal ESA Status	California ESA Status	Other Status	Habitat Description	Approximate Survey Dates
San Joaquin saltbush	<i>Atriplex joaquiniana</i>	-	-	1B	alkaline soils in chenopod scrub, meadows and seeps, playas, and valley and foothill grassland (3' - 2,740')	April-October
Lesser saltscale	<i>Atriplex minuscula</i>	-	-	1B	alkaline, sandy soils in chenopod scrub, playas, and valley and foothill grassland (50' - 660')	May-October
Round-leaved filaree	<i>California macrophylla</i>	-	-	1B	clay soils in cismontane woodland and valley and foothill grassland (50' - 3,940')	March-May
Recurved larkspur	<i>Delphinium recurvatum</i>	-	-	1B	alkaline soils in chenopod scrub, cismontane woodland, and valley and foothill grassland (10' - 2,640')	March-June
Wright's trichocoronis	<i>Trichocoronis wrightii</i> var. <i>wrightii</i>	-	-	2	alkaline meadows and seeps, marshes and swamps, riparian forest, and vernal pools (15' - 1,430')	May-September

**Status Codes:**

1B - California Native Plant Society/Rare or Endangered in California and elsewhere.

2 - California Native Plant Society/Rare or Endangered in California, more common elsewhere.

Hunter Liggett in Monterey County (CNPS 2008). Due to lack of suitable habitat, the above species were excluded from consideration in this survey.

The CNDDDB reports an occurrence of Delta button-celery immediately adjacent to the northwest corner of the site; however, this occurrence is reported as possibly extirpated due to lack of suitable habitat (CDFG 2003).

## **Species Accounts**

### *San Joaquin Spearscale*

San Joaquin spearscale is not listed pursuant to either the California or federal Endangered Species Acts; however, it is designated as a CNPS List 1B species. This species is an herbaceous annual that occurs in alkaline areas within chenopod scrub, meadows and seeps, and valley and foothill grassland (CNPS 2001). San Joaquin spearscale blooms from April through October, and it is known to occur from 3 to 2,870 feet above mean sea level (CNPS 2001). San Joaquin spearscale is endemic to California, and the current range of this species includes Alameda, Contra Costa, Colusa, Fresno, Glenn, Merced, Monterey, Napa, San Benito, Santa Clara, San Joaquin, San Luis Obispo, Solano, Tulare, and Yolo counties (CNPS 2008). However, it is likely extirpated from Santa Clara, San Joaquin, and Tulare counties (CNPS 2008).

The nearest reported occurrence of San Joaquin spearscale (CNDDDB Occurrence No. 70) is located approximately 11 miles north of the site in Stockton (CDFG 2003). The annual grassland in the eastern portion of the site represents suitable habitat for this species. During the surveys in 2008, San Joaquin spearscale was not observed on-site.

### *Lesser Saltscale*

Lesser saltscale is not listed pursuant to either the California or federal Endangered Species Acts; however, it is designated as a CNPS List 1B species. This species is an herbaceous annual that occurs in chenopod scrub, playas, and alkaline sandy soils in valley and foothill grassland

(CNPS 2001). Lesser saltscale blooms from May through October, and it is known to occur from 50 to 650 feet above mean sea level (CNPS 2001). Lesser saltscale is endemic to California, and the current range of this species includes Butte, Fresno, Kern, Madera, Merced, Stanislaus, and Tulare counties (CNPS 2008). However, it is likely extirpated from Stanislaus County (CNPS 2008).

The nearest reported occurrence of lesser saltscale (CNDDDB Occurrence No. 29) is located approximately 12 miles southeast of the site along Highway 132 (CDFG 2003). The annual grassland in the eastern portion of the site represents suitable habitat for this species. During the surveys in 2008, lesser saltscale was not observed on-site.

#### *Round-Leaved Filaree*

Round-leaved filaree is not listed pursuant to either the federal or California Endangered Species Acts; however, it is designated as a CNPS List 1B species. This species is an herbaceous annual that occurs on clay soils in cismontane woodland, and Valley and foothill grassland communities (CNPS 2001). Round-leaved filaree blooms from March through May, and it is known to occur at elevations ranging from 50 to 3,960 feet above mean sea level (CNPS 2001). The current range of this species in California includes Alameda, Butte, Contra Costa, Colusa, Fresno, Glenn, Kings, Kern, Lake, Lassen, Los Angeles, Merced, Monterey, Napa, Riverside, Santa Barbara, San Benito, Santa Clara, Santa Cruz Island, San Diego, San Joaquin, San Luis Obispo, San Mateo, Solano, Sonoma, Stanislaus, Tehama, Ventura, and Yolo counties (CNPS 2008). However, it is likely extirpated from Butte County and Santa Cruz Island (CNPS 2008).

One occurrence of round-leaved filaree has been reported within 10 miles of the site (CDFG 2003). This occurrence (CNDDDB Occurrence No. 38) is located approximately 7 miles southwest of the site, outside of Tracy. The annual grassland in the eastern portion of the site represents potential habitat for this species. During the surveys in 2008, round-leaved filaree was not observed on-site.

### *Recurved Larkspur*

Recurved larkspur is not listed pursuant to either the federal or California Endangered Species Acts; however, it is designated a CNPS List 1B species. This species is an herbaceous perennial that occurs on alkaline soils in chenopod scrub, cismontane woodland, and Valley and foothill grasslands (CNPS 2008). Recurved larkspur blooms from March through June, and it is known to occur at elevations ranging from 10 to 2,500 feet above mean sea level (CNPS 2008).

Recurved larkspur is endemic to California, and the current range of this species includes Alameda, Butte, Contra Costa, Colusa, Fresno, Glenn, Kings, Kern, Madera, Merced, Monterey, San Joaquin, San Luis Obispo, Solano, and Tulare counties (CNPS 2008). However, it is likely extirpated from Butte and Colusa counties (CNPS 2008).

The nearest reported occurrence of recurved larkspur (CNDDDB Occurrence No. 73) is located approximately 11 miles northeast of the site, outside of Stockton. The annual grassland in the eastern portion of the site represents potential habitat for this species. During the surveys in 2008, recurved larkspur was not observed on-site.

### *Wright's Trichocoronis*

Wright's trichocoronis is not listed pursuant to either the federal or California Endangered Species Acts; however, it is designated as a CNPS List 2 species. This species is an herbaceous annual that occurs on alkaline soils in meadows and seeps, marshes and swamps, riparian scrub, and vernal pools (CNPS 2001). Wright's trichocoronis blooms from May through September, and it is known to occur at elevations ranging from 15 to 1,425 feet above mean sea level (CNPS 2001). The current range for this species in California includes Colusa, Merced, Riverside, San Joaquin, and Sutter counties (CNPS 2008). However, this species is believed to be extirpated from Colusa, San Joaquin and Sutter counties (CNPS 2008).

One occurrence of Wright's trichocoronis has been reported within 10 miles of the site (CDFG 2003). This occurrence (CNDDDB Occurrence No. 6) is located adjacent to the northwestern corner of the site; however the location information for this occurrence in the CNDDDB is imprecise, and this species has not been reported in the area since 1914 (CDFG 2003). The

annual grassland in the eastern portion of the site represents potential habitat for this species. During the surveys in 2008, Wright's trichocoronis was not observed on-site.

### **Field Survey Results**

No special-status plants were observed within the site during the determinate-level field surveys conducted on 7 May and 19 June 2008. A complete list of plant species encountered during this survey is included as Attachment D.

### **CONCLUSION**

ECORP conducted a determinate-level special-status plant survey for the South Lathrop 6A and 6B site in San Joaquin County, California on 7 May and 19 June 2008. The target special-status plant species for this survey were San Joaquin saltbush, lesser saltscale, round-leaved filaree, recurved larkspur, and Wright's trichocoronis. No special-status plants were observed on-site during the 2008 field surveys.

## REFERENCES

- California Department of Fish and Game (CDFG). 1983 (revised 2000). Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities (Revised 2000). The Resources Agency, Sacramento, CA.
- California Department of Fish and Game (CDFG). 2003. Rarefind CDFG Natural Diversity Database. Commercial Version 3.1.0, dated 1 June 2008. Sacramento, California.
- California Department of Fish and Game (CDFG). 2005. Status of Rare, Threatened and Endangered Animals and Plants of California. Accessed on 27 April 2007 from [http://www.dfg.ca.gov/hcpb/species/t\\_e\\_spp/new\\_te\\_rpt.shtml](http://www.dfg.ca.gov/hcpb/species/t_e_spp/new_te_rpt.shtml)
- California Native Plant Society (CNPS). 2001. Inventory of Rare and Endangered Plants of California (sixth edition). Rare Plant Scientific Advisory Committee, David P. Tibor, Convening Editor. California Native Plant Society. Sacramento, California.
- California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-08c 7-09-08). California Native Plant Society. Sacramento, California. Accessed on 29 July 2008 from <http://www.cnps.org/inventory>.
- ECORP Consulting, Inc. (ECORP). 2005. Wetland Delineation for South Lathrop 6A and 6B. Unpublished report dated 31 October 2005.
- ECORP Consulting, Inc. (ECORP). 2006. Special-Status Species Assessment for South Lathrop South Village. Unpublished report dated 8 September 2006.
- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U. S. Army Engineer Waterways Experiment Station. Vicksburg, Mississippi.
- Hickman, J. C. (ed.). 1993. The Jepson Manual: Higher Plants of California. University of California Press. Berkeley, California.
- Holland, R. F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Nongame-Heritage Program, California Department of Fish and Game, Sacramento, California.
- Mayer, K. E. and W. F. Laudenslayer Jr. (eds). 1988. A Guide to Wildlife Habitats of California. California Department of Fish and Game. Sacramento, California.
- Sawyer, J. O. and T. Keeler-Wolf. 1995. A Manual of California Vegetation. California Native Plant Society. Sacramento, California.

- U.S. Department of Agriculture, Soil Conservation Service. 1992a. Soil Survey of San Joaquin County, California. U.S. Department of Agriculture, Soil Conservation Service. Davis, California.
- U.S. Department of Agriculture, Soil Conservation Service. 1992b. Hydric Soils List for San Joaquin County. U.S. Department of Agriculture, Soil Conservation Service, Davis, California.
- U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 2000. Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants. United States Department of the Interior, USFWS. Sacramento, California.
- U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 2008. Species List for the "Lathrop, California" 7.5-minute Quadrangle, and the Surrounding Eight Quadrangles. Internet website [http://www.fws.gov/sacramento/es/spp\\_lists/auto\\_list.cfm](http://www.fws.gov/sacramento/es/spp_lists/auto_list.cfm).
- U.S. Department of the Interior, Geological Survey. 1996. "Lathrop, California" 7.5-Minute Quadrangle. U.S. Geological Survey.
- U.S. Department of Interior, Geological Survey. 1978. Hydrologic Unit Map, State of California. Geological Survey. Reston, Virginia.



## **LIST OF ATTACHMENTS**

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Attachment A – Statement of Qualifications

Attachment B – Target Species Reference Source

Attachment C – California Natural Diversity Database Plant Occurrences for the  
“Lathrop, California” 7.5-minute Quadrangle

Attachment D – Plant Species Observed On-Site (7 May and 19 June 2008)

# **ATTACHMENT A**

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Statement of Qualifications

**Daria Snider B.S.**  
**Botanist, ECORP Consulting, Inc.**

Daria Snider is a botanist/biologist and trained wetland delineator specializing in biological resource assessment, plant taxonomy, plant ecology, habitat type assessment, invasive plant species, and California floristics. Mrs. Snider has three years of professional experience conducting field surveys for a variety of special-status plants throughout California. Her experience includes special-status plant surveys, general floristic surveys, floristic habitat assessments, vegetation mapping, riparian restoration design and monitoring, valley elderberry longhorn beetle surveys, and wetland delineation. Her botanical expertise extends throughout the Central Valley and mountain regions of northern California, with an emphasis on vernal pool, grassland, oak woodland, and riparian communities.

**Keith Kwan, B.S.**  
**Senior Biologist, ECORP Consulting, Inc.**

Keith Kwan is a Biology Department Manager and is a wildlife biologist with experience throughout California in avian and wetland ecology, special-status flora and fauna, and regulatory permitting. Mr. Kwan has over 17 years of professional experience conducting field surveys for a variety of special-status plants and animals. His experience includes special-status species assessment and protocol-level surveys, general floristic and wildlife surveys, CEQA/NEPA compliance, and wetland delineations. His botanical expertise extends throughout Northern California, including the Central Valley and Sierra Nevada, and in the Great Basin in Nevada, with an emphasis on Central Valley annual grassland with vernal pools, oak woodland, Great Basin wetland, Valley/foothill riparian communities, and montane meadows.

## **ATTACHMENT B**

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Target Species Reference Source

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**Target Species Reference Source**

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<b>Name</b>	<b>Location of Observation</b>	<b>Dates of Observation</b>	<b>Phenology</b>	<b>Remarks</b>
San Joaquin saltbush <i>Atriplex joaquiniana</i>	UC Davis Herbarium	18 March 20008	Mounted herbarium specimens.	Leaves triangular, resembling <i>Chenopodium</i> leaves.
Lesser saltscale <i>Atriplex minuscula</i>	UC Davis Herbarium	18 March 20008	Mounted herbarium specimens.	Neither a reference population nor a herbarium specimen of this species could be located; therefore, the Jepson Manual's description of the species was reviewed thoroughly.
Round-leaved filaree <i>California macrophylla</i>	UC Davis Herbarium	18 March 20008	Mounted herbarium specimens.	Plant has heart-shaped palmate leaves and white flowers.
Recurved larkspur <i>Delphinium recurvatum</i>	UC Davis Herbarium	18 March 20008	Mounted herbarium specimens.	Reference population not available.
Wright's trichocoronis <i>Trichocoronis wrightii</i> var. <i>wrightii</i>	UC Davis Herbarium	18 March 20008	Mounted herbarium specimens.	Inflorescence looks similar to <i>Cotula</i> species, but has weak stems, flower heads are discoid instead of disciform, and the flowers are white and maroon instead of yellow.

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## **ATTACHMENT C**

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California Natural Diversity Database Plant Occurrences for the "Lathrop, California" 7.5-minute Quadrangle

***Cirsium crassicaule***

slough thistle

Element Code: PDAST2E0U0

Status

NDDB Element Ranks

Other Lists

Federal: None

Global: G2

CNPS List: 1B.1

State: None

State: S2.2

Habitat Associations

General: CHENOPOD SCRUB, MARSHES AND SWAMPS, RIPARIAN SCRUB.

Micro: SLOUGHS, RIVERBANKS, AND MARSHY AREAS. 3-100M.

Occurrence No. 2

Map Index: 24860

EO Index: 6754

Dates Last Seen

Occ Rank: None

Element: 1933-07-20

Origin: Natural/Native occurrence

Site: 1974-07-18

Presence: Possibly Extirpated

Record Last Updated: 1996-09-30

Trend: Unknown

Quad Summary: Lathrop (3712173/462D)

County Summary: San Joaquin

Lat/Long: 37.81005° / -121.31942°

Township: 01S

UTM: Zone-10 N4185070 E647935

Range: 06E

Radius: 1 mile

Mapping Precision: NON-SPECIFIC

Section: 33

Qtr: XX

Elevation: 10 ft

Symbol Type: POINT

Meridian: M

Location: 2 MILES NORTHEAST OF LATHROP BRIDGE ALONG SAN JOAQUIN RIVER.

Location Detail: MAPPED NEAR SAN JOAQUIN RIVER-OLD RIVER CONFLUENCE.

Ecological: IN SHALLOW WATER OF CANAL.

Threat: AREA OF INTENSIVE AGRICULTURE WITH MODIFIED CANALS.

General: SPECIES LAST SEEN IN THIS AREA IN 1933. SEARCHED FOR IN 1974 BUT NOT FOUND.

Owner/Manager: UNKNOWN

***Eryngium racemosum***

Delta button-celery

Element Code: PDAP020S0

----- Status ----- NDDB Element Ranks ----- Other Lists -----  
 Federal: None Global: G2Q  
 State: Endangered State: S2.1 CNPS List: 1B.1

----- Habitat Associations -----  
 General: RIPARIAN SCRUB.  
 Micro: SEASONALLY INUNDATED FLOODPLAIN ON CLAY. 3-75M.

Occurrence No. 3 Map Index: 11611 EO Index: 20059 ----- Dates Last Seen -----  
 Occ Rank: None Element: XXXX-XX-XX  
 Origin: Natural/Native occurrence Site: 1984-08-28  
 Presence: Possibly Extirpated  
 Trend: Unknown Record Last Updated: 2006-08-15

Quad Summary: Lathrop (3712173/462D)  
 County Summary: San Joaquin

Lat/Long: 37.78839° / -121.30334° Township: 02S  
 UTM: Zone-10 N4183592 E649395 Range: 06E  
 Radius: 1 mile Mapping Precision: NON-SPECIFIC Section: 3 Qtr: XX  
 Elevation: 15 ft Symbol Type: POINT Meridian: M

Location: NEAR HISTORICAL MONUMENT ON HWY 120, ABOUT 3 MILES SOUTH OF LATHROP.  
 Threat: AREA NOW FLOODS YEARLY AND WALNUT ORCHARD EXISTS TO EDGE OF RIVER.  
 General: HABITAT GONE IN 1984. 1913 COLLECTION BY SUKSDORF FROM THE PLAIN NEAR LATHROP AND 1892 COLLECTION BY BIOLETTI FROM LATHROP BOTH ATTRIBUTED HERE. INCLUDES FORMER OCCURRENCE #4.  
 Owner/Manager: PVT



***Symphotrichum lentum***

Suisun Marsh aster

Element Code: PDASTE8470

Status

NDDB Element Ranks

Other Lists

Federal: None

Global: G2

CNPS List: 1B.2

State: None

State: S2.2

Habitat Associations

General: MARSHES AND SWAMPS (BRACKISH AND FRESHWATER).

Micro: MOST OFTEN SEEN ALONG SLOUGHS WITH PHRAGMITES, SCIRPUS, BLACKBERRY, TYPHA, ETC. 0-3M.

Occurrence No. 145

Map Index: 62567

EO Index: 62604

Dates Last Seen

Occ Rank: Unknown

Element: 1892-09-09

Origin: Natural/Native occurrence

Site: 1892-09-09

Presence: Presumed Extant

Trend: Unknown

Record Last Updated: 2005-09-13

Quad Summary: Lathrop (3712173/462D)

County Summary: San Joaquin

Lat/Long: 37.82249° / -121.27687°

UTM: Zone-10 N4187519 E651655

Radius: 1 mile

Elevation:

Township: 01S

Range: 06E

Section: 26

Meridian: M

Qtr: XX

Mapping Precision: NON-SPECIFIC

Symbol Type: POINT

Location: LATHROP.

Location Detail: EXACT LOCATION UNKNOWN.

General: ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1892 COLLECTION BY MICHENER AND BIOLETTI.

Owner/Manager: UNKNOWN

Occurrence No. 146

Map Index: 62568

EO Index: 62605

Dates Last Seen

Occ Rank: Unknown

Element: 1920-09-30

Origin: Natural/Native occurrence

Site: 1920-09-30

Presence: Presumed Extant

Trend: Unknown

Record Last Updated: 2005-09-13

Quad Summary: Tracy (3712164/444B), Vernalis (3712163/444A), Lathrop (3712173/462D), Union Island (3712174/462C)

County Summary: San Joaquin

Lat/Long: 37.75395° / -121.37281°

UTM: Zone-10 N4179762 E643343

Radius: 1 mile

Elevation:

Township: 02S

Range: 05E

Section: 24

Meridian: M

Qtr: XX

Mapping Precision: NON-SPECIFIC

Symbol Type: POINT

Location: NEAR BANTA.

Location Detail: EXACT LOCATION UNKNOWN.

General: ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1920 COLLECTION BY ABRAMS.

Owner/Manager: UNKNOWN

*Trichocoronis wrightii* var. *wrightii*

Wright's trichocoronis

Element Code: PDAST9F031

Status

NDDB Element Ranks

Other Lists

Federal: None

Global: G4T3

CNPS List: 2.1

State: None

State: S1.1

Habitat Associations

General: MARSHES AND SWAMPS, RIPARIAN FOREST, MEADOWS AND SEEPS, VERNAL POOLS.

Micro: MUD FLATS OF VERNAL LAKES, DRYING RIVER BEDS, ALKALI MEADOWS. 5-435M.

Occurrence No. 6

Map Index: 24681

EO Index: 6904

Dates Last Seen

Occ Rank: Unknown

Element: 1914-09-27

Origin: Natural/Native occurrence

Site: 1914-09-27

Presence: Presumed Extant

Record Last Updated: 1993-11-16

Trend: Unknown

Quad Summary: Lathrop (3712173/462D)

County Summary: San Joaquin

Lat/Long: 37.78548° / -121.30651°

Township: 02S

UTM: Zone-10 N4183364 E649121

Range: 06E

Radius: 2/5 mile

Mapping Precision: NON-SPECIFIC

Section: 3

Qtr: XX

Elevation: 20 ft

Symbol Type: POINT

Meridian: M

Location: BRIDGE ACROSS SAN JOAQUIN RIVER NEAR LATHROP.

Location Detail: MAPPED WHERE I-5 CROSSES SAN JOAQUIN RIVER.

General: HERBARIUM LABELS ARE ONLY SOURCE OF INFORMATION FOR THIS SITE. COLLECTED SEVERAL TIMES IN THIS AREA BETWEEN 1892 AND 1914. AREA SHOULD BE FIELD CHECKED FOR PRESENCE OF SUITABLE HABITAT.

Owner/Manager: UNKNOWN

## **ATTACHMENT D**

---

Plant Species Observed On-Site (7 May and 19 June 2008)

**Plant Species Observed On-Site (5 May and 19 June, 2008)**

An asterisk (\*) indicates a non-native species.

**SCIENTIFIC NAME**

**COMMON NAME**

**AIZOACEAE**

*Sesuvium verrucosum*

**FIG-MARIGOLD FAMILY**

Western sea purslane

**APOCYNACEAE**

*Apocynum cannabinum*

**DOGBANE FAMILY**

Indianhemp dogbane

**ASTERACEAE**

*Artemisia douglasiana*

*Carduus pycnocephalus\**

*Centaurea solstitialis\**

*Chamomilla suaveolens\**

*Cirsium vulgare\**

*Conyza bonariensis\**

*Gnaphalium luteo-album\**

*Grindelia camporum*

*Heliotropium curassavicum*

*Hemizonia pungens*

*Heterotheca grandiflora*

*Lactuca serriola\**

*Silybum marianum\**

*Sonchus oleraceus\**

*Xanthium strumarium*

**SUNFLOWER FAMILY**

Mugwort

Italian thistle

Yellow star-thistle

Pineapple weed

Bull thistle

South American horseweed

Weedy cudweed

Gumplant

Seaside heliotrope

Common tarweed

Telegraph weed

Prickly lettuce

Milk thistle

Common sowthistle

Rough cockle-bur

**AZOLLACEAE**

*Azolla filiculoides*

**MOSQUITO FERN FAMILY**

Mosquito fern

**BRASSICACEAE**

*Brassica nigra\**

*Brassica rapa\**

*Coronopus didymus\**

*Hirschfeldia incana\**

*Lepidium latifolium\**

*Raphanus sativus\**

*Rorippa curvisiliqua*

**MUSTARD FAMILY**

Black mustard

Field mustard

Wart-cress

Shortpod mustard

Broad-leaf pepper grass

Purple wild radish

Yellow cress

**CAPRIFOLIACEAE**

*Sambucus mexicana*

**HONEYSUCKEL FAMILY**

Blue elderberry

**CARYOPHYLLACEAE**

*Spergularia rubra\**

**PINK FAMILY**

Purple sandspurry

**Plant Species Observed On-Site (5 May and 19 June, 2008) (Continued)**

An asterisk (\*) indicates a non-native species.

**SCIENTIFIC NAME**

**COMMON NAME**

**CONVOLVULACEAE**

**MORNING-GLORY FAMILY**

*Convolvulus arvensis\**

Morning glory

*Cressa truxillensis*

Spreading alkali-weed

**CUSCUTACEAE**

**DODDER FAMILY**

*Cuscuta* species

Dodder

**CYPERACEAE**

**SEDGE FAMILY**

*Carex aquatilis* var. *dives*

Water sedge

*Cyperus eragrostis*

Tall flatsedge

**EUPHORBIACEAE**

**SPURGE FAMILY**

*Eremocarpus setigerus*

Turkey mullein

**FABACEAE**

**LEGUME FAMILY**

*Lathyrus jepsonii* var. *californicus*

California tule pea

*Lotus corniculatus\**

Birdsfoot trefoil

*Medicago polymorpha\**

Bur clover

*Medicago sativa\**

Alfalfa

*Melilotus alba\**

White sweetclover

*Melilotus indica\**

Sweetclover

*Trifolium dubium\**

Shamrock clover

*Trifolium repens\**

White clover

*Vicia sativa\**

Common vetch

*Vicia villosa\**

Winter vetch

**FAGACEAE**

**OAK FAMILY**

*Quercus lobata*

Valley oak

**GERANIACEAE**

**GERANIUM FAMILY**

*Erodium cicutarium\**

Filaree

**JUNCEAEAE**

**RUSH FAMILY**

*Juncus effusus* var. *pacificus*

Soft rush

*Juncus mexicanus*

Mexican rush

**LAMIACEAE**

**MINT FAMILY**

*Marrubium vulgare\**

Common horehound

*Mentha pulegium\**

Pennyroyal

**Plant Species Observed On-Site (5 May and 19 June, 2008) (Continued)**

An asterisk (\*) indicates a non-native species.

**SCIENTIFIC NAME**

**COMMON NAME**

**LYTHRACEAE**

*Lythrum hyssopifolia*\*

**LOOSESTRIFE FAMILY**

Hyssop loosestrife

**MALVACEAE**

*Malva nicaeensis*\*

*Malva parviflora*\*

*Malvella leprosa*

**MALLOW FAMILY**

Bull mallow

Cheeseweed

Alkali-mallow

**OLEACEAE**

*Fraxinus latifolia*

**OLIVE FAMILY**

Oregon ash

**ONAGRACEAE**

*Epilobium brachycarpum*

*Ludwigia peploides ssp. peploides*

*Oenothera biennis*\*

**EVENING PRIMROSE FAMILY**

Panicled willow-herb

Water primrose

Common evening primrose

**PLANTAGINACEAE**

*Plantago major*\*

**PLANTAIN FAMILY**

Broad-leaf plantain

**POACEAE**

*Agrostis avenacea*\*

*Avena barbata*\*

*Avena fatua*\*

*Bromus catharticus*\*

*Bromus diandrus*\*

*Bromus hordeaceus*\*

*Bromus madritensis ssp. rubens*\*

*Crypsis schoenoides*\*

*Cynodon dactylon*\*

*Digitaria sanguinalis*\*

*Distichlis spicata*

*Festuca arundinacea*\*

*Hordeum marinum*\*

*Hordeum murinum*\*

*Leersia oryzoides*

*Leymus triticoides*

*Lolium multiflorum*\*

*Muhlenbergia rigens*

*Paspalum dilatatum*\*

*Poa annua*\*

*Polypogon interruptus*\*

*Polypogon monspeliensis*\*

**GRASS FAMILY**

Bentgrass

Slender wild oat

Wild oat

Rescue grass

Ripgut brome

Soft brome

Red brome

Swamp grass

Bermuda grass

Hairy crabgrass

Inland saltgrass

Kentucky fescue

Mediterranean barley

Barley

Rice cutgrass

Creeping wild-rye

Ryegrass

Deergrass

Dallis grass

Annual bluegrass

Beard grass

Annual rabbit-foot grass

**Plant Species Observed On-Site (5 May and 19 June, 2008) (Continued)**

An asterisk (\*) indicates a non-native species.

**SCIENTIFIC NAME**

**COMMON NAME**

*Setaria gracilis*  
*Vulpia myuros\**

Bristley foxtail  
Rat-tail vulpia

**POLYGONACEAE**

*Polygonum arenastrum\**  
*Rumex crispus\**

**BUCKWHEAT FAMILY**

Prostrate knotweed  
Curly dock

**PRIMULACEAE**

*Anagallis arvensis\**

**PRIMROSE FAMILY**

Scarlet pimpernel

**RANUNCULACEAE**

*Ranunculus sceleratus*

**BUTTERCUP FAMILY**

Cursed buttercup

**ROSACEAE**

*Prunus dulcis\**  
*Pyracantha* species  
*Rosa californica*  
*Rubus armeniacus\**

**ROSE FAMILY**

Almond (cultivated)  
*Pyracantha* species  
California rose  
Himalayan blackberry

**RUBIACEAE**

*Cephalanthus occidentalis*

**MADDER FAMILY**

Common buttonbush

**SALICACEAE**

*Populus fremontii*  
*Populus* species  
*Salix exigua*  
*Salix gooddingii*  
*Salix lasiolepis*

**WILLOW FAMILY**

Fremont's cottonwood  
Poplar  
Sandbar willow  
Goodding's black willow  
Arroyo willow

**SCROPHULARIACEAE**

*Veronica peregrina* ssp. *xalapensis*

**FIGWORT FAMILY**

Purslane speedwell

**SOLANACEAE**

*Datura wrightii*  
*Nicotiana glauca*

**NIGHTSHADE FAMILY**

Sacred thornapple  
Tree tobacco

**TYPHACEAE**

*Typha latifolia*

**CATTAIL FAMILY**

Broad-leaf cattail

**Plant Species Observed On-Site (5 May and 19 June, 2008) (Continued)**

An asterisk (\*) indicates a non-native species.

**SCIENTIFIC NAME**

**COMMON NAME**

**VERBENACEAE**

**VERVAIN FAMILY**

*Phyla nodiflora*

Common frog-fruit

*Verbena bonariensis\**

South American vervain



Information Provided in Support of  
Section 7 Consultation with the U.S. Fish and Wildlife Service

For

**South Lathrop 6a and 6b**

San Joaquin County, California

29 August 2008

Prepared For:

**Richland Planned Communities**

## **LIST OF FIGURES**

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Figure 1. Project Site and Vicinity

Figure 2. Proposed Impact Plan

## **LIST OF ATTACHMENTS**

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Attachment A – Special-Status Species Assessment

Attachment B – Burrowing Owl Survey and Riparian Brush Rabbit Habitat Assessment

Attachment C – Special-Status Plant Survey

## **ATTACHMENT A**

---

Special-Status Species Assessment

## **ATTACHMENT B**

---

Burrowing Owl Survey and Riparian Brush Rabbit Habitat Assessment

## **ATTACHMENT C**

---

Special-Status Plant Survey

**APPENDIX E**

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Corps-Verified Wetland Map and Verification Letter (to be included in ECORP's master  
copy only)



DEPARTMENT OF THE ARMY  
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO  
CORPS OF ENGINEERS  
1325 J STREET  
SACRAMENTO CA 95814-2922

REPLY TO  
ATTENTION OF

September 9, 2008

Regulatory Division (SPK-2008-01181)

Mr. Clifton Taylor  
Richland Planned Communities, Inc.  
2220 Douglas Blvd., Suite 290  
Roseville, California 95661

Dear Mr. Taylor:

We are responding to your consultant's request for an approved jurisdictional determination for the proposed South Lathrop 6a and 6b Project. This approximately 277-acre site is located in Section 2 and an unsectioned part of Township 2 South, Range 6 East, MDB&M, Latitude 37.4710 North, Longitude -121.1740 West, San Joaquin County, California.

Based on available information, we concur with the estimate of waters of the United States, as depicted on the September 8, 2005 South Lathrop 6a and 6b aerial photograph prepared by ECORP Consulting, Inc. Approximately 0.306-acre of waters of the United States, including wetlands, is present within the survey area. These waters are regulated under Section 404 of the Clean Water Act, since they include three seasonal wetlands, two wetland swales, and a stock pond adjacent to the San Joaquin River, a traditional navigable water which abuts the western project boundary. The detention basin is not considered a wetland and is excluded from further consideration.

Other Federal, State, and local laws may apply to your activities. In particular, you may need authorization from the California State Water Resources Control Board and/or the U.S. Fish and Wildlife Service.

This verification is valid for five years from the date of this letter, unless new information warrants revision of the determination before the expiration date. This letter contains an approved jurisdictional determination for your subject site. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331.

A Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form is enclosed. If you request to appeal this determination you must submit a completed RFA form to the South Pacific Division Office at the following address: Administrative Appeal Review Officer, Army Corps of Engineers, South Pacific Division, CESPD-PDS-O, 1455 Market Street, San Francisco, California 94103-1399, Telephone: 415-503-6574, FAX: 415-503-6646.



In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division Office within 60 days of the NAP. Should you decide to submit an RFA form, it must be received at the above address by 60 days from the date of this letter. It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this letter.

You should provide a copy of this letter and notice to all other affected parties, including any individual who has an identifiable and substantial legal interest in the property.

This determination has been conducted to identify the limits of Corps of Engineers' Clean Water Act jurisdiction for the particular site identified in this request. This determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service, prior to starting work.

We appreciate your feedback. At your earliest convenience, please complete our customer survey at [http://www.spk.usace.army.mil/customer\\_survey.html](http://www.spk.usace.army.mil/customer_survey.html). Your passcode is "conigliaro".

Please refer to identification number SPK-2008-01181 in any correspondence concerning this project. If you have any questions, please contact Patti Johnson, Regulatory Project Manager, at telephone 916-557-6611 or email [patti.p.johnson@usace.army.mil](mailto:patti.p.johnson@usace.army.mil).

Sincerely,

Original Signed

Kathleen A. Dadey, Ph.D.  
Chief, California South Branch

Enclosure(s)

Copy Furnished without enclosure(s)

Ms. Michelle Archuleta, ECORP Consulting Inc., 2525 Warren Drive, Rocklin, California  
95677

RECEIVED

SEP 11 2008

ECORP Consulting  
South Lathrop Coa/leb  
2007-213

LMA|JDS|File|REG  
↓  
orig.

Nationwide Permits (NWP) No. 7 and No. 39

For

**South Lathrop 6a and 6b**

San Joaquin County, California

29 August 2008

Prepared For:

**Richland Planned Communities**



**ECORP Consulting, Inc.**  
ENVIRONMENTAL CONSULTANTS

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South Lathrop 6a and 6b**

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Figure 2. Natural Resources Conservation Service Soil Types

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Attachment B – Storm Water Outfall Plan & Profile

Attachment C – Wetland Delineation Report

Attachment D – Information Provided in Support of Section 7 Consultation with the U.S. Fish  
and Wildlife Service

Attachment E – Cultural Resources Information

## **RESPONSIBLE PARTIES**

### **Applicant:**

Attn: Clifton Taylor  
Richland Planned Communities, Inc.  
2220 Douglas Blvd., Suite 290  
Roseville, California 95661  
Phone: (916) 782-3330  
Fax: (916) 784-3369

### **Agent:**

Attn: Michelle Archuleta  
ECORP Consulting, Inc.  
2525 Warren Drive  
Rocklin, California 95677  
Phone: (916) 782-9100  
Fax: (916) 782-9134

## **NATIONWIDE PERMIT NUMBER**

The applicant is requesting verification of authorization under Nationwide Permits (NWP) No. 7 (Outfall Structures and Associated Intake Structures) and No. 39 (Commercial and Institutional Developments).

## **PROJECT NAME**

South Lathrop 6a and 6b

## **PROJECT LOCATION**

The project site is located south of Highway 120, east of the San Joaquin River, and north of the Western Pacific Railroad tracks in San Joaquin County, California (Figure 1. *Project Site and Vicinity*). This site corresponds to a portion of Section 2 and an unsectioned portion of Township 2 South and Range 6 East (MDBM) of the "Lathrop, California" 7.5-minute quadrangle (U.S. Department of the Interior, Geological Survey 1996). The approximate center of the site is located at 37° 47' 10" North and 121° 17' 40" West within the San Joaquin Delta Watershed (# 18040003, U.S. Department of the Interior, Geological Survey 1978).

## **PROJECT DESCRIPTION AND PURPOSE**

The property to be developed consists of approximately 277 acres proposed for the construction of a light industrial, office, and commercial development in south-central San Joaquin County within the City of Lathrop. Construction activities for the project would consist of grading, installation of utilities, installation of an outfall, paving, and the construction of structures and related infrastructure throughout the project. The Proposed Impact Plan showing the extent of construction has been included in Attachment A.

## **EXISTING SITE CONDITIONS**

The site is composed of relatively flat terrain and is situated at an elevation of approximately 15 feet above mean sea level. The majority of the project site is being used for agricultural practices (i.e., alfalfa, winter wheat, and cattle grazing). The western portion is being utilized for alfalfa and winter wheat production. A small cattle grazing area is located in the southern central portion of the project site. The vegetation within the pasture includes rose clover (*Trifolium hirtum*), Bermuda grass (*Cynodon dactylon*), barnyard grass (*Echinochloa crusgalli*), and birdsfoot trefoil (*Lotus corniculatus*). There are several buildings located within the project site including farmhouses and truck maintenance company east of Guthmiller Road. The rest of the project site is ruderal grassland habitat. The vegetation within the ruderal grassland habitat include yellow-star thistle (*Centaurea solstitialis*), Telegraph weed (*Heterotheca grandiflora*), and Common mallow (*Malva neglecta*).

A detention basin is located north of the truck maintenance yard and collects runoff from the adjacent parking lot throughout the year. Runoff is conveyed from the parking lot to the basin via the existing storm drain system. There is no outflow of water from the detention basin. Water is evaporated out of the detention basin.

Aquatic features on-site include a stock pond, seasonal wetlands, seasonal wetland swales, and a detention basin. The San Joaquin River is located adjacent to the site along the western perimeter.

According to the *Soil Survey of San Joaquin County, California* (U.S. Department of Agriculture, Soil Conservation Service 1992), six soil units, or types, have been mapped within the project site (Figure 2. *Natural Resource Conservation Service Soil Types*). These are: (109) Bisgani loam coarse sand, partially drained, 0-2% slopes, (142) Delhi loamy sand, 0-2% slopes, (148) Dello clay loam, drained, 0-2% slopes, overwashed, (153) Egbert silty clay loam, partially drained, 0-2% slopes, (166) Grangeville fine sandy loam, partially drained, 0-2% slopes, (169) Guard clay loam, drained, 0-2% slopes, and (196) Manteca fine sandy loam, 0-2% slopes. All the soil units contain hydric inclusions, except for Delhi loamy sand. Dello clay loam and Egbert silty clay loam consists of listed hydric components (U.S. Department of Agriculture, Soil Conservation Service 1992).

## JURISDICTIONAL DELINEATION

Potentially jurisdictional waters of the United States (U.S.) mapped on-site total 0.185 acre of wetlands and 0.121 acre of other waters. The off-site San Joaquin River was not included in the wetland delineation. Impacts acreages for the San Joaquin River are based upon outfall design and drawings provided by the engineer. A typical outfall detail is included in Attachment B. Table 1 outlines the existing and proposed impact acreages. The wetland delineation was submitted to the U.S. Army Corps of Engineers (Corps) on 10 November 2005 (Attachment C), and is currently pending verification.

<b>Type</b>	<b>Existing</b>	<b>Direct Impact</b>
<i>Wetlands</i>		
Seasonal Wetland	0.175	0.175
Seasonal Wetland Swale	0.010	0.010
<i>Other Waters</i>		
Stock Pond	0.121	0.121
San Joaquin River*	<u>0.140</u>	<u>0.140</u>
<b>Total:</b>	<b>0.446</b>	<b>0.446</b>

\*Although not delineated in the 10 November 2005 submittal, the proposed outfall design is anticipated to impact 0.140 acre of the San Joaquin River.

## **DIRECT AND INDIRECT ADVERSE ENVIRONMENTAL IMPACTS**

Direct Impacts: The project would directly affect 0.306 acre of waters of the U.S. due to fill of wetlands and other waters for commercial construction. In addition, 0.140 acre of waters of the U.S. will be directly impacted with the installation of the outfall structure.

Indirect Impacts: No indirect impacts are associated with this project.

## **FEDERALLY LISTED SPECIES (GENERAL CONDITION 17)**

A Special-Status Species Assessment was prepared for the South Lathrop 6a and 6b project on 8 September 2006. The Special-Status Species Assessment is included as part of the Section 7 Information in Attachment D. Impacts to the following federally endangered (E) or threatened (T) species potentially occurring on the South Lathrop 6a and 6b project are covered through the San Joaquin Multiple Species Habitat Conservation and Open Space Plan (SJMSCP)

Minimization Measures:

### **Invertebrates**

- *Branchinecta lynchi* – vernal pool fairy shrimp (T)
- *Desmocerus californicus dimorphus* – valley elderberry longhorn beetle (T)
- *Lepidurus packardii* – vernal pool tadpole shrimp (E)

### **Fish**

- *Hypomesus transpacificus* – delta smelt (T)
- *Oncorhynchus mykiss* – Central Valley steelhead (T)
- *Oncorhynchus tshawytscha* – Central Valley spring-run chinook salmon (T)
- *Oncorhynchus tshawytscha* – winter-run chinook salmon, Sacramento River (E)



## Amphibians

- *Ambystoma californiense* – California tiger salamander (T)
- *Rana aurora draytonii* – California red-legged frog (T)

## Reptiles

- *Thamnophis gigas* – giant garter snake

## Birds

- *Haliaeetus leucocephalus* – bald eagle (T)

The federally listed species which has the potential to occur at the South Lathrop 6a and 6b project site, which is not covered under the SJMSCP, is the riparian brush rabbit (*Sylvilagus bachmani riparius*; federally endangered). Historically, they have been found in the San Joaquin Valley riparian areas. The riparian habitat at the western perimeter may represent suitable habitat for riparian brush rabbit. An assessment of habitat for the riparian brush rabbit was conducted and is included with the Section 7 information located in Attachment D. Accordingly, we have requested that the Corps initiate consultation with USFWS, pursuant to Section 7 of the federal Endangered Species Act.

Riparian habitat on the western boundary of the site represents potentially-suitable habitat for slough thistle (*Cirsium crassicaule*, CNPS 1B), Delta button celery (*Eryngium racemosum*, California endangered, CNPS 1B), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*, CNPS List 2). ECORP conducted determinate special-status plant surveys for the project site on 30 May and 7 June 2008. No special-status plants were observed on-site during the 2008 field survey. The Special-Status Plant Survey Report is included with the Section 7 information in Attachment D.

## **HISTORIC PROPERTIES (GENERAL CONDITION 18)**

A literature and records search, cultural resource field survey, and testing and evaluation was completed for the South Lathrop 6a and 6b project site. Copies of the covers of these reports are included in Attachment E. A complete cultural resource studies package will be submitted under separate cover.

## **MINIMIZATION AND AVOIDANCE (SACRAMENTO DISTRICT REGIONAL CONDITION 1.a)**

The proposed direct impacts total 0.446 acre, below the 0.5-acre threshold for Nationwide Permit Nos. 7 and 39. Due to the small size of impact and the current land use design avoidance would be infeasible. Any on-site minimization and/or avoidance of the jurisdictional features would make the project unviable.

## **OTHER PERMITS REQUIRED**

### **Federal Clean Water Act, Section 401**

A request for Water Quality Certification will be submitted to the Central Valley Regional Water Quality Control Board.

### **Federal Endangered Species Act**

As discussed above, potential habitat for federally listed special-status species exists on-site.

### **California Environmental Quality Act**

The proposed project is subject to the California Environmental Quality Act (CEQA). The CEQA lead agency is the City of Lathrop. The City of Lathrop is currently preparing an EIR.

## PROPOSED MITIGATION PLAN

### Federal Wetland Fill Compensation (Sacramento District Regional Condition 2)

Based upon the estimates provided in this document, the amount of fill requiring compensatory mitigation by this project would be approximately 0.446 acre. The applicant proposes to purchase mitigation for these impacts through the Corps' in-lieu fee fund, as outlined in Table 2, below.

<b>Type</b>	<b><u>Impacted</u></b>	<b><u>Mitigation (1:1)</u></b>
<i>Wetlands</i>		
Seasonal Wetland	0.175	0.175
Seasonal Wetland Swale	0.010	0.010
<i>Other Waters</i>		
Stock Pond	0.121	0.121
San Joaquin River	<u>0.140</u>	<u>0.140</u>
<b>Total:</b>	<b>0.446</b>	<b>0.446</b>

## REFERENCES

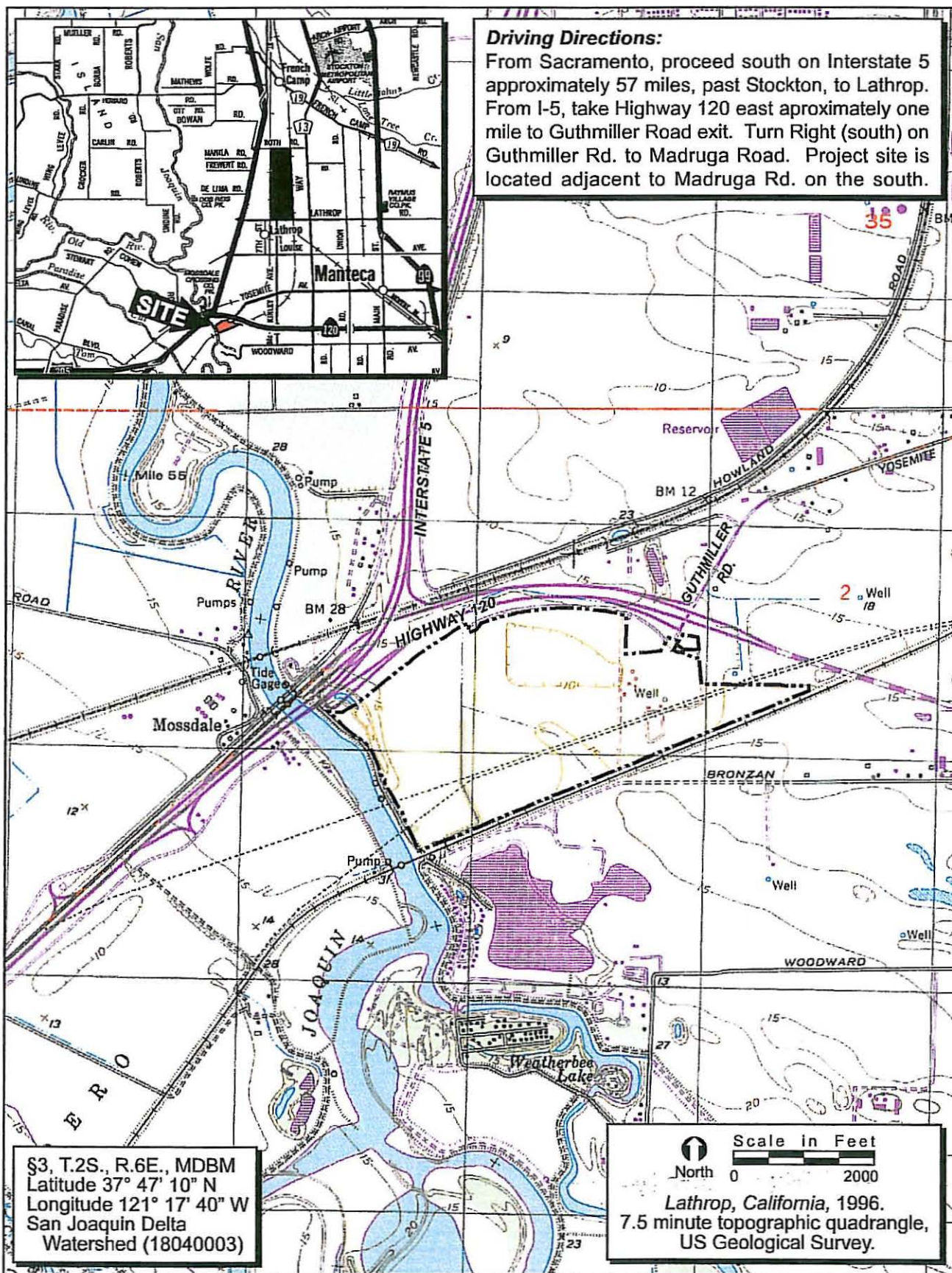
- U.S. Department of the Interior, Geological Survey. 1978. Hydrologic Unit Map, State of California. Geological Survey. Reston, Virginia.
- U.S. Department of the Interior, Geological Survey. 1996. Lathrop, California 7.5-minute quadrangle. Geological Survey. Denver, Colorado.

## **LIST OF FIGURES**

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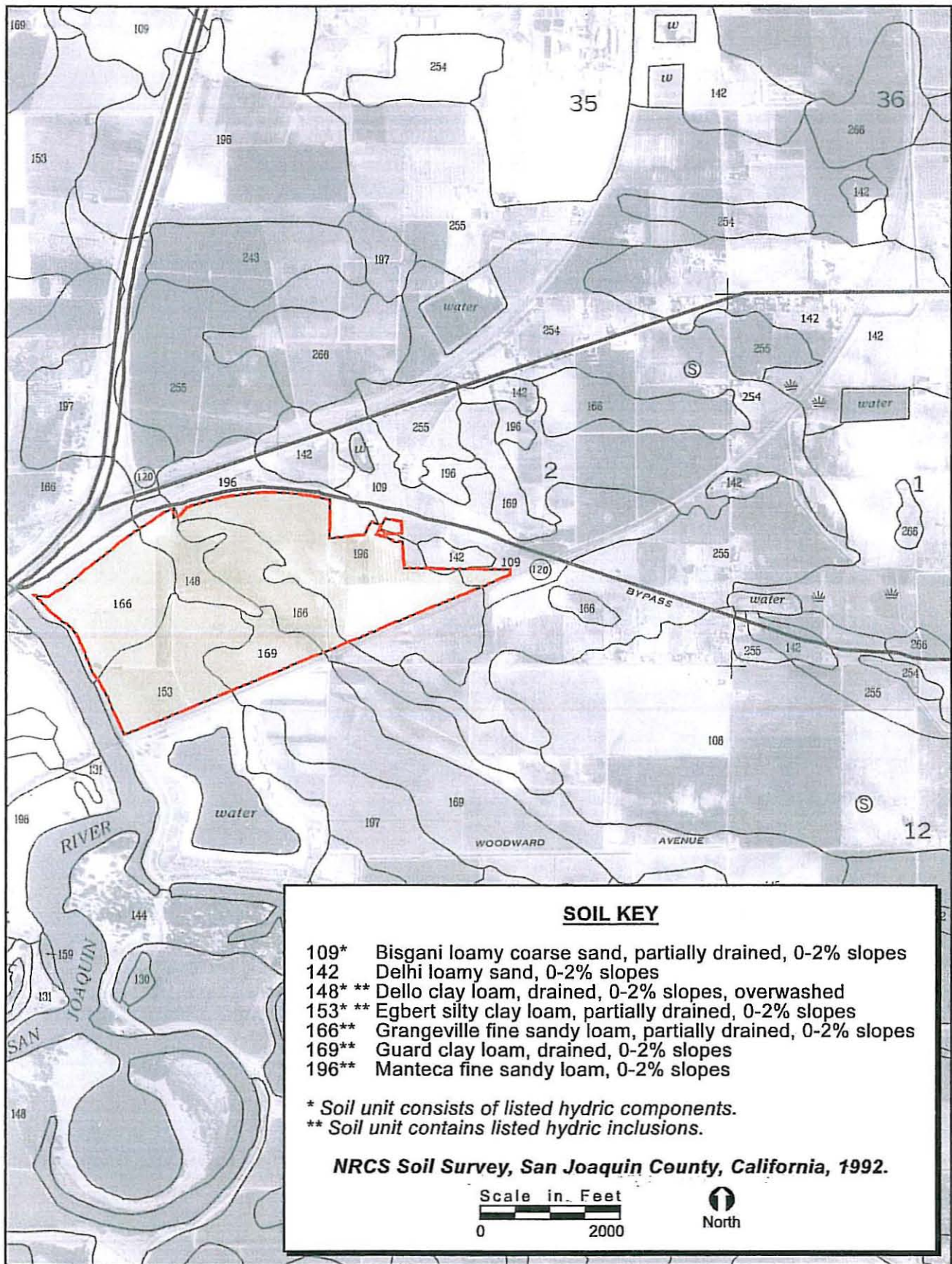
Figure 1. Project Site and Vicinity

Figure 2. Natural Resources Conservation Service Soil Types



**FIGURE 1. Project Site and Vicinity**

2007-213 South Lathrop 6a & 6b



**FIGURE 2. Natural Resources Conservation Service Soil Types**

## **LIST OF ATTACHMENTS**

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Attachment A – Proposed Impact

Attachment B – Storm Water Outfall Plan & Profile

Attachment C – Wetland Delineation Report

Attachment D – Information Provided in Support Section 7 Consultation with the U.S.  
Fish and Wildlife Service

Attachment E – Cultural Resources Information



# **ATTACHMENT A**

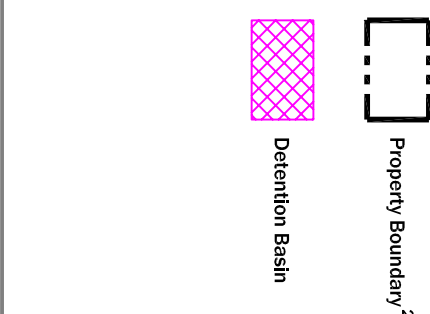
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Proposed Impact Plan

JOB NAME: South Lathrop 6a/6b - IMP  
 PROJECT NO: 2007-213  
 MAP SCALE: 1"=200'  
 DATE: 22 MAY 2008  
 REVISION: 6/16/2008  
 FILE NAME: SL6A6B\_IMP\_v3.dwg

**WATERS OF THE U.S. ACREAGE<sup>1</sup>**

CLASSIFICATION	EXISTING ACREAGE	IMPACT ACREAGE
WETLANDS:		
Seasonal Wetland	0.175	0.175
Seasonal Wetland Soak	0.010	0.010
OTHER WATERS:		
Stream and San Joaquin River	0.121	0.121
San Joaquin River	0.140	0.140
<b>TOTAL:</b>	<b>0.446</b>	<b>0.446</b>



**NOTES**

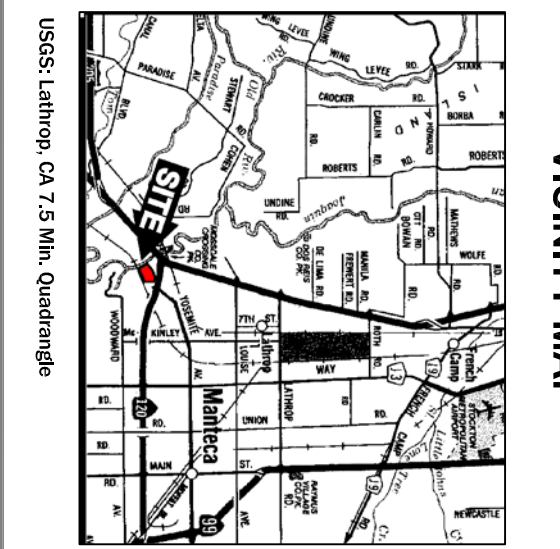
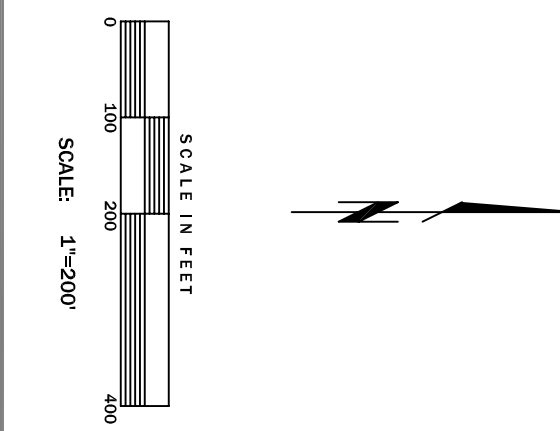
Drawn Project Number: 2-277

Base data source: Mackey and Sonps

Aerial Photo Source: Air Photo, USA, Jun 2004

<sup>1</sup> The table subject information and data produced in this report were derived from the 1982 Census of Wetlands and Waters of the United States (COWUS) and the National Wetlands Inventory (NWI) data sets. The data were derived from the National Wetlands Inventory (NWI) data sets and were provided in the California State File projection. Grid data, this boundary is expected to be slightly precise to common requirements, but COPE holds no liability to the accuracy of the boundary.

<sup>2</sup> Property Boundary source: As depicted on the graphic, have been provided by Mackey and Sonps. The boundary coordinates have been reviewed using the MGRS data set and were provided in the California State File projection. Grid data, this boundary is expected to be slightly precise to common requirements, but COPE holds no liability to the accuracy of the boundary.



**SOUTH LATHROP 6A/6B**

**PROPOSED IMPACT PLAN**

DATE: 22 MAY 2008	REVISION DATE: 6/16/2008	PROJECT NUMBER: 2007-213
DATE PREPARED: 2007-2007-213 South Lathrop 6a/6b IMP	SCALE: 1"=200'	DATE: 2008 IMP 6A/6B
WETLAND VERIFICATION LETTER DATE:		PAL, LIA

**ECORP Consulting, Inc.**  
 ENVIRONMENTAL CONSULTANTS

San Diego, CA 92161  
 619.444.1111  
 www.ecorp.com

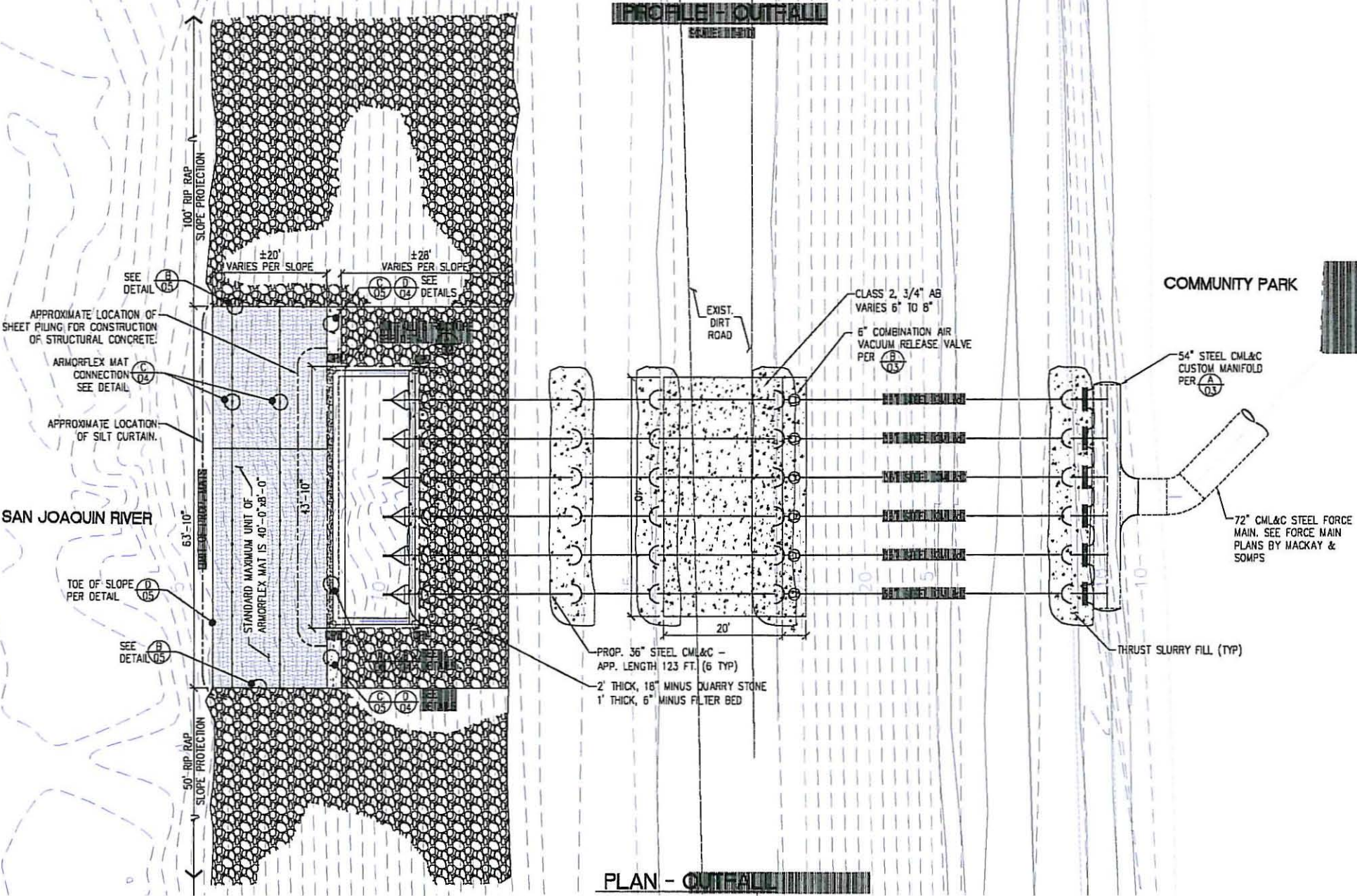
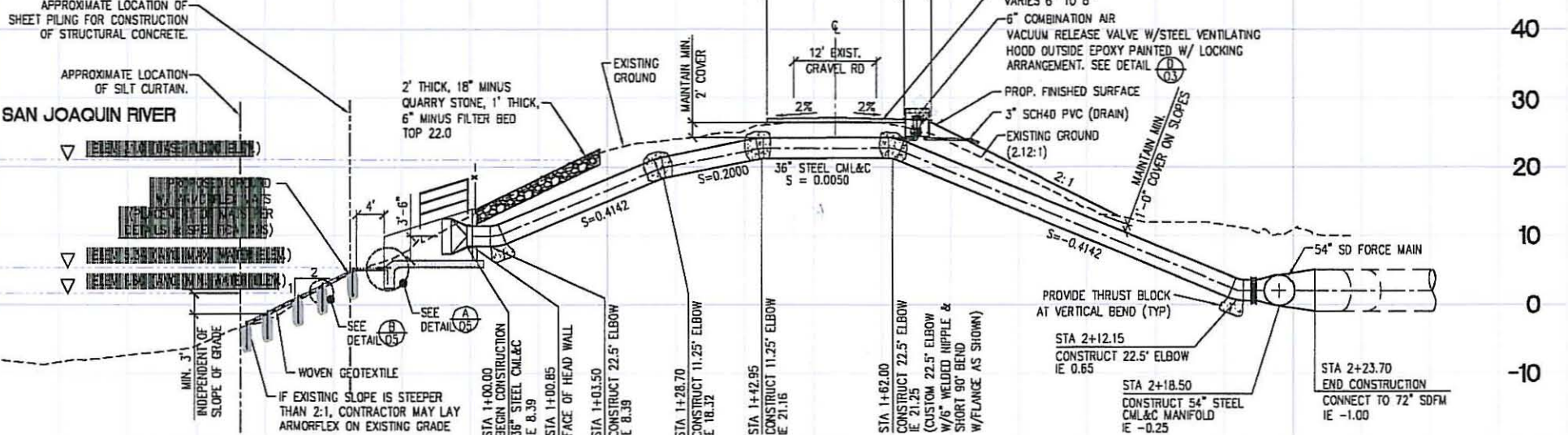
San Diego, CA 92161  
 619.444.1111  
 www.ecorp.com



## **ATTACHMENT B**

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Storm Water Outfall Plan & Profile



SAN JOAQUIN RIVER

COMMUNITY PARK

**CONSTRUCTION PROCEDURE**

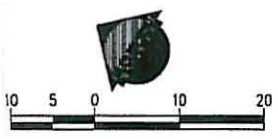
1. INSTALL SILT CURTAIN.
2. INSTALL SHEET PILING.
3. DEWATER SHEET PILING AREA; PUMP TO SILT CURTAIN PROTECTED AREA.
4. EXCAVATE FOOTINGS FOR STRUCTURAL CONCRETE.
5. CONSTRUCT FOOTINGS & BACKFILL.
6. REMOVE SHEET PILING.
7. INSTALL ARMORFLEX MATS.
8. REMOVE SILT CURTAIN.

**SURVEY CONTROL POINTS**

PT#	DESCRIPTION	NORTH	EAST
CP1	N.E. CORNER PROP OUTFALL STRUCTURE	N 2123156.50	E 6326223.81
CP2	N.W. CORNER PROP OUTFALL STRUCTURE	N 2123144.74	E 6326231.42
CP3	S.W. CORNER PROP OUTFALL STRUCTURE	N 2123133.40	E 6326188.13
CP4	S.E. CORNER PROP OUTFALL STRUCTURE	N 2123121.64	E 6326195.74

**NOTES:**

1. PROVIDE MIN. ONE FOOT COVER AT LEVEE SLOPES.
2. PROVIDE MIN. TWO FEET COVER AT LEVEE CROWN.
3. STEEL PIPE THICKNESS, TO BE DETERMINED BY STEEL PIPE MANUFACTURER PER AWWA STANDARD.



**PLAN - OUTFALL**

NO.	BY	DATE	REVISIONS
1			



PROJECT BY: KWD/OP	SCALE: 1" = 10'
DRAWN: N.J.K.	DATE: OCT. 2005
CHECKED: J. W. J. K.	
APPROVED: A. K.	

**STORM WATER OUTFALL PLAN & PROFILE**

**RIGHLAND COMMUNITIES TRACT 3553 INFRASTRUCTURE IMPROVEMENTS**  
LA THROP, CALIF.

**PACE PACIFIC ADVANCED CIVIL ENGINEERING**  
1720 MOUNTAIN VALLEY, CA 92706  
PH: (714) 481-7300 FAX (714) 481-7299

File: 8275-10P01.dwg 8275-60-51I\_C017A.DWG 8275-60-50A\_max1.dwg 8275-60-039-DWG.dwg  
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THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED "ISSUED FOR CONSTRUCTION".

# **ATTACHMENT C**

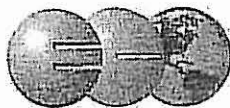
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Wetland Delineation Report

WETLAND DELINEATION  
FOR  
**SOUTH LATHROP 6A & 6B**  
SAN JOAQUIN COUNTY, CALIFORNIA

November 10, 2005

Prepared for:  
**Richland Planned Communities**



**ECORP Consulting, Inc.**  
ENVIRONMENTAL CONSULTANTS

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Appendix B. Plant Species Observed at Data Point Locations

Appendix C. Wetland Delineation

Appendix D. Wetland Delineation Shape File (to be included with Corps submittal only)

Appendix E. Corps-Verified Wetland Map and Verification Letter (to be included in ECORP's master copy only)

## 1.0 INTRODUCTION

On behalf of Richland Planned Communities, ECORP Consulting, Inc. (ECORP) has conducted a wetland delineation of the 277-acre South Lathrop 6a & 6b project site. The project site is located south of Highway 120 and east of the Interstate 5 and Highway 560 interchange and south of Madrugá Road with Guthmiller Road dissecting the project site in San Joaquin County, California (Figure 1, *Project Site and Vicinity Map*). The site corresponds to a portion of Section 3, Township 2 South, and Range 6 East Mount Diablo Base Meridian (MDBM) of the "Lathrop, California" 7.5-minute quadrangle (U.S. Department of the Interior, Geological Survey 1996). The approximate center of the site is located at 37° 47' 10" North and 121° 17' 40" West within the San Joaquin Delta Watershed (# 18040003, U.S. Department of Interior, Geological Survey 1978).

This report describes waters of the United States, including wetlands, identified within the project site that may be regulated by the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act. The information presented in this report provides data required by the U.S. Army Corps of Engineers Sacramento District's *Minimum Standards for Acceptance of Preliminary Wetland Delineations* (U.S. Army Corps of Engineers 2001). The waters of the U.S. boundaries depicted in this report represent a calculated estimation of the jurisdictional area within the project site, and are subject to modification following the Corps verification process.

### APPLICANT:

Attn: Mr. Clifton Taylor  
Richland Planned Communities  
2220 Douglas Blvd, Ste 290  
Roseville, California 95661  
Phone: (916) 782-3330  
Fax: (916) 784-3369

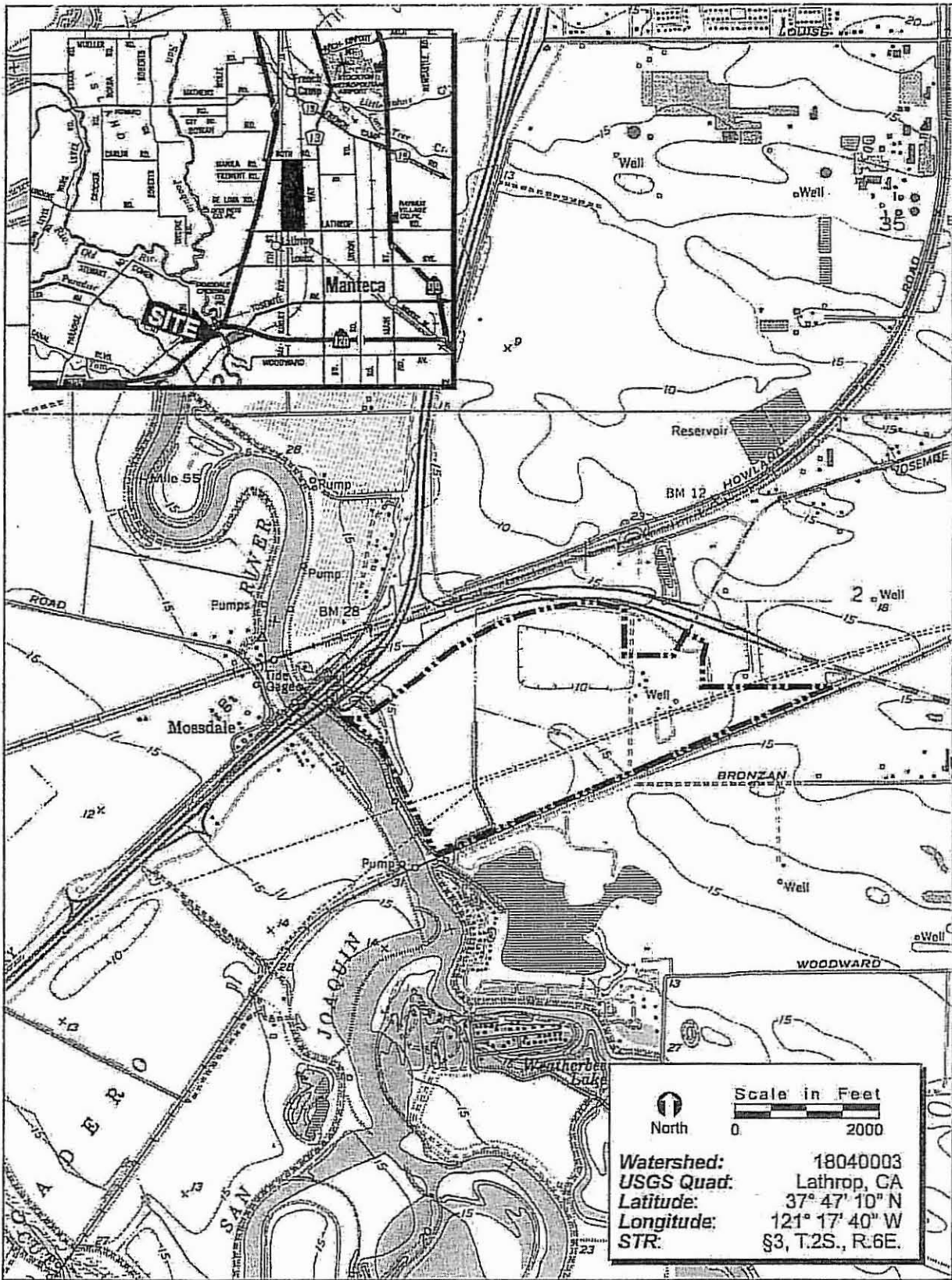
### AGENT:

Attn: Ms. Stacy Roper  
ECORP Consulting, Inc.  
2260 Douglas Boulevard, Suite 160  
Roseville, California 95661  
Phone: (916) 782-9100  
Fax: (916) 782-9134

## 1.1 Existing Site Conditions

The site is composed of relatively flat terrain and is situated at an elevation of approximately 15 feet above mean sea level. The majority of the project site is being used for agricultural





**FIGURE 1. Project Site and Vicinity Map**

2004-096 South Lathrop 6a & 6b

practices (i.e., alfalfa, winter wheat, and cattle grazing). The western portion is being utilized for alfalfa and winter wheat production with a small cattle grazing area located in the southern central portion of the project site. The vegetation within the pasture includes rose clover (*Trifolium hirtum*), Bermuda grass (*Cynodon dactylon*), barnyard grass (*Echinochloa crusgalli*), and birdsfoot trefoil (*Lotus corniculatus*). There are several buildings located within the project site including farmhouses and truck maintenance company east of Guthmiller Road. The rest of the project site is ruderal grassland habitat. The vegetation within the ruderal grassland habitat include yellow-star thistle (*Centaurea solstitialis*), Telegraph weed (*Heterotheca grandiflora*), and Common mallow (*Malva neglecta*).

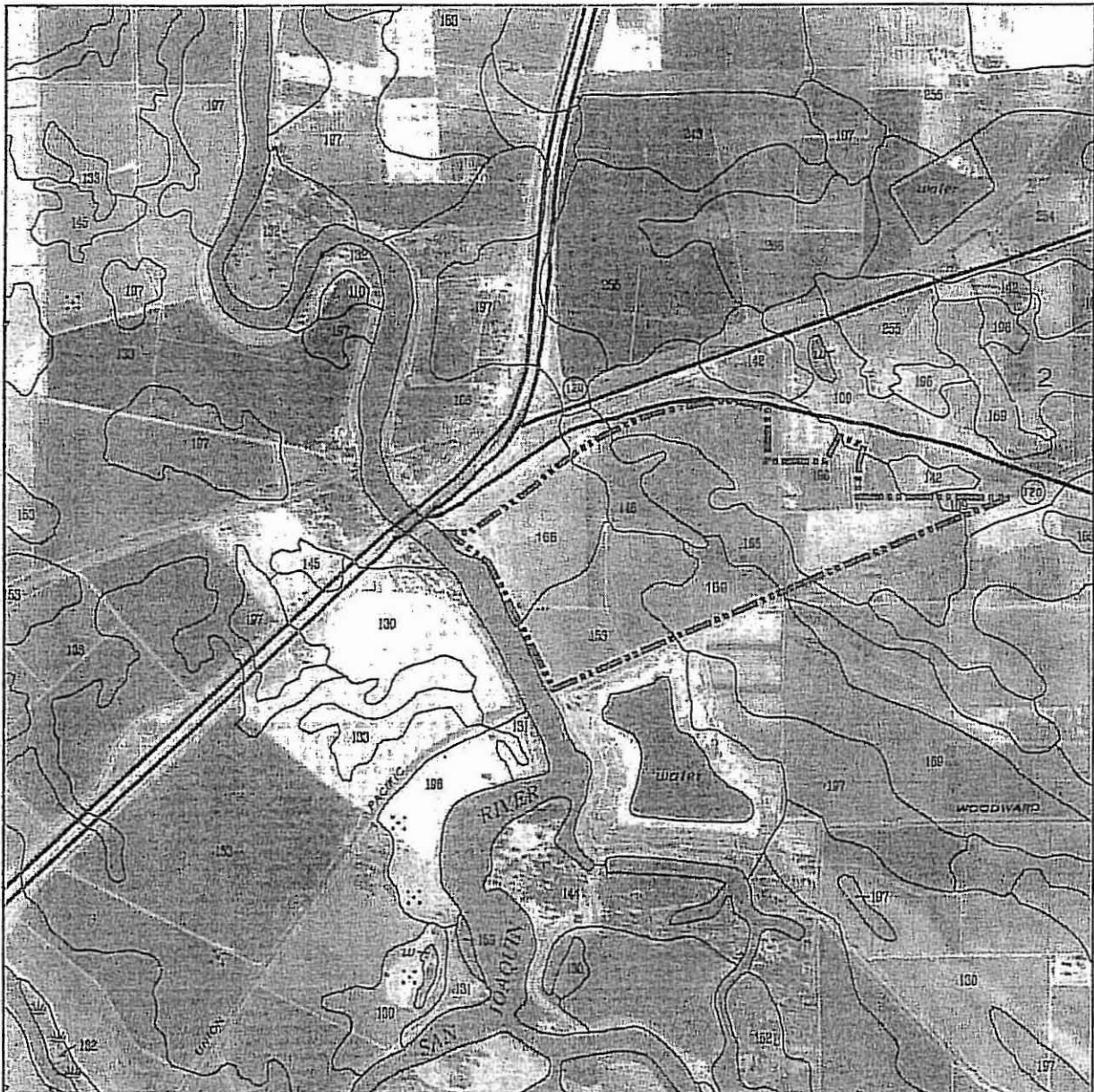
A detention basin is located north of the truck maintenance yard and collects runoff throughout the year. Runoff is coming from storm drains within the parking lot. There is no outflow of water from the detention basin. Water is evaporated out of the detention basin.

Aquatic features on-site include a stock pond, seasonal wetlands, seasonal wetland swales, and a detention basin. These features are further described in the Results section.

According to the *Soil Survey of San Joaquin County, California* (U.S. Department of Agriculture, Soil Conservation Service 1992), six soil units, or types, have been mapped within the project site (Figure 2. *Natural Resource Conservation Service Soil Types*). These are: (109) Bisgani loam coarse sand, partially drained, 0-2% slopes, (148) Dello clay loam, drained, 0-2% slopes, overwashed, (153) Egbert silty clay loam, partially drained, 0-2% slopes, (166) Grangeville fine sandy loam, partially drained, 0-2% slopes, (169) Guard clay loam, drained, 0-2% slopes, and (196) Manteca fine sandy loam, 0-2% slopes. All the soil units contain hydric inclusions. Dello clay loam and Egbert silty clay loam consists of listed hydric components (U.S. Department of Agriculture, Soil Conservation Service 1992).

## 2.0 METHODS

This wetland delineation was conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987). The waters of the U.S. boundaries were



**SOIL KEY**

- 109\* Bisgani loamy coarse sand, partially drained, 0-2% slopes
- 148\*\* Dello clay loam, drained, 0-2% slopes, overwashed
- 153\*\* Egbert silty clay loam, partially drained, 0-2% slopes
- 166\*\* Grangeville fine sandy loam, partially drained, 0-2% slopes
- 169\*\* Guard clay loam, drained, 0-2% slopes
- 196\*\* Manteca fine sandy loam, 0-2% slopes

\* Soil unit consists of listed hydric components.

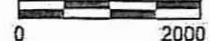
\*\* Soil unit contains listed hydric inclusions.

**NRCS Soil Survey, San Joaquin County, California, 1992.**



North

Scale In Feet



**FIGURE 2. Natural Resources Conservation Service Soil Types**

delineated through aerial photograph interpretation and standard field methodologies (i.e., paired data set analyses), and all wetland data were recorded on Routine Wetland Determination Forms (Appendix A). A color aerial photograph (1"=300' scale, Airphoto 2002) was used to assist with mapping and ground-truthing. *Munsell Soil Color Charts* (Kollmorgen Instruments Co. 1990) and the *Soil Survey of San Joaquin County, California* (U.S. Department of Agriculture, Soil Conservation Service 1992) were used to aid in identifying hydric soils in the field. *The Jepson Manual* (Hickman, ed. 1993) was used for plant nomenclature and identification.

Field wetland surveys were conducted on December 8, 2004 and August 15, 2005 by ECORP biologist Stacy Roper. Ms. Roper walked the entire 277±-acre project site to determine the location of potentially jurisdictional boundaries within the property. Six paired data point locations and four single point locations were sampled to evaluate whether or not the vegetation, hydrology, and soils data supported a determination of wetland or non-wetland status. At each paired location, one point was located such that it was within the estimated wetland area, and the other point was situated outside the limits of the estimated wetland area. The data collected at each single point location was used to support a non-wetland determination. The total area of the wetlands within the property was recorded in the field using a post-processing capable global positioning system (GPS) unit with sub-meter accuracy (Trimble GeoXT).

## **2.1 Waters Of The United States**

This report describes waters of the United States that may be regulated by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act. Wetlands are "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (Environmental Laboratory 1987). Wetlands can be perennial or intermittent, and isolated or adjacent to other waters.

Other waters are non-tidal, perennial, and intermittent watercourses and tributaries to such watercourses (33 CFR 328.3(a) Corps Regulatory Program Regulations, *Federal Register* 51(219), November 13, 1986). The limit of Corps jurisdiction for non-tidal watercourses (without adjacent wetlands) is defined in 33 CFR 328.3 (e) as the "ordinary high water mark" (OHWM). The

OHWB is defined as the "line on the (watercourse banks) established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter and debris; or other appropriate means that consider the characteristics of the surrounding areas" (33 CFR 328.3 (e)). The bank-to-bank extent of the channel that contains the water-flow during a normal rainfall year generally serves as a good first approximation of the lateral limit of Corps jurisdiction. The upstream limits of other waters are defined as the point where the OHWB is no longer perceptible.

## 2.2 Routine Determinations

To be determined a wetland; the following three parameters should be present:

- A majority of dominant vegetation species are wetland associated species;
- Hydrologic conditions exist that result in periods of flooding, ponding, or saturation during the growing season; and
- Hydric soils are present.

### 2.2.1 Vegetation

Hydrophytic vegetation is defined as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanent or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present (Environmental Laboratory 1987). The definition of wetlands includes the phrase "a prevalence of vegetation typically adapted for life in saturated soil conditions." Prevalent vegetation is characterized by the dominant plant species comprising the plant community (Environmental Laboratory 1987). The "50/20 rule" was used to determine the dominant plant species at each data point location. The rule states that for each stratum in the plant community, dominant species are the most abundant plant species (when ranked in descending order of abundance and cumulatively totaled) that immediately exceed 50 percent of the total dominance measure for the stratum, plus any additional species that individually

comprise 20 percent or more of the total dominance measure for the stratum (HQU5ACE 1992).

Dominant plant species observed at each data point were then classified according to their indicator status (probability of occurrence in wetlands) (Table 1), in accordance with the U.S. Fish and Wildlife Service's (USFWS) National List of Vascular Plant Species That Occur in Wetlands: California (Region 0) (Reed 1988). If the majority (greater than 50 percent) of the dominant vegetation on a site are classified as obligate (OBL), facultative wetland (FACW), or facultative (FAC) (excluding FAC-), then the site is considered to be dominated by hydrophytic vegetation.

**Table 1. Classification of Wetland-Associated Plant Species<sup>1</sup>**

<b>Plant Species Classification</b>	<b>Abbreviation<sup>2</sup></b>	<b>Probability of Occurring in Wetland</b>
Obligate	OBL	>99%
Facultative Wetland	FACW	66-99%
Facultative	FAC	33-66%
Facultative Upland	FACU	1-33%
Upland	UPL	<1%
No indicator status	NI	Insufficient information to determine status
Plants That Are Not Listed (assumed upland species)	NL	Does not occur in wetlands in any region.

<sup>1</sup> Source: Reed 1988

<sup>2</sup> A '+' or '-' symbol can be added to the classification to indicate greater or lesser probability, respectively, of occurrence in a wetland.

### 2.2.2 Soils

A hydric soil is defined as a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (USDA-NRCS 2003). Indicators that a hydric soil is present include soil color (gleyed soils and soils with bright mottles and/or low matrix chroma), aquic or preaquic moisture regime, reducing soil conditions, sulfidic material (odor), soils listed on hydric soils list, iron and manganese concretions, organic soils (Histosols), histic epipedon, high organic content in surface layer in sandy soils, and organic streaking in sandy soils.

A soil pit was excavated to a depth of 16 inches or refusal at each data point. The soil was then examined for hydric soil indicators. The matrix color and mottle color (if present) of the soil was determined using the *Munsell Soil Color Charts*.

### 2.2.3 Hydrology

Wetlands, by definition, are seasonally inundated or saturated at or near (within 12 inches of) the soil surface. To be classified as a wetland, a site should have at least one primary indicator or two secondary indicators of wetland hydrology. Primary indicators of wetland hydrology may include, but are not limited to: water marks, drift lines, sediment deposition, drainage patterns, visual observation of saturated soils, and visual observation of inundation. In addition to the primary indicators, there are a variety of secondary wetland hydrology indicators. Secondary indicators include, but are not limited to: oxidized root channels in the upper 12 inches, water-stained leaves, and local soil survey data. When no primary indicators of wetland hydrology are observed at a data point, two or more secondary indicators are required to confirm wetland hydrology.

## 3.0 RESULTS

A total of 0.306 acre of potentially jurisdictional waters of the U.S has been mapped for this site (Table 2). The routine wetland determination forms are included in Appendix A, and a list of plant species observed at the data points is included in Appendix B. A discussion of the wetlands and other waters is presented below, and wetland delineation maps are presented in Figure 3 and Appendix C.

**Table 2. Waters of the U.S.**

<u>Wetland Type</u>	<u>Acreage</u>
<i>Wetlands</i>	
Seasonal Wetland	0.175
Seasonal Wetland Swale	0.010
<i>Other Waters</i>	
Stock Pond	<u>0.121</u>
<b>Total</b>	<b>0.306</b>

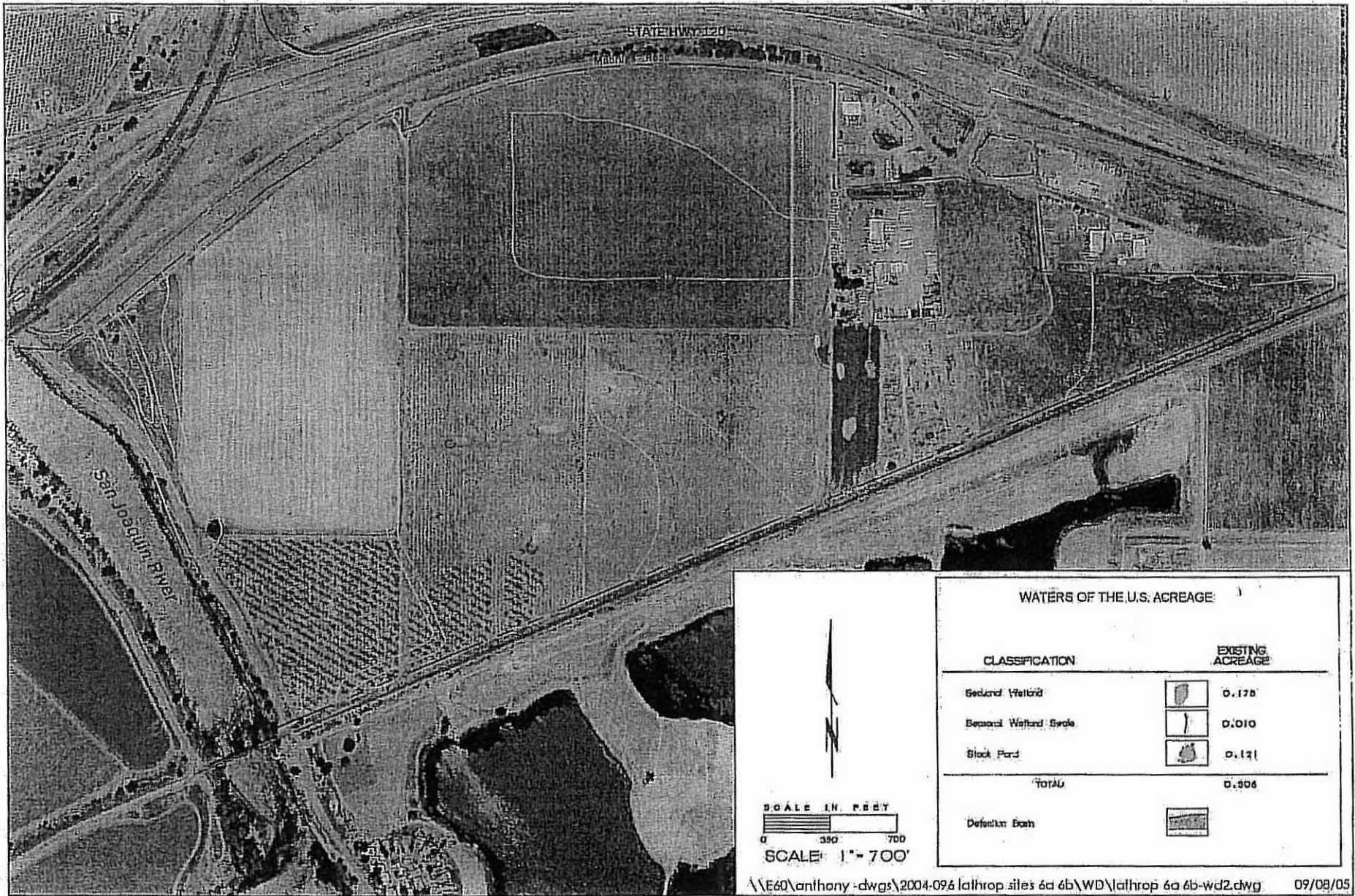


FIGURE 3. Wetland Delineation



### 3.1 Jurisdictional Wetlands

#### 3.1.1 Seasonal Wetland

Seasonal wetlands are ephemerally wet due to accumulation of surface runoff and rainwater within low-lying areas. Inundation periods tend to be relatively short and they are commonly dominated by non-native annual, and sometimes perennial, hydrophytic species. Plant species identified within the seasonal wetland include bentgrass (*Agrostis avenacea*), Bermuda grass, and rose clover (*Trifolium hirtum*).

Wetland hydrology indicators observed within the seasonal wetlands on-site include watermarks. Other hydrologic indicators (i.e., soil saturation and inundation) were not observed due to the time of year that this field survey was conducted. Within seasonal wetland features, these indicators are generally only observable during the wet season and early in the growing season.

The soil matrix color within the seasonal wetland was 10YR4/1 without redoxmorphic (redox) features (i.e., mottles). The soils were determined to be hydric based on the low chroma colors and containing listed hydric inclusions. Soil matrix colors in upland areas adjacent to the seasonal wetlands were of high chroma colors including 10YR3/2 (without redox features).

#### 3.1.2 Seasonal Wetland Swale

These are linear wetland features that do not exhibit an ordinary high water mark. The seasonal wetland swale is located in the southern central portion. Plant species identified within the seasonal wetland swale include barnyard grass (*Echinochloa crusgalli*) and Bermuda grass.

Wetland hydrology indicators observed within the seasonal wetland swales on-site include watermarks. Other hydrologic indicators (i.e., soil saturation and inundation) were not observed due to the time of year that this field survey was conducted.

The soil matrix color within the seasonal wetland swale was 10YR4/1 without redox features. The soils were determined to be hydric based on the low chroma colors and containing listed hydric inclusions. Soil matrix colors in upland areas adjacent to the seasonal wetland swale were of high chroma colors including 10YR3/2 (without redox features).

### **3.2 Other Waters**

#### *3.2.1 Stock Pond*

There is a stock pond located in the southern central portion of the irrigated pasture within the project site. Vegetation within the stock pond included predominately water primrose (*Ludwigia peploides* var *peploides*) and an algal bloom.

Wetland hydrology indicators observed within the stock pond on-site include inundation (>12 inches) and soil saturation.

The soil matrix color within the stock pond was 10YR4/1 without redox features. The soils were determined to be hydric based on the low chroma colors and containing listed hydric inclusions. Soil matrix colors in upland areas adjacent to the stock pond were high chroma colors including 10YR4/2 (without redox features).

### **4.0 INTERSTATE COMMERCE**

The San Joaquin River is located along the western side of the project site and is considered navigable waters. The project site is adjacent to the San Joaquin River by a levee. Thus, the seasonal wetlands, seasonal wetland swales, and stock ponds on-site should be considered connected with and/or adjacent to a Waters of a U.S., and would therefore be subject to interstate and/or foreign commerce.

## **5.0 CONCLUSION**

A total of 0.306 acre of potentially jurisdictional waters of the U.S. has been mapped on-site. These acreages represent a calculated estimation of the jurisdictional area within the project site, and are subject to modification following the Corps verification process. Fill within jurisdictional features would require permitting pursuant to Section 404 and 401 of the federal Clean Water Act.

## 6.0 REFERENCES

- AirPhoto USA. 2002. Aerial photograph of the project area.
- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U. S. Army Engineer Waterways Experiment Station. Vicksburg, Mississippi.
- Headquarters, U.S. Army Corps of Engineers (HQUSACE). 1992. Clarification and Interpretation of the 1987 Manual. Memorandum from Major General Arthur E. Williams. Dated: 6 March 1992.
- Hickman, J. C. (ed.). 1993. *The Jepson Manual: Higher Plants of California*. University of California Press. Berkeley, California.
- Kollmorgen Instruments Company. 1990. Munsell Soil Color Charts. Kollmorgen Corporation. Baltimore, Maryland.
- Reed, P.B., Jr. 1988. National List of Plant Species that Occur in Wetlands: California (Region 0). (Biological Report 88[26.10].) U.S. Fish and Wildlife Service, Ft. Collins, Colorado.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2003. National Soil Survey Handbook, title 430-VI. Available Online:  
<http://soils.usda.gov/technical/handbook>.
- U.S. Department of Agriculture, Soil Conservation Service. 1992. Soil Survey of San Joaquin County, California. U.S. Department of Agriculture, Soil Conservation Service. Davis, California.
- U.S. Department of Agriculture, Soil Conservation Service. 1992. Hydric Soils List for San Joaquin County. U.S. Department of Agriculture, Soil Conservation Service, Davis, California.
- U.S. Department of the Army, Corps of Engineers, Sacramento District. November 30, 2001. Minimum Standard for Acceptance of Preliminary Wetland Delineations.
- U.S. Department of the Interior, Geological Survey. 1978. Hydrologic Unit Map, State of California. Geological Survey. Reston, Virginia.
- U.S. Department of the Interior, Geological Survey. 1996. "Lathrop, California" 7.5-minute Quadrangle. Geological Survey. Denver, Colorado.

## **LIST OF APPENDICES**

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Appendix A. Routine Wetland Determination Forms

Appendix B. Plant Species Observed at Data Point Locations

Appendix C. Wetland Delineation

Appendix D. Wetland Delineation Shape File (to be included with Corps submittal only)

Appendix E. Corps-Verified Wetland Map and Verification Letter (to be included in ECORP's master copy only)

**APPENDIX A**

**Routine Wetland Determination Forms**

**ECORP Consulting, Inc.**  
**ENVIRONMENTAL CONSULTANTS**

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop 600\*60 Date: 08-15-05 Sample Point: DN  
 Applicant/Owner: Richland Communities Field Investigator(s): S. Lopez  
 County: San Joaquin State: CA Plant Community: irrigated pasture  
 Quad(s): Lathrop Section/Township/Range: S 3 T2S R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

HYDROPHYTIC VEGETATION? Yes  No

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Ta her</u>	<u>1/2</u>	<u>H</u>	<u>34.8</u>	5) _____	_____	_____	_____
2) <u>Ag ave</u>	<u>FACW</u>	<u>H</u>	<u>34.8</u>	6) _____	_____	_____	_____
3) _____	_____	_____	_____	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/2 = 50 %

Comments: \_\_\_\_\_

**HYDROLOGY**

WETLAND HYDROLOGY? Yes  No

Recorded Data: Yes  No  If yes, \_\_\_\_\_

Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)

Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland

Secondary Indicators (2 or more required):

Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_

Comments: no 1<sup>o</sup> or 2<sup>o</sup> indicators

**SOILS**

HYDRIC SOILS? Yes  No

Series/Phase: 1d6 Grangeville fine sandy loam, partially drained Drainage Class: 0-29 slopes partially drained

Taxonomy [Subgroup]: thermic Fluvaquentic Haploxerolls Confirm Map Type: Yes  No

Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretion

High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_

Inclusions [Series/Phase]: Merritt Columbia Della Egbert On Hydric Soils List: Yes  No

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>4</u>	<u>A</u>	<u>10YR 4/2</u>	<u>—</u>	<u>—</u>	<u>sandy</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Comments: \_\_\_\_\_

**DECISION**

WETLAND / WATERS DETERMINATION? Yes  No

Rationale: Does not meet any of the parameters

General comments: \_\_\_\_\_

Wetland Type: \_\_\_\_\_

## HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Tri wir	40	34.8
Cyn dca	35	30.4
Agc ave	40	34.8
<b>TOTAL SUM (Σ) =</b>	<u>115</u>	100%

<u>COVER:</u>	
Vegetation	<u>100</u>
Bare Ground	_____
Rocks	_____
Other	_____
<b>TOTAL =</b>	100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Tri wir	34.8	34.8	_____	_____
Agc ave	34.8	69.6	_____	_____
<b>TOTAL SUM (Σ) =</b>	100%			



**ECORP Consulting, Inc.**  
 ENVIRONMENTAL CONSULTANTS

**ROUTINE WETLAND DELINEATION**

Project/Site: Smith Lathrop 60760 Date: 0815-05 Sample Point: 02  
 Applicant/Owner: Richard Communities Field Investigator(s): S. Roger  
 County: San Joaquin State: CA Plant Community: Irrigated pasture  
 Quad(s): Lathrop Section/Township/Range: S 3 T 25 R 6 E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

HYDROPHYTIC VEGETATION? Yes  No

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Lud pep</u>	<u>OBL</u>		<u>100</u>	5) _____			
2) _____				6) _____			
3) _____				7) _____			
4) _____				8) _____			

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 100 = 100 %

Comments: \_\_\_\_\_

**HYDROLOGY**

WETLAND HYDROLOGY? Yes  No

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: >12 (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_  
 Comments: \_\_\_\_\_

**SOILS**

HYDRIC SOILS? Yes  No

Series/Phase: Grangeville fine sandy loam partially drained Drainage Class: partially drained  
 Taxonomy [Subgroup]: Humic Fluvaquents, Haploxerolls Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretion  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_  
 Inclusions [Series/Phase]: Merritt, Columbia, Della, Egbert On Hydric Soils List: Yes  No   
 Depth (in.) Horizon Matrix Color Mottle Color Mottle (Abund/Contrast/Size) Texture, Concretions, Structure  
>12 A 10YR 4/1 - - sandy

Comments: \_\_\_\_\_

**DECISION**

WETLAND / WATERS DETERMINATION? Yes  No

Rationale: Meets all three parameters

General comments: \_\_\_\_\_

Wetland Type: Stock pond



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**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop 62-166 Date: 08-15-05 Sample Point: 03N  
 Applicant/Owner: Richard Communities Field Investigator(s): S. Roper  
 County: San Joaquin State: CA Plant Community: irrigated pasture  
 Quad(s): Lathrop Section/Township/Range: S 3 T2S R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

HYDROPHYTIC VEGETATION? Yes  No

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Agave</u>	<u>FACW</u>	<u>H</u>	<u>36.4</u>	5) _____	_____	_____	_____
2) <u>Tri tar</u>	<u>N/L</u>	<u>H</u>	<u>31.8</u>	6) _____	_____	_____	_____
3) <u>Cyn dce</u>	<u>FAC</u>	<u>H</u>	<u>31.8</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/3 = 66%

Comments: \_\_\_\_\_

**HYDROLOGY**

WETLAND HYDROLOGY? Yes  No

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_  
 Comments: no 1<sup>o</sup> or 2<sup>o</sup> indicators

**SOILS**

HYDRIC SOILS? Yes  No

Series/Phase: 196 Mantles fine sandy loam, 0-2% slopes Drainage Class: well drained  
 Taxonomy [Subgroup]: Humic Haplic Durixerolls Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chromia Colors  Concretions  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_  
 Inclusions [Series/Phase]: trahern On Hydric Soils List: Yes  No   

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
_____	<u>A</u>	<u>10YR 7/2</u>	<u>-</u>	<u>-</u>	<u>Sandy</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Comments: \_\_\_\_\_

**DECISION**

WETLAND / WATERS DETERMINATION? Yes  No

Rationale: Does not meet 2 of the 3 parameters

General comments: \_\_\_\_\_

Wetland Type: \_\_\_\_\_



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**ENVIRONMENTAL CONSULTANTS**

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop Irr 766 Date: 08-15-05 Sample Point: 04  
 Applicant/Owner: Richland Communities Field Investigator(s): S. Roper  
 County: San Joaquin State: CA Plant Community: irrigated pasture  
 Quad(s): Lathrop Section/Township/Range: S3 T2S R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

**HYDROPHYTIC VEGETATION? Yes  No**

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Cyperus</u>	<u>FAC</u>	<u>H</u>	<u>71.4</u>	5) _____	_____	_____	_____
2) <u>Elymus</u>	<u>FACW</u>	<u>H</u>	<u>28.6</u>	6) _____	_____	_____	_____
3) _____	_____	_____	_____	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 100 = 100 %

Comments: \_\_\_\_\_

**HYDROLOGY**

**WETLAND HYDROLOGY? Yes  No**

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_

Comments: \_\_\_\_\_

**SOILS**

**HYDRIC SOILS? Yes  No**

Series/Phase: 19b Matted fine sandy loam, 0-23 slopes Drainage Class: well drained  
 Taxonomy [Subgroup]: Thermic Haplic Durixerolls Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretions  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_  
 Inclusions [Series/Phase]: frabern On Hydric Soils List: Yes  No

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>6</u>	<u>A</u>	<u>10YR 2/1</u>	<u>-</u>	<u>-</u>	<u>sandy</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Comments: \_\_\_\_\_

**DECISION**

**WETLAND / WATERS DETERMINATION? Yes  No**

Rationale: Meets all 3 criteria

General comments: \_\_\_\_\_

Wetland Type: Seasonal Wetland S10B



**ECORP Consulting, Inc.**  
ENVIRONMENTAL CONSULTANTS

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop 62 rlob Date: 08-15-05 Sample Point: 05N  
 Applicant/Owner: Richard Committee Field Investigator(s): S. Poper  
 County: San Joaquin State: CA Plant Community: irrigated pasture  
 Quad(s): Lathrop Section/Township/Range: S 3 T 2 S R 6 E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

HYDROPHYTIC VEGETATION? Yes  No

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Agave</u>	<u>FACW</u>	<u>H</u>	<u>30.9</u>	5) _____	_____	_____	_____
2) <u>Cyperus</u>	<u>FAC</u>	<u>H</u>	<u>31.8</u>	6) _____	_____	_____	_____
3) <u>Trifolium</u>	<u>H/L</u>	<u>H</u>	<u>31.8</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/3 = 66%

Comments: \_\_\_\_\_

**HYDROLOGY**

WETLAND HYDROLOGY? Yes  No

Recorded Dam: Yes  No  If yes, \_\_\_\_\_

Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)

Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland

Secondary Indicators (2 or more required):

Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_

Comments: \_\_\_\_\_

**SOILS**

HYDRIC SOILS? Yes  No

Series/Phase: <sup>146</sup> Mantua fine sandy loam 0-22 slope Drainage Class: well drained

Taxonomy [Subgroup]: thermic Haplic Durixerolls Confirm Map Type: Yes  No

Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretion  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_

Inclusions [Series/Phase]: trahern On Hydric Soils List: Yes  No

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>6</u>	<u>A</u>	<u>10YR 3/2</u>	<u>-</u>	<u>-</u>	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Comments: \_\_\_\_\_

**DECISION**

WETLAND / WATERS DETERMINATION? Yes  No

Rationale: Does not meet hydrology or soils parameters

General comments: \_\_\_\_\_

Wetland Type: \_\_\_\_\_





**ECORP Consulting, Inc.**  
**ENVIRONMENTAL CONSULTANTS**

**ROUTINE WETLAND DELINEATION**

Project/Site: Suth Lathrop 62766 Date: 08-15-05 Sample Point: 016  
 Applicant/Owner: Richland Communities Field Investigator(s): S. Roper  
 County: San Joaquin State: CA Plant Community: Irrigated pasture  
 Quad(s): Lathrop Section/Township/Range: 33 T2S R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

**HYDROPHYTIC VEGETATION? Yes  No**

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Cyn dac</u>	<u>FAC</u>	<u>H</u>	<u>58.8</u>	5) _____	_____	_____	_____
2) <u>Tri hir</u>	<u>N/L</u>	<u>H</u>	<u>23.5</u>	6) _____	_____	_____	_____
3) <u>Agc ave</u>	<u>FACW</u>	<u>H</u>	<u>17.6</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/3 = 66 %

Comments: \_\_\_\_\_

**HYDROLOGY**

**WETLAND HYDROLOGY? Yes  No**

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_  
 Comments: \_\_\_\_\_

**SOILS**

**HYDRIC SOILS? Yes  No**

Series/Phase: <sup>A6</sup> Mastic fine sandy loam, 0-2% slope Drainage Class: well drained  
 Taxonomy [Subgroup]: thermic Haplic Durixerolls Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretion  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_  
 Inclusions [Series/Phase]: trahern On Hydric Soils List: Yes  No   

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>6</u>	<u>A</u>	<u>10YR 4/1</u>	<u>-</u>	<u>-</u>	<u>sandy</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

 Comments: \_\_\_\_\_

**DECISION**

**WETLAND / WATERS DETERMINATION? Yes  No**

Rationale: Meets all 3 parameters  
 General comments: \_\_\_\_\_

Wetland Type: Seasonal wetland

### HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
<u>Agg ave</u>	<u>15</u>	<u>17.6</u>
<u>Cyn dac</u>	<u>50</u>	<u>58.8</u>
<u>Tri hir</u>	<u>20</u>	<u>23.5</u>
TOTAL SUM ( $\Sigma$ ) =	<u>85</u>	100%

<u>COVER:</u>	
Vegetation	<u>85</u>
Bare Ground	<u>15</u>
Rocks	<u> </u>
Other	<u> </u>
TOTAL =	100%

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
<u>Cyn dac</u>	<u>58.8</u>	<u>58.8</u>	<u> </u>	<u> </u>
<u>Tri hir</u>	<u>23.5</u>	<u>82.3</u>	<u> </u>	<u> </u>
<u>Agg ave</u>	<u>17.6</u>	<u>100</u>	<u> </u>	<u> </u>
TOTAL SUM ( $\Sigma$ ) =	100%			

**ECORP Consulting, Inc.**  
 ENVIRONMENTAL CONSULTANTS

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop 6a+6b Date: 08-15-05 Sample Point: 07N  
 Applicant/Owner: Richland Communities Field Investigator(s): S. Roper  
 County: San Joaquin State: CA Plant Community: irrigated pasture  
 Quad(s): Lathrop Section/Township/Range: S3 T25 R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

HYDROPHYTIC VEGETATION? Yes  No

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Agropyron</u>	<u>FACW</u>	<u>H</u>	<u>33.3</u>	5) _____	_____	_____	_____
2) <u>Cynodon</u>	<u>FAC</u>	<u>H</u>	<u>33.3</u>	6) _____	_____	_____	_____
3) <u>Trifolium</u>	<u>N/L</u>	<u>H</u>	<u>33.3</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/3 = 66 %

Comments: \_\_\_\_\_

**HYDROLOGY**

WETLAND HYDROLOGY? Yes  No

Recorded Data: Yes  No  If yes, \_\_\_\_\_

Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)

Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland

Secondary Indicators (2 or more required):

Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other: \_\_\_\_\_

Comments: no 1<sup>o</sup> or 2<sup>o</sup> indicators

**SOILS**

HYDRIC SOILS? Yes  No

Series/Phase: A<sup>b</sup> Mantled fine sandy loam 0-2% slope Drainage Class: well drained

Taxonomy [Subgroup]: thermic Haplic Durixerolls Confirm Map Type: Yes  No

Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretion

High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other: \_\_\_\_\_

Inclusions [Series/Phase]: teahern On Hydric Soils List: Yes  No

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>6</u>	<u>A</u>	<u>10YR 3/2</u>	<u>-</u>	<u>-</u>	<u>Sandy</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Comments: \_\_\_\_\_

**DECISION**

WETLAND / WATERS DETERMINATION? Yes  No

Rationale: Does not meet all of the parameters

General comments: \_\_\_\_\_

Wetland Type: \_\_\_\_\_

## HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Aggr sve	35	33.3
cyn dac	35	33.3
Tri hir	35	33.3
TOTAL SUM ( $\Sigma$ ) =	105	100%

COVER:

Vegetation	100
Bare Ground	_____
Rocks	_____
Other	_____
TOTAL =	100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Aggr sve	33.3	33.3	_____	_____
cyn dac	33.3	66.6	_____	_____
Tri hir	33.3	99.9	_____	_____
TOTAL SUM ( $\Sigma$ ) =	100%			

**ECORP Consulting, Inc.**  
**ENVIRONMENTAL CONSULTANTS**

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop 6a & 6b Date: 08-15-05 Sample Point: 028N  
 Applicant/Owner: Richland Communities Field Investigator(s): S. Popper  
 County: San Joaquin State: CA Plant Community: grassland  
 Quad(s): Lathrop Section/Township/Range: S3 T23 R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

**HYDROPHYTIC VEGETATION? Yes  No**

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) Pop fre	FAC+*	T	56.25	5)			
2) Cyn Ace	FAC	H	18.75	6)			
3) Bro hor	FACU	H	12.5	7)			
4) Hd vir	N/L	H	12.5	8)			

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/4 = 50 %

Comments: \_\_\_\_\_

**HYDROLOGY**

**WETLAND HYDROLOGY? Yes  No**

Recorded Data: Yes  No  If yes, \_\_\_\_\_

Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)

Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland

Secondary Indicators (2 or more required):

Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_

Comments: no 1° or 2° indicators

**SOILS**

**HYDRIC SOILS? Yes  No**

Series/Phase: 146 Grangeville fine sandy loam, partially drained or 256dpx Drainage Class: partially drained

Taxonomy [Subgroup]: thermic Fluvaquentic Haploxerolls Confirm Map Type: Yes  No

Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretions

High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_

Inclusions [Series/Phase]: Merritt, Columbia, Dello, Egbert On Hydric Soils List: Yes  No

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>8</u>	<u>A</u>	<u>10YR 3/3</u>	<u>-</u>	<u>-</u>	<u>sandy</u>

Comments: \_\_\_\_\_

**DECISION \***

**WETLAND / WATERS DETERMINATION? Yes  No**

Rationale: Does not meet any of the parameters

General comments: \_\_\_\_\_

Wetland Type: \_\_\_\_\_

## HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Bro hor	10	12.5
Pop fre	45	56.25
Hol vic	10	12.5
Cyn dac	15	18.75
<b>TOTAL SUM (<math>\Sigma</math>) =</b>	<u>80</u>	100%

<u>COVER:</u>	
Vegetation	<u>80</u>
Bare Ground	<u>20</u>
Rocks	<u> </u>
Other	<u> </u>
<b>TOTAL =</b>	100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Pop fre	56.25	56.25	<u> </u>	<u> </u>
Cyn dac	18.75	75	<u> </u>	<u> </u>
Bro hor	12.5	87.5	<u> </u>	<u> </u>
Hol vic	12.5	100	<u> </u>	<u> </u>
<b>TOTAL SUM (<math>\Sigma</math>) =</b>	100%			

**ECORP Consulting, Inc.**  
**ENVIRONMENTAL CONSULTANTS**

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop Corridor Date: 12-8-05 Sample Point: Q1  
 Applicant/Owner: Richland Communities Field Investigator(s): S. Stoker  
 County: San Joaquin State: CA Plant Community: \_\_\_\_\_  
 Quad(s): Lathrop Section/Township/Range: S3 T2S R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

**HYDROPHYTIC VEGETATION? Yes  No**

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Con arV</u>	<u>N/L</u>	<u>H</u>	<u>50</u>	5) _____	_____	_____	_____
2) <u>Cyn dac</u>	<u>FAC</u>	<u>H</u>	<u>30</u>	6) _____	_____	_____	_____
3) _____	_____	_____	_____	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/2 = 50 %

Comments: \_\_\_\_\_

**HYDROLOGY**

**WETLAND HYDROLOGY? Yes  No**

Recorded Data: Yes  No  If yes, \_\_\_\_\_

Depth of surface water: — (in.) Depth to free water in pit: — (in.) Depth to saturated soil: — (in.)

Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland

Secondary Indicators (2 or more required):

Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_

Comments: no 1<sup>o</sup> or 2<sup>o</sup> indicators

**SOILS**

**HYDRIC SOILS? Yes  No**

Series/Phase: Dello clay loam drained 0-2% slope overwashed Drainage Class: poorly drained

Taxonomy [Subgroup]: thermic Typic Psammaquents Confirm Map Type: Yes  No

Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretions

High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_

Inclusions (Series/Phase): Columbia merriitt egbert On Hydric Soils List: Yes  No

Depth (in.) Horizon Matrix Color Mottle Color Mottle (Abund/Contrast/Size) Texture, Concretions, Structure

10 A 7.5YR 3/2 — — —

Comments: \_\_\_\_\_

**DECISION**

**WETLAND / WATERS DETERMINATION? Yes  No**

Rationale: Does not meet any of the criteria

General comments: \_\_\_\_\_

Wetland Types: \_\_\_\_\_

# HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
Con an	25	50
Cir spe	10	20
Cyp dat	15	30
TOTAL SUM ( $\Sigma$ ) =	50	100%

<u>COVER:</u>	
Vegetation	50
Bare Ground	50
Rocks	
Other	
TOTAL =	100%

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
Con an	50	50		
Cyp dat	30	80		
TOTAL SUM ( $\Sigma$ ) =	100%			



**ECORP Consulting, Inc.**  
ENVIRONMENTAL CONSULTANTS

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop Rd #66 Date: 12-8-05 Sample Point: 10N  
 Applicant/Owner: Richland Communities Field Investigator(s): S. Stoker  
 County: San Joaquin State: CA Plant Community: \_\_\_\_\_  
 Quad(s): Lathrop Section/Township/Range: S3 T25 R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

HYDROPHYTIC VEGETATION? Yes  No

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Cyn dac</u>	<u>FAC</u>	<u>H</u>	<u>50</u>	5) _____	_____	_____	_____
2) <u>Conary</u>	<u>H/L</u>	<u>H</u>	<u>25</u>	6) _____	_____	_____	_____
3) <u>Cir spe</u>	<u>-</u>	<u>H</u>	<u>25</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/3 = 33 %.

Comments: \_\_\_\_\_

**HYDROLOGY**

WETLAND HYDROLOGY? Yes  No

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_  
 Comments: no 1° or 2° indicators

**SOILS**

HYDRIC SOILS? Yes  No

Series/Phase: <sup>148</sup> Dello clay loam, drained, 0-2% slope overwash Drainage Class: poorly drained  
 Taxonomy [Subgroup]: thermic Typic Psammaquents Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretions  
 High Organic Content in Surface Layer in Sandy Soils  Organic-Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_  
 Inclusions [Series/Phase]: Columbia, meritt, eghert On Hydric Soils List: Yes  No   

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>10</u>	<u>A</u>	<u>7.5YR 3/2</u>	<u>-</u>	<u>-</u>	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Comments: \_\_\_\_\_

**DECISION \***

WETLAND / WATERS DETERMINATION? Yes  No

Rationale: Does not meet any of the parameters  
 General comments: \_\_\_\_\_  
 Wetland Type: \_\_\_\_\_

## HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Cyn dac	40	50
Com arv	20	25
Gr spe	20	25
TOTAL SUM (Σ) =	80	100%

<u>COVER:</u>	
Vegetation	80
Bare Ground	20
Rocks	
Other	
TOTAL =	100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Cyn dac	50	50		
Com arv	25	75		
Gr spe	25	100		
TOTAL SUM (Σ) =				

**APPENDIX B**

**Plant Species Observed at Data Point Locations**

**Attachment B – Dominant Plant Species at the Lathrop 6a and 6b Project Area  
December, 2004 and August 2005.**

<b>Abbr.</b>	<b>Scientific Name</b>	<b>Common Name</b>	<b>Indicator Status</b>
AGR AVE	<i>Agrostis avenacea</i>	Bentgrass	FACW
BRA spe.	<i>Brassica species</i>	Mustard	N/L
BRO HOR	<i>Bromus hordeaceus</i>	Soft brome	FACU-
CEN SOL	<i>Centaurea solstitialis</i>	Yellow star-thistle	N/L
CIR VUL	<i>Cirsium vulgare</i>	Bull thistle	FAC
CON ARV	<i>Convolvulus arvensis</i>	Morning glory	N/L
CYN DAC	<i>Cynodon dactylon</i>	Bermuda grass	FAC
ECH CRU	<i>Echinochloa crusgalli</i>	Barnyard grass	FACW
HEM PUN	<i>Hemizonia pungens</i>	Common tarweed	FAC
HOL VIR	<i>Holocarpha virgata</i>	Sticky tarweed	N/L
LUD PEP	<i>Ludwigia peploides var peploides</i>	Water primrose	OBL
LUP spe.	<i>Lupinus species</i>	Lupine	N/L
PIC ECH	<i>Picris echioides</i>	Bristly oxtongue	FAC
POP FRE	<i>Populus fremontii</i>	Fremont's cottonwood	FAC+*
QUE LOB	<i>Quercus lobata</i>	Valley oak	FACU
TRI HIR	<i>Trifolium hirtum</i>	Rose clover	N/L
TRI spe.	<i>Trifolium species</i>	Clover	N/L

**Indicator Status Codes**

OBL = Obligate Wetland; occur almost always (estimated probability >99%) under natural conditions in wetlands.  
 FACW = Facultative Wetland; usually occur in wetlands (estimated probability 67%-99%) under natural conditions in wetlands.  
 FAC = Facultative; equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%).  
 FACU = Facultative Upland; usually occur in non-wetlands (estimated probability 67%-99%).  
 UPL = Obligate Upland; occur almost always (estimated probability >99%) in non-wetlands in the region specified.  
 N/L = Not Listed.  
 NI = No indicator was recorded for those species for which insufficient information was available to determine a status.  
 -- = May or may not occur in wetlands depending upon species.  
 A positive (+) sign indicates a frequency toward the higher (more frequently found in wetlands) end of the facultative categories.  
 A negative (-) sign indicates a frequency toward the lower (less frequently found in wetlands) end of the facultative categories.  
 An asterisk (\*) indicates a tentative assignment based upon limited information or conflicting review.

**APPENDIX C**

Wetland Delineation

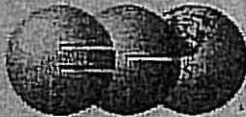


# SOUTH LATHROP 6A & 6B

## WETLAND DELINEATION

(Subject to U.S. Army Corp. of Engineer's verification)

DATE: 08 SEPTEMBER 2005	REVISION:	PROJECT NO: 2004-096
DRAWN BY: CN/ET	SCALE: 1"=300'	FILE NAME Lathrop_6a_6b-wd2.dwg
CHECKED BY:		LAYOUT: 30X25
WETLAND VERIFICATION LETTER DATE:		



**ECORP Consulting, Inc.**  
ENVIRONMENTAL CONSULTANTS

**Headquarters**  
2250 Douglas Blvd., Suite 160  
Roseville, Ca 95661  
Ph: (916) 782-9100

**Roseville Annex**  
1376 Lead Hill Blvd. Suite 130  
Roseville, CA 95661  
Ph: (916) 782-9100

**Oakland Office**  
2100 Embarcadero, Suite 201  
Oakland, CA 94606  
Ph: (510) 434-0150

**Redlands Office**  
412 East State St  
Redlands, CA 92373  
Ph: (909) 307-0046

**APPENDIX D**

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Wetland Delineation Shape File (to be include with Corps submittal only)

**APPENDIX E**

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Corps-Verified Wetland Map and Verification Letter (to be included in ECORP's master  
copy only)



## **ATTACHMENT D**

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Information Provided in Support Section 7 Consultation with the U.S. Fish and Wildlife  
Service

Information Provided in Support of  
Section 7 Consultation with the U.S. Fish and Wildlife Service

For

**South Lathrop 6a and 6b**

San Joaquin County, California

29 August 2008

Prepared For:

**Richland Planned Communities**



**ECORP Consulting, Inc.**  
ENVIRONMENTAL CONSULTANTS

**Information Provided in Support of Riparian Brush Rabbit  
Section 7 Consultation with the U.S. Fish and Wildlife Service**

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**LIST OF ATTACHMENTS**

- Attachment A – Special-Status Species Assessment
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- Attachment C – Special-Status Plant Survey

## **INTRODUCTION**

A Special-Status Species Assessment was prepared for the South Lathrop 6a and 6b project on 8 September 2006. The Special-Status Species Assessment is included as part of herein as Attachment A. Impacts to the following federally endangered (E) or threatened (T) species potentially occurring on the South Lathrop 6a and 6b project are covered through the San Joaquin Multiple Species Habitat Conservation and Open Space Plan (SJMSCP) Minimization Measures:

### **Invertebrates**

- *Branchinecta lynchi* – vernal pool fairy shrimp (T)
- *Desmocerus californicus dimorphus* – valley elderberry longhorn beetle (T)
- *Lepidurus packardii* – vernal pool tadpole shrimp (E)

### **Fish**

- *Hypomesus transpacificus* – delta smelt (T)
- *Oncorhynchus mykiss* – Central Valley steelhead (T)
- *Oncorhynchus tshawytscha* – Central Valley spring-run chinook salmon (T)
- *Oncorhynchus tshawytscha* – winter-run chinook salmon, Sacramento River (E)

### **Amphibians**

- *Ambystoma californiense* – California tiger salamander (T)
- *Rana aurora draytonii* – California red-legged frog (T)

### **Reptiles**

- *Thamnophis gigas* – giant garter snake

## Birds

- *Haliaeetus leucocephalus* – bald eagle (T)

The federally listed species which has the potential to occur at the South Lathrop 6a and 6b project site, which is not covered under the SJMSCP, is the riparian brush rabbit (*Sylvilagus bachmani riparius*; federally endangered). Historically, they have been found in the San Joaquin Valley riparian areas. The riparian habitat at the western perimeter may represent suitable habitat for riparian brush rabbit. An assessment of habitat for the riparian brush rabbit was conducted and is included herein as Attachment B.

Riparian habitat on the western boundary of the site represents potentially-suitable habitat for slough thistle (*Cirsium crassicaule*, CNPS 1B), Delta button celery (*Eryngium racemosum*, California endangered, CNPS 1B), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*, CNPS List 2). ECORP conducted determinate special-status plant surveys for the project site on 30 May and 7 June 2008. No special-status plants were observed on-site during the 2008 field survey. The Special-Status Plant Survey Report is included herein as Attachment C.

The purpose of this document is to review the proposed South Lathrop 6a and 6b project to evaluate to what extent the proposed action may affect the endangered riparian brush rabbit (*Sylvilagus bachmani riparius*).

## PROJECT PROPONENT

### Applicant:

Attn: Clifton Taylor  
Address: Richland Planned Communities  
2220 Douglas Boulevard, Suite 290  
Roseville, California 95661  
Phone: (916) 782-3330  
Fax: (916) 784-3369

### Agent:

Attn: Michelle Archuleta  
Address: ECORP Consulting, Inc.  
2525 Warren Drive  
Rocklin, California 95677  
Phone: (916) 782-9100  
Fax: (916) 782-9134

## CONSULTATION TO DATE

There has been no consultation to date with the U.S. Fish and Wildlife Service (USFWS) regarding the South Lathrop 6a and 6b project and riparian brush rabbit (RBR).

## DESCRIPTION OF THE PROPOSED ACTION

The project site is located south of Highway 120, east of the San Joaquin River, and north of the Western Pacific Railroad tracks in San Joaquin County, California (Figure 1. *Project Site and Vicinity*). This site corresponds to a portion of Section 2 and an unsectioned portion of Township 2 South and Range 6 East (MDBM) of the "Lathrop, California" 7.5-minute quadrangle (U.S. Department of the Interior, Geological Survey 1996). The approximate center of the site is located at 37° 47' 10" North and 121° 17' 40" West within the San Joaquin Delta Watershed (# 18040003, U.S. Department of the Interior, Geological Survey 1978). The proposed South Lathrop 6a and 6b project (Figure 2. *Proposed Impact Plan*) consists of a 277-acre light industrial, office, and commercial development in south-central San Joaquin County within the City of Lathrop.

Development of the South Lathrop 6a and 6b project will occur over approximately 10 years, with most activities associated with ground disturbance occurring during the first three years. Ground disturbance will be limited to the 277-acre development footprint situated east of the San Joaquin River. Only minor construction activity is anticipated in the riparian area located east of the San Joaquin River. Construction activities include the installation of an outfall structure and a trail system.

The area of the project bounded by the San Joaquin River levee road on the east, the San Joaquin River to the west, the railroad/railroad bridge to the south, and Highway 120 to the north, represents the only potentially suitable habitat for riparian brush rabbit on-site. Riparian brush rabbits are generally known to inhabit dense, brushy areas of Valley riparian forests marked by extensive thickets of understory vegetation such as California wild rose, California blackberries (*Rubus ursinus*), and willows. The habitat within this narrow strip is highly variable

in vegetative composition. The approximate northern half of this area is predominantly non native annual grasslands while the southern half is a mix of oak (*Quercus* spp.), cottonwood (*Populus* spp.), and willow riparian woodland with a variable understory including patches of non-native annual grassland, California wild rose (*Rosa californica*), stinging nettles (*Urtica dioica*), and willow scrub (*Salix* spp.). Although the riparian habitat on-site has been disturbed and is subject to ongoing disturbances including flooding, levee maintenance activities (e.g., rip rap placement), and invasion and control of exotic plant species (e.g., weed abatement for non-native annual grasses and forbs), the on-site area occurring on the interior levee side between the San Joaquin River and the levee road, provides potentially suitable riparian habitat for riparian brush rabbit.

### **Conservation Measures**

The following is a description of the conservation measures that have been incorporated into the project to avoid, minimize, and compensate for potential impacts associated with the riparian brush rabbit.

#### *Public Education and Permanent Signage*

Educational materials regarding the riparian habitat and the riparian brush rabbit will be provided annually for businesses located within the South Lathrop 6a and 6b project area. This material will discuss the species' biology, habitat, endangered status under the Act, threats to the rabbits, and any other activities that could negatively impact the riparian brush rabbit or this species' habitat. Signs will be posted in the riparian area along the trail that will provide information to the public regarding the protected nature of the riparian habitat (e.g., not allowing pets to enter riparian areas).

#### *Sensitivity Training*

A worker training program for construction and other on-site personnel will be conducted before groundbreaking at the project site. The program will consist of a brief presentation by the on-site biologist who will explain endangered species concerns to all contractors, their employees,



and agency personnel involved in the project. The program will include a description of the riparian brush rabbit, their habitat needs, an explanation of their protection under the Endangered Species Act, and a description of the measures being taken to reduce effects to the species during project construction and implementation.

#### *Avoidance of Nests*

During the breeding season (December through May), project construction activities will avoid any identified active riparian brush rabbit nests with a buffer of at least 152 m (500 ft). If identified, the nest areas will be mapped and marked by brightly colored markers or other easily visible, temporary fencing. Protocol for presence/absence surveys to identify potentially nesting rabbits, will be developed through correspondence with the USFWS.

#### *Temporary Signage*

During construction (not including construction activities for the outfall and trails in the riparian area), the riparian area will be protected with high-visibility fencing that is at least 1.5 m (5 ft) tall will be placed to prevent encroachment of construction personnel and equipment. If plastic netting is used for the fencing material, the holes will be of a size such that riparian brush rabbits are unable to become entrapped in it. To allow riparian brush rabbits to pass through the fence, breaks in the fencing at least 0.61 m (2 ft) wide will be placed every 3.05 m (10 ft). The fencing will be inspected before the start of each work day by the on-site biologist and maintained by the applicant until completion of the project. The fencing will be removed following completion of the project.

Signs that can be easily read from at least 6.1m (20 ft) away will be placed on the fencing to indicate riparian habitat that must be avoided by construction personnel.

### *Biological Monitoring*

A qualified biologist will be on-site during all activities that could result in the take of a riparian brush rabbit, specifically, when the outfall and trail system are constructed. The biologist will be given the authority to stop any work that may result in take of listed species.

### *Entrapment Prevention*

To prevent inadvertent entrapment of riparian brush rabbits, all excavated, steep-walled holes or trenches more than 0.61 m (2 ft) deep and within 152 m (500 ft) of the ESA will be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. The holes and trenches will be inspected for trapped animals prior to being filled. If at any time a trapped riparian brush rabbit is discovered, the on-site biologist will be contacted to provide escape ramps, or assistance to allow the animal to escape, or the Service will be contacted for advice.

## **ACTION AREA**

The Action Area has been defined as the entire project boundary (see Figure 1).

## **SPECIES ACCOUNTS AND STATUS OF THE SPECIES IN THE ACTION AREA**

The riparian brush rabbit, one of eight subspecies found in California, was listed as endangered on March 24, 2000 (65 **FR** 8881). The species range includes the area west of the Cascade-Sierra crest from the Columbia River to the tip of Baja California (Williams and Basey 1986). Riparian brush rabbits are small, brownish rabbits similar to the desert cottontail (*Sylvilagus audubonii*), but can be distinguished from the desert cottontail, the by a smaller, more inconspicuous tail and short, uniformly-colored ears (no black tip). Adult riparian brush rabbits are about 11.8 to 14.8 inches long, and weigh approximately 17.6 to 28.2 ounces. Hind foot length is from 2.7 to 3.1 inches and ear from notch is from 2.7 to 3.2 (Orr 1940). When viewed from above, the riparian brush rabbit's cheeks protrude outward rather than being straight or

concave (Orr 1940). A detailed account of the species' biology and ecology can be found in the *Recovery Plan for Upland Species of the San Joaquin Valley, California* (Service 1998) (Valley Recovery Plan).

### **Life History and Habitat**

The riparian brush rabbit breeding season occurs from December to May (Williams 1988, Basey 1990). Gestation is generally 27 days, with a litter size of approximately three or four, and females produce three to four litters during the season. On average, a female may produce nine to 16 young each year. This is a relatively high reproductive rate, it is still lower than many other cottontail species, and five out of six rabbits do not survive to the next breeding season (Mossman 1955, Chapman and Harman 1972). According to Davis (1936) and Orr (1940, 1942), riparian brush rabbits nest in shallow "forms" or cavities, natural or scraped out, approximately 3 to 6 inches deep, in the ground, usually beneath brushy cover. Riparian brush rabbits are not known to regularly use or dig burrows. The nest is probably lined with dry vegetation in which the riparian brush rabbits take cover.

Riparian brush rabbits live in the San Joaquin Valley within riparian areas characterized by large clumps of shrubs and vines, generally with sparse or no overstory of trees (Williams and Basey 1986). Forests with closed canopies generally lack the sufficient understory of shrubs to meet the riparian brush rabbit's habitat requirements. Where dense low growing wild roses (*Rosa californica*), wild grape (*Vitis californica*), and blackberries (*Rubus ursinus*) are found in savanna-like settings, brush rabbits live in tunnels through the vines and shrubs.

Riparian brush rabbits appear to prefer a mix of roses, blackberries, marsh baccharis (*Baccharis pilularis*). Sites occupied by riparian brush rabbits have more ground litter and rose bushes, and fewer willows when compared to sites occupied by desert cottontails. Presence of surface litter and the absence of willows in the understory signify areas of higher ground that are not flooded regularly or heavily (Williams and Basey 1986). Riparian brush rabbits have been found, however, in areas with willows.

## **Historical and Current Distribution**

The riparian brush rabbit was historically distributed throughout the riparian forests that existed along portions of the San Joaquin River and its tributaries on the Valley floor, from Stanislaus County north to the Delta (Orr 1940).

By the mid-1980s, the riparian forest within the former range of the riparian brush rabbit had been reduced to a few small and widely scattered fragments, totaling about 5,189 acres. The Caswell Memorial State Park, 258.2 acres on the Stanislaus River in southern San Joaquin County, is one of the largest remaining fragments of suitable riparian forest (Warner 1984), and home to one of the three known extant populations of riparian brush rabbit (Williams and Basey 1986).

Riparian brush rabbits have been observed at Paradise Cut, the Mossdale Landing development, and at scattered locations along the San Joaquin River in the Tracy/Lathrop area. In 2002, a riparian brush rabbit controlled propagation program began and rabbits were released during 2002 to San Joaquin River National Wildlife Refuge. Monitoring is being conducted by the Endangered Species Recovery Program to track movement and survival of animals released at the San Joaquin Refuge in order to determine the success of the reintroduction program.

## **Reasons for Decline**

Several factors have contributed to the decline of the riparian brush rabbit. In the mid-1800s, ferries operating on the San Joaquin River required a local source of fuel. Hundreds of miles of riparian forest were harvested to meet this need for fuel. Large dams constructed for irrigation and flood control on the major rivers of the Central Valley changed the hydrology of the ecosystem contributing to the destruction and fragmentation of the San Joaquin Valley riparian forest. More recently, riparian forests were converted to various urban and agricultural uses, and further degraded through a variety of human activities. By the mid-1980's the population had been reduced to only about 5.8 percent of its original extent (Larsen 1993).

Land within the floodplain of the San Joaquin River has been converted from shrub-dotted grassland to vineyards, orchards, and row crops, with attendant land clearing and leveling, and the building and maintenance of levees. Consequently, the small patches of shrub-covered upland that once provided refuge from flooding and predation generally do not exist (Williams and Basey 1986, Williams 1988).

### **Riparian Brush Rabbit in Action Area**

A habitat assessment was conducted by ECORP Consulting, Inc on 19 October 2007 (see Attachment A). During the assessment, suitable habitat was identified as discussed above, however, no riparian brush rabbits were observed.

## **EFFECTS**

### **Direct Effects**

There are no anticipated direct effects to the riparian brush rabbit associated with the construction of the project.

### **Indirect, Interrelated, and Interdependent Effects**

Indirect effects that are likely to occur as a result of the proposed project include the potential mortality of riparian brush rabbits from the direct predation caused by pets (cats and dogs) that enter the avoidance area.

Additionally, indirect effects are also likely to occur from people that are associated with the South Lathrop 6a and 6b commercial development that enter the riparian area and disturb riparian brush rabbits during the normal activities or during their breeding season.

The indirect effects from people and pets entering the avoidance area will also be reduced through the installation of signs prohibiting certain uses of the area.

## **CUMULATIVE EFFECTS**

Cumulative effects include the effects of future State, Tribal, local, or private actions that are reasonably certain to occur in the action area considered in this biological assessment. Future Federal actions that are unrelated to the proposed project are not considered in this section, because they require separate consultation pursuant to Section 7 of the Act. An undetermined number of future land use conversions and routine agricultural practices are not subject to Federal authorization or funding and may alter the habitat or increase incidental take of riparian brush rabbit, and are, therefore, cumulative to the proposed project. Most of these future non-Federal projects are considered indirect effects of the proposed action and effects are addressed through the SJMSCP and *Intra-Service Biological and Conference Opinion*, which provides mitigation and minimization measures for 44 covered species and their habitats converted by activities covered under the SJMSCP.

Cumulative effects to the riparian brush rabbit by the continued development of agriculture, cities, industry, transportation, and water resources, are likely to result in loss of riparian and other habitats containing these species.

## **CONCLUSION AND DETERMINATION**

The effects of the proposed action may adversely affect the riparian brush rabbit and thus require the implementation of effective conservation measures as described in the project description. The project includes avoidance, minimization, and conservation measures sufficient to offset the adverse effects of the proposed action to the riparian brush rabbit.

After assessing the current status of riparian brush rabbit, the environmental baseline for the action area, the effects of the proposed South Lathrop 6a and 6b project, and cumulative effects, it is the conclusion of this biological assessment that the proposed project is not likely to jeopardize the continued existence of the riparian brush rabbit.

## REFERENCES

- Basey, G.E. 1990. Distribution, ecology, and population status of the riparian brush rabbit (*Sylvilagus bachmani riparius*). M.S. thesis, California State Univ., Stanislaus, Turlock, 76 pp.
- Chapman, J.A., and A.L. Harman. 1972. The breeding biology of a brush rabbit population. J. Wildl. Manage. 36:816-823.
- Davis, W.B. 1936. Young of the brush rabbit, *Sylvilagus bachmani*. Murrelet 17:36-40.
- EDAW. 2004. Draft Environmental Impact Report for the Central Lathrop Specific Plan (SCH#2003072132). City of Lathrop Community Development/Planning Department, Lathrop, California.
- Larsen, C.J. 1993. Status review of the riparian brush rabbit (*Sylvilagus bachmani riparius*) in California. California Dept. of Fish and Game, Sacramento, Wildlife Management Division, Nongame Bird and Mammal Section Rep. 93-12, 39 pp.
- Mossman, A.S. 1955. Reproduction of the brush rabbit in California. J. Wildl. Manage. 19:177-184.
- Orr, R.T. 1940. The rabbits of California. Occas. Papers California Acad. Sci. 19:1-227.
- Orr, R.T. 1942. Observations on the growth of young brush rabbits. J. Mammal. 23:298-302.
- U.S. Fish and Wildlife Service. 1998. Recovery Plan for Upland Species of the San Joaquin Valley, California. Region 1, Portland, Oregon. 319 pp.
- Vincent-Williams, E. et. al. 2004. Riparian Brush Rabbit: Central Lathrop Specific Plan, San Joaquin County, California. CSU Stanislaus, Endangered Species Recovery Program. Turlock, California.
- Warner, R.E. 1984. Structural, floristic, and condition inventory of Central Valley riparian systems. pp. 356-374, *in* California riparian systems ecology, conservation, and productive management (R.E. Warner and K.M. Hendrix, eds.). Univ. California Press, Berkeley, California 1053 pp.
- Williams, D.F. 1988. Ecology and management of the riparian brush rabbit in Caswell memorial State Park. California Dept. of Parks and Recreation, Lodi, Final Rep. Interagency Agreement 4-305-6108, 38 pp.
- Williams, D.F. and G.E. Basey. 1986. Population status of the riparian brush rabbit (*Sylvilagus bachmani riparius*). California Dept. of Fish and Game, Sacramento, Wildlife Management Division, Nongame Bird and Mammal Section Rep., 21. pp.

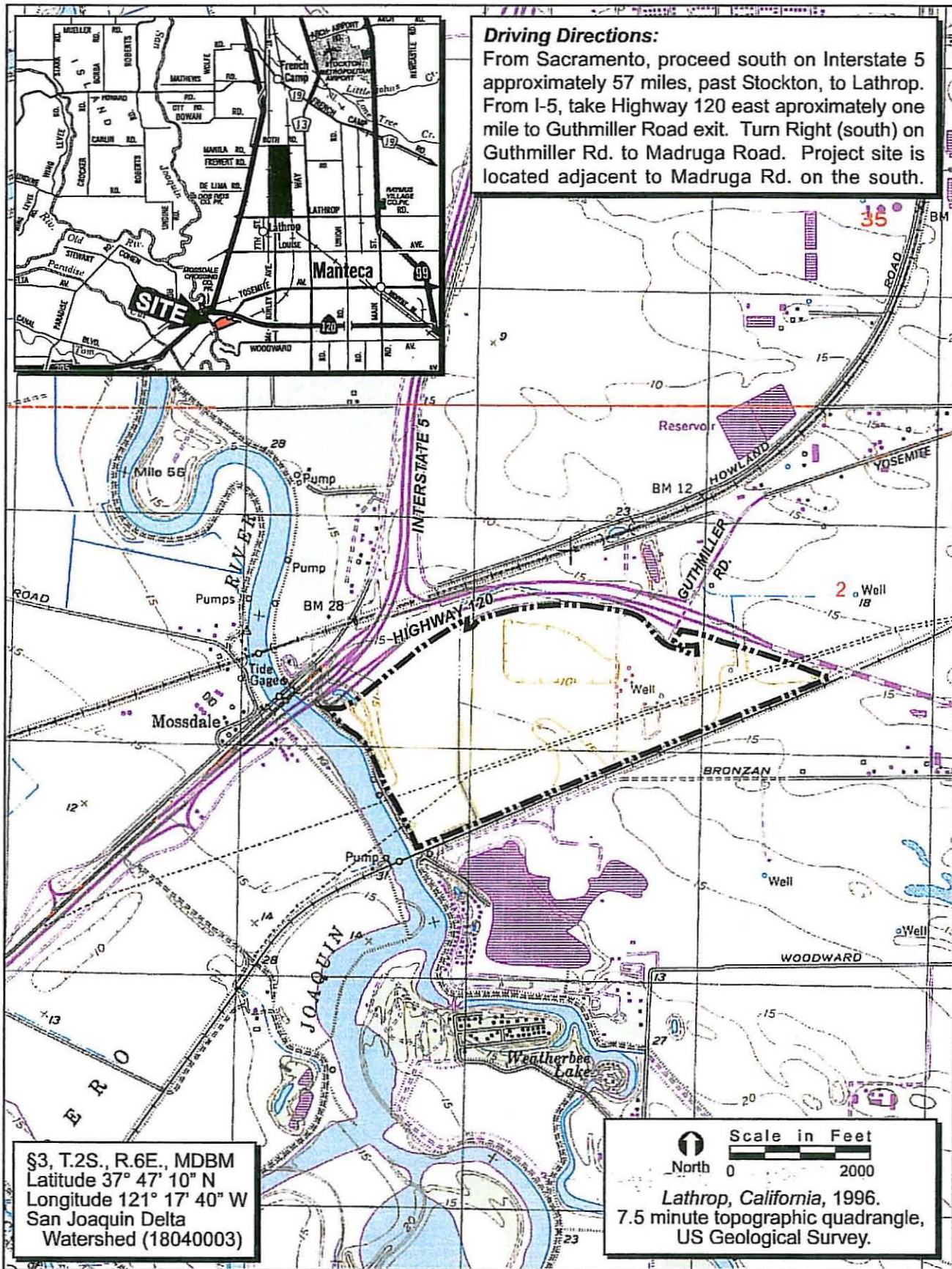
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Figure 1. Project Site and Vicinity

Figure 2. Proposed Impact Plan





**FIGURE 1. Project Site and Vicinity**

2007-213 South Lathrop 6a & 6b

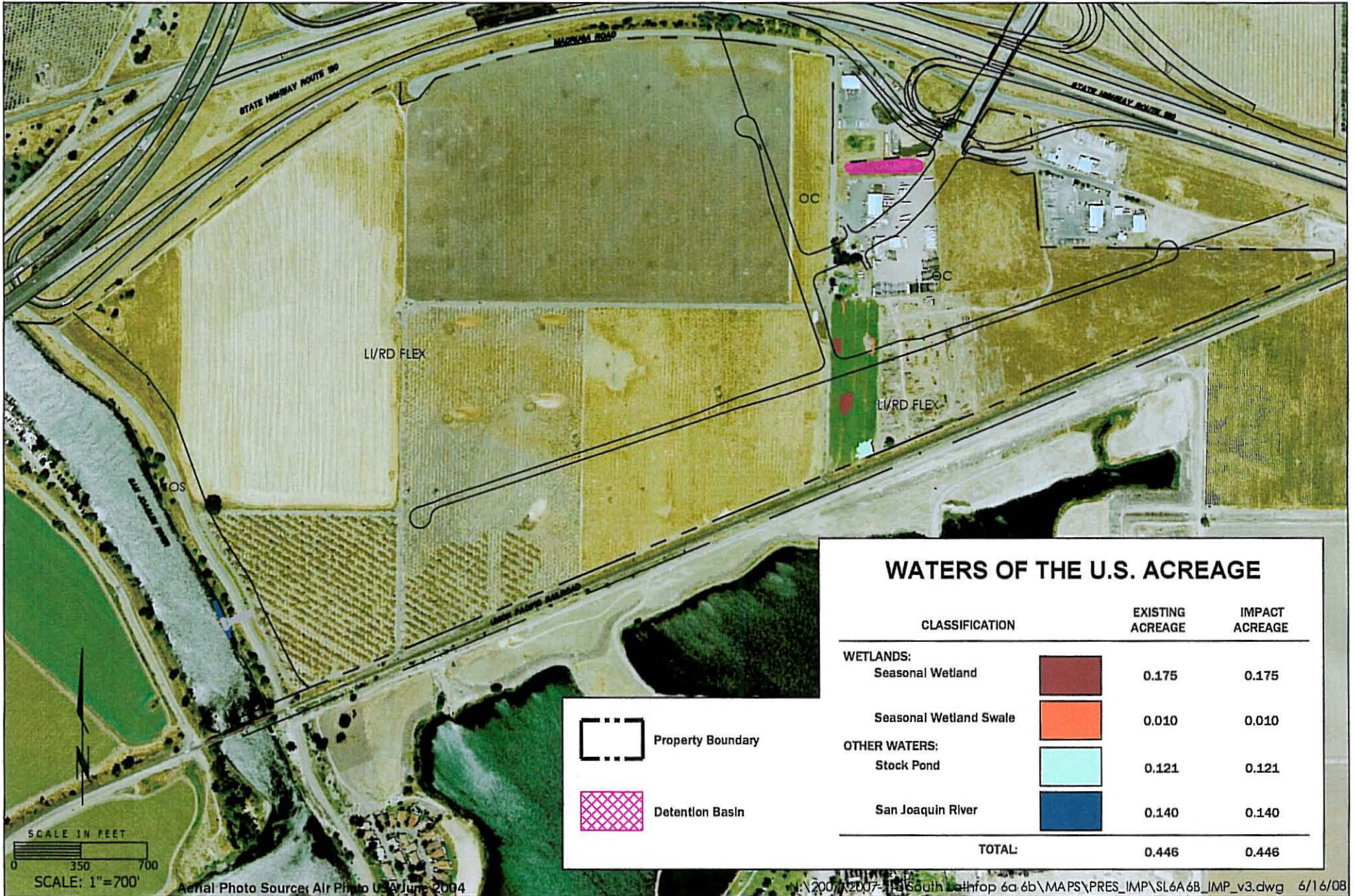


FIGURE 2. Proposed Impact Plan

## **LIST OF ATTACHMENTS**

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Attachment A – Special-Status Species Assessment

Attachment B – Burrowing Owl Survey and Riparian Brush Rabbit Habitat Assessment

Attachment C – Special-Status Plant Survey

# **ATTACHMENT A**

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Special-Status Species Assessment

Special-Status Species Assessment  
For  
**South Lathrop South Village**  
San Joaquin County, California

September 8, 2006

Prepared for:  
**Richland Planned Communities**



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Attachment A – Rarefind 2 Data Report

## **INTRODUCTION**

On behalf of Richland Planned Communities, ECORP Consulting, Inc. (ECORP) has conducted a special-status species assessment of 277-acre South Lathrop South Village project site. The project site is located south of Highway 120, east of the San Joaquin River, and north of the Western Pacific Railroad tracks with Guthmiller Road dissecting the project site in San Joaquin County, California (Figure 1 – *Project Site and Vicinity*). The site corresponds to a portion of Sections 2 and 3 and an unsectioned portion of Township 2 South, and Range 6 East Mount Diablo Base Meridian (MDBM) of the “Lathrop, California” 7.5-minute quadrangle (U.S. Department of the Interior, Geological Survey 1996). The approximate center of the site is located at 37° 47' 10" North and 121° 17' 40" West within the San Joaquin Delta Watershed (# 18040003, U.S. Department of Interior, Geological Survey 1978).

The purpose of this special-status species assessment is to assess the potential for occurrence of special-status plant and wildlife species, or their habitat, within the project site.

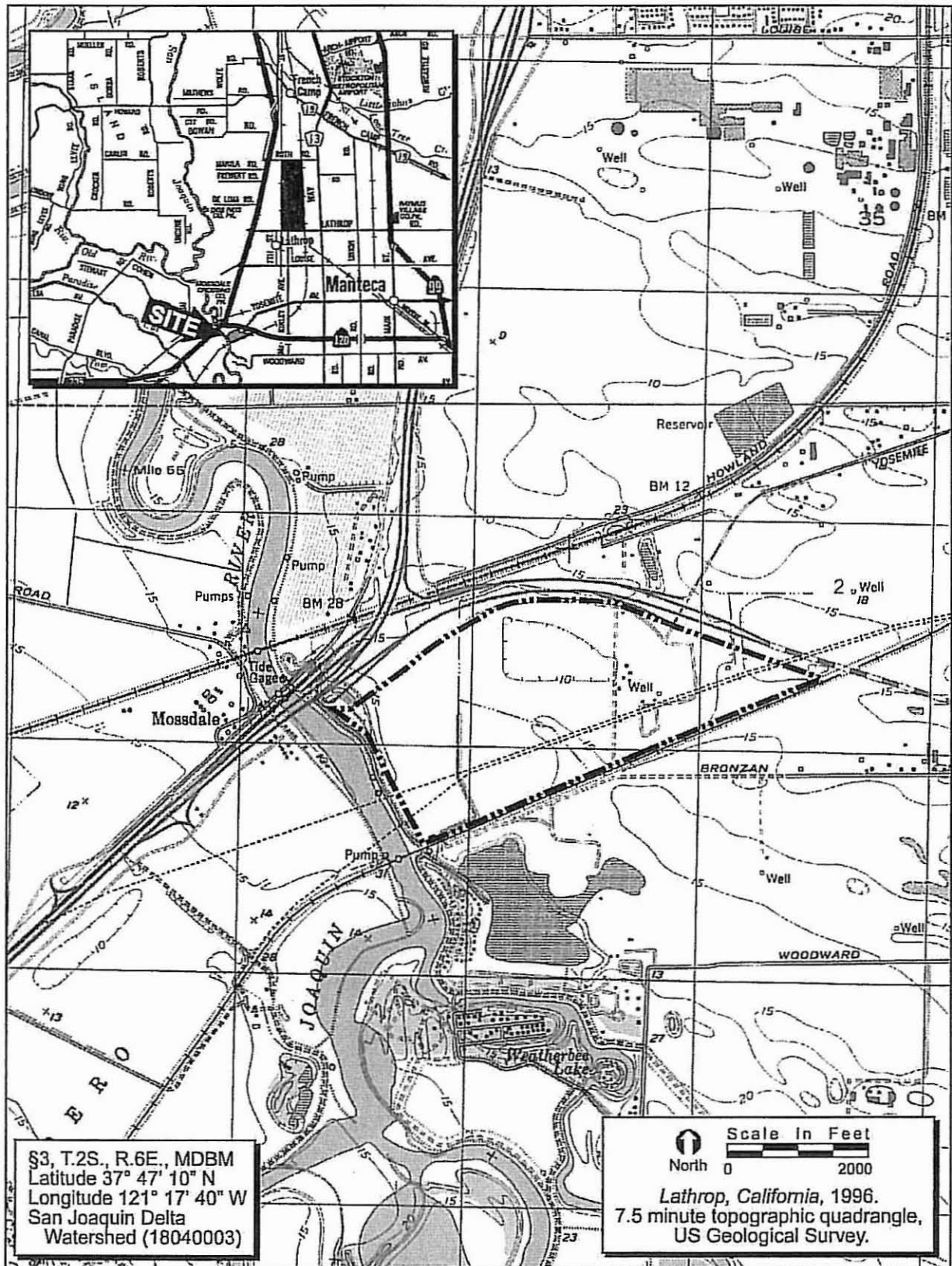
The conclusions and recommendations presented in this report are based upon limited office review and do not include site reconnaissance or species-specific field surveys. Determinate-level surveys were not conducted.

## **METHODOLOGY**

### **Special-Status Species Assessment**

For the purposes of this assessment, “special-status species” refers to those plant or wildlife species which:

- Are listed, proposed for listing, or candidates for future listing as threatened or endangered under the federal Endangered Species Act;
- Are listed or candidates for future listing as threatened or endangered under the California Endangered Species Act;



**FIGURE 1. Project Site and Vicinity**

2004-096 South Lathrop South Village



- Meet the definitions of endangered or rare under Section 15380 of the CEQA Guidelines;
- Are identified as a species of special concern by the California Department of Fish and Game (CDFG);
- Plants considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California" (Lists 1B and 2);
- Plants listed as rare under the California Native Plant Protection Act (Fish and Game Code of California, Section 1900 et seq.);
- Fully protected in California in accordance with the Fish and Game Code of California, Sections 3511 (birds), 4700 (mammals), 5050 (amphibians and reptiles), and 5515 (fishes); or
- Are tracked by CDFG's Natural Diversity Database (CNDDDB), but do not have any of the above-listed designations.

Background information was collected on the potential existence of the special-status species within or near the project site from a variety of sources including:

- California Department of Fish and Game's Natural Diversity Database (CNDDDB) record search for the "Lathrop, California" 7.5-minute quadrangle (CDFG 2003) (Attachment A);
- Species List for the "Lathrop, California" 7.5-minute quadrangle created by the U.S. Fish and Wildlife Service (USFWS) (USFWS 2006);
- California Native Plant Society's Inventory of Rare and Endangered Plants Record Search for the "Lathrop, California" 7.5-minute quadrangle (CNPS 2006);
- *Status of Rare, Threatened, and Endangered Animal and Plants of California 2000-2004* (CDFG 2005);
- *Fairy Shrimps of California's Puddles, Pools, and Playas* (Eriksen and Belk 1999);
- *Bird Species of Special Concern in California* (Remsen, Jr. 1978);
- *Amphibian and Reptile Species of Special Concern in California* (Jennings and Hayes 1994);
- *Mammalian Species of Special Concern in California* (Williams 1986);
- *California's Wildlife*, Volumes I-III (Zeiner, et al. 1988, 1990a, 1990b); and
- *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer, eds. 1988).

The special-status species assessment included a review of resource agency species lists, tax-specific literature review, CNDDDB query, previously conducted wetland delineation and an aerial photograph review. No site visit was conducted. The special-status species considered for this site are those that have a reasonable probability of occurring on-site under current site conditions. This assessment does not constitute determinate-level field surveys conducted according to agency-approved protocols.

## **RESULTS AND DISCUSSION**

### **Existing Site Conditions**

The site is comprised of relatively flat terrain and is situated at an elevation of approximately 5 to 15 feet above mean sea level. The majority of the project site is being used for agricultural practices (i.e., alfalfa (*Medicago sativa*), winter wheat (*Triticum aestivum*), and cattle grazing). The western portion is being utilized for alfalfa and winter wheat production, and an irrigated cattle pasture is located in the southern central portion of the project site. The vegetation within the irrigated pasture includes rose clover (*Trifolium hirtum*), Bermuda grass (*Cynodon dactylon*), barnyard grass (*Echinochloa crus-galli*), and birdsfoot trefoil (*Lotus corniculatus*). Riparian habitat is present along the western boundary of the site, adjacent to the San Joaquin River. Common vegetation in riparian corridors includes Fremont's cottonwood (*Populus fremontii*), valley oak (*Quercus lobata*), willow (*Salix* species), blue elderberry (*Sambucus mexicana*), and mugwort (*Artemisia douglasiana*). There are several buildings located within the project site including farmhouses and a number of commercial facilities on Guthmiller and Madruga Roads. The rest of the project site is ruderal grassland habitat. Vegetation within the ruderal grassland habitat includes yellow-star thistle (*Centaurea solstitialis*), telegraph weed (*Heterotheca grandiflora*), and common mallow (*Malva neglecta*).

A detention basin located north of a truck maintenance yard collects runoff from storm drains within the parking lot throughout the year. A stock pond, three seasonal wetlands, and two seasonal wetland swales are present in the cattle pasture.

According to the Soil Survey of San Joaquin County, California (U.S. Department of Agriculture, Soil Conservation Service 1992), seven soil units, or types, have been mapped within the project site (Figure 2 – *Natural Resource Conservation Service Soil Types*). These are: (109) Bisgani loam coarse sand, partially drained, 0 to 2 percent slopes, (142) Delhi loamy sand, 0 to 2 percent slopes, (148) Dello clay loam, drained, 0 to 2 percent slopes, overwashed, (153) Egbert silty clay loam, partially drained, 0 to 2 percent slopes, (166) Grangeville fine sandy loam, partially drained, 0 to 2 percent slopes, (169) Guard clay loam, drained, 0 to 2 percent slopes, and (196) Manteca fine sandy loam, 0 to 2 percent slopes. Soil units (109), (148) and (153) contain listed hydric components, and all of the soil units except (109) and (142) may contain hydric inclusions (U.S. Department of Agriculture, Soil Conservation Service 1992).

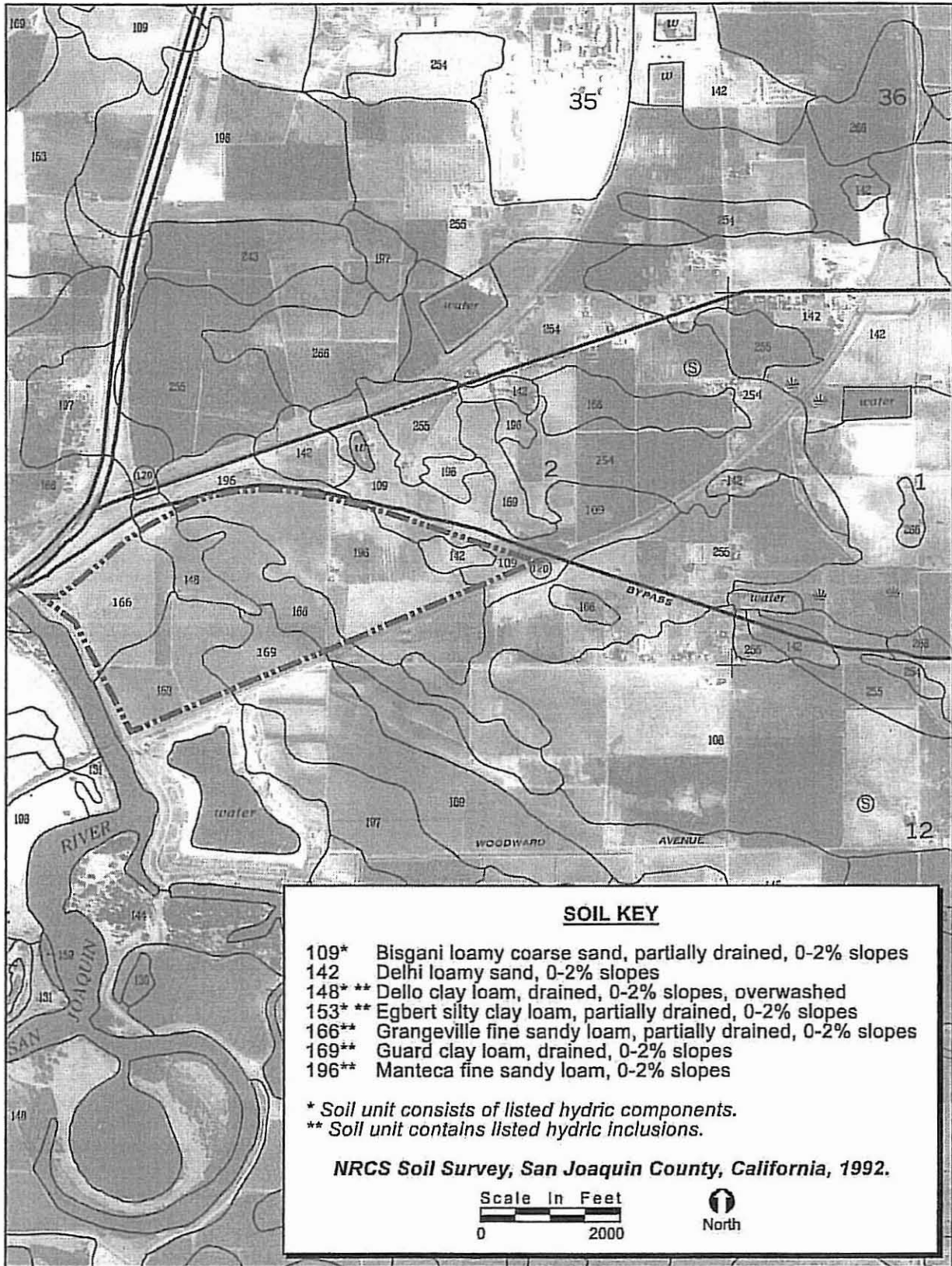
The surrounding properties include agricultural, rural residential properties, and a gravel mine.

### **Special-Status Species**

Based upon vegetation communities present on-site, current site conditions, and known species distributions, a list of potentially occurring special-status species has been developed for South Lathrop South Village (Table 1). CNDDDB occurrences of special-status species in the vicinity of the project site are presented in Figure 3. There are currently no previously documented occurrences of special-status species within the site (CDFG 2003). Potentially occurring special-status species include three plants, one invertebrate, one reptile, sixteen birds, and five mammals.

#### *Plants*

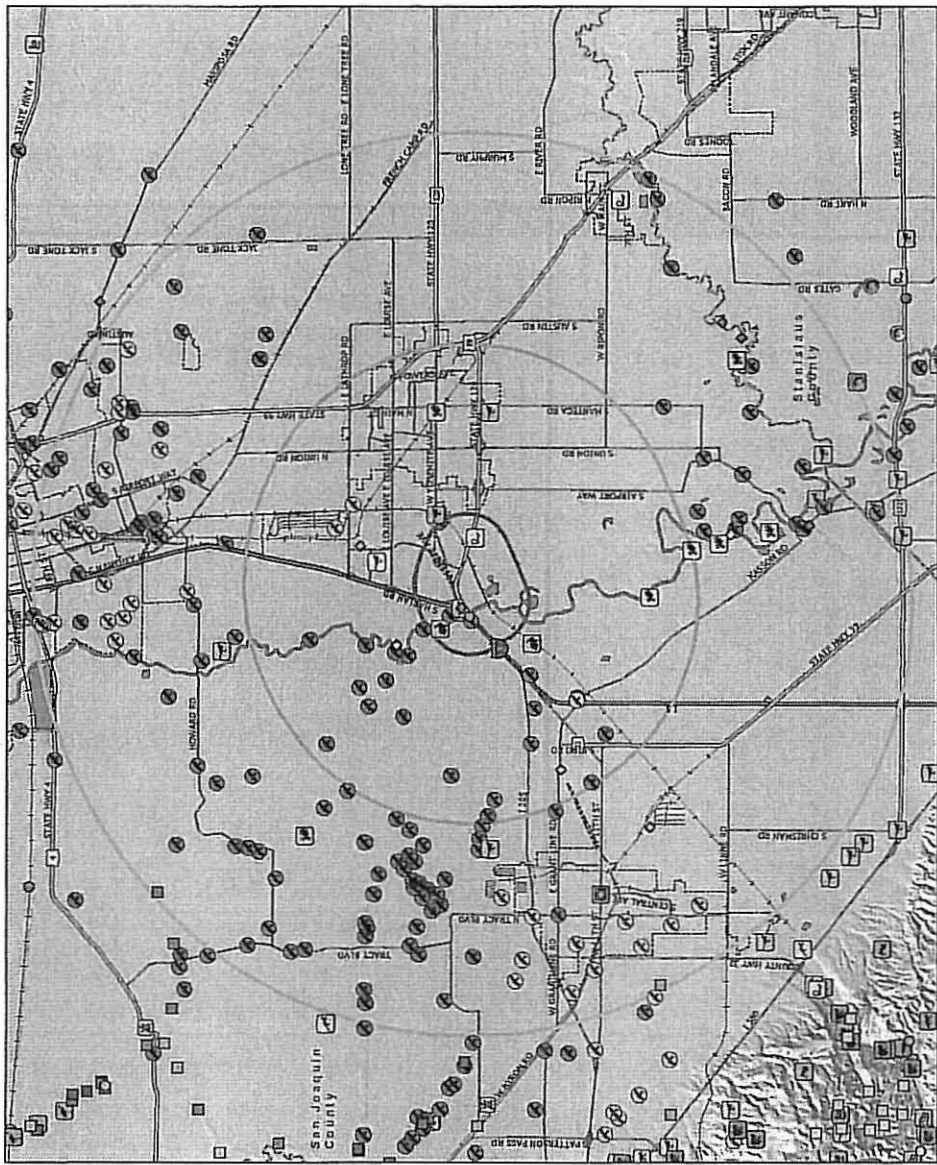
Riparian habitat on the western boundary of the site represents potentially-suitable habitat for slough thistle (*Cirsium crassicaule*, CNPS 1B), Delta button celery (*Eryngium racemosum*, California endangered, CNPS 1B), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*, CNPS List 2). Occurrences of Delta button-celery and Wright's trichocoronis have been reported immediately adjacent to the northwest corner of the site (CDFG 2003).



**FIGURE 2. Natural Resources Conservation Service Soil Types**

**Table 1 - Potentially Occurring Special-Status Species**

Common Name	Scientific Name	Federal Status	State Status	Other Status	Habitat Description	Approximate Survey
<b>Plants</b>						
Slough thistle	<i>Cirsium crassicaule</i>	-	-	1B	chenopod scrub, riparian scrub, marshes and swamps	May-August
Delta button celery	<i>Eryngium racemosum</i>	-	CE	1B	seasonally wet riparian	June-August
Wright's trichocoronis	<i>Trichocoronis wrightii</i> var. <i>wrightii</i>	-	-	2	alkaline (meadows, marsh, riparian, vernal pools)	May-September
<b>Invertebrates</b>						
Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	FT	-	-	elderberry shrubs	any season
<b>Reptiles</b>						
Giant garter snake	<i>Thamnophis gigas</i>	FT	CT	-	ditches, sloughs, marshes	April-October
<b>Birds</b>						
Double-crested cormorant (rookery)	<i>Phalacrocorax auritus</i>	-	-	CSC	open water, riparian	April-July
Great blue heron (rookery)	<i>Ardea herodias</i>	-	-	CNDDDB	rookery sites (marsh, riparian)	February-July
Great egret (rookery)	<i>Ardea alba</i>	-	-	CNDDDB	rookery sites (marsh, riparian)	March-July
Snowy egret (rookery)	<i>Egretta thula</i>	-	-	CNDDDB	rookery sites (marsh, riparian)	March-July
Black-crowned night heron (rookery)	<i>Nycticorax nycticorax</i>	-	-	CNDDDB	rookery sites (marsh, riparian)	February-July
White-tailed kite (nesting)	<i>Elanus leucurus</i>	-	-	CFP	woodland, grassland	March-June
Northern harrier (nesting)	<i>Circus cyaneus</i>	-	-	CSC	marsh, grassland	April-September
Cooper's hawk (nesting)	<i>Accipiter cooperii</i>	-	-	CSC	woodland	April-July
Swainson's hawk (nesting)	<i>Buteo swainsoni</i>	-	CT	BCC	grassland, riparian	March-August
Ferruginous hawk (wintering)	<i>Buteo regalis</i>	-	-	CNDDDB	grassland	November-February
Golden eagle (wintering)	<i>Aquila chrysaetos</i>	-	-	BCC, CSC, CFP	grassland	October-February
Merlin (wintering)	<i>Falco columbarius</i>	-	-	CSC	woodland, grassland	September-April
Prairie falcon (wintering)	<i>Falco mexicanus</i>	-	-	BCC, CSC	grassland	October-February
Burrowing owl (burrow sites)	<i>Athene cunicularia</i>	-	-	BCC, CSC	grassland	March-August
Loggerhead shrike	<i>Lanius ludovicianus</i>	-	-	BCC, CSC	grassland, woodland	March-July
Tricolored blackbird (nesting colony)	<i>Agelaius tricolor</i>	-	-	BCC, CSC	marsh, grassland	April-June
<b>Mammals</b>						
Yuma myotis	<i>Myotis yumanensis</i>	-	-	CNDDDB	riparian woodland, caves, mines, buildings, bridges, rock crevices, trees	April-September
Hoary bat	<i>Lasiurus cinereus</i>	-	-	CNDDDB	dense foliage of medium to large trees	April-September
Western red bat	<i>Lasiurus blossevillii</i>	-	-	CNDDDB	riparian woodlands, orchards	April-September
Pallid bat	<i>Antrozous pallidus</i>	-	-	CSC	mines, man-made structures, rock outcrops, and woodland near open grasslands for foraging	April-September
Riparian brush rabbit	<i>Sylvilagus bachmani riparius</i>	FE	CE	-	Riparian woodland	any season
<b>Status Codes:</b>						
FE - Federal ESA listed, Endangered.						
FT - Federal ESA listed, Threatened.						
FPE - Formally Proposed for federal ESA listing as Endangered.						
FFT - Formally Proposed for federal ESA listing as Threatened.						
FPD - Listed under Federal ESA, but formally proposed for delisting.						
Pd - Formally Delisted (delisted species are monitored for 5 years).						
FC - Candidates for federal ESA listing as Threatened or Endangered.						
BCC - U. S. Fish and Wildlife Service Bird of Conservation Concern (USFWS, 2002).						
CE - California ESA or Native Plant Protection Act listed, Endangered.						
CT - California ESA or Native Plant Protection Act listed, Threatened.						
CR - California ESA or Native Plant Protection Act listed, Rare.						
CC - Candidate for California ESA listing as Endangered or Threatened.						
CFP - Fish and Game Code of California Fully Protected Species (§1511-birds, §4700-mammals, §5050-reptiles/amphibians).						
CSC - California Department of Fish and Game Species of Special Concern (CDFG, updated August 2004).						
1A - California Native Plant Society/Presumed extinct.						
1B - California Native Plant Society/Rare or Endangered in California and elsewhere.						
2 - California Native Plant Society/Rare or Endangered in California, more common elsewhere.						
3 - California Native Plant Society/Plants about which we need more information.						
4 - California Native Plant Society/Plants of Limited Distribution.						
CNDDDB - Species that is tracked by CDFG's Natural Diversity Database but does not have any of the above special-status designations otherwise.						



**Map Features**

**Administrative Boundaries**

- City Boundary
- County Boundary
- Project Boundary

**Buffers**

- 1 mile
- 5 miles
- 10 miles

**Transportation Network**

- Interstate
- State Highway
- Roads
- Railroads

**Hydrologic Features**

- Lakes and Reservoirs
- Rivers

**1-CNDDB Occurrences**

**Plants**

- Wright's tickletoe
- Irish wedge
- diamond-painted California poppy
- laser salicoid
- shrew media
- marsh skullcap
- recurved larkspur
- slough thistle
- Suisun Marsh aster
- round-leaved flax
- Delta lution-colory
- Delta mudwort
- Delta tule pea
- espart-floated impatiens
- Mason's blackcap
- rose-mallow
- big tarplant

**Invertebrates**

- California butterfly
- Conservancy July skipper
- vernal pool fairy shrimp
- mountain biter beetle
- valley elderberry longhorn beetle
- Sacramento embick beetle

**Birds**

- yellow-headed blackbird
- western yellow-billed cuckoo
- black-billed blackbird
- California horned lark
- essex (w-African Canada) goose
- great blue heron
- California black rail
- burrowing owl
- Swainson's hawk

**Mammals**

- western meadow bat
- ipelan (s-San Joaquin Valley) woodrat
- San Joaquin pocket mouse
- ipelan brush rabbit
- San Joaquin kit fox
- American badger

**Reptiles / Amphibians**

- plant quarter snake
- San Joaquin whipsnake
- Coast (California) horned lizard
- California tiger salamander
- western pond turtle
- California red-legged frog
- western spadefoot

**FIGURE 3. CNDDB SPECIAL-STATUS SPECIES**

2004-096 South Lathrop Village

Location: LAGIS, Mendocino Co., South Lathrop, CA, USA  
 Map Name: Lathrop\_Village\_04\_096  
 Project Manager: BROWNS  
 Original Production Date: 08/17/05  
 Revision:  
 Printing Date: 08/17/05  
 Scale: 1" equals 15,000'

**ECORP Consulting, Inc.**  
 ENVIRONMENTAL CONSULTANTS

Headquarters: 215 West 10th Street, Suite 202, Portland, OR 97201, USA  
 Phone: (503) 251-1177, Fax: (503) 251-1178

Regional Office: 1714 East 13th St., Suite 100, Ukiah, CA 95528, USA  
 Phone: (707) 462-1171, Fax: (707) 462-1172

**VICINITY MAP**

**NOTES**

1-Project Boundary: ECORP Wetland Definition

2-CDFG California Natural Diversity Database (CNDDB), August 2005 Update (GIS Shapefile)

Map Projection: California State Plane Zone III (NAD83) feet

Map Elements: Located on USGS 7.5 Quadrangle: Woodward Island, 1:24, Stockton West, Stockton East, Pleasanton, Union Island, Lathrop, Maricopa, Arvin, Other Court Forestry, Milverly, Tracy, Wards, Ripon and Stockton, CA

Delta button celery is listed and protected pursuant to the State Endangered Species Act. Slough thistle and Wright's trichocoronis are not listed or protected under either the State or federal Endangered Species Acts, but these species are listed by the CNPS and may be considered by the Lead Agency during the CEQA review process.

The seasonal wetlands on-site represent marginal habitat for dwarf downingia (*Downingia pusilla*, CNPS List 2), Boggs Lake hedge hyssop (*Gratiola heterosepala*, California endangered, CNPS List 1B), legenere (*Legenere limosa*, CNPS List 1B), pincushion navarretia (*Navarretia myersii* ssp. *myersii*, CNPS 1B), and slender orcutt grass (*Orcuttia tenuis*, federal threatened, California endangered, CNPS List 1B). The vegetative community within the seasonal wetlands suggests that these features receive supplemental irrigation throughout the year, which would diminish the potential for the occurrence of these vernal pool species.

#### *Invertebrates*

The site is located within the range of the Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*, federal threatened). This species is completely dependent on its host plant, elderberry (*Sambucus* species). Elderberry shrubs may occur on-site. A formal survey, conducted in accordance with the *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (USFWS 1996), would be required to ascertain the presence/absence of elderberry shrubs on-site and evidence of the beetles' use of the shrubs, if present. All elderberry shrubs located within the range of the Valley elderberry longhorn beetle that contain one or more stems measuring one inch or greater in diameter at ground level are considered suitable habitat for the species (USFWS 1996).

The seasonal wetlands in the irrigated pasture on-site are considered unsuitable habitat for vernal pool fairy shrimp (*Branchinecta lynchi*, federal threatened), midvalley fairy shrimp (*Branchinecta mesovallensis*, CNDDDB), vernal pool tadpole shrimp (*Lepidurus packardii*, federal endangered), and California linderiella (*Linderiella occidentalis*, CNDDDB). The vegetative community within the seasonal wetlands indicates that these features receive supplemental

irrigation throughout the year, which would render these features unsuitable as habitat for the above-listed species.

### *Reptiles*

The riparian habitat adjacent to the San Joaquin River represents potentially-suitable upland habitat for giant garter snake (*Thamnophis gigas*, federal threatened, California threatened). Essential giant garter snake habitat components consist of 1) adequate water during early spring through mid fall to provide prey base and cover, 2) emergent wetland vegetation for escape cover and foraging habitat, 3) uplands for basking and retreat sites, and 4) higher elevation upland for cover and flood refugia. The USFWS considers areas within 200 feet of aquatic habitat to represent potential upland habitat. Additionally, the USFWS identifies various levels of impact to giant garter snake habitat, from temporary to permanent, and applies mitigation requirements accordingly. Mitigation required for any temporary or permanent impacts to suitable habitat (aquatic and adjacent uplands) on the property would ultimately be assessed by the USFWS. The nearest previously documented GGS occurrence is located greater than 10 miles to the northeast of the site (CDFG 2003). It is considered unlikely that this species would occur on-site; however, this species is addressed in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan, which covers the site.

### *Birds*

Plant communities within South Lathrop South Village may provide suitable habitat for a variety of potentially occurring special-status birds. Potential nesting habitat is present for colonial nesting water birds, special-status and common raptors, and special-status songbirds. Other special-status birds that may occur on-site do not nest in this region and represent migrants or winter visitants.



### Colonial Nesting Water Birds

The California Department of Fish and Game's Natural Diversity Database keeps track of colonial nesting water bird rookery sites of double-crested cormorant (*Phalacrocorax auritus*), great blue heron (*Ardea herodias*), great egret (*Ardea alba*), snowy egret (*Egretta thula*), and black-crowned night heron (*Nycticorax nycticorax*), among others. As such, they are subject to analysis pursuant to CEQA. These species are not formally listed and protected pursuant to either State or federal Endangered Species Acts but are of stated interest to CDFG.

The riparian habitat adjacent to the San Joaquin River represents potentially suitable nesting habitat for these species, although rookeries of these species have not been previously reported in this area. In general, the nesting season for these colonial nesters is from March through July, but may vary depending on weather conditions or disturbances.

### Nesting Raptors (Birds of Prey)

All raptors (owls, hawks, eagles, falcons), including common species, and their nests, are protected from take pursuant to the Fish and Game Code of California Section 3503.5, and the federal Migratory Bird Treaty Act, among other federal and State regulations.

The riparian habitat adjacent to the San Joaquin River and other trees throughout the site represent potentially suitable nesting habitat for a variety of special-status raptors. These are: white-tailed kite (*Elanus leucurus*, Fish and Game Code of California fully protected species), Cooper's hawk (*Accipiter cooperii*, CDFG species of special concern), and Swainson's hawk (*Buteo swainsoni*, California threatened). The pasture and ruderal grassland represent potentially suitable nesting habitat for the ground-nesting northern harrier (*Circus cyaneus*, CDFG species of special concern) and burrowing owl (*Athene cunicularia*, CDFG species of special concern, USFWS bird of conservation concern). The CNDDDB currently contains nesting records for Swainson's hawk and burrowing owl within 1 mile of the site (CDFG 2003).

In general, raptor nesting occurs from late February and early March through late July and early August, depending on various environmental conditions. In addition to the species described above, common raptors such as red-tailed hawk (*Buteo jamaicensis*) and great horned owl (*Bubo virginianus*), among others, may nest on-site.

#### Nesting Songbirds

Potentially suitable nesting habitat is present on-site for two regionally occurring special-status songbirds, loggerhead shrike (*Lanius ludovicianus*, CDFG species of special concern and USFWS bird of conservation concern) and tricolored blackbird (*Agelaius tricolor*, CDFG species of special concern and USFWS bird of conservation concern). Loggerhead shrikes nest in small trees and shrubs within oak woodland/savannah and grassland communities. Tricolored blackbirds nest in large colonies in patches of cattails, tule, or other dense vegetation near water.

#### Other Non-Nesting Birds

Other special-status birds that may occur on-site are not known to nest in this region, or suitable nesting habitat is not present on-site. These are: ferruginous hawk (*Buteo regalis*, CNDDDB), golden eagle (*Aquila chrysaetos*, Fish and Game Code of California fully protected species, CDFG species of special concern, USFWS bird of conservation concern), merlin (*Falco columbarius*, CDFG species of special concern) and prairie falcon (*Falco mexicanus*, CDFG species of special concern, USFWS bird of conservation concern).

#### *Mammals*

The riparian habitat on-site may represent potential roosting habitat for four special-status bats. These are: Yuma myotis (*Myotis yumanensis*, CNDDDB), hoary bat (*Lasiurus cinereus*, CNDDDB), western red bat (*Lasiurus blossevillii*, CNDDDB), and pallid bat (*Antrozous pallidus*, CDFG species of special concern). These species may roost in trees throughout the site. In addition, the San Joaquin River represents potential foraging habitat for these species. These species are not listed or protected pursuant the California or federal Endangered Species Act.

However, they are considered CDFG species of special concern and/or are tracked by the CNDDDB.

The riparian habitat may represent suitable habitat for riparian brush rabbit (*Sylvilagus bachmani riparius*, federal endangered, California endangered). Riparian brush rabbits inhabit dense, brushy areas of valley riparian forests marked by extensive thickets of California wild rose (*Rosa californica*), California blackberries (*Rubus ursinus*), and willows. Historically, the riparian brush rabbit is believed to have inhabited riparian forests, woodlands, and brushlands along portions of the San Joaquin River and its tributaries in California's Central Valley, from Stanislaus County to the Sacramento-San Joaquin Delta (Orr 1935). The breeding season of the riparian brush rabbit occurs from December to May (Williams 1986).

## **CONCLUSION**

The vegetation communities observed on-site represent potentially suitable habitat for several regionally occurring special-status species. Plants include slough thistle, Delta button celery, and Wright's trichocoronis. Valley elderberry longhorn beetle may occur in elderberry shrubs potentially present in riparian habitat on-site. Riparian habitat adjacent to the San Joaquin River may provide suitable upland habitat for giant garter snake. Potential nesting habitat is present for colonial nesting water birds (i.e., double-crested cormorant, great blue heron, great egret, snowy egret, and black-crowned night heron), special-status raptors (i.e., white-tailed kite, northern harrier, Cooper's hawk, Swainson's hawk, and burrowing owl), common raptors (e.g., red-tailed hawk and great-horned owl), and special-status songbirds (i.e., loggerhead shrike and tricolored blackbird). Other special-status birds that may occur on-site do not nest in this region and represent migrants or winter visitants. These are: ferruginous hawk, golden eagle, merlin, and prairie falcon. Special-status bats that may roost and forage on-site include Yuma myotis, hoary bat, western red bat, and pallid bat. Potentially suitable habitat for riparian brush rabbit may be present in the riparian corridor. Determinate surveys, conducted during the appropriate survey periods, would be required to evaluate the presence/absence of these species within this site.

## REFERENCES

- California Department of Fish and Game. 2003. Natural Diversity Data Base. Commercial Version 3.0.5. Dated July 29, 2006. Sacramento, California.
- California Department of Fish and Game. 2005. The Status of Rare, Threatened, and Endangered Animals and Plants of California.
- California Native Plant Society (CNPS). 2006. Inventory of Rare and Endangered Plants (online edition, v6-05d. California Native Plant Society. Sacramento, California. <http://www.cnps.org/inventory>.
- Eriksen, C. H. and D. Belk. 1999. Fairy Shrimps of California's Puddles, Pools, and Playas. Mad River Press, Inc. Eureka, California.
- Jennings, M. R. and M. P. Hayes. 1994. Amphibian and Reptile Species of Special Concern in California. California Department of Fish and Game. Rancho Cordova, California. 255 pp.
- Mayer, K. E. and W. F. Laudenslayer Jr (eds). 1988. A Guide to Wildlife Habitats of California. California Department of Forestry and Fire Protection. 166pp.
- Orr, R.T. 1935. Description of three new races of brush rabbit from California. Proc. Biol. Soc. Washington 48:27-30.
- Remsen, J. V., Jr. 1978. Bird Species of Special Concern in California. California Department of Fish and Game, Nongame Invest. Report 78-1, Sacramento, California.
- U.S. Department of Agriculture, Soil Conservation Service. 1992. Hydric Soils List for San Joaquin County, California. U.S. Department of Agriculture, Soil Conservation Service. Davis, California.
- U.S. Department of Agriculture, Soil Conservation Service. 1992. Soil Survey of San Joaquin County, California. U.S. Department of Agriculture, Soil Conservation Service. Davis, California.
- U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 1996. Conservation Guidelines for the Valley Elderberry Longhorn Beetle. Sacramento Fish and Wildlife Office. Updated July 9, 1999.
- U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 2006. Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Lathrop (462D) U.S.G.S. 7 1/2 Minute Quad. List generated August 16, 2006.
- U.S. Department of the Interior, Geological Survey. 1996. "Lathrop, CA" 7.5-minute Quadrangle. Geological Survey. Denver, Colorado.

- U.S. Department of the Interior, Geological Survey. 1978. Hydrologic Unit Map, State of California. Geological Survey. Reston, Virginia.
- Williams, D. F. 1986. Mammalian Species of Special Concern in California. State of California Department of Fish and Game, Wildlife Management Division. Sacramento, California. 112 pp.
- Zeiner, D. C., W. F. Laudenslayer, Jr., and K. E. Mayer (eds). 1988. California's Wildlife, Volume I, Amphibian and Reptiles. California Statewide Habitat Relationships System, California Department of Fish and Game, Sacramento, CA.
- Zeiner, D. C., W. F. Laudenslayer, Jr., K. E. Mayer, and M. White (eds). 1990a. California's Wildlife, Volume II, Birds. California Statewide Wildlife Habitat Relationships System. California Department of Fish and Game, Sacramento, CA.
- Zeiner, D. C., W. F. Laudenslayer, Jr., K. E. Mayer, and M. White (eds). 1990b. California's Wildlife, Volume III, Mammals. California Statewide Wildlife Habitat Relationships System. California Department of Fish and Game, Sacramento, CA.

## **ATTACHMENT A**

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Rarefind 2 Data Report

**Agelaius tricolor**

Incolored blackbird

Element Code: ABPXB0020

Status: \_\_\_\_\_ NDDB Element Ranks: \_\_\_\_\_ Other Lists: \_\_\_\_\_  
 Federal: None Global: G2G3 CDFG Status: SC  
 State: None State: S2

Habitat Associations

General: (NESTING COLONY) HIGHLY COLONIAL SPECIES, MOST NUMEROUS IN CENTRAL VALLEY & VICINITY. LARGELY ENDEMIC TO CALIFORNIA  
 Micro: REQUIRES OPEN WATER, PROTECTED NESTING SUBSTRATE, & FORAGING AREA WITH INSECT PREY WITHIN A FEW KM OF THE COLONY.

Occurrence No. 95 Map Index: 11686 EO Index: 24732 Dates Last Seen \_\_\_\_\_  
 Occ Rank: Unknown Element: 1971-05-05  
 Origin: Natural/Native occurrence Site: 1971-05-05  
 Presence: Presumed Extant  
 Trend: Unknown Record Last Updated: 1991-07-25  
 Main Source: DEHAVEN, R. (OBS)

Quad Summary: LATHROP (3712173/462D)

County Summary: SAN JOAQUIN

Lat/Long: 37.79714° / -121.26327° Township: 02S  
 UTM: Zone-10 N4184728 E652905 Range: 06E  
 Radius: 1/5 mile Mapping Precision: NON-SPECIFIC Section: 01 Qtr: XX  
 Elevation: 20 ft Symbol Type: POINT Meridian: M

Location: 0.25 MI W OF HWY 120 AND SWANSON RD JCT. APPROX 2.5 MI W OF MANTECA.

Location Detail: NESTING (FLEDGLING STAGE) IN GIANT CANE; OBS BY DE HAVEN. COLONY SIZE APPROX 0.25 ACRE

Ecological: NO WATER PRESENT

Owner/Manager: UNKNOWN

Occurrence No. 95 Map Index: 11583 EO Index: 12696 Dates Last Seen \_\_\_\_\_  
 Occ Rank: Unknown Element: 1972-05-26  
 Origin: Natural/Native occurrence Site: 1972-05-26  
 Presence: Presumed Extant  
 Trend: Unknown Record Last Updated: 1991-07-25  
 Main Source: HOSEA, R. 1986 (OBS)

Quad Summary: LATHROP (3712173/462D), STOCKTON WEST (3712183/462A)

County Summary: SAN JOAQUIN

Lat/Long: 37.68954° / -121.32273° Township: 01S  
 UTM: Zone-10 N4192677 E647525 Range: 05E  
 Radius: 1 mile Mapping Precision: NON-SPECIFIC Section: 4 Qtr: XX  
 Elevation: 5 ft Symbol Type: POINT Meridian: M

Location: 0.75 MI SE OF JUNCT OF SAN JOAQUIN RIVER AND RD J-9.

Location Detail: COLONY OF APPROX 5000 OBS BY DE HAVEN NESTING IN CATTAIL/BULRUSH HABITAT; FLEDGLING STAGE OF NESTING COLONY SIZE 0.75 ACRE.

Owner/Manager: UNKNOWN

Occurrence No. 99 Map Index: 11611 EO Index: 24729 Dates Last Seen \_\_\_\_\_  
 Occ Rank: Unknown Element: 1974-05-05  
 Origin: Natural/Native occurrence Site: 1974-05-05  
 Presence: Presumed Extant  
 Trend: Unknown Record Last Updated: 1989-08-10  
 Main Source: HOSEA, R. 1986 (OBS)

Quad Summary: LATHROP (3712173/462D)

County Summary: SAN JOAQUIN

Lat/Long: 37.78839° / -121.30334° Township: 02S  
 UTM: Zone-10 N4183692 E649395 Range: 06E  
 Radius: 1 mile Mapping Precision: NON-SPECIFIC Section: 3 Qtr: XX  
 Elevation: 15 ft Symbol Type: POINT Meridian: M

Location: ALONG HWY 120, 5 MI W OF MANTECA.

Location Detail: COLONY OF 25-50 OBS BY NEFF IN GIANT CANE IN MAY 1972; POST-FLEDGLING. COLONY OF >500 OBS BY NEFF NESTING IN GIANT CANE IN JUNE 1974; POST-FLEDGLING AND NEW CLUTCHES.

Owner/Manager: UNKNOWN

**Ambystoma californiense**

California tiger salamander

Element Code: AAAAA01180

Status  
 Federal: Threatened  
 State: None

NDDB Element Ranks  
 Global: G2G3  
 State: S2S3

Other Lists  
 CDFG Status: SC

Habitat Associations

General: CENTRAL VALLY DPS LISTED AS THREATENED. SANTA BARBARA & SONOMA COUNTY DPS LISTED AS ENDANGERED.  
 Micro: NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS & VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING

Occurrence No. 37      Map Index: 11647      EO Index: 28410      Dates Last Seen  
 Occ Rank: Fair      Element: 1996-04-11  
 Origin: Natural/Native occurrence      Site: 1996-04-11  
 Presence: Presumed Extant  
 Trend: Unknown      Record Last Updated: 2001-03-13  
 Main Source: TATARIAN, T. 1995 (OBS)

Quad Summary: LATHROP (3712173/452D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.78368° / -121.27287°      Township: 02S  
 UTM: Zone-10 N4183219 E652087      Range: 06E  
 Radius: 1/10 mile      Mapping Precision: NON-SPECIFIC      Section: 02      Qtr: SE  
 Elevation: 15 ft      Symbol Type: POINT      Meridian: M

Location: SOUTH SIDE OF HIGHWAY 120, NEAR THE JUNCTION OF MCKINLEY ROAD, SOUTH OF LATHROP  
 Location Detail: 1974 OBSERVATION WAS ON THE MATLEY PROPERTY, 2785 BRONZAN ROAD, W MCKINLEY.  
 Ecological: HABITAT CONSISTS OF A SEASONAL POND CREATED BY THE BERM OF HIGHWAY 20. SITE IS SURROUNDED BY RESIDENTIAL DEVELOPMENT.  
 General: OBSERVED IN 1974 (S. MCGINNIS, PERSONAL COMMUNICATION). ~50 LARVAE OBSERVED ON 11 APR 1996.  
 Owner/Manager: PVT



**Aster lentus**

Suisun Marsh aster

Element Code: PDAST0T540

Status

NDDDB Element Ranks

Other Lists

Federal: None

Global: G2

CNPS List: 1B

State: None

State: S2.2

R-E-D Code: 2-2-3

Habitat Associations

General: MARSHES AND SWAMPS (BRACKISH AND FRESHWATER).

Micro: MOST OFTEN SEEN ALONG SLOUGHS WITH PHRAGMITES, SCIRPUS, BLACKBERRY, TYPHA, ETC. 0-3M.

Occurrence No. 145      Map Index: 62567      EO Index: 62604      Dates Last Seen  
 Occ Rank: Unknown      Element: 1892-09-09  
 Origin: Natural/Native occurrence      Site: 1892-09-09  
 Presence: Presumed Extant  
 Trend: Unknown      Record Last Updated: 2005-09-13  
 Main Source: MICHENER SN UC #71891 (HERB)

Quad Summary: LATHROP (3712173/462D)

County Summary: SAN JOAQUIN

Lat/Long: 37.82249° / -121.27667°      Township: 01S  
 UTM: Zone-10 N4187519 E651655      Range: 06E  
 Radius: 1 mile      Mapping Precision: NON-SPECIFIC      Section: 26      Qtr: XX  
 Elevation:      Symbol Type: POINT      Meridian: M

Location: LATHROP.

Location Detail: EXACT LOCATION UNKNOWN.

General: ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1892 COLLECTION BY MICHENER AND BIOLETTI.

Owner/Manager: UNKNOWN

Occurrence No. 146      Map Index: 62568      EO Index: 62605      Dates Last Seen  
 Occ Rank: Unknown      Element: 1920-09-30  
 Origin: Natural/Native occurrence      Site: 1920-09-30  
 Presence: Presumed Extant  
 Trend: Unknown      Record Last Updated: 2005-09-13  
 Main Source: ABRAMS, L. #7788 UC #893616 (HERB)

Quad Summary: VERNALIS (3712163/444A), TRACY (3712164/444B), LATHROP (3712173/462D), UNION ISLAND (3712174/462C)

County Summary: SAN JOAQUIN

Lat/Long: 37.75385° / -121.37281°      Township: 02S  
 UTM: Zone-10 N4179762 E643343      Range: 05E  
 Radius: 1 mile      Mapping Precision: NON-SPECIFIC      Section: 24      Qtr: XX  
 Elevation:      Symbol Type: POINT      Meridian: M

Location: NEAR BANTA.

Location Detail: EXACT LOCATION UNKNOWN.

General: ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1920 COLLECTION BY ABRAMS.

Owner/Manager: UNKNOWN

***Athene cunicularia***

burrowing owl

Element Code: ABNSB10010

Status

NDDB Element Ranks

Other Lists

Federal: None

Global: G4

CDFG Status: SC

State: None

State: S2

Habitat Associations

General: (BURROW SITES) OPEN, DRY ANNUAL OR PERENNIAL GRASSLANDS, DESERTS & SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.  
 Micro: SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL

Occurrence No. 251      Map Index: 35447      EO Index: 31444      Dates Last Seen  
 Occ Rank: Fair      Element: 2000-01-21  
 Origin: Natural/Native occurrence      Site: 2000-01-21  
 Presence: Presumed Extant  
 Trend: Unknown      Record Last Updated: 2000-01-01  
 Main Source: CROWE, R. 1997 (OBS)

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.78797° / -121.26440°      Township: 01S  
 UTM: Zone-10 N4184818 E652804      Range: 06E  
 Radius: 1/10 mile      Mapping Precision: NON-SPECIFIC      Section: 36      Qtr: SW  
 Elevation: 25 ft      Symbol Type: POINT      Meridian: M

Location: NORTH SIDE OF YOSEMITE AVENUE, 0.3 MILE EAST OF THE INTERSECTION OF YOSEMITE AVENUE AND MCKINLEY AVENUE, SE OF LATHROP  
 Location Detail: BURROW IS LOCATED IN A NEWLY-CREATED DETENTION BASIN NORTH OF THE SAN JOAQUIN RAIL STATION PARKING LOT.  
 Ecological: HABITAT SURROUNDING BURROW CONSISTS OF WINTER WHEAT TO THE WEST, A SMALL BAND OF ANNUAL GRASSLAND TO THE EAST, AND THE REMAINDER IS SCRAPPED CLEAN.  
 Threat: THREATENED BY DEVELOPMENT.  
 General: 2 ADULTS AND 2 JUVENILES OBSERVED ON 24 JUL 1997. 1 ADULT OBSERVED ON 21 JAN 2000.  
 Owner/Manager: PVT

Occurrence No. 265      Map Index: 38438      EO Index: 33445      Dates Last Seen  
 Occ Rank: Fair      Element: 1997-03-14  
 Origin: Natural/Native occurrence      Site: 1997-03-14  
 Presence: Presumed Extant  
 Trend: Unknown      Record Last Updated: 1998-03-23  
 Main Source: CROWE, R. 1997 (OBS)

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.82534° / -121.25893°      Township: 01S  
 UTM: Zone-10 N4187864 E653229      Range: 06E  
 Radius: 80 meters      Mapping Precision: SPECIFIC      Section: 25      Qtr: NE  
 Elevation: 20 ft      Symbol Type: POINT      Meridian: M

Location: 0.3 MILES WSW OF INTERSECTION OF LATHROP RD & DURHAM FERRY RD. 0.75 MILES EAST OF LATHROP.  
 Ecological: HABITAT CONSISTS OF IRRIGATED PASTURE.  
 Threat: POSSIBLE THREAT FROM COMMERCIAL CONSTRUCTION.  
 General: ON 14 MARCH 1997, A PAIR OF OWLS WAS OBSERVED, POSSIBLY WITH EGGS.  
 Owner/Manager: UNKNOWN

Occurrence No. 342      Map Index: 42086      EO Index: 42086      Dates Last Seen  
 Occ Rank: Excellent      Element: 2005-05-13  
 Origin: Natural/Native occurrence      Site: 2005-05-13  
 Presence: Presumed Extant  
 Trend: Unknown      Record Last Updated: 2005-05-25  
 Main Source: BARCLAY, J. 1999 (OBS)

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.83121° / -121.26928°      Township: 01S  
 UTM: Zone-10 N4188499 E652308      Range: 06E  
 Area: 314.8 ac      Mapping Precision: NON-SPECIFIC      Section: 24      Qtr: NE  
 Elevation: 20 ft      Symbol Type: POLYGON      Meridian: M

Location: SHARPE DEPOT, LATHROP  
 Location Detail: BURROWS ARE LOCATED BETWEEN AN ABANDONED RUNWAY AND THE RAILROAD TRACKS, ARTIFICIAL BURROWS WERE INSTALLED IN 1999 TO MITIGATE THE LOSS OF HABITAT FROM CONSTRUCTION OF A LARGE BUILDING. 4 PAIRS UTILIZED ARTIFICIAL BURROWS IN 1999.  
 Ecological: HABITAT CONSISTS OF MOWED NON-NATIVE GRASSLAND VEGETATION, DOMINATED BY YELLOW STAR THISTLE AND BERMUDA GRASS; SURROUNDED BY A MILITARY SUPPLY/STORAGE AREA.  
 Threat: THREATENED BY PROLIFERATION OF YELLOW STAR THISTLE (EVEN THOUGH VEGETATION IS MOWED), CONSTRUCTION, AND PREDATION.  
 General: 8 PAIRS EST, 1997. 4 PAIRS & YOUNG, 1998. 7 PAIRS/JUVS, OBS IN 1999. 13 PAIRS/55 JUVS, 24 MAY-29 JUN 2001. 20 PAIRS/56 JUVS, MAY-JUN 2003. 19 PAIRS/41 JUVS, 15 JUN 2003. 43 ADS/57 JUVS, 22 JUN 2004. 37 ADS/60 JUVS, MAY-JUN 2005.  
 Owner/Manager: DOD-SHARPE DEPOT

**Buteo swainsoni**

Swainson's hawk

Element Code: ABNKC19070

Status: \_\_\_\_\_ NDDDB Element Ranks: \_\_\_\_\_ Other Lists: \_\_\_\_\_  
 Federal: None Global: G5  
 State: Threatened State: S2 CDFG Status: \_\_\_\_\_

**Habitat Associations**

General: (NESTING) BREEDS IN STANDS WITH FEW TREES IN JUNIPER-SAGE FLATS, RIPARIAN AREAS AND IN OAK SAVANNAH.  
 Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 17 Map Index: 11557 EO Index: 27286 Dates Last Seen: \_\_\_\_\_  
 Occ Rank: Unknown Element: 1979-08-03  
 Origin: Natural/Native occurrence Site: 1992-05-29  
 Presence: Presumed Extant  
 Trend: Unknown Record Last Updated: 1999-05-10  
 Main Source: DEPT OF FISH & GAME 1984 (PERS)

Quad Summary: VERHALIS (3712163/444A), LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.74880° / -121.34133° Township: 02S  
 UTM: Zone-10 N4179239 E646127 Range: 06E  
 Radius: 1/5 mile Mapping Precision: NON-SPECIFIC Section: 20 Qtr: NW  
 Elevation: 20 ft Symbol Type: POINT Meridian: M

Location: HWY I-5 & KASSON RD.

General: DFG SWHA #SJ007. TWO ADULTS OBSERVED, BUT NO NEST FOUND IN 1979. SITE INACTIVE IN 1982.

Owner/Manager: PVT

Occurrence No. 387 Map Index: 21219 EO Index: 9047 Dates Last Seen: \_\_\_\_\_  
 Occ Rank: Excellent Element: 1990-05-31  
 Origin: Natural/Native occurrence Site: 1990-05-31  
 Presence: Presumed Extant  
 Trend: Unknown Record Last Updated: 1993-05-14  
 Main Source: HOLT, W. 1990 (OBS)

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.82271° / -121.33793° Township: 01S  
 UTM: Zone-10 N4187445 E646281 Range: 06E  
 Radius: 1/5 mile Mapping Precision: NON-SPECIFIC Section: 20 Qtr: SW  
 Elevation: 10 ft Symbol Type: POINT Meridian: M

Location: ROBERTS ISLAND, SOUTH OF THE JUNCTION OF UNDINE ROAD AND ROBERTS ROAD, 3 MI WEST OF LATHROP.

Ecological: NEST TREE IS A VALLEY OAK WITHIN A GROUP OF LARGE VALLEY OAKS AROUND FARM BUILDINGS. SURROUNDING HABITAT IS AGRICULTURAL LAND.

General: DFG SWHA #SJ057. ONE ADULT OBSERVED CARRYING A VOLE TO THE NEST, INDICATING THE PRESENCE OF NESTLING(S), ALTHOUGH NONE WERE VISIBLE. 2 YOUNG WERE EVENTUALLY FLEDGED IN 1990.

Owner/Manager: PVT

Occurrence No. 391 Map Index: 21509 EO Index: 17717 Dates Last Seen: \_\_\_\_\_  
 Occ Rank: Unknown Element: 1992-05-22  
 Origin: Natural/Native occurrence Site: 1992-05-22  
 Presence: Presumed Extant  
 Trend: Unknown Record Last Updated: 1992-05-02  
 Main Source: SCHMOLDT, D. 1992 (OBS)

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.78508° / -121.30863° Township: 02S  
 UTM: Zone-10 N4183316 E648935 Range: 06E  
 Radius: 60 meters Mapping Precision: SPECIFIC Section: 3 Qtr: XX  
 Elevation: 15 ft Symbol Type: POINT Meridian: M

Location: JUST WEST OF THE MOSSDALE MARINA, ABOUT 200 FEET NORTH OF I-5, 5 MI WEST OF MANTECA.

Ecological: NEST TREE IS A LARGE VALLEY OAK IN A PRIVATE YARD, SURROUNDING HABITAT IS AGRICULTURAL LAND.

General: BIRD(S) FIRST OBSERVED ON 20 MAY 1992 CARRYING PREY INTO NEST TREE. NEST DISCOVERED ON A RETURN VISIT ON 22 MAY 1992, WHEN ONE BIRD WAS OBSERVED ON THE NEST AND THE OTHER WAS SOARING ABOVE.

Owner/Manager: PVT

**Buteo swainsoni**

Swainson's hawk

Element Code: ABNKC19D70

Status  
 Federal: None  
 State: Threatened

NODD Element Ranks  
 Global: G5  
 State: S2

Other Lists  
 CDFG Status:

Habitat Associations

General: (NESTING) BREEDS IN STANDS WITH FEW TREES IN JUNIPER-SAGE FLATS, RIPARIAN AREAS AND IN OAK SAVANNAH.

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 591      Map Index: 33403      EO Index: 22454      Dates Last Seen  
 Occ Rank: Fair      Element: 2002-07-17  
 Origin: Natural/Native occurrence      Site: 2002-07-17  
 Presence: Presumed Extant  
 Trend: Unknown      Record Last Updated: 2005-05-11  
 Main Source: LAWRENCE, M. 1995 (OBS)

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.76337° / -121.34603°      Township: 02S  
 UTM: Zone-10 N4180849 E645694      Range: 05E  
 Radius: 80 meters      Mapping Precision: SPECIFIC      Section: 18      Qtr: XX  
 Elevation: 10 ft      Symbol Type: POINT      Meridian: M

Location: WEST SIDE OF BERRY AVENUE, 0.1 MILE SOUTH THE INTERSECTION WITH CANAL BOULEVARD, 5 MILES NORTH OF TRACY  
 Location Detail: THERE WERE 3 VALLEY OAKS IN A ROW, THE 1995 NEST TREE WAS THE CENTER ONE, WITH THE NEST LOCATED IN THE UPPER PORTION OF THE TREE. THE 2002 NEST TREE WAS WITHIN A FARMSTEAD TO THE SOUTH, ALONG BERRY AVENUE.  
 Ecological: NEST TREE IS A LARGE VALLEY OAK. SURROUNDING FORAGING HABITAT CONSISTS OF AGRICULTURAL FIELDS PLANTED IN ROW CROPS TO THE SE AND SW, FALLOW FIELDS TO THE NE, AND ROADWAY/COMMERCIAL TO THE NW.  
 General: NEST AND 2 ADULTS OBSERVED ON 26 MAR. 1995. 2000: NEST CONTAINING 2 DOWNY YOUNG OBSERVED ON 9 JUN. 2002: NESTING SUSPECTED ON 20 APR; NEST WITH 1 FEATHERED CHICK OBSERVED ON 27 JUN; 2 JUV PERCHED IN NEST TREE ON 17 JUL.  
 Owner/Manager: UNKNOWN

Occurrence No. 597      Map Index: 38903      EO Index: 33810      Dates Last Seen  
 Occ Rank: Good      Element: 1998-04-14  
 Origin: Natural/Native occurrence      Site: 1998-04-14  
 Presence: Presumed Extant  
 Trend: Unknown      Record Last Updated: 1998-05-18  
 Main Source: CROWE, R. 1998 (OBS)

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.79813° / -121.26509°      Township: 02S  
 UTM: Zone-10 N4184611 E652658      Range: 05E  
 Radius: 1/10 mile      Mapping Precision: NON-SPECIFIC      Section: 01      Qtr: NW  
 Elevation: 25 ft      Symbol Type: POINT      Meridian: M

Location: SOUTH SIDE OF YOSEMITE AVENUE, 0.3 MILE EAST OF MCKINLEY AVENUE, SOUTH OF LATHROP.  
 Location Detail: NEST IS LOCATED IN A WIND BREAK BETWEEN AN AGRICULTURAL FIELD AND HOUSES.  
 Ecological: NEST TREE IS A COTTONWOOD, SURROUNDED BY AGRICULTURAL FIELDS (ROW CROPS) AND ASSOCIATED RESIDENCES.  
 General: 2 ADULTS/NEST OBSERVED ON 14 APRIL 1998.  
 Owner/Manager: UNKNOWN

Occurrence No. 937      Map Index: 45522      EO Index: 45622      Dates Last Seen  
 Occ Rank: Excellent      Element: 2001-05-21  
 Origin: Natural/Native occurrence      Site: 2001-05-21  
 Presence: Presumed Extant  
 Trend: Unknown      Record Last Updated: 2002-03-12  
 Main Source: BRADBURY, M. 2000 (OBS)

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.80628° / -121.32382°      Township: 01S  
 UTM: Zone-10 N4185544 E647546      Range: 06E  
 Radius: 80 meters      Mapping Precision: SPECIFIC      Section: 33      Qtr: XX  
 Elevation: 18 ft      Symbol Type: POINT      Meridian: M

Location: SAN JOAQUIN RIVER, AT THE HEAD OF OLD RIVER, SW OF LATHROP  
 Location Detail: 2000 NEST TREE WAS A COTTONWOOD, LOCATED ON THE NORTH BANK OF OLD RIVER, AT THE ELBOW. 2001 NEST TREE WAS A 35-FT TALL WILLOW.  
 Ecological: NEST TREE IS A 35-FT TALL WILLOW, WITHIN A GROUP OF 3 TREES, SURROUNDED BY SUBSTANTIAL ALFALFA FIELDS.  
 Threat: THREATENED BY HUMAN DISTURBANCE (BOATS, CARS, FARM MACHINERY) AND LIVESTOCK.  
 General: NEST WAS MONITORED THROUGH THE 2000 NESTING SEASON; 2 ADULTS AND 1 JUVENILE OBSERVED ON 14 JUN 2000. 2 ADULTS AND 2 YOUNG OBSERVED ON 21 JUN 2001; YOUNG WERE BANDED.  
 Owner/Manager: UNKNOWN

**Buteo swainsoni**

Swainson's hawk

Element Code: ABNKC19070

Status

NDDB Element Ranks

Other Lists

Federal: None

Global: G5

CDFG Status:

State: Threatened

State: S2

Habitat Associations

General: (NESTING) BREEDS IN STANDS WITH FEW TREES IN JUNIPER-SAGE FLATS, RIPARIAN AREAS AND IN OAK SAVANNAH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 944      Map Index: 45715      EO Index: 45715      Dates Last Seen

Occ Rank: Excellent      Element: 2001-05-16

Origin: Natural/Native occurrence      Site: 2001-05-16

Presence: Presumed Extant

Trend: Unknown      Record Last Updated: 2003-07-10

Main Source: BRADBURY, M. 2000 (OBS)

Quad Summary: LATHROP (3712173/462D)

County Summary: SAN JOAQUIN

Lat/Long: 37.81072° / -121.32260°      Township: 01S

UTM: Zone-10 N4106139 E647654      Range: 06E

Area: 11.3 ac      Mapping Precision: SPECIFIC      Section: 33      Qtr: XX

Elevation: 25 ft      Symbol Type: POLYGON      Meridian: M

Location: ALONG SAN JOAQUIN RIVER, 0.3 MILE DOWNSTREAM OF THE HEAD OF OLD RIVER, WEST OF LATHROP

Location Detail: 2000 NEST TREE WAS A 40-50' TALL BLACK WALNUT ON THE NORTH BANK. 2001 NEST TREE WAS A COTTONWOOD ON THE SOUTH BANK.

Ecological: NEST TREE IS A COTTONWOOD, SURROUNDED BY MATURE RIPARIAN FOREST AND AGRICULTURE (INCLUDING SUBSTANTIAL ALFALFA).

Threat: THREATENED BY RECREATIONAL USE OF THE AREA (BOATERS AND FISHERMEN).

General: 2 ADULTS OBSERVED NESTING DURING 2000, BUT THE NEST FAILED AND THE ADULTS ABANDONED; FEMALE OBSERVED ON THE NEST ON 8 MAY 2000, AND NEST WAS ACTIVE ON 7 JUL 2000. 2 ADULTS OBSERVED NESTING ON 16 MAY 2001, BUT THE NEST LATER FAILED.

Owner/Manager: UNKNOWN

Occurrence No. 997      Map Index: 47404      EO Index: 47404      Dates Last Seen

Occ Rank: Good      Element: 2001-05-16

Origin: Natural/Native occurrence      Site: 2001-05-16

Presence: Presumed Extant

Trend: Unknown      Record Last Updated: 2002-03-12

Main Source: BRADBURY, M. 2000 (OBS)

Quad Summary: LATHROP (3712173/462D)

County Summary: SAN JOAQUIN

Lat/Long: 37.81945° / -121.34580°      Township: 01S

UTM: Zone-10 N4107072 E645594      Range: 06E

Radius: 80 meters      Mapping Precision: SPECIFIC      Section: 3D      Qtr: XX

Elevation: 10 ft      Symbol Type: POINT      Meridian: M

Location: EAST SIDE OF OLD RIVER, DOWNSTREAM OF THE HEAD OF OLD RIVER, SOUTH OF STOCKTON

Location Detail: NEST TREE IS LOCATED ON THE LAND SIDE OF THE LEVEE.

Ecological: NEST TREE IS A LARGE OAK, WITHIN A CLUSTER OF OAKS, WILLOWS, AND COTTONWOODS; SURROUNDED BY AGRICULTURAL FIELDS.

Threat: POSSIBLE THREAT OF DISTURBANCE FROM HUMAN RECREATIONAL USE OF AREA (BOATING, FISHING, ETC).

General: PAIR OBSERVED NESTING ON 19 APR 2000. PAIR OBSERVED NESTING ON 16 MAY 2001; FEMALE ON NEST.

Owner/Manager: UNKNOWN

Occurrence No. 1109      Map Index: 50998      EO Index: 50998      Dates Last Seen

Occ Rank: Excellent      Element: 1999-07-05

Origin: Natural/Native occurrence      Site: 1999-07-05

Presence: Presumed Extant

Trend: Unknown      Record Last Updated: 2003-04-16

Main Source: BRADBURY, M. 1999 (OBS)

Quad Summary: LATHROP (3712173/462D), UNION ISLAND (3712174/462C)

County Summary: SAN JOAQUIN

Lat/Long: 37.79152° / -121.37565°      Township: 02S

UTM: Zone-10 N4103926 E543021      Range: 05E

Radius: 80 meters      Mapping Precision: SPECIFIC      Section: 01      Qtr: XX

Elevation: 10 ft      Symbol Type: POINT      Meridian: M

Location: WEST SIDE OF PARADISE ROAD, 0.3 MILE SOUTH OF DELTA AVENUE, NE OF TRACY

Ecological: NEST TREE IS A LONE COTTONWOOD NEXT TO SOME HOUSES; SURROUNDING FORAGING HABITAT CONSISTS OF ALFALFA.

General: NEST SITE ACTIVE IN 1997 AND 1998. 2 ADULTS AND 2 JUVENILES OBSERVED AT THE NEST SITE ON 6 JUL 1999.

Owner/Manager: UNKNOWN

**Buteo swainsoni**

Swainson's hawk

Element Code: ABNKC19070

Status: \_\_\_\_\_ NODB Element Ranks: \_\_\_\_\_ Other Lists: \_\_\_\_\_  
 Federal: None Global: G5 CDFG Status:  
 State: Threatened State: S2

Habitat Associations: \_\_\_\_\_

General: (NESTING) BREEDS IN STANDS WITH FEW TREES IN JUNIPER-SAGE FLATS, RIPARIAN AREAS AND IN OAK SAVANNAH  
 Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 1110 Map Index: 51000 EO Index: 51000 Dates Last Seen: \_\_\_\_\_  
 Occ Rank: Excellent Element: 2000-04-19  
 Origin: Natural/Native occurrence Site: 2000-04-19  
 Presence: Presumed Extant  
 Trend: Unknown Record Last Updated: 2003-04-16  
 Main Source: BRADBURY, M. 2000 (OBS)

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.81382° N -121.33465° Township: 01S  
 UTM: Zone-10 N4185464 E646587 Range: 06E  
 Radius: 80 meters Mapping Precision: SPECIFIC Section: 29 Qtr: XX  
 Elevation: 10 ft Symbol Type: POINT Meridian: M

Location: EAST SIDE OF OLD RIVER, 0.75 MILE UPSTREAM FROM THE SAN JOAQUIN RIVER CONFLUENCE, NORTH OF TRACY  
 Ecological: NEST TREE IS AN OAK WITHIN REMNANT RIPARIAN ON A DISTURBED LEVEE SLOPE. SURROUNDING FORAGING HABITAT CONSISTS OF AGRICULTURE.  
 General: NEST SITE ACTIVE IN 1990 AND 1999. 2 ADULTS OBSERVED AT THE NEST SITE ON 10 APR 2000.  
 Owner/Manager: UNKNOWN

Occurrence No. 1111 Map Index: 51001 EO Index: 51001 Dates Last Seen: \_\_\_\_\_  
 Occ Rank: Excellent Element: 2000-05-03  
 Origin: Natural/Native occurrence Site: 2000-05-03  
 Presence: Presumed Extant  
 Trend: Unknown Record Last Updated: 2003-04-16  
 Main Source: BRADBURY, M. 2000 (OBS)

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.82062° N -121.31955° Township: 01S  
 UTM: Zone-10 N4187243 E647903 Range: 06E  
 Radius: 80 meters Mapping Precision: SPECIFIC Section: 28 Qtr: XX  
 Elevation: 10 ft Symbol Type: POINT Meridian: M

Location: EAST SIDE OF SAN JOAQUIN RIVER, 0.25 MILE EAST OF THE SOUTH END OF UNDINE ROAD, NE OF TRACY  
 Ecological: NEST TREE IS A LARGE OAK WITHIN WITHIN A LINE OF OAKS, JUST OFF THE LEVEE; SURROUNDING FORAGING HABITAT CONSISTS OF AGRICULTURE (MAINLY ROW CROPS AND ALFALFA).  
 General: NEST SITE ACTIVE IN 1990 AND 1999. 2 ADULTS OBSERVED AT THE NEST SITE ON 3 MAY 2000.  
 Owner/Manager: UNKNOWN

Occurrence No. 1112 Map Index: 51002 EO Index: 51002 Dates Last Seen: \_\_\_\_\_  
 Occ Rank: Excellent Element: 2001-04-16  
 Origin: Natural/Native occurrence Site: 2001-04-16  
 Presence: Presumed Extant  
 Trend: Unknown Record Last Updated: 2003-04-16  
 Main Source: BRADBURY, M. 2001 (OBS)

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.80762° N -121.35015° Township: 01S  
 UTM: Zone-10 N4185752 E645234 Range: 06E  
 Radius: 80 meters Mapping Precision: SPECIFIC Section: 31 Qtr: XX  
 Elevation: 10 ft Symbol Type: POINT Meridian: M

Location: STEWART ROAD, 0.4 MILE EAST OF PARADISE ROAD, NE OF TRACY  
 Ecological: NEST TREE IS ONE OF TWO ROADSIDE OAKS; SURROUNDING FORAGING HABITAT CONSISTS OF ALFALFA.  
 General: 2 ADULTS OBSERVED DURING NEST-BUILDING ON 16 APR 2001.  
 Owner/Manager: UNKNOWN

**Buteo swainsoni**

Swainson's hawk

Element Code: ABNKC19070

Status: \_\_\_\_\_ NDDDB Element Ranks: \_\_\_\_\_ Other Lists: \_\_\_\_\_  
 Federal: None Global: G5  
 State: Threatened State: S2 CDFG Status: \_\_\_\_\_

Habitat Associations: \_\_\_\_\_  
 General: (NESTING) BREEDS IN STANDS WITH FEW TREES IN JUNIPER-SAGE FLATS, RIPARIAN AREAS AND IN OAK SAVANNAH.  
 Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS

Occurrence No. 1113 Map Index: 51003 EO Index: 51003 Dates Last Seen: \_\_\_\_\_  
 Occ Rank: Good Element: 2001-04-27  
 Origin: Natural/Native occurrence Site: 2001-04-27  
 Presence: Presumed Extant  
 Trend: Unknown Record Last Updated: 2003-04-16  
 Main Source: BRADBURY, M. 2001 (OBS)

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN  
 Lat/Long: 37.85532° / -121.31845° Township: 01S  
 UTM: Zone-10 N4182207 E648086 Range: 05E  
 Radius: 80 meters Mapping Precision: SPECIFIC Section: 09 Qtr: XX  
 Elevation: 10 ft Symbol Type: POINT Meridian: M

Location: NORTH SIDE OF BOWMAN ROAD, 0.4 MILE EAST OF BOWMAN BRIDGE OVER THE SAN JOAQUIN RIVER, SOUTH OF STOCKTON.  
 Ecological: NEST TREE IS SURROUNDED BY RURAL AGRICULTURE WITH A FEW HOUSES, BUT GOOD FORAGE CROPS.  
 Threat: THREATENED BY URBAN ENCROACHMENT.  
 General: 2 ADULTS OBSERVED NESTING ON 27 APR 2001.  
 Owner/Manager: UNKNOWN

Occurrence No. 1114 Map Index: 51005 EO Index: 51005 Dates Last Seen: \_\_\_\_\_  
 Occ Rank: Good Element: 2001-05-12  
 Origin: Natural/Native occurrence Site: 2001-05-12  
 Presence: Presumed Extant  
 Trend: Unknown Record Last Updated: 2003-04-17  
 Main Source: BRADBURY, M. 2001 (OBS)

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN  
 Lat/Long: 37.83343° / -121.36235° Township: 01S  
 UTM: Zone-10 N4188597 E644110 Range: 05E  
 Radius: 80 meters Mapping Precision: SPECIFIC Section: 19 Qtr: XX  
 Elevation: 10 ft Symbol Type: POINT Meridian: M

Location: SOUTH SIDE OF UNDINE ROAD, 1.3 MILES WEST OF ROBERTS ROAD, NW OF TRACY  
 Location Detail: NEST TREE LOCATED NEXT TO A FARM HOUSE.  
 Ecological: NEST TREE IS A COTTONWOOD, SURROUNDING FORAGING HABITAT CONSISTS OF VINEYARDS, ORCHARDS, AND SOME GOOD FORAGE CROPS.  
 General: ACTIVE NEST IN 2000. 2 ADULTS OBSERVED NESTING ON 12 MAY 2001.  
 Owner/Manager: UNKNOWN

Occurrence No. 1190 Map Index: 51170 EO Index: 51170 Dates Last Seen: \_\_\_\_\_  
 Occ Rank: Unknown Element: 2000-05-15  
 Origin: Natural/Native occurrence Site: 2000-05-15  
 Presence: Presumed Extant  
 Trend: Unknown Record Last Updated: 2003-04-30  
 Main Source: GIFFORD, D. 2000 (OBS)

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN  
 Lat/Long: 37.83943° / -121.31726° Township: 01S  
 UTM: Zone-10 N4189334 E648068 Range: 05E  
 Radius: 80 meters Mapping Precision: SPECIFIC Section: 21 Qtr: NE  
 Elevation: 10 ft Symbol Type: POINT Meridian: M

Location: SAN JOAQUIN RIVER, AT RIVER MILE 50(L), 5 MILES NW OF MANTECA  
 Ecological: NEST TREE IS A 70' TALL COTTONWOOD  
 General: ADULT(S) OBSERVED AT THE NEST ON 15 JUN 2000.  
 Owner/Manager: UNKNOWN

**Buteo swainsoni**

Swainson's hawk

Element Code: ABNKC19070

Status  
 Federal: None  
 State: Threatened

NDDB Element Ranks  
 Global: G5  
 State: S2

Other Lists  
 CDFG Status:

Habitat Associations

General: (NESTING) BREEDS IN STANDS WITH FEW TREES IN JUNIPER-SAGE FLATS, RIPARIAN AREAS AND IN OAK SAVANNAH.

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 1198      Map Index: 51190      EO Index: 51190      Dates Last Seen  
 Occ Rank: Unknown      Element: 2000-05-20  
 Origin: Natural/Native occurrence      Site: 2000-05-20  
 Presence: Presumed Extant  
 Trend: Unknown      Record Last Updated: 2003-05-01  
 Main Source: GIFFORD, D. 2000 (OBS)

Quad Summary: LATHROP (3712173/462D), UNION ISLAND (3712174/462C)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.85878° / -121.37568°      Township: 01S  
 UTM: Zone-10 N4191388 E642800      Range: 05E  
 Radius: 80 meters      Mapping Precision: SPECIFIC      Section: 12      Qtr: XX  
 Elevation: 5 ft      Symbol Type: POINT      Meridian: M

Location: WEST SIDE OF MIDDLE RIVER, 1.3 MILES SSE OF THE INTERSECTION OF HOWARD ROAD AND WING LEVEE ROAD, 7 MILES NORTH OF TRACY

Ecological: NEST TREE IS A 30' TALL VALLEY OAK, SURROUNDED BY RIPARIAN TO THE SE AND SW, AND BY ROW CROPS TO THE NE AND NW.

General: ADULTS OBSERVED FEEDING 2 PARTIALLY-FEATHERED YOUNG IN THE NEST ON 29 JUN 2000.

Owner/Manager: UNKNOWN

Occurrence No. 1221      Map Index: 51733      EO Index: 51733      Dates Last Seen  
 Occ Rank: Unknown      Element: 2000-07-07  
 Origin: Natural/Native occurrence      Site: 2000-07-07  
 Presence: Presumed Extant  
 Trend: Unknown      Record Last Updated: 2003-07-10  
 Main Source: GIFFORD, D. 2000 (OBS)

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.80121° / -121.31241°      Township: 01S  
 UTM: Zone-10 N4185100 E648570      Range: 05E  
 Radius: 80 meters      Mapping Precision: SPECIFIC      Section: 33      Qtr: XX  
 Elevation: 15 ft      Symbol Type: POINT      Meridian: M

Location: EAST SIDE OF OLD RIVER, 1.2 MILES SW OF THE INTERSECTION OF LOUISE AVENUE AND I-5, SW OF LATHROP

Ecological: NEST TREE IS A 25' WILLOW, SURROUNDED BY CROPLAND IN ALL DIRECTIONS.

General: NEST WITH 2 FEATHERED YOUNG OBSERVED ON 7 JUL 2000.

Owner/Manager: UNKNOWN

Occurrence No. 1587      Map Index: 63290      EO Index: 63382      Dates Last Seen  
 Occ Rank: Unknown      Element: 2002-07-18  
 Origin: Natural/Native occurrence      Site: 2002-07-18  
 Presence: Presumed Extant  
 Trend: Unknown      Record Last Updated: 2005-12-01  
 Main Source: DEPT OF FISH AND GAME 2005 (PERS)

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.85083° / -121.27610°      Township: 01S  
 UTM: Zone-10 N4192662 E651627      Range: 05E  
 Radius: 80 meters      Mapping Precision: SPECIFIC      Section: 11      Qtr: NE  
 Elevation: 22 ft      Symbol Type: POINT      Meridian: M

Location: BETWEEN SOUTH HARLAN ROAD AND SOUTH MCKINLEY ROAD, 1 MILE SOUTH OF FRENCH CAMP, SW OF STOCKTON AIRPORT

Location Detail: NEST TREE LOCATED NEXT TO HOUSE, ON THE WEST SIDE OF THE RAILROAD TRACKS AND EAST OF I-5.

Ecological: NEST TREE WAS A LARGE WILLOW, SURROUNDED BY GRASSLANDS TO THE NE AND SW, RESIDENTIAL/URBAN TO THE SE, AND COMMERCIAL/HIGHWAY TO THE NW

General: NEST AND COPULATING ADULTS OBSERVED ON 19 APR; 1 ADULT IN NEST ON 24 MAY, BUT NO YOUNG VISIBLE; 2 CHICKS OBSERVED IN THE NEST ON 9 JUN; 2 JUVENILES AND 1 ADULT OBSERVED ON 18 JUL 2002.

Owner/Manager: UNKNOWN



***Buteo swainsoni***

Swainson's hawk

Element Code: ABNKC19070

Status: \_\_\_\_\_ NDBB Element Ranks: \_\_\_\_\_ Other Lists: \_\_\_\_\_  
 Federal: None Global: G5 CDFG Status: \_\_\_\_\_  
 State: Threatened State: S2

Habitat Associations

General: (NESTING) BREEDS IN STANDS WITH FEW TREES IN JUNIPER-SAGE FLATS, RIPARIAN AREAS AND IN OAK SAVANNAH.  
 Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 1607 Map Index: 63869 EO Index: 63954 Dates Last Seen: \_\_\_\_\_  
 Occ Rank: Unknown Element: 2002-05-10  
 Origin: Natural/Native occurrence Site: 2002-05-10  
 Presence: Presumed Extant  
 Trend: Unknown Record Last Updated: 2005-02-02  
 Main Source: DEPT OF FISH AND GAME 2005 (PERS)

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.76484° / -121.33187° Township: 02S  
 UTM: Zone-10 N41B1034 E646928 Range: 06E  
 Radius: 80 meters Mapping Precision: SPECIFIC Section: 17 Qtr: XX  
 Elevation: 15 ft Symbol Type: POINT Meridian: M

Location: NORTH SIDE OF TOM PAINE SLOUGH, JUST SOUTH OF THE JUNCTION OF I-5 AND I-205, SW OF MANTECA  
 Ecological: NEST TREE WAS A COTTONWOOD, SURROUNDED BY GRASSLAND TO THE NE, SE, AND SW, AND ROW CROPS TO THE NW.  
 General: 1 ADULT OBSERVED AT THE NEST ON 30 MAY; 1 DOWNY CHICK OBSERVED IN THE NEST WITH 1 ADULT AT THE NEST EDGE ON 10 JUN 2002.  
 Owner/Manager: UNKNOWN

Occurrence No. 1608 Map Index: 63875 EO Index: 63970 Dates Last Seen: \_\_\_\_\_  
 Occ Rank: Unknown Element: 2002-07-07  
 Origin: Natural/Native occurrence Site: 2002-07-07  
 Presence: Presumed Extant  
 Trend: Unknown Record Last Updated: 2005-02-02  
 Main Source: DEPT OF FISH AND GAME 2005 (PERS)

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.79234° / -121.30519° Township: 02S  
 UTM: Zone-10 N41B4127 E649135 Range: 06E  
 Radius: 80 meters Mapping Precision: SPECIFIC Section: 03 Qtr: XX  
 Elevation: 17 ft Symbol Type: POINT Meridian: M

Location: EAST SIDE OF THE SAN JOAQUIN RIVER, 0.4 MILE NORTH OF THE I-5 CROSSING OF THE SAN JOAQUIN RIVER, 4 MILES WEST OF MANTECA  
 Ecological: NEST TREE WAS A VALLEY OAK, SURROUNDED BY GRASSLAND TO THE SW, RIPARIAN TO THE NW, AND FALLOW/RUDERAL TO THE NE AND SE  
 General: ACTIVE NEST OBSERVED ON 30 MAY; 2 PARTIALLY-FEATHERED CHICKS OBSERVED IN THE NEST ON 10 JUN, ONLY 1 JUVENILE REMAINED IN THE NEST BY 7 JUL 2002.  
 Owner/Manager: UNKNOWN

Occurrence No. 1623 Map Index: 64688 EO Index: 64747 Dates Last Seen: \_\_\_\_\_  
 Occ Rank: Unknown Element: 2002-05-23  
 Origin: Natural/Native occurrence Site: 2002-07-17  
 Presence: Presumed Extant  
 Trend: Unknown Record Last Updated: 2005-05-11  
 Main Source: DEPT OF FISH AND GAME 2005 (PERS)

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.76445° / -121.35142° Township: 02S  
 UTM: Zone-10 N41B0945 E644326 Range: 05E  
 Radius: 80 meters Mapping Precision: SPECIFIC Section: 18 Qtr: NW  
 Elevation: 32 ft Symbol Type: POINT Meridian: M

Location: SOUTH SIDE OF I-205, 0.1 MILE WEST OF WHERE CALIFORNIA AVENUE CROSSES I-205, 3 MILES NE OF TRACY.  
 Ecological: NEST TREE WAS A EUCALYPTUS; SURROUNDED BY FALLOW FIELDS TO THE NE, ROW CROPS TO THE SE AND SW, AND ROADWAYS/COMMERCIAL TO THE NW.  
 General: ADULTS OBSERVED SOARING AND LANDING ON 20 APR; 2 DOWNY HEADS VISIBLE IN NEST ON 3 JUN; 1 ADULT AND 1 JUVENILE OBSERVED AT NEST ON 27 JUN, NO HAWKS PRESENT ON 17 JUL 2002.  
 Owner/Manager: UNKNOWN

*Cirsium crassicaule*

slough thistle

Element Code: PDAST2E0U0

_____ Status _____	NDDB Element Ranks _____	_____ Other Lists _____
Federal: None	Global: G2	CNPS List: 1B
State: None	State: S2.2	R-E-D Code: 3-3-3

\_\_\_\_\_ Habitat Associations \_\_\_\_\_  
 General: CHENOPOD SCRUB, MARSHES AND SWAMPS, RIPARIAN SCRUB.  
 Micro: SLOUGHS, RIVERBANKS, AND MARSHY AREAS. 3-100M

Occurrence No. 2	Map Index: 24650	EO Index: 6754	_____ Dates Last Seen _____
Occ Rank: None			Element: 1933-07-20
Origin: Natural/Native occurrence			Site: 1974-07-18
Presence: Possibly Extirpated			Record Last Updated: 1995-09-30
Trend: Unknown			
Main Source: HOWELL, J. #11447 RSA (HERB)			

Quad Summary: LATHROP (3712173462D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.81005° / -121.31942°	Township: 01S
UTM: Zone-10 N+186070 E647935	Range: 06E
Radius: 1 mile	Section: 33
Elevation: 10 ft	Meridian: M
Mapping Precision: NON-SPECIFIC	Qtr: XX
Symbol Type: POINT	

Location: 2 MILES NORTHEAST OF LATHROP BRIDGE ALONG SAN JOAQUIN RIVER.  
 Location Detail: MAPPED NEAR SAN JOAQUIN RIVER-OLD RIVER CONFLUENCE.  
 Ecological: IN SHALLOW WATER OF CANAL.  
 Threat: AREA OF INTENSIVE AGRICULTURE WITH MODIFIED CANALS.  
 General: SPECIES LAST SEEN IN THIS AREA IN 1933. SEARCHED FOR IN 1974 BUT NOT FOUND.  
 Owner/Manager: UNKNOWN

*Eryngium racemosum*

Delta button-celery	Element Code: PDAP10Z050
Status	NDDB Element Ranks
Federal: None	Global: G2Q
State: Endangered	State: S2.1
Other Lists	
	CNPS List: 1B
	R-E-D Code: 2-3-3
Habitat Associations	
General: RIPARIAN SCRUB	
Micro: SEASONALLY INUNDATED FLOODPLAIN ON CLAY, 3-75M.	

Occurrence No. 3	Map Index: 11611	EO Index: 20059	Dates Last Seen
Occ Rank: None			Element: XXXX-XX-XX
Origin: Natural/Native occurrence			Site: 1984-08-28
Presence: Possibly Extirpated			Record Last Updated: 1997-03-18
Trend: Unknown			
Main Source: ALLEN, P. 1974 (FERS)			

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.78839° / -121.30334°	Township: 02S
UTM: Zone-10 N4183692 E649395	Range: 05E
Radius: 1 mile	Section: 3
Elevation: 15 ft	Meridian: M
Mapping Precision: NON-SPECIFIC	Qtr: XX
Symbol Type: POINT	

Location: NEAR HISTORICAL MONUMENT ON HWY 120, ABOUT 3 MI S OF LATHROP.  
 Threat: AREA NOW FLOODS YEARLY AND WALNUT ORCHARD EXISTS TO EDGE OF RIVER.  
 General: HABITAT GONE IN 1984.  
 Owner/Manager: PVT

***Sylvilagus bachmani riparius***

riparian brush rabbit

Element Code: AMAEB01021

Status: \_\_\_\_\_ NDDB Element Ranks: \_\_\_\_\_ Other Lists: \_\_\_\_\_  
 Federal: Endangered Global: G5T1 CDFG Status:  
 State: Endangered State: S1

Habitat Associations

General: RIPARIAN AREAS ON THE SAN JOAQUIN RIVER IN NORTHERN STANISLAUS COUNTY.  
 Micro: DENSE THICKETS OF WILD ROSE, WILLOWS, AND BLACKBERRIES.

Occurrence No. 3 Map Index: 52111 EO Index: 52111 Dates Last Seen: \_\_\_\_\_  
 Occ Rank: Good Element: 2003-02-03  
 Origin: Natural/Native occurrence Site: 2003-02-03  
 Presence: Presumed Extant  
 Trend: Unknown Record Last Updated: 2003-08-13  
 Main Source: LLOYD, M, C. LEE, AND G. MONK 2003 (OBS)

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.78532° / -121.31217° Township: 02S  
 UTM: Zone-10 N4184448 E648802 Range: 06E  
 Area: 36.3 ac Mapping Precision: SPECIFIC Section: 04 Qir: NE  
 Elevation: 9 ft Symbol Type: POLYGON Meridian: M

Location: OXBOW ON THE EAST SIDE OF THE SAN JOAQUIN RIVER, AT RIVER MILE 55, 2 MILES SW OF LATHROP  
 Location Detail: SITE ABUTS A PROPOSED DEVELOPMENT SITE (MOSSDALE LANDING).  
 Ecological: HABITAT CONSISTS OF COTTONWOOD RIPARIAN FOREST, DOMINATED BY FREMONT COTTONWOOD, WITH AN UNDERSTORY OF BLACKBERRY, WILD ROSE, STINGING NETTLE, BLESSED MILKTHIRSTLE, AND NON-NATIVE ANNUAL GRASSES. NON-NATIVE RATTUS RATTUS CAPTURED IN TRAPS.  
 Threat: EVIDENCE OF 6+ HOMELESS CAMPS, PAST WILDFIRES & AN UNAUTHORIZED GARDEN, CRISS-CROSSED WITH ROADS THAT ARE USED BY DRVS.  
 General: 2 CAPTURED EVENING OF 2 FEB 2003 AND 13 ADULTS CAPTURED MORNING OF 3 FEB 2003  
 Owner/Manager: UNKNOWN

Occurrence No. 4 Map Index: 57409 EO Index: 57425 Dates Last Seen: \_\_\_\_\_  
 Occ Rank: Unknown Element: 2001-XX-XX  
 Origin: Natural/Native occurrence Site: 2001-XX-XX  
 Presence: Presumed Extant  
 Trend: Unknown Record Last Updated: 2004-10-14  
 Main Source: WINTERS, G. AND M. LEJA 2003 (PERS)

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37.75414° / -121.31826° Township: 02S  
 UTM: Zone-10 N4180975 E648128 Range: 06E  
 Area: 103.8 ac Mapping Precision: SPECIFIC Section: 16 Qir: XX  
 Elevation: 10 ft Symbol Type: POLYGON Meridian: M

Location: PARADISE CUT, BORDERED TO THE NORTHWEST BY I-205 AND ABOUT 1.3 MI SOUTHWEST OF MOSSDALE AND 2.8 MILES NORTHEAST OF BANTA  
 Location Detail: INDIVIDUALS PRIMARILY CAUGHT IN AREA IMMEDIATELY WEST OF UNION PACIFIC RAILROAD TRACTS WEST OF INTERSTATE 5  
 Ecological: SUITABLE HABITAT IS PRESENT IN SOME CHANNELS AND ADJOINING SLOUGH THAT FLOODS DURING PERIODS OF HIGH WATER FLOW. THERE ARE APPROXIMATELY 135 ACRES OF POTENTIAL RIPARIAN BRUSH HABITAT AT THE SITE, MOSTLY NEAR PROPOSED I-205 WIDENING PROJECT  
 Threat: PROPOSED INTERSTATE-205 WIDENING PROJECT.  
 General: 21 INDIVIDUALS CAUGHT IN 2001.  
 Owner/Manager: UNKNOWN

*Trichocoronis wrightii* var. *wrightii*

Wright's Trichocoronis

Element Code: PDA5T9F031

Status	NODD Element Ranks	Other Lists
Federal: None	Global: G4T3	CNPS List: 2
State: None	State: S1.1	R-E-D Code: 3-3-1

Habitat Associations

General: MARSHES AND SWAMPS, RIPARIAN FOREST, MEADOWS AND SEEPS, VERNAL POOLS

Micro: MUD FLATS OF VERNAL LAKES, DRYING RIVER BEDS, ALKALI MEADOWS 5-435M.

Occurrence No. 6	Map Index: 246B1	EO Index: 6604	Dates Last Seen
Occ Rank: Unknown			Element: 1914-09-27
Origin: Natural/Native occurrence			Site: 1914-09-27
Presence: Presumed Extant			Record Last Updated: 1993-11-16
Trend: Unknown			
Main Source: BRANDEGEE, K. SN POM #50643 (HERB)			

Quad Summary: LATHROP (3712173/462D)

County Summary: SAN JOAQUIN

Lat/Long: 37.70548° / -121.30951°	Township: 02S
UTM: Zone-10 N41B3364 E649121	Range: 05E
Radius: 2/5 mile	Section: 3
Elevation: 20 ft	Meridian: M
Mapping Precision: NON-SPECIFIC	Qtr: XX
Symbol Type: POINT	

Location: BRIDGE ACROSS SAN JOAQUIN RIVER NEAR LATHROP.

Location Detail: MAPPED WHERE I-5 CROSSES SAN JOAQUIN RIVER.

General: HERBARIUM LABELS ARE ONLY SOURCE OF INFORMATION FOR THIS SITE. COLLECTED SEVERAL TIMES IN THIS AREA BETWEEN 1892 AND 1914. AREA SHOULD BE FIELD CHECKED FOR PRESENCE OF SUITABLE HABITAT.

Owner/Manager: UNKNOWN

***Xanthocephalus xanthocephalus***

yellow-headed blackbird

Element Code: ABFBXB3010

\_\_\_\_\_ Status \_\_\_\_\_ NDDDB Element Ranks \_\_\_\_\_ Other Lists \_\_\_\_\_  
 Federal: None Global: G5  
 State: None State: S35-I CDFG Status:

Habitat Associations

General: (NESTING) NESTS IN FRESHWATER EMERGENT WETLANDS WIDENSE VEGETATION & DEEP WATER. OFTEN ALONG BORDERS OF LAKES OR PONDS  
 Micro: NESTS ONLY WHERE LARGE INSECTS SUCH AS ODDONATA ARE ABUNDANT, NESTING TIMED WITH MAXIMUM EMERGENCE OF AQUATIC INSECTS.

Occurrence No. 5 Map Index: 53839 EO Index: 53839 Dates Last Seen \_\_\_\_\_  
 Occ Rank: Unknown Element: 1894-05-10  
 Origin: Natural/Native occurrence Site: 1894-05-10  
 Presence: Presumed Extant Record Last Updated: 2003-12-18  
 Trend: Unknown  
 Main Source: MVZ 2003 (MUS)

Quad Summary: LATHROP (3712173/462D)  
 County Summary: SAN JOAQUIN

Lat/Long: 37 81681° / -121 28368° Township: 01S  
 UTM: Zone-10 N4186878 E651057 Range: 06E  
 Radius: 1 mile Mapping Precision: NON-SPECIFIC Section: 25 Qtr: XX  
 Elevation: 15 ft Symbol Type: POINT Meridian: M

Location: LATHROP

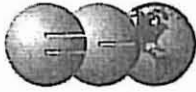
General: MVZ EGG SET #6846 COLLECTED 10 MAY 1894 BY A. WOLFE

Owner/Manager: UNKNOWN

## **ATTACHMENT B**

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Burrowing Owl Survey and Riparian Brush Rabbit Habitat Assessment



25 October 2007

Mr. Clifton Taylor  
Richland Planned Communities  
2220 Douglas Boulevard, Suite 290  
Roseville, California 95661

**RE: *South Lathrop Sites 6A and 6B – Burrowing Owl Survey and Riparian Brush Rabbit Habitat Assessment***

Dear Mr. Taylor:

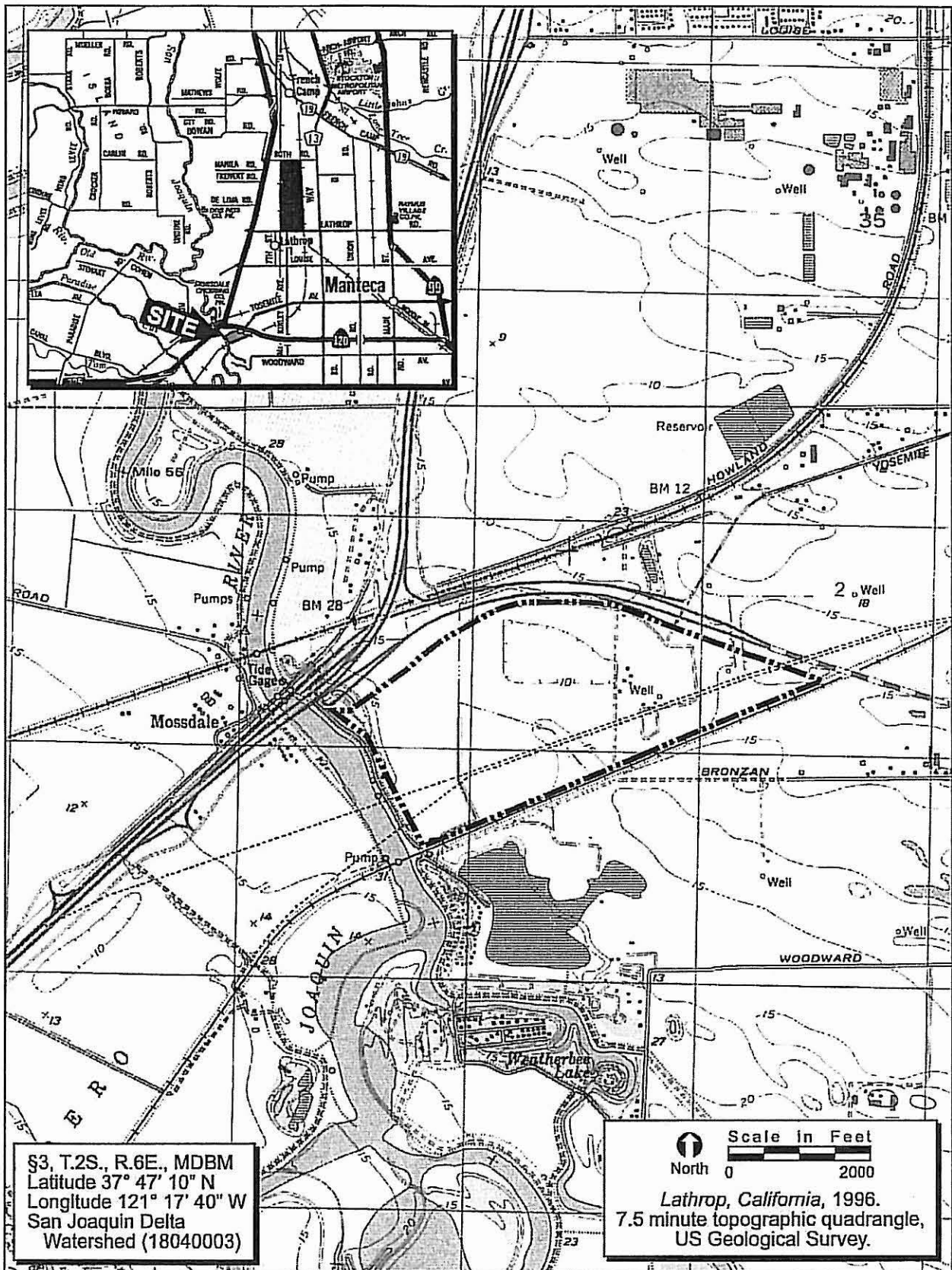
ECORP Consulting, Inc. (ECORP) has conducted a burrowing owl and riparian brush rabbit habitat assessment within the 277-acre South Lathrop Sites 6A and 6B project area. The project site is located south of Highway 120, east of the Interstate 5 and Highway 560 Interchange, and south of Madrugada Road - with Guthmiller Road dissecting the project site in San Joaquin County, California (Figure 1. *Project Site and Vicinity*). The site corresponds to a portion of Section 3, Township 2 South, and Range 6 East Mount Diablo Base Meridian (MDBM) of the "Lathrop, California" 7.5-minute quadrangle (U.S. Department of the Interior, Geological Survey 1996). The approximate center of the site is located at 37° 47' 10" North and 121° 17' 40" West within the San Joaquin Delta Watershed (# 18040003, U.S. Department of Interior, Geological Survey 1978).

The field study included surveys of all areas that represented potentially suitable habitat for burrowing owls (*Athene cunicularia*), and was conducted via visual observations on 19 October 2007 by ECORP biologist Tom Scofield. Binoculars (10x40 magnification) and a spotting scope (15-45X magnification) were used to assist with field identification and observations. Transects (approximately 30 meters apart) were walked through all non-agricultural open areas to identify and record potential burrowing owls and/or their burrows. California ground squirrel (*Spermophilus beecheyi*) burrows observed were investigated for the presence of owl use (e.g., fecal pellets, white-wash, or feathers). The riparian brush rabbit (*Sylvilagus bachmani riparius*) habitat assessment was conducted in conjunction with the burrowing owl survey on October 19, 2007, and included surveys of the entire property to determine if any areas represented potentially suitable habitat for brush rabbits.

During the survey, no burrowing owls or any sign of burrowing owls were observed on-site or adjacent to the project. The site, however, supports high densities of ground squirrels and associated burrows that provide potentially suitable habitat for burrowing owls. Particularly in non-agricultural areas of the project including earthen berms along dirt roadways, the adjacent railroad earthen berm to the south, and the San Joaquin River levee to the west.

The area of the project bounded by the San Joaquin River levee road on the east, the San Joaquin River to the west, the railroad/railroad bridge to the south, and Highway 120 to the





**FIGURE 1. Project Site and Vicinity**

2004-096 South Lathrop 6a & 6b

north represents the only potentially suitable habitat for riparian brush rabbit on-site. The habitat within this narrow strip is highly variable in vegetative composition. The approximate northern half of this area is predominantly non native annual grasslands while the southern half is a mix of oak (*Quercus spp.*), cottonwood (*Populus spp.*), and willow riparian woodland with a variable understory including patches of non-native annual grassland, California wild rose (*Rosa californica*), stinging nettles (*Urtica dioica*), and willow scrub (*Salix spp.*). As such, the southern portion of the interior (river side) levee area provides potentially suitable riparian habitat for riparian brush rabbit.

In conclusion, no burrowing owls, burrowing owl nests, or occupied burrows were observed during the 19 October 2007 burrowing owl survey visit at the South Lathrop Sites 6A and 6B project area. All raptors (owls, hawks, eagles, and falcons), including their nests, are protected from take pursuant to the Fish and Game Code of California Section 3503.5, and the Federal Migratory Bird Treaty Act, among other federal and state regulations. The California Department of Fish and Game (CDFG) recommends that a 250-foot radius buffer be placed around active burrowing owl nesting burrows during the active nesting period (approximately February 1 – August 31). During this period, no construction activities shall occur within the buffer area. Approval from the CDFG would be required for any activities within a 250-foot radius of burrowing owl nesting locations within the survey area. Once a qualified biologist has determined that burrowing owl nestlings have fledged, or become independent of their nest, construction activities may proceed within the identified buffer area(s), and individuals may be excluded from their burrows following accepted CDFG methodologies [CDFG *Staff Report on Burrowing Owl Mitigation* (1995)].

Riparian brush rabbits are generally known to inhabit dense, brushy areas of Valley riparian forests marked by extensive thickets of understory vegetation such as California wild rose, California blackberries (*Rubus ursinus*), and willows. Although the riparian habitat on-site has been disturbed and is subject to ongoing disturbances including flooding, levee maintenance activities (e.g., rip rap placement), and invasion and control of exotic plant species (e.g. weed abatement for non-native annual grasses and forbs), the on-site area occurring on the interior levee side between the San Joaquin River and the levee road, will likely be considered riparian brush rabbit habitat by the United States Fish and Wildlife Service (USFWS). As such, project approval would likely require submittal of a Biological Assessment to the USFWS to address potential affects to riparian brush rabbit, and any additional federally listed species that may occur on-site (e.g., VELB) as part of the Section 7 consultation process.

If you have any questions feel free to contact me at (916) 782-9100.

Sincerely,



Tom Scofield  
Wildlife Ecologist

# **ATTACHMENT C**

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Special-Status Plant Survey

Special-Status Plant Survey  
For  
**South Lathrop 6A and 6B**  
San Joaquin County, California

29 August 2008

Prepared For:  
**Richland Planned Communities, Inc.**



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- Attachment D – Plant Species Observed On-Site (7 May and 19 June 2008)

## **INTRODUCTION**

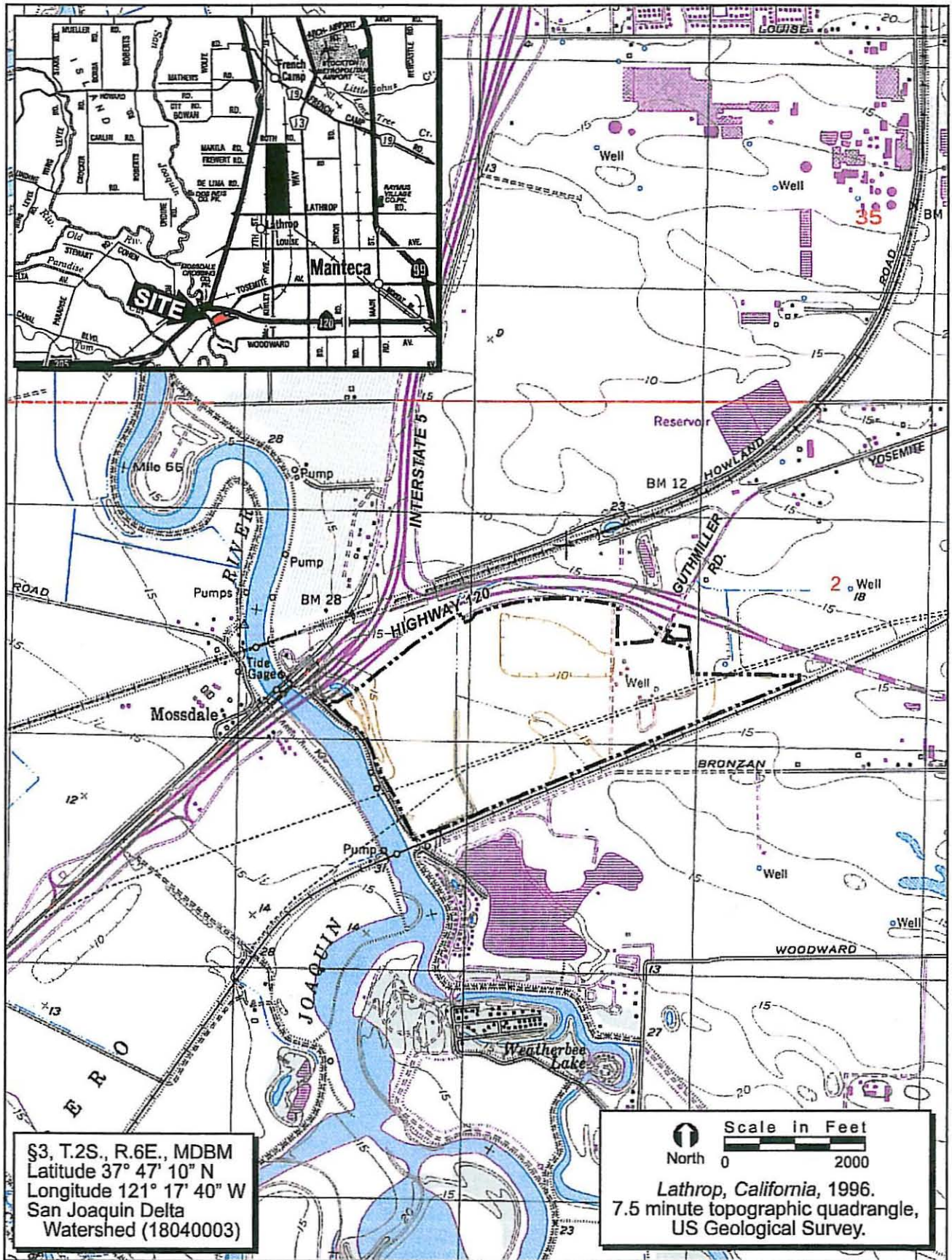
At the request of Richland Planned Communities, Inc., ECORP Consulting, Inc. (ECORP) conducted a special-status plant survey for the approximately 277±-acre South Lathrop 6A and 6B site in San Joaquin County, California. The purpose of this survey was to identify and map the locations of special-status plant species observed within the site.

For the purposes of this report, "special-status species" refers to those plant species which:

- Are listed, proposed for listing, or candidates for future listing as threatened or endangered under the federal Endangered Species Act;
- Are listed or candidates for future listing as threatened or endangered under the California Endangered Species Act;
- Meet the definitions of endangered or rare under Section 15380 of the CEQA Guidelines;
- Are considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California" (Lists 1B and 2);
- Are listed on the Review List and Watch List by CNPS (Lists 3 and 4); or
- Are listed as rare under the California Native Plant Protection Act (Fish and Game Code of California, Section 1900 et seq.).

### **Site Location**

The South Lathrop 6A and 6B site is located south of Highway 120, east of the San Joaquin River, and north of the Western Pacific Railroad tracks with Guthmiller Road dissecting the project site in San Joaquin County, California (Figure 1. *Project Site and Vicinity*). The site corresponds to a portion of Sections 2 and 3 and an unsectioned portion of Township 2 South, and Range 6 East Mount Diablo Base Meridian (MDBM) of the "Lathrop, California" 7.5-minute quadrangle (U.S. Department of the Interior, Geological Survey 1996). The approximate center of the site is located at 37° 47' 10" North and 121° 17' 40" West within the San Joaquin Delta Watershed (# 18040003, U.S. Department of Interior, Geological Survey 1978).



**FIGURE 1. Project Site and Vicinity**

2007-213 South Lathrop 6a & 6b

## Existing Site Conditions

The site is comprised of relatively flat terrain and is situated at an elevation of approximately 5 to 15 feet above mean sea level. The majority of the project site is being used for agricultural practices (i.e., alfalfa (*Medicago sativa*), winter wheat (*Triticum aestivum*), and cattle grazing). The western portion is being utilized for alfalfa and winter wheat production, and an irrigated cattle pasture is located in the southern central portion of the project site. Several buildings are present on-site, including farmhouses and a number of commercial facilities on Guthmiller and Madruga Roads. A detention basin present to the north of the commercial facilities collects stormwater runoff from adjacent parking lots. The western border of the site is the San Joaquin River. The riverbank has been stabilized by rock riprap, and a disturbed riparian community has become established in the riprap.

The irrigated pasture is dominated by rose clover (*Trifolium hirtum*), Bermuda grass (*Cynodon dactylon*), barnyard grass (*Echinochloa crus-galli*), deergrass (*Muhlenbergia rigens*), plantain (*Plantago major*), birdsfoot trefoil (*Lotus corniculatus*), annual bluegrass (*Poa annua*), knotweed (*Polygonum arenastrum*), common frog-fruit (*Phyla nodiflora*), pennyroyal (*Marrubium vulgare*), and Kentucky fescue (*Festuca arundinacea*).

The riparian community along the western boundary of the site, adjacent to the San Joaquin River, is dominated by Fremont's cottonwood (*Populus fremontii*), valley oak (*Quercus lobata*), Goodding's willow (*Salix gooddingii*), sandbar willow (*S. exigua*), and arroyo willow (*S. lasiolepis*), Himalaya blackberry (*Rubus armeniacus*), Oregon ash (*Fraxinus latifolia*), California rose (*Rosa californica*), evening primrose (*Oenothera biennis*), Douglas' mugwort (*Artemisia douglasiana*), California tule pea (*Lathyrus jepsonii* var. *californicus*), water sedge (*Carex aquatilis* var. *dives*), white sweet clover (*Melilotus alba*), buttonbush (*Cephalanthus occidentalis*), soft rush (*Juncus effusus*), bristly foxtail (*Setaria gracilis*), South American vervain (*Verbena bonariensis*), annual rabbits-foot grass (*Polypogon monspeliensis*), and tall flatsedge (*Cyperus eragrostis*).

The eastern portion of the project site is occupied by annual grassland. The annual grassland community is dominated by yellow-star thistle (*Centaurea solstitialis*), telegraph weed



(*Heterotheca grandiflora*), common mallow (*Malva neglecta*), common tarweed (*Hemizonia pungens*), spreading alkali weed (*Cressa truxillensis*), alkali-mallow (*Malvella leprosa*), sacred thornapple (*Datura wrightii*), dodder (*Cuscuta* species), purple sandspurry (*Spergularia rubra*), saltgrass (*Distichlis spicata*), and Mediterranean barley (*Hordeum marinum*).

A wetland delineation was conducted on-site in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987). Potential waters of the U.S. mapped on-site include wetlands and other waters (Figure 2. *Wetland Delineation*) (ECORP 2005). Wetlands consist of seasonal wetlands and seasonal wetland swales. Other waters include a stock pond.

The seasonal wetlands and seasonal wetland swales are located within the irrigated pasture, and the vegetation within these features is not significantly different from that of the surrounding pasture.

The stock pond is primarily unvegetated, but species observed on the banks of the stock pond include cursed buttercup (*Ranunculus sceleratus*), water primrose (*Ludwigia peploides* var. *peploides*), annual bluegrass, and Fremont cottonwood (*Populus fremontii*).

According to the Soil Survey of San Joaquin County, California (U.S. Department of Agriculture, Soil Conservation Service 1992a), seven soil units, or types, have been mapped within the project site (Figure 3. *Natural Resource Conservation Service Soil Types*). These are: (109) Bisgani loam coarse sand, partially drained, 0 to 2 percent slopes, (142) Delhi loamy sand, 0 to 2 percent slopes, (148) Dello clay loam, drained, 0 to 2 percent slopes, overwashed, (153) Egbert silty clay loam, partially drained, 0 to 2 percent slopes, (166) Grangeville fine sandy loam, partially drained, 0 to 2 percent slopes, (169) Guard clay loam, drained, 0 to 2 percent slopes, and (196) Manteca fine sandy loam, 0 to 2 percent slopes. Soil units (109), (148) and (153) contain listed hydric components, and all of the soil units except (109) and (142) may contain hydric inclusions (U.S. Department of Agriculture, Soil Conservation Service 1992b).

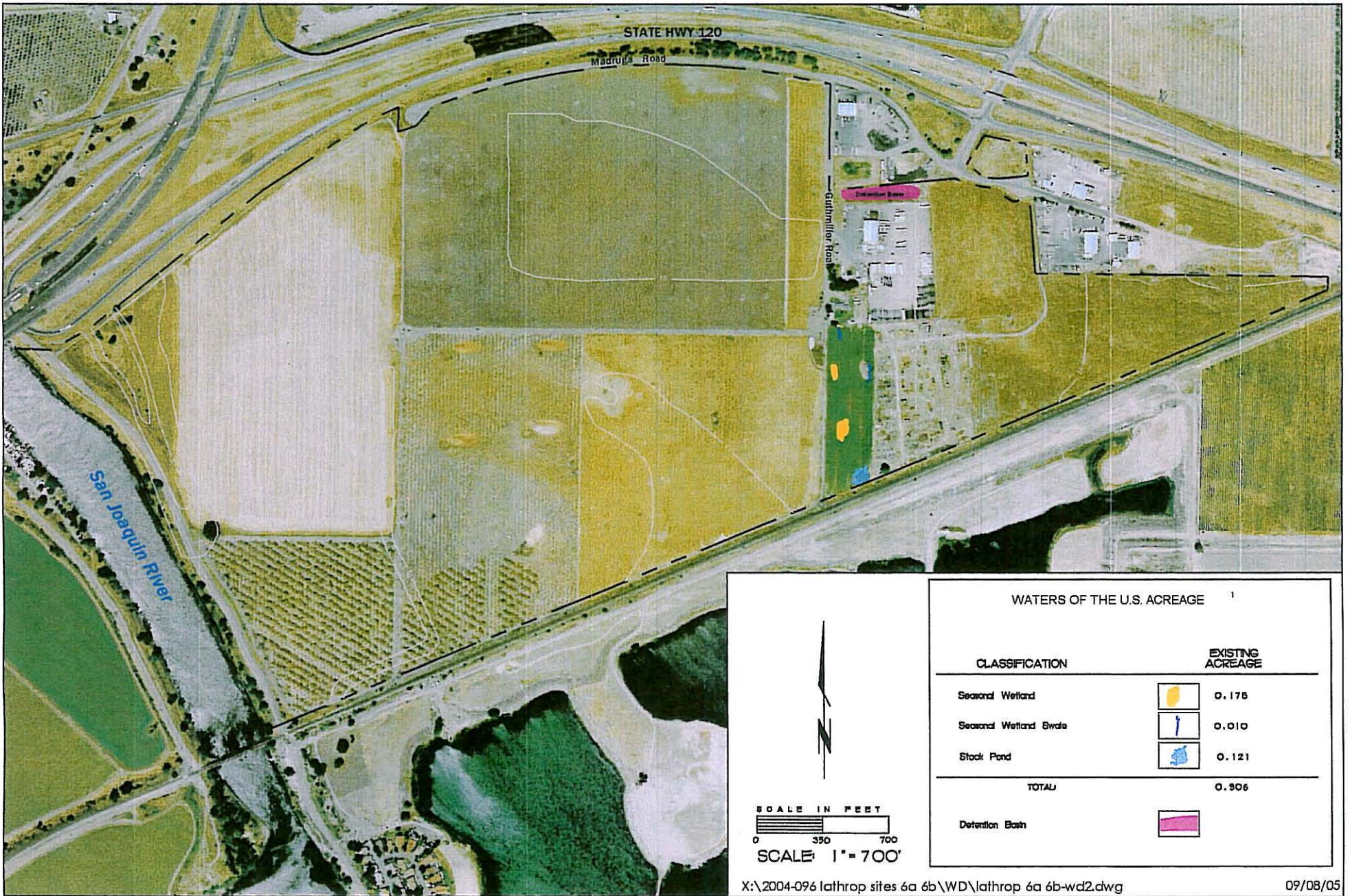
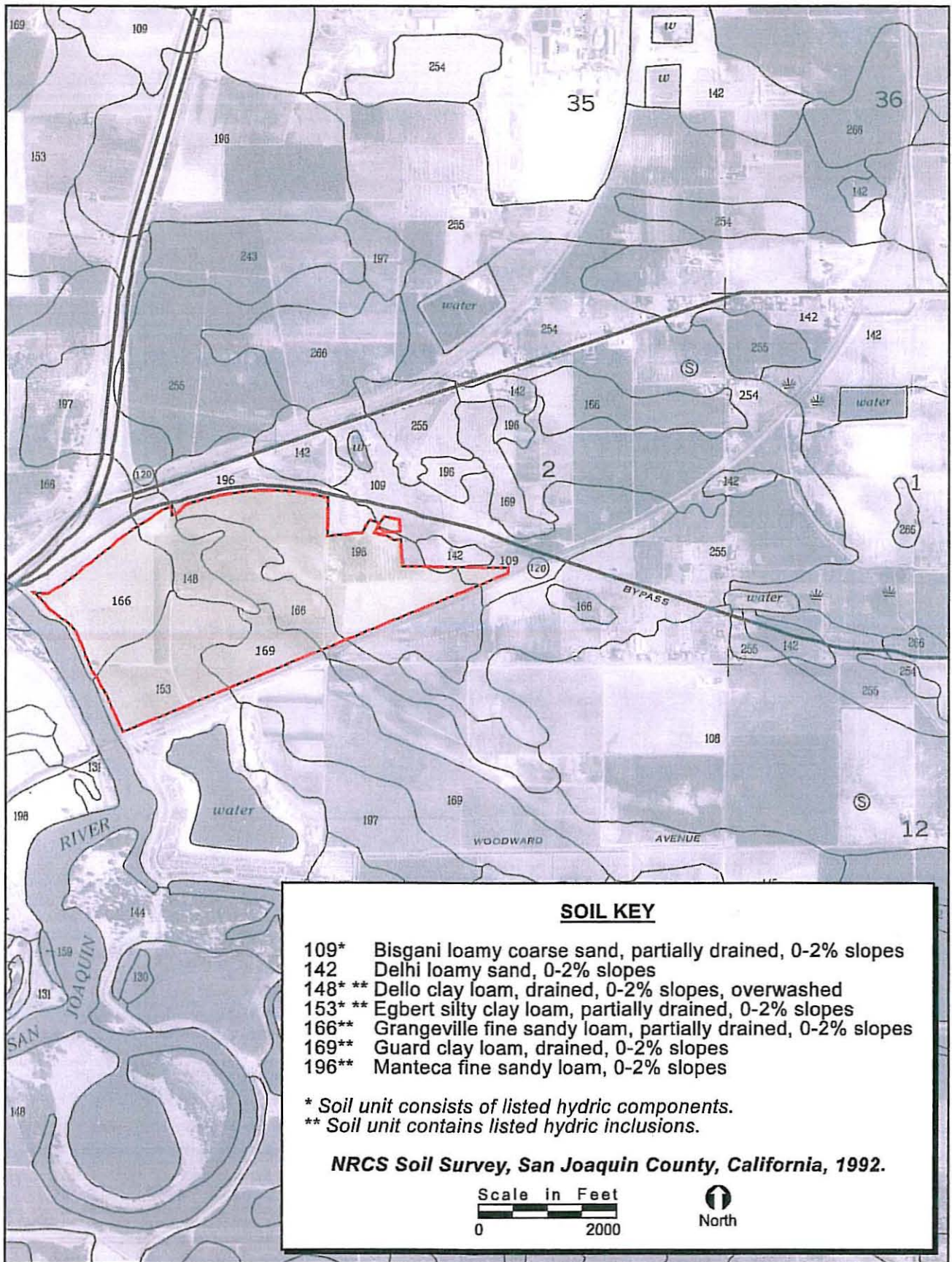


FIGURE 2. Wetland Delineation



**FIGURE 3. Natural Resources Conservation Service Soil Types**

## METHODS

The special-status plant survey included a review of resource agency species lists, literature review, on-line database query, voucher specimen and reference population review, and field surveys. Background information was collected on the potential existence of the special-status plants within or near the site from a variety of sources including:

- California Department of Fish and Game's Natural Diversity Database (CNDDB) record search for the "Lathrop, California" 7.5-minute quadrangle and the eight surrounding quadrangles (CDFG 2003);
- California Native Plant Society's Inventory of Rare and Endangered Plants record search for the "Lathrop, California" 7.5-minute quadrangle and the eight surrounding quadrangles (CNPS 2008);
- Species List for the "Lathrop, California" 7.5-minute quadrangle and the eight surrounding quadrangles created by the U.S. Fish and Wildlife Service (USFWS) (USFWS 2008);
- *Status of Rare, Threatened, and Endangered Animal and Plants of California 2000-2004* (CDFG 2005);
- *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2001);
- *Soil Survey of Sa Joaquin County, California* (U.S. Department of Agriculture, Soil Conservation Service 1992a);
- *Wetland Delineation for South Lathrop* (ECORP 2005); and
- *Special-Status Species Assessment for South Lathrop South Village* (ECORP 2006).

Field surveys were conducted in accordance with guidelines promulgated by U.S. Fish and Wildlife Service (USFWS 2000), California Department of Fish and Game (CDFG 1983), and California Native Plant Society (CNPS 2001). The determinate-level field surveys were conducted on 7 May and 19 June 2008, which coincided with the optimum blooming period for each of the potentially occurring special-status plants. ECORP botanists Daria Snider and Keith Kwan walked meandering transects throughout the site to ensure complete coverage of all suitable habitat, including all aquatic features on-site. A list of field personnel qualifications is included as Attachment A.

Reference populations for the target species were visited throughout the floristic season to assess bloom phenology and to observe species morphology. When reference populations were not available, mounted herbarium specimens were observed at the U.C. Davis Herbarium. Attachment B identifies the reference source for each of the target species including the location of the population, dates of visits, and phenological stage of the species at the time of the field visits.

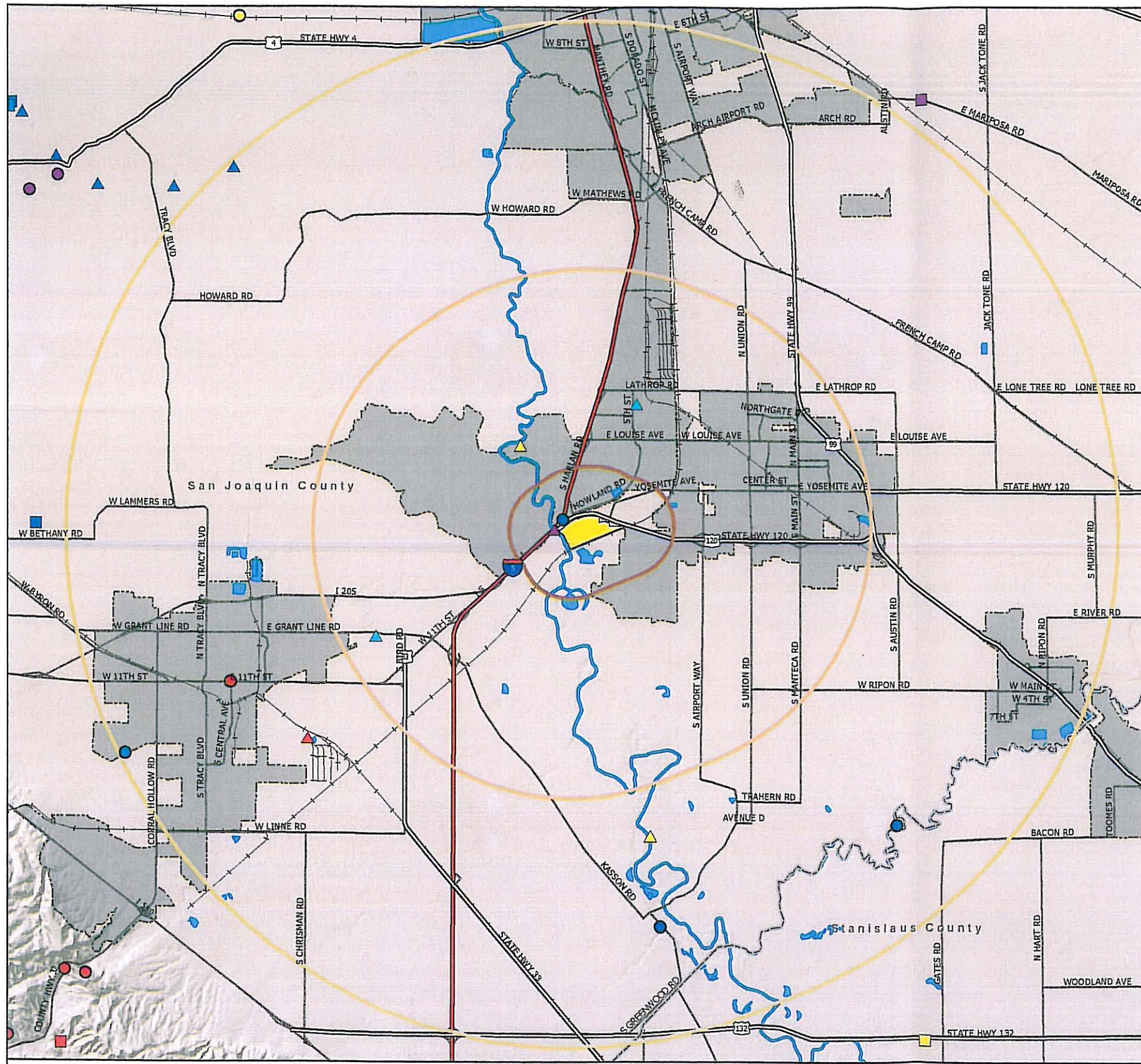
Plant species identification, nomenclature, and taxonomy followed *The Jepson Manual: Higher Plants of California* (Hickman 1993). Vegetation community classification was based on the classification systems presented in *A Manual of California Vegetation* (Sawyer and Keeler-Wolf 1995), *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986), and *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer Jr. 1988).

## RESULTS AND DISCUSSION

### Previously Documented Special-Status Plant Occurrences

There are no previously documented occurrences of special-status plants within the site in the CNDDDB (CDFG 2003). However, several special-status plant species occurrences have been documented within an approximate 10-mile radius of the site (Figure 4. *CNDDDB Occurrences of Special-Status Plant Species*). These are:

- big tarplant (*Blepharizonia plumosa*, CNPS List 1B),
- round-leaved filaree (*California macrophylla*, CNPS List 1B),
- slough thistle (*Cirsium crassicaule*, CNPS List 1B),
- Delta button-celery (*Eryngium racemosum*, California endangered, CNPS List 1B),
- woolly rose-mallow (*Hibiscus lasiocarpus*, CNPS List 2),
- Suisun Marsh aster (*Symphotrichum lentus*, CNPS List 1B),
- Wright's trichocoronis (*Trichocoronis wrightii*, CNPS List 2), and
- caper-fruited tropidocarpum (*Tropidocarpum capparideum*, CNPS List 1B).



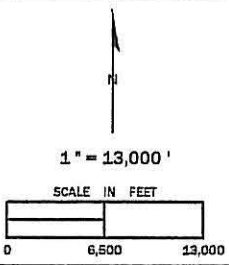
**Map Features**

- |                                                                                                                                    |                                                                                              |                                                                                                                           |                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| <b>Administrative Boundaries</b>                                                                                                   | <b>Distance From Project</b>                                                                 | <b>Transportation</b>                                                                                                     | <b>Aquatic Features</b>                                                                  |
| <ul style="list-style-type: none"> <li> Project Boundary <sup>1</sup></li> <li> City Boundary</li> <li> County Boundary</li> </ul> | <ul style="list-style-type: none"> <li> 1 mile</li> <li> 5 mile</li> <li> 10 mile</li> </ul> | <ul style="list-style-type: none"> <li> Interstate</li> <li> State Highway</li> <li> Roads</li> <li> Railroads</li> </ul> | <ul style="list-style-type: none"> <li> Lakes and Reservoirs</li> <li> Rivers</li> </ul> |

**CNDDDB Occurrences <sup>2</sup>**

- Big Tarplant
- Bristly Sedge
- Caper-fruited Tropicarpum
- Delta Button-celery
- Delta Mudwort
- Diamond-petaled California Poppy
- Lesser Saltscale
- Marsh Skullcap
- Mason's Lilaeopsis
- Recurved Larkspur
- Round-leaved Filaree
- Slough Thistle
- Suisun Marsh Aster
- Woolly Rose-mallow
- Wright's Trichocoronis

*This map may include multiple species' occurrences at each location, some of which may not be visible on this graphic. The CNDDDB occurrences shown may not reflect the actual location of the occurrence.*



<b>NOTES</b>	
<sup>1</sup> Project Boundary: San Joaquin Parcel Database	
<sup>2</sup> CDFG California Natural Diversity Database (CNDDDB), July 2008 Update (GIS Shapefile)	
CNDDDB Occurrences Located on USGS 7.5' Quadrangles: Avena, Clifton Court Forebay, Holt, Lathrop, Manteca, Midway, Peters, Ripon, Salda, Stockton East, Stockton West, Tracy, Union Island, Vernalls, Woodward Island.	

N:\2007\2007-213 South Lathrop 6a 6b\MAPS\CNDDDB\SL6\_CNDDDB\_Plant\_July08.mxd

07/25/2008 GIS Specialist: ECK

**Figure 4. CNDDDB Occurrences of Special-Status Plant Species**

2007-213 South Lathrop 6a/6b



The results of the CNDDDB query for the "Lathrop, California" 7.5-minute quadrangle are included as Attachment C. Each of the special-status plant species known to occur within the vicinity of the site was evaluated for its potential to occur on-site.

Several additional species located outside of the 10-mile radius around the site were also evaluated for their potential to occur on-site due to the presence of suitable habitat. These species are: San Joaquin saltbush (*Atriplex joquiniana*, CNPS List 1B), lesser saltscale (*Atriplex minuscula*, CNPS List 1B), and recurved larkspur (*Delphinium recurvatum*, CNPS List 1B).

### **Target Species**

Based on the information listed above, vegetation communities and conditions present within the site, and data on known species' distribution, a list of potentially occurring special-status plants was developed. The target special-status plant species for this survey were San Joaquin saltbush, lesser saltscale, round-leaved filaree, recurved larkspur, and Wright's trichocoronis (Table 1).

### *Excluded Species*

Six species (i.e., big tarplant, slough thistle, Delta button-celery, woolly rose-mallow, Suisun marsh aster, and caper-fruited tropidocarpum) were not included as target species, although there are documented occurrences of these species in the vicinity of the site. Big tarplant is known to occur primarily in the Diablo Mountain Range, at elevations above 100 feet above MSL. The project site is situated on the floor of the San Joaquin Valley at an elevation of 5-15 feet above MSL, below the elevational range of big tarplant. Slough thistle, delta button-celery, woolly rose-mallow, and Suisun marsh aster require chenopod scrub, riparian scrub, or marshes (CNPS 2001), none of which are present on-site. Although riparian vegetation is present on-site, it occurs within rock riprap and would not be accurately considered riparian scrub. In addition, there are no shallow water habitats with sediment accumulation for marsh species to establish. Caper-fruited tropidocarpum occurs on alkaline hills in valley and foothill grassland. Although alkaline grassland habitat is present in the eastern portion of the site, this species is considered extirpated from the San Joaquin Valley, and is currently known only from Fort

**Table 1 – Potentially Occurring Special-Status Plants**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Federal ESA Status</b>	<b>California ESA Status</b>	<b>Other Status</b>	<b>Habitat Description</b>	<b>Approximate Survey Dates</b>
San Joaquin saltbush	<i>Atriplex joaquiniana</i>	-	-	1B	alkaline soils in chenopod scrub, meadows and seeps, playas, and valley and foothill grassland (3' - 2,740')	April-October
Lesser saltscale	<i>Atriplex minuscula</i>	-	-	1B	alkaline, sandy soils in chenopod scrub, playas, and valley and foothill grassland (50' - 660')	May-October
Round-leaved filaree	<i>California macrophylla</i>	-	-	1B	clay soils in cismontane woodland and valley and foothill grassland (50' - 3,940')	March-May
Recurved larkspur	<i>Delphinium recurvatum</i>	-	-	1B	alkaline soils in chenopod scrub, cismontane woodland, and valley and foothill grassland (10' - 2,640')	March-June
Wright's trichocoronis	<i>Trichocoronis wrightii</i> var. <i>wrightii</i>	-	-	2	alkaline meadows and seeps, marshes and swamps, riparian forest, and vernal pools (15' - 1,430')	May-September

**Status Codes:**

1B - California Native Plant Society/Rare or Endangered in California and elsewhere.

2 - California Native Plant Society/Rare or Endangered in California, more common elsewhere.



Hunter Liggett in Monterey County (CNPS 2008). Due to lack of suitable habitat, the above species were excluded from consideration in this survey.

The CNDDDB reports an occurrence of Delta button-celery immediately adjacent to the northwest corner of the site; however, this occurrence is reported as possibly extirpated due to lack of suitable habitat (CDFG 2003).

## **Species Accounts**

### *San Joaquin Spearscale*

San Joaquin spearscale is not listed pursuant to either the California or federal Endangered Species Acts; however, it is designated as a CNPS List 1B species. This species is an herbaceous annual that occurs in alkaline areas within chenopod scrub, meadows and seeps, and valley and foothill grassland (CNPS 2001). San Joaquin spearscale blooms from April through October, and it is known to occur from 3 to 2,870 feet above mean sea level (CNPS 2001). San Joaquin spearscale is endemic to California, and the current range of this species includes Alameda, Contra Costa, Colusa, Fresno, Glenn, Merced, Monterey, Napa, San Benito, Santa Clara, San Joaquin, San Luis Obispo, Solano, Tulare, and Yolo counties (CNPS 2008). However, it is likely extirpated from Santa Clara, San Joaquin, and Tulare counties (CNPS 2008).

The nearest reported occurrence of San Joaquin spearscale (CNDDDB Occurrence No. 70) is located approximately 11 miles north of the site in Stockton (CDFG 2003). The annual grassland in the eastern portion of the site represents suitable habitat for this species. During the surveys in 2008, San Joaquin spearscale was not observed on-site.

### *Lesser Saltscale*

Lesser saltscale is not listed pursuant to either the California or federal Endangered Species Acts; however, it is designated as a CNPS List 1B species. This species is an herbaceous annual that occurs in chenopod scrub, playas, and alkaline sandy soils in valley and foothill grassland

(CNPS 2001). Lesser saltscale blooms from May through October, and it is known to occur from 50 to 650 feet above mean sea level (CNPS 2001). Lesser saltscale is endemic to California, and the current range of this species includes Butte, Fresno, Kern, Madera, Merced, Stanislaus, and Tulare counties (CNPS 2008). However, it is likely extirpated from Stanislaus County (CNPS 2008).

The nearest reported occurrence of lesser saltscale (CNDDDB Occurrence No. 29) is located approximately 12 miles southeast of the site along Highway 132 (CDFG 2003). The annual grassland in the eastern portion of the site represents suitable habitat for this species. During the surveys in 2008, lesser saltscale was not observed on-site.

#### *Round-Leaved Filaree*

Round-leaved filaree is not listed pursuant to either the federal or California Endangered Species Acts; however, it is designated as a CNPS List 1B species. This species is an herbaceous annual that occurs on clay soils in cismontane woodland, and Valley and foothill grassland communities (CNPS 2001). Round-leaved filaree blooms from March through May, and it is known to occur at elevations ranging from 50 to 3,960 feet above mean sea level (CNPS 2001). The current range of this species in California includes Alameda, Butte, Contra Costa, Colusa, Fresno, Glenn, Kings, Kern, Lake, Lassen, Los Angeles, Merced, Monterey, Napa, Riverside, Santa Barbara, San Benito, Santa Clara, Santa Cruz Island, San Diego, San Joaquin, San Luis Obispo, San Mateo, Solano, Sonoma, Stanislaus, Tehama, Ventura, and Yolo counties (CNPS 2008). However, it is likely extirpated from Butte County and Santa Cruz Island (CNPS 2008).

One occurrence of round-leaved filaree has been reported within 10 miles of the site (CDFG 2003). This occurrence (CNDDDB Occurrence No. 38) is located approximately 7 miles southwest of the site, outside of Tracy. The annual grassland in the eastern portion of the site represents potential habitat for this species. During the surveys in 2008, round-leaved filaree was not observed on-site.

### *Recurved Larkspur*

Recurved larkspur is not listed pursuant to either the federal or California Endangered Species Acts; however, it is designated a CNPS List 1B species. This species is an herbaceous perennial that occurs on alkaline soils in chenopod scrub, cismontane woodland, and Valley and foothill grasslands (CNPS 2008). Recurved larkspur blooms from March through June, and it is known to occur at elevations ranging from 10 to 2,500 feet above mean sea level (CNPS 2008).

Recurved larkspur is endemic to California, and the current range of this species includes Alameda, Butte, Contra Costa, Colusa, Fresno, Glenn, Kings, Kern, Madera, Merced, Monterey, San Joaquin, San Luis Obispo, Solano, and Tulare counties (CNPS 2008). However, it is likely extirpated from Butte and Colusa counties (CNPS 2008).

The nearest reported occurrence of recurved larkspur (CNDDDB Occurrence No. 73) is located approximately 11 miles northeast of the site, outside of Stockton. The annual grassland in the eastern portion of the site represents potential habitat for this species. During the surveys in 2008, recurved larkspur was not observed on-site.

### *Wright's Trichocoronis*

Wright's trichocoronis is not listed pursuant to either the federal or California Endangered Species Acts; however, it is designated as a CNPS List 2 species. This species is an herbaceous annual that occurs on alkaline soils in meadows and seeps, marshes and swamps, riparian scrub, and vernal pools (CNPS 2001). Wright's trichocoronis blooms from May through September, and it is known to occur at elevations ranging from 15 to 1,425 feet above mean sea level (CNPS 2001). The current range for this species in California includes Colusa, Merced, Riverside, San Joaquin, and Sutter counties (CNPS 2008). However, this species is believed to be extirpated from Colusa, San Joaquin and Sutter counties (CNPS 2008).

One occurrence of Wright's trichocoronis has been reported within 10 miles of the site (CDFG 2003). This occurrence (CNDDDB Occurrence No. 6) is located adjacent to the northwestern corner of the site; however the location information for this occurrence in the CNDDDB is imprecise, and this species has not been reported in the area since 1914 (CDFG 2003). The

annual grassland in the eastern portion of the site represents potential habitat for this species. During the surveys in 2008, Wright's trichocoronis was not observed on-site.

### **Field Survey Results**

No special-status plants were observed within the site during the determinate-level field surveys conducted on 7 May and 19 June 2008. A complete list of plant species encountered during this survey is included as Attachment D.

### **CONCLUSION**

ECORP conducted a determinate-level special-status plant survey for the South Lathrop 6A and 6B site in San Joaquin County, California on 7 May and 19 June 2008. The target special-status plant species for this survey were San Joaquin saltbush, lesser saltscale, round-leaved filaree, recurved larkspur, and Wright's trichocoronis. No special-status plants were observed on-site during the 2008 field surveys.

## REFERENCES

- California Department of Fish and Game (CDFG). 1983 (revised 2000). Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities (Revised 2000). The Resources Agency, Sacramento, CA.
- California Department of Fish and Game (CDFG). 2003. Rarefind CDFG Natural Diversity Database. Commercial Version 3.1.0, dated 1 June 2008. Sacramento, California.
- California Department of Fish and Game (CDFG). 2005. Status of Rare, Threatened and Endangered Animals and Plants of California. Accessed on 27 April 2007 from [http://www.dfg.ca.gov/hcpb/species/t\\_e\\_spp/new\\_te\\_rpt.shtml](http://www.dfg.ca.gov/hcpb/species/t_e_spp/new_te_rpt.shtml)
- California Native Plant Society (CNPS). 2001. Inventory of Rare and Endangered Plants of California (sixth edition). Rare Plant Scientific Advisory Committee, David P. Tibor, Convening Editor. California Native Plant Society. Sacramento, California.
- California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-08c 7-09-08). California Native Plant Society. Sacramento, California. Accessed on 29 July 2008 from <http://www.cnps.org/inventory>.
- ECORP Consulting, Inc. (ECORP). 2005. Wetland Delineation for South Lathrop 6A and 6B. Unpublished report dated 31 October 2005.
- ECORP Consulting, Inc. (ECORP). 2006. Special-Status Species Assessment for South Lathrop South Village. Unpublished report dated 8 September 2006.
- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U. S. Army Engineer Waterways Experiment Station. Vicksburg, Mississippi.
- Hickman, J. C. (ed.). 1993. The Jepson Manual: Higher Plants of California. University of California Press. Berkeley, California.
- Holland, R. F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Nongame-Heritage Program, California Department of Fish and Game, Sacramento, California.
- Mayer, K. E. and W. F. Laudenslayer Jr. (eds). 1988. A Guide to Wildlife Habitats of California. California Department of Fish and Game. Sacramento, California.
- Sawyer, J. O. and T. Keeler-Wolf. 1995. A Manual of California Vegetation. California Native Plant Society. Sacramento, California.

- U.S. Department of Agriculture, Soil Conservation Service. 1992a. Soil Survey of San Joaquin County, California. U.S. Department of Agriculture, Soil Conservation Service. Davis, California.
- U.S. Department of Agriculture, Soil Conservation Service. 1992b. Hydric Soils List for San Joaquin County. U.S. Department of Agriculture, Soil Conservation Service, Davis, California.
- U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 2000. Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants. United States Department of the Interior, USFWS. Sacramento, California.
- U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 2008. Species List for the "Lathrop, California" 7.5-minute Quadrangle, and the Surrounding Eight Quadrangles. Internet website [http://www.fws.gov/sacramento/es/spp\\_lists/auto\\_list.cfm](http://www.fws.gov/sacramento/es/spp_lists/auto_list.cfm).
- U.S. Department of the Interior, Geological Survey. 1996. "Lathrop, California" 7.5-Minute Quadrangle. U.S. Geological Survey.
- U.S. Department of Interior, Geological Survey. 1978. Hydrologic Unit Map, State of California. Geological Survey. Reston, Virginia.

## **LIST OF ATTACHMENTS**

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Attachment A – Statement of Qualifications

Attachment B – Target Species Reference Source

Attachment C – California Natural Diversity Database Plant Occurrences for the  
“Lathrop, California” 7.5-minute Quadrangle

Attachment D – Plant Species Observed On-Site (7 May and 19 June 2008)

# **ATTACHMENT A**

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Statement of Qualifications



**Daria Snider B.S.**  
**Botanist, ECORP Consulting, Inc.**

Daria Snider is a botanist/biologist and trained wetland delineator specializing in biological resource assessment, plant taxonomy, plant ecology, habitat type assessment, invasive plant species, and California floristics. Mrs. Snider has three years of professional experience conducting field surveys for a variety of special-status plants throughout California. Her experience includes special-status plant surveys, general floristic surveys, floristic habitat assessments, vegetation mapping, riparian restoration design and monitoring, valley elderberry longhorn beetle surveys, and wetland delineation. Her botanical expertise extends throughout the Central Valley and mountain regions of northern California, with an emphasis on vernal pool, grassland, oak woodland, and riparian communities.

**Keith Kwan, B.S.**  
**Senior Biologist, ECORP Consulting, Inc.**

Keith Kwan is a Biology Department Manager and is a wildlife biologist with experience throughout California in avian and wetland ecology, special-status flora and fauna, and regulatory permitting. Mr. Kwan has over 17 years of professional experience conducting field surveys for a variety of special-status plants and animals. His experience includes special-status species assessment and protocol-level surveys, general floristic and wildlife surveys, CEQA/NEPA compliance, and wetland delineations. His botanical expertise extends throughout Northern California, including the Central Valley and Sierra Nevada, and in the Great Basin in Nevada, with an emphasis on Central Valley annual grassland with vernal pools, oak woodland, Great Basin wetland, Valley/foothill riparian communities, and montane meadows.

## **ATTACHMENT B**

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Target Species Reference Source

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**Target Species Reference Source**

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<b>Name</b>	<b>Location of Observation</b>	<b>Dates of Observation</b>	<b>Phenology</b>	<b>Remarks</b>
San Joaquin saltbush <i>Atriplex joaquiniana</i>	UC Davis Herbarium	18 March 2008	Mounted herbarium specimens.	Leaves triangular, resembling <i>Chenopodium</i> leaves.
Lesser saltscale <i>Atriplex minuscula</i>	UC Davis Herbarium	18 March 2008	Mounted herbarium specimens.	Neither a reference population nor a herbarium specimen of this species could be located; therefore, the Jepson Manual's description of the species was reviewed thoroughly.
Round-leaved filaree <i>California macrophylla</i>	UC Davis Herbarium	18 March 2008	Mounted herbarium specimens.	Plant has heart-shaped palmate leaves and white flowers.
Recurved larkspur <i>Delphinium recurvatum</i>	UC Davis Herbarium	18 March 2008	Mounted herbarium specimens.	Reference population not available.
Wright's trichocoronis <i>Trichocoronis wrightii</i> var. <i>wrightii</i>	UC Davis Herbarium	18 March 2008	Mounted herbarium specimens.	Inflorescence looks similar to <i>Cotula</i> species, but has weak stems, flower heads are discoid instead of disciform, and the flowers are white and maroon instead of yellow.

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## **ATTACHMENT C**

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California Natural Diversity Database Plant Occurrences for the "Lathrop, California" 7.5-minute Quadrangle

***Cirsium crassicaule***

slough thistle

Element Code: PDAST2E0U0

_____ Status _____	NDDB Element Ranks _____	Other Lists _____
Federal: None	Global: G2	CNPS List: 1B.1
State: None	State: S2.2	

\_\_\_\_\_ Habitat Associations \_\_\_\_\_  
 General: CHENOPOD SCRUB, MARSHES AND SWAMPS, RIPARIAN SCRUB.  
 Micro: SLOUGHS, RIVERBANKS, AND MARSHY AREAS. 3-100M.

Occurrence No. 2	Map Index: 24860	EO Index: 6754	_____ Dates Last Seen _____
Occ Rank: None			Element: 1933-07-20
Origin: Natural/Native occurrence			Site: 1974-07-18
Presence: Possibly Extirpated			
Trend: Unknown			Record Last Updated: 1996-09-30

Quad Summary: Lathrop (3712173/462D)  
 County Summary: San Joaquin

Lat/Long: 37.81005° / -121.31942°	Township: 01S
UTM: Zone-10 N4186070 E647935	Range: 06E
Radius: 1 mile	Mapping Precision: NON-SPECIFIC
Elevation: 10 ft	Section: 33
	Meridian: M
	Qtr: XX

Location: 2 MILES NORTHEAST OF LATHROP BRIDGE ALONG SAN JOAQUIN RIVER.  
 Location Detail: MAPPED NEAR SAN JOAQUIN RIVER-OLD RIVER CONFLUENCE.  
 Ecological: IN SHALLOW WATER OF CANAL.  
 Threat: AREA OF INTENSIVE AGRICULTURE WITH MODIFIED CANALS.  
 General: SPECIES LAST SEEN IN THIS AREA IN 1933. SEARCHED FOR IN 1974 BUT NOT FOUND.  
 Owner/Manager: UNKNOWN

***Eryngium racemosum***

Della button-celery

Element Code: PDAP10Z0S0

----- Status ----- NDDB Element Ranks ----- Other Lists -----  
Federal: None Global: G2Q  
State: Endangered State: S2.1 CNPS List: 1B.1

----- Habitat Associations -----  
General: RIPARIAN SCRUB.  
Micro: SEASONALLY INUNDATED FLOODPLAIN ON CLAY. 3-75M.

Occurrence No. 3 Map Index: 11611 EO Index: 20069 ----- Dates Last Seen -----  
Occ Rank: None Element: XXXX-XX-XX  
Origin: Natural/Native occurrence Site: 1984-08-28  
Presence: Possibly Extirpated  
Trend: Unknown Record Last Updated: 2006-08-15

Quad Summary: Lathrop (3712173/462D)  
County Summary: San Joaquin

Lat/Long: 37.78839° / -121.30334° Township: 02S  
UTM: Zone-10 N4183692 E649395 Range: 06E  
Radius: 1 mile Mapping Precision: NON-SPECIFIC Section: 3 Qtr: XX  
Elevation: 15 ft Symbol Type: POINT Meridian: M

Location: NEAR HISTORICAL MONUMENT ON HWY 120, ABOUT 3 MILES SOUTH OF LATHROP.  
Threat: AREA NOW FLOODS YEARLY AND WALNUT ORCHARD EXISTS TO EDGE OF RIVER.  
General: HABITAT GONE IN 1984. 1913 COLLECTION BY SUKSDORF FROM THE PLAIN NEAR LATHROP AND 1892 COLLECTION BY BIOLETTI FROM LATHROP BOTH ATTRIBUTED HERE. INCLUDES FORMER OCCURRENCE #4.  
Owner/Manager: PVT

***Symphotrichum lentum***

Suisun Marsh aster

Element Code: PDASTE8470

_____ Status _____	NDDB Element Ranks	_____ Other Lists _____
Federal: None	Global: G2	CNPS List: 1B.2
State: None	State: S2.2	

\_\_\_\_\_ Habitat Associations \_\_\_\_\_

General: MARSHES AND SWAMPS (BRACKISH AND FRESHWATER).

Micro: MOST OFTEN SEEN ALONG SLOUGHS WITH PHRAGMITES, SCIRPUS, BLACKBERRY, TYPHA, ETC. 0-3M.

Occurrence No. 145	Map Index: 62567	EO Index: 62604	_____ Dates Last Seen _____
Occ Rank: Unknown			Element: 1892-09-09
Origin: Natural/Native occurrence			Site: 1892-09-09
Presence: Presumed Extant			Record Last Updated: 2005-09-13
Trend: Unknown			

Quad Summary: Lathrop (3712173/462D)

County Summary: San Joaquin

Lat/Long: 37.82249° / -121.27687°	Township: 01S
UTM: Zone-10 N4187519 E651655	Range: 06E
Radius: 1 mile	Section: 26
Elevation:	Meridian: M
Mapping Precision: NON-SPECIFIC	Qtr: XX
Symbol Type: POINT	

Location: LATHROP.

Location Detail: EXACT LOCATION UNKNOWN.

General: ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1892 COLLECTION BY MICHENER AND BIOLETTI.

Owner/Manager: UNKNOWN

Occurrence No. 145	Map Index: 62568	EO Index: 62605	_____ Dates Last Seen _____
Occ Rank: Unknown			Element: 1920-09-30
Origin: Natural/Native occurrence			Site: 1920-09-30
Presence: Presumed Extant			Record Last Updated: 2005-09-13
Trend: Unknown			

Quad Summary: Tracy (3712164/444B), Vernalis (3712163/444A), Lathrop (3712173/462D), Union Island (3712174/462C)

County Summary: San Joaquin

Lat/Long: 37.75395° / -121.37281°	Township: 02S
UTM: Zone-10 N4179762 E643343	Range: 05E
Radius: 1 mile	Section: 24
Elevation:	Meridian: M
Mapping Precision: NON-SPECIFIC	Qtr: XX
Symbol Type: POINT	

Location: NEAR BANTA.

Location Detail: EXACT LOCATION UNKNOWN.

General: ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1920 COLLECTION BY ABRAMS.

Owner/Manager: UNKNOWN

*Trichocoronis wrightii* var. *wrightii*

Wright's trichocoronis

Element Code: PDAST9F031

Status

NDDB Element Ranks

Other Lists

Federal: None

Global: G4T3

CNPS List: 2.1

State: None

State: S1.1

Habitat Associations

General: MARSHES AND SWAMPS, RIPARIAN FOREST, MEADOWS AND SEEPS, VERNAL POOLS.

Micro: MUD FLATS OF VERNAL LAKES, DRYING RIVER BEDS, ALKALI MEADOWS. 5-435M.

Occurrence No. 6

Map Index: 24681

EO Index: 6904

Dates Last Seen

Occ Rank: Unknown

Element: 1914-09-27

Origin: Natural/Native occurrence

Site: 1914-09-27

Presence: Presumed Extant

Trend: Unknown

Record Last Updated: 1993-11-16

Quad Summary: Lathrop (3712173/462D)

County Summary: San Joaquin

Lat/Long: 37.78548° / -121.30651°

Township: 02S

UTM: Zone-10 N4183364 E649121

Range: 06E

Radius: 2/5 mile

Mapping Precision: NON-SPECIFIC

Section: 3

Qtr: XX

Elevation: 20 ft

Symbol Type: POINT

Meridian: M

Location: BRIDGE ACROSS SAN JOAQUIN RIVER NEAR LATHROP.

Location Detail: MAPPED WHERE I-5 CROSSES SAN JOAQUIN RIVER.

General: HERBARIUM LABELS ARE ONLY SOURCE OF INFORMATION FOR THIS SITE. COLLECTED SEVERAL TIMES IN THIS AREA BETWEEN 1892 AND 1914. AREA SHOULD BE FIELD CHECKED FOR PRESENCE OF SUITABLE HABITAT.

Owner/Manager: UNKNOWN



## **ATTACHMENT D**

---

Plant Species Observed On-Site (7 May and 19 June 2008)

## Plant Species Observed On-Site (5 May and 19 June, 2008)

An asterisk (\*) indicates a non-native species.

### SCIENTIFIC NAME

### COMMON NAME

#### **AIZOACEAE**

*Sesuvium verrucosum*

#### **FIG-MARIGOLD FAMILY**

Western sea purslane

#### **APOCYNACEAE**

*Apocynum cannabinum*

#### **DOGBANE FAMILY**

Indianhemp dogbane

#### **ASTERACEAE**

*Artemisia douglasiana*

*Carduus pycnocephalus\**

*Centaurea solstitialis\**

*Chamomilla suaveolens\**

*Cirsium vulgare\**

*Conyza bonariensis\**

*Gnaphalium luteo-album\**

*Grindelia camporum*

*Heliotropium curassavicum*

*Hemizonia pungens*

*Heterotheca grandiflora*

*Lactuca serriola\**

*Silybum marianum\**

*Sonchus oleraceus\**

*Xanthium strumarium*

#### **SUNFLOWER FAMILY**

Mugwort

Italian thistle

Yellow star-thistle

Pineapple weed

Bull thistle

South American horseweed

Weedy cudweed

Gumplant

Seaside heliotrope

Common tarweed

Telegraph weed

Prickly lettuce

Milk thistle

Common sowthistle

Rough cockle-bur

#### **AZOLLACEAE**

*Azolla filiculoides*

#### **MOSQUITO FERN FAMILY**

Mosquito fern

#### **BRASSICACEAE**

*Brassica nigra\**

*Brassica rapa\**

*Coronopus didymus\**

*Hirschfeldia incana\**

*Lepidium latifolium\**

*Raphanus sativus\**

*Rorippa curvisiliqua*

#### **MUSTARD FAMILY**

Black mustard

Field mustard

Wart-cress

Shortpod mustard

Broad-leaf pepper grass

Purple wild radish

Yellow cress

#### **CAPRIFOLIACEAE**

*Sambucus mexicana*

#### **HONEYSUCKEL FAMILY**

Blue elderberry

#### **CARYOPHYLLACEAE**

*Spergularia rubra\**

#### **PINK FAMILY**

Purple sandspurry

**Plant Species Observed On-Site (5 May and 19 June, 2008) (Continued)**

An asterisk (\*) indicates a non-native species.

**SCIENTIFIC NAME**

**COMMON NAME**

**CONVOLVULACEAE**

**MORNING-GLORY FAMILY**

*Convolvulus arvensis*\*

Morning glory

*Cressa truxillensis*

Spreading alkali-weed

**CUSCUTACEAE**

**DODDER FAMILY**

*Cuscuta* species

Dodder

**CYPERACEAE**

**SEDGE FAMILY**

*Carex aquatilis* var. *dives*

Water sedge

*Cyperus eragrostis*

Tall flatsedge

**EUPHORBIACEAE**

**SPURGE FAMILY**

*Eremocarpus setigerus*

Turkey mullein

**FABACEAE**

**LEGUME FAMILY**

*Lathyrus jepsonii* var. *californicus*

California tule pea

*Lotus corniculatus*\*

Birdsfoot trefoil

*Medicago polymorpha*\*

Bur clover

*Medicago sativa*\*

Alfalfa

*Melilotus alba*\*

White sweetclover

*Melilotus indica*\*

Sweetclover

*Trifolium dubium*\*

Shamrock clover

*Trifolium repens*\*

White clover

*Vicia sativa*\*

Common vetch

*Vicia villosa*\*

Winter vetch

**FAGACEAE**

**OAK FAMILY**

*Quercus lobata*

Valley oak

**GERANIACEAE**

**GERANIUM FAMILY**

*Erodium cicutarium*\*

Filaree

**JUNCACEAE**

**RUSH FAMILY**

*Juncus effusus* var. *pacificus*

Soft rush

*Juncus mexicanus*

Mexican rush

**LAMIACEAE**

**MINT FAMILY**

*Marrubium vulgare*\*

Common horehound

*Mentha pulegium*\*

Pennyroyal

**Plant Species Observed On-Site (5 May and 19 June, 2008) (Continued)**

An asterisk (\*) indicates a non-native species.

**SCIENTIFIC NAME**

**COMMON NAME**

**LYTHRACEAE**

*Lythrum hyssopifolia*\*

**LOOSESTRIFE FAMILY**

Hyssop loosestrife

**MALVACEAE**

*Malva nicaeensis*\*

*Malva parviflora*\*

*Malvella leprosa*

**MALLOW FAMILY**

Bull mallow

Cheeseweed

Alkali-mallow

**OLEACEAE**

*Fraxinus latifolia*

**OLIVE FAMILY**

Oregon ash

**ONAGRACEAE**

*Epilobium brachycarpum*

*Ludwigia peploides ssp. peploides*

*Oenothera biennis*\*

**EVENING PRIMROSE FAMILY**

Panicled willow-herb

Water primrose

Common evening primrose

**PLANTAGINACEAE**

*Plantago major*\*

**PLANTAIN FAMILY**

Broad-leaf plantain

**POACEAE**

*Agrostis avenacea*\*

*Avena barbata*\*

*Avena fatua*\*

*Bromus catharticus*\*

*Bromus diandrus*\*

*Bromus hordeaceus*\*

*Bromus madritensis ssp. rubens*\*

*Crypsis schoenoides*\*

*Cynodon dactylon*\*

*Digitaria sanguinalis*\*

*Distichlis spicata*

*Festuca arundinacea*\*

*Hordeum marinum*\*

*Hordeum murinum*\*

*Leersia oryzoides*

*Leymus triticoides*

*Lolium multiflorum*\*

*Muhlenbergia rigens*

*Paspalum dilatatum*\*

*Poa annua*\*

*Polypogon interruptus*\*

*Polypogon monspeliensis*\*

**GRASS FAMILY**

Bentgrass

Slender wild oat

Wild oat

Rescue grass

Ripgut brome

Soft brome

Red brome

Swamp grass

Bermuda grass

Hairy crabgrass

Inland saltgrass

Kentucky fescue

Mediterranean barley

Barley

Rice cutgrass

Creeping wild-rye

Ryegrass

Deergrass

Dallis grass

Annual bluegrass

Beard grass

Annual rabbit-foot grass

**Plant Species Observed On-Site (5 May and 19 June, 2008) (Continued)**

An asterisk (\*) indicates a non-native species.

**SCIENTIFIC NAME**

**COMMON NAME**

*Setaria gracilis*  
*Vulpia myuros\**

Bristley foxtail  
Rat-tail vulpia

**POLYGONACEAE**

*Polygonum arenastrum\**  
*Rumex crispus\**

**BUCKWHEAT FAMILY**

Prostrate knotweed  
Curly dock

**PRIMULACEAE**

*Anagallis arvensis\**

**PRIMROSE FAMILY**

Scarlet pimpernel

**RANUNCULACEAE**

*Ranunculus sceleratus*

**BUTTERCUP FAMILY**

Cursed buttercup

**ROSACEAE**

*Prunus dulcis\**  
*Pyracantha* species  
*Rosa californica*  
*Rubus armeniacus\**

**ROSE FAMILY**

Almond (cultivated)  
*Pyracantha* species  
California rose  
Himalayan blackberry

**RUBIACEAE**

*Cephalanthus occidentalis*

**MADDER FAMILY**

Common buttonbush

**SALICACEAE**

*Populus fremontii*  
*Populus* species  
*Salix exigua*  
*Salix gooddingii*  
*Salix lasiolepis*

**WILLOW FAMILY**

Fremont's cottonwood  
Poplar  
Sandbar willow  
Goodding's black willow  
Arroyo willow

**SCROPHULARIACEAE**

*Veronica peregrina* ssp. *xalapensis*

**FIGWORT FAMILY**

Purslane speedwell

**SOLANACEAE**

*Datura wrightii*  
*Nicotiana glauca*

**NIGHTSHADE FAMILY**

Sacred thornapple  
Tree tobacco

**TYPHACEAE**

*Typha latifolia*

**CATTAIL FAMILY**

Broad-leaf cattail

**Plant Species Observed On-Site (5 May and 19 June, 2008) (Continued)**

An asterisk (\*) indicates a non-native species.

**SCIENTIFIC NAME**

**COMMON NAME**

**VERBENACEAE**

**VERVAIN FAMILY**

*Phyla nodiflora*

Common frog-fruit

*Verbena bonariensis*\*

South American vervain

## **ATTACHMENT E**

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Cultural Resources Information

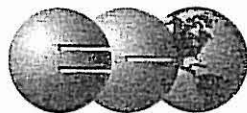
**CONFIDENTIAL**  
**Subsurface Testing and Evaluation**  
**at South Lathrop South Village**  
San Joaquin County, California  
Project 2007-213

Prepared For:  
Richland Planned Communities  
2260 Douglas Boulevard, Suite 160  
Roseville, California 95661

Prepared By:  
ECORP Consulting, Inc.  
2525 Warren Drive  
Rocklin, California 95677

Keywords: cultural resources assessment, archaeology, Section 106, San Joaquin  
County, USGS Lathrop, CA 7.5 minute quadrangle, T2S, R6E, sections 2 and 3,  
±277-acres

June 2008



**ECORP Consulting, Inc.**  
ENVIRONMENTAL CONSULTANTS



**Cultural Resources Inventory and Assessment  
South Lathrop South Village**

San Joaquin County, California  
Project 2004-096

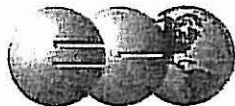
Prepared by:  
ECORP Consulting  
2525 Warren Drive  
Rocklin, California 95661

Prepared for:  
Richland Planned Communities  
2260 Douglas Blvd., Suite 160  
Roseville, California 95661

Keywords: cultural resources assessment, archaeology, Section 106, San Joaquin County,  
USGS Lathrop, CA 7.5 minute quadrangle,  
T2S, R6E, sections 2 and 3, ±277-acres

Superseded Date:  
August 2006

Original Date:  
July 2006



**ECORP Consulting, Inc.**  
ENVIRONMENTAL CONSULTANTS

Nationwide Permits (NWP) No. 7 and No. 39

For

**South Lathrop 6a and 6b**

San Joaquin County, California

29 August 2008

Prepared For:

**Richland Planned Communities**

## **LIST OF FIGURES**

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Figure 1. Project Site and Vicinity

Figure 2. Natural Resources Conservation Service Soil Types

## **LIST OF ATTACHMENTS**

---

Attachment A – Proposed Impact

Attachment B – Storm Water Outfall Plan & Profile

Attachment C – Wetland Delineation Report

Attachment D – Information Provided in Support Section 7 Consultation with the U.S.  
Fish and Wildlife Service

Attachment E – Cultural Resources Information

# **ATTACHMENT A**

---

Proposed Impact Plan

**ATTACHMENT B**

---

Storm Water Outfall Plan & Profile

## **ATTACHMENT C**

---

Wetland Delineation Report

## **ATTACHMENT D**

---

Information Provided in Support Section 7 Consultation with the U.S. Fish and Wildlife  
Service



Information Provided in Support of  
Section 7 Consultation with the U.S. Fish and Wildlife Service  
For  
**South Lathrop 6a and 6b**  
San Joaquin County, California

29 August 2008

Prepared For:  
**Richland Planned Communities**

## **LIST OF FIGURES**

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Figure 1. Project Site and Vicinity

Figure 2. Proposed Impact Plan

## **LIST OF ATTACHMENTS**

---

Attachment A – Special-Status Species Assessment

Attachment B – Burrowing Owl Survey and Riparian Brush Rabbit Habitat Assessment

Attachment C – Special-Status Plant Survey

## **ATTACHMENT A**

---

Special-Status Species Assessment

## **ATTACHMENT B**

---

Burrowing Owl Survey and Riparian Brush Rabbit Habitat Assessment

## **ATTACHMENT C**

---

Special-Status Plant Survey

Special-Status Plant Survey  
For  
**South Lathrop 6A and 6B**  
San Joaquin County, California

29 August 2008

Prepared For:  
**Richland Planned Communities, Inc.**

## **LIST OF ATTACHMENTS**

---

Attachment A – Statement of Qualifications

Attachment B – Target Species Reference Source

Attachment C – California Natural Diversity Database Plant Occurrences for the  
“Lathrop, California” 7.5-minute Quadrangle

Attachment D – Plant Species Observed On-Site (7 May and 19 June 2008)



# **ATTACHMENT A**

---

Statement of Qualifications

## **ATTACHMENT B**

---

Target Species Reference Source

## **ATTACHMENT C**

---

California Natural Diversity Database Plant Occurrences for the "Lathrop, California" 7.5-minute Quadrangle

## **ATTACHMENT D**

---

Plant Species Observed On-Site (7 May and 19 June 2008)

## **ATTACHMENT E**

---

Cultural Resources Information



23 June 2008

Mr. Pat Gillium  
Central Valley Regional Water Quality Control Board  
11020 Sun Center Drive, #200  
Rancho Cordova, California 95670-6114

**RE: South Lathrop 6a and 6b Project – Water Quality Certification Request**

Dear Mr. Gillium:

On behalf of Richland Planned Communities, we are hereby requesting 401 Water Quality Certification for the South Lathrop 6a and 6b project located in San Joaquin County, California. The proposed project would permanently affect waters of the United States. The California Water Quality Control Board Section 401 Water Quality Certification Application Form is included as Attachment A along with a check in the amount of \$1,458.90 to cover the application fee (the Dredge and Fill Fee Calculator spreadsheet is also included with Attachment A).

**PROJECT LOCATION**

The project site is located south of Highway 120, east of Interstate 5 and Interstate 205 interchange, and south of Madrugada Road with Guthmiller Road in San Joaquin County, California (Figure 1. *Project Site and Vicinity*). The site corresponds to a portion of the Section 3, Township 2 South, and Range 6 East, Mount Diablo Base Meridian (MDBM) of the "Lathrop, California" 7.5-minute quadrangle (U.S. Department of the Interior, Geological Survey 1996). The approximate center of the site is located at 37° 47' 10" North and 121° 17' 40" West within the San Joaquin Delta Watershed (#18040003, U.S. Department of Interior, Geological Survey 1978).

The site is composed of relatively flat terrain and is situated at an elevation of approximately 15 feet above mean sea level. The majority of the project site is being used for agricultural practices (i.e., alfalfa, winter wheat, and cattle grazing). The western portion is being utilized for alfalfa and winter wheat production with a small cattle grazing area located in the southern central portion of the project site. The vegetation within the pasture includes rose clover (*Trifolium hirtum*), Bermuda grass (*Cynodon dactylon*), barnyard grass (*Echinochloa crusgalli*), and birdsfoot trefoil (*Lotus corniculatus*). The rest of the project site is ruderal grassland habitat. The vegetation within the ruderal grassland habitat include yellow-star thistle (*Centaurea solstitialis*), Telegraph weed (*Heterotheca grandiflora*), and Common mallow (*Malva neglecta*).

There are several buildings located within the project site including farmhouses and truck maintenance company east of Guthmiller Road.

According to the *Soil Survey of San Joaquin County, California* (U.S. Department of Agriculture, Soil Conservation Service 1992), seven soil units, or types, have been mapped within the project site (Figure 2. *Natural Resource Conservation Service Soil Types*). These are: (109) Bisgani loam coarse sand, partially drained, 0-2% slopes, (142) Delhi loamy sand, 0-2% slopes, (148) Dello clay loam,

drained, 0-2% slopes, overwashed, (153) Egbert silty clay loam, partially drained, 0-2% slopes, (166) Grangeville fine sandy loam, partially drained, 0-2% slopes, (169) Guard clay loam, drained, 0-2% slopes, and (196) Manteca fine sandy loam, 0-2% slopes. All the soil units contain hydric inclusions, except for Delhi loamy sand. Dello clay loam and Egbert silty clay loam consists of listed hydric components (U.S. Department of Agriculture, Soil Conservation Service 1992).

A detention basin is located north of the truck maintenance yard and collects runoff throughout the year from storm drains within the parking lot. There is no outflow of water from the detention basin, instead water is allowed to evaporate out of the detention basin.

Aquatic features on-site include a stock pond, seasonal wetlands, seasonal wetland swales, and a detention basin.

## **PROJECT DESCRIPTION**

### **Background**

The South Lathrop 6a and 6b project is part of the South Lathrop Specific Plan (SLSP). The SLSP is divided into two portions by State Route 120. South Lathrop 6a and 6b is located south of State Highway 120 and the remaining are of the SLSP is to the north of Highway 120.

The Northern Area Portion Master Plan of Drainage (NAPMPD) includes multiple areas surrounding and including the City of Lathrop. As a result of this drainage plan, during a 100-year storm event, the SLSP cannot discharge stormwater into the San Joaquin River greater than 30% of the peak storm water flow rate

### **Project Elements**

The proposed project includes construction of a light industrial, office, and commercial development on approximately 277 acres of land (Figure 3. *Proposed Impact Plan*, with large format located in Attachment B).

The project will be constructed in the following stages: 1) grading, 2) installation of utilities, 3) paving, and 4) the construction of building structures and related infrastructure.

The project will require the filling and grading of approximately 0.446 acres of jurisdictional Waters of the U.S. The project proponents propose to mitigate for impacts to seasonal wetlands and other waters through contributing to the ACOE in-lieu fee fund. Figure 3 illustrates the anticipated impacts.

### **Wetlands / Waters of the U.S.**

To determine the location of potentially jurisdictional boundaries within the property, field wetland surveys were conducted for the entire 277±-acre project site on December 8, 2004 and August 15, 2005 by ECORP biologist Stacy Roper. A wetland delineation report was subsequently prepared for the project on November 10, 2005. A copy of the Wetland Delineation Report is provided in Attachment C.

A total of 0.446 acre of potentially jurisdictional waters of the U.S. have been mapped on-site. These acreages represent a calculated estimation of the jurisdictional area within the project site, and are subject to modification following the Corps verification process. Fill within jurisdictional features would require permitting pursuant to Section 404 and 401 of the federal Clean Water Act.

The South Lathrop 6a and 6b project applicant proposes to fill 0.175 acre of seasonal wetlands, 0.010 acre of seasonal wetland swales, 0.121 acre of stock pond and 0.140 acre of San Joaquin River (refer to Figure 2 and Table 1, below).

**Table 1 – Existing and Proposed Impact Acreages of Waters of the U.S.**

<b>Type</b>	<b>Existing</b>	<b>Direct Impact</b>
<i>Wetlands</i>		
Seasonal Wetland	0.175	0.175
Seasonal Wetland Swale	0.010	0.010
<i>Other Waters</i>		
Stock Pond	0.121	0.121
San Joaquin River*	<u>0.140</u>	<u>0.140</u>
<b>Total:</b>	<b>0.446</b>	<b>0.446</b>

\*Although not delineated in the 10 November 2005 submittal, the proposed outfall design is anticipated to impact 0.140 acre of the San Joaquin River.

**Avoidance and Minimization of Impacts to Waters of the U.S.**

The proposed direct impacts total 0.306 acre, below the 0.5-acre threshold for Nationwide Permit Nos. 7 and 39. Due to the small size of impact and the current land use design avoidance would be infeasible. Any on-site minimization and/or avoidance of the jurisdictional features would make the project unviable.

**OTHER AGENCY APPROVALS**

**Federal Clean Water Act, Section 404**

A total of 0.446 acres of jurisdictional waters of the U.S. have been identified for the project area including 0.175 acre of seasonal wetland, 0.010 acre of seasonal wetland swale, 0.121 acre of stock pond and 0.140 acre of the San Joaquin River. The applicant is requesting authorization for the fill of 0.446 acre of waters of the U.S. through Nationwide Permits No. 7 (Outfall Structures and Associated Intake Structures) and No. 39 (Commercial and Institutional Developments). The application submitted to the Corps has been included in Attachment D.

**Federal Endangered Species Act**

Impacts to the following federally endangered (E) or threatened (T) species potentially occurring in the South Lathrop 6a and 6b project are covered through the San Joaquin Multiple Species Habitat Conservation and Open Space Plan (SJMSCP) Minimization Measures:

Invertebrates: Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) (T)



Fish: Delta smelt (*Hypomesus transpacificus*) – (T)  
Central Valley steelhead (*Oncorhynchus mykiss*) – (T)  
Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*) – (T)  
Winter-run Chinook salmon, Sacramento River *Oncorhynchus tshawytscha* – (E)

Reptiles: Giant garter snake (*Thamnophis gigas*) (T)

Birds: Swainson's hawk (*Buteo swainsoni*) (CA-T)

The only Federally listed species which has the potential to occur in the South Lathrop 6a and 6b project area, that is not covered under the SJMSCP, is the riparian brush rabbit (*Sylvilagus bachmani riparius*; federally endangered). Riparian brush rabbits (RBR) have been found to inhabit areas of the SLSP project site. Historically, they have been found in the San Joaquin Valley riparian areas. The SJMSCP does not cover impacts to RBR when they are observed on a project site. Accordingly, we have requested that the Corps initiate consultation with USFWS, pursuant to Section 7 of the federal Endangered Species Act. The Section 7 information is included as part of the ACOE permit application found in Attachment D.

### **National Historic Preservation Act, Section 106**

A literature and records search, a cultural resource survey, and testing and evaluation program was done for the South Lathrop 6a and 6b project site. The resulting reports are included in ACOE permit application located in Attachment D.

### **California Environmental Quality Act**

The proposed project is subject to the California Environmental Quality Act (CEQA). The CEQA lead agency is the City of Lathrop. An Initial Study and Notice of Preparation was prepared for the SLSP Environmental Impact Report in September of 2006 (included as Attachment E). The project will be part of the South Lathrop Specific Plan Environmental Impact Report (which is currently being prepared).

### **California Fish and Game Code, Section 1600**

The proposed impacts to the eastern levee of the San Joaquin River are under the jurisdiction of the California Department of Fish and Game (CDFG) and will require a Streambed Alteration Agreement. A Notification of Lake or Streambed Alteration (Attachment F) is being submitted to the CDFG concurrently with this request.

## **MITIGATION PLAN**

### **Federal Wetland Dredge / Fill Authorization and Compensation**

Wetland features and waters of the U.S. proposed for impact include seasonal wetlands and seasonal wetland swales that occur within an irrigated pasture and an artificially fed stock pond along the southern boundary of the irrigation pasture. As both of these features were artificially created by the irrigation of the pasture, in-kind mitigation is not proposed.

The proposed impacts total 0.446 acre, below the 0.5-acre threshold for Nationwide Permit Nos. 7 and 39. Due to the small size of the project parcel (277± acres) and drainage issues on the project site, the proposed impact is considered unavoidable. Any on-site minimization and/or avoidance of the jurisdictional features would make the project unviable.

The applicant is proposing to mitigate for project impacts 0.446 acres of waters of the United States through contributing to the ACOE in-lieu fee fund. Table 2 outlines impacts and proposed mitigation.

**Table 2 – Proposed Wetland Mitigation**

<u>Type</u>	<u>Existing</u>	<u>Impacted</u> <i>Direct</i>	<u>Proposed Mitigation</u>
<i>Wetlands</i>			
Seasonal Wetland	0.175	0.175	0.175
Seasonal Wetland Swale	0.010	0.010	0.010
<i>Other Waters</i>			
Stock Pond	0.121	0.121	0.121
San Joaquin River	<u>0.140</u>	<u>0.140</u>	<u>0.140</u>
<b>Total:</b>	<b>0.446</b>	<b>0.446</b>	<b>0.446</b>

Based on the estimates provided in this document, the amount of fill requiring compensatory mitigation for habitat loss by this project would be approximately 0.446 acres. The fee structure from the SWRCB requires a fee of \$1,458.90 (\$500 base fee + [0.446 acres x \$2150 per acre]). As previously stated, mitigation for the 0.446 acres of is being proposed by applicant contribution to the ACOE in-lieu fee fund.

Please call me at (916) 782-9100 should you have any questions concerning this request, or if I can be of further assistance to you.

Sincerely,

Michelle Archuleta  
Natural Resource Specialist

Attachment(s)

CC: Clifton Taylor, Richland Planned Communities

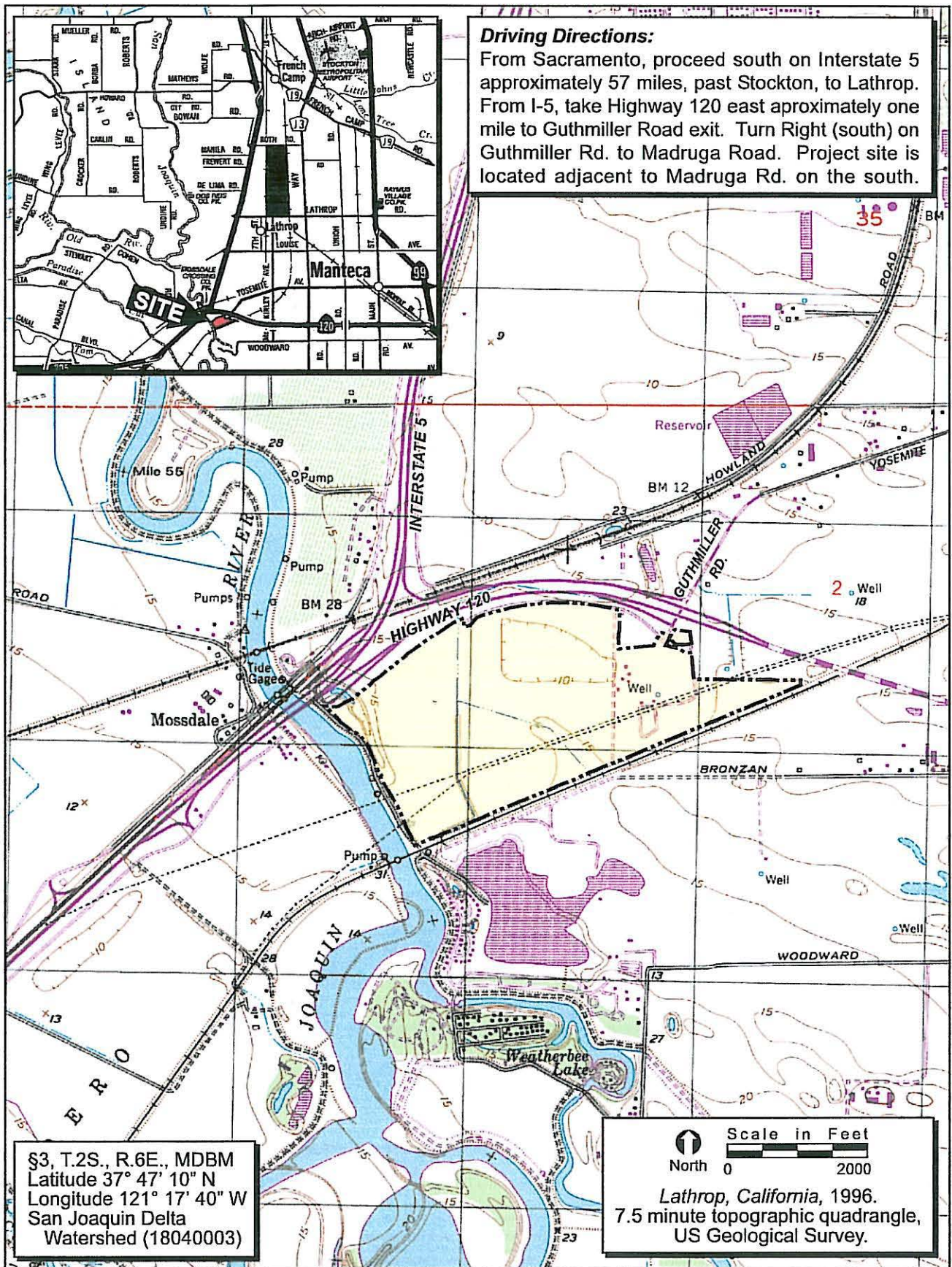
## **LIST OF FIGURES**

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Figure 1. Project Site and Vicinity

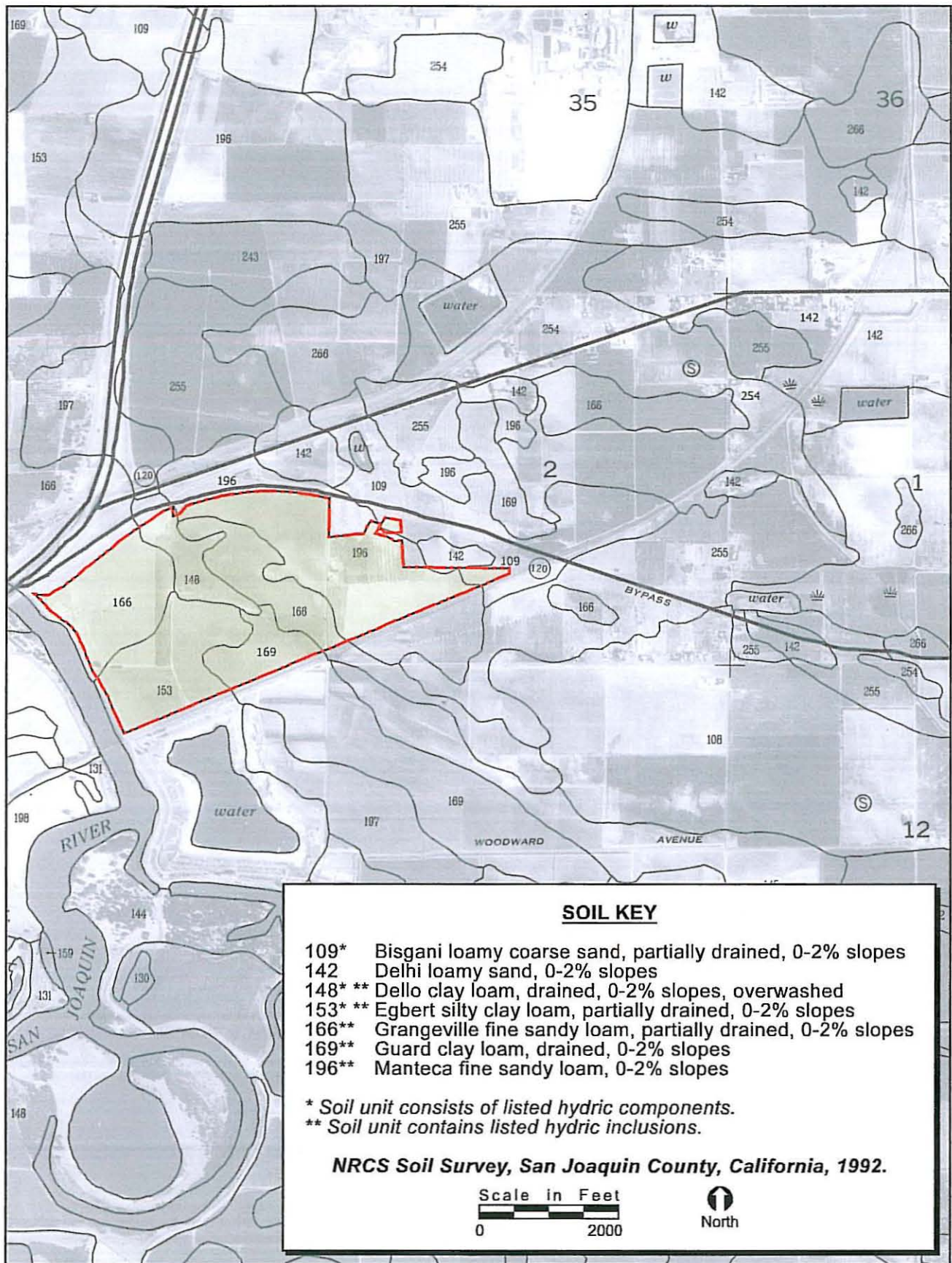
Figure 2. Natural Resource Conservation Service Soil Types

Figure 3. Proposed Impact Plan



**FIGURE 1. Project Site and Vicinity**

2007-213 South Lathrop 6a & 6b



**FIGURE 2. Natural Resources Conservation Service Soil Types**

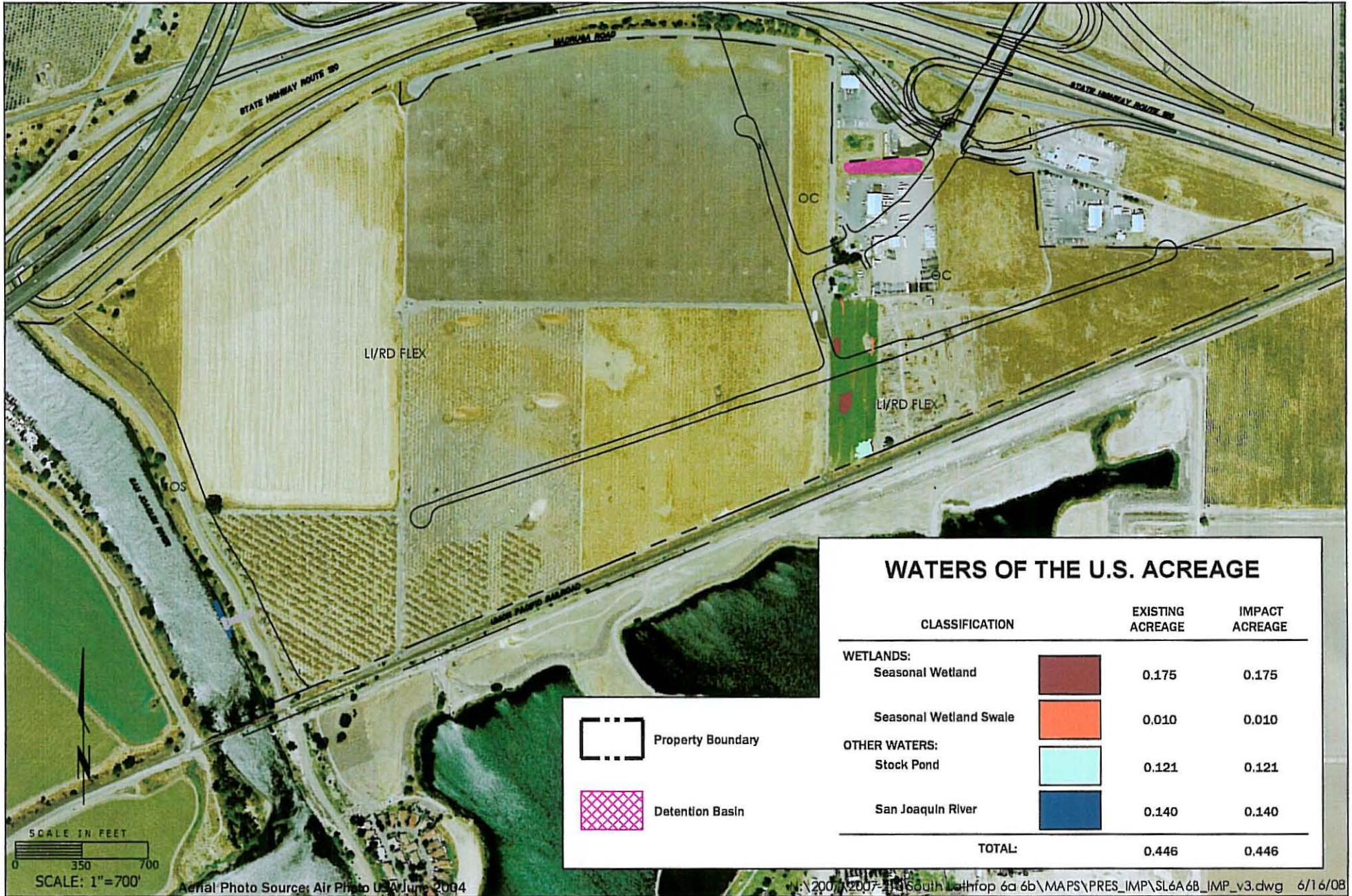


FIGURE 3. Proposed Impact Plan

## **LIST OF ATTACHMENTS**

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Attachment A – SWRCB Section 401 Water Quality Certification Application

Attachment B – Proposed Impact Plan

Attachment C – Wetland Delineation Report

Attachment D – Nationwide Permits (NWP) No. 7 and No. 39

Attachment E – Initial Study and Notice of Preparation for the SLSP EIR

Attachment F – 1602 Notification

## **ATTACHMENT A**

---

SWRQB 401 Section 401 Water Quality Certification Application



**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION**

**SECTION 401 WATER QUALITY CERTIFICATION  
APPLICATION FORM**

A minimum of \$500.00 processing fee is required. Please include a check payable to the State Water Resources Control Board. Attach additional sheets as necessary. Submit the completed form to the appropriate Regional Board office.

**1. APPLICANT INFORMATION**

**2. AGENT INFORMATION\***

Applicant: Richland Planned Communities	Agent: ECORP Consulting, Inc.
Contact Name: Clifton Taylor	Contact Name: Michelle Archuleta
Address: 2220 Douglas Blvd, Suite 290 Roseville, CA 95661	Address: 2525 Warren Drive Rocklin, CA 95677
Phone No: (916) 782-3330	Phone: (916) 782-9100
Fax No: (916) 784-3369	Fax No: (916) 782-9134

\*Complete only if applicable

**3. PROJECT DESCRIPTION**

a) Project Title: South Lathrop 6a and 6b
b) Project Location: County: <u>San Joaquin</u> Section: <u>3</u> Township: <u>2 South</u> Range: <u>6 East</u> Latitude: <u>37° 47' 10" N</u> Longitude: <u>121° 17' 40" W</u> <b>Attach site map with "waters" clearly indicated (e.g. USGS 7½ quadrangle map)</b>
c) Project Description (include purpose and final goal, construction techniques, type of equipment to be used, etc.):  The purpose of the project is to provide the City of Lathrop with the following: <ol style="list-style-type: none"><li>1. Overall improvements to the South Lathrop area</li><li>2. Smart growth principles</li><li>3. Transit oriented development</li><li>4. Office and commercial core</li><li>5. Transition from non-residential to residential</li><li>6. Interconnected open space and trails</li><li>7. San Joaquin River frontage open space</li><li>8. Transportation choices</li><li>9. Public Facilities and Services</li><li>10. Development phasing plan (to ensure City standards are met)</li></ol> The South Lathrop 6a and 6b property consists of approximately 277 acres proposed for the construction of a light industrial, office, and commercial development in south-central San Joaquin County within the City of Lathrop. Construction activities for the

project would consist of grading, installation of utilities, paving, and the construction of building structures and related infrastructure. Scrapers and bulldozers are examples of equipment to be used during construction.

This activity will impact 0.446 acre of Waters of the United States, Nationwide Permits No. 7 and No. 39 have been filed. Land not actively being developed will remain undisturbed or in agriculture.

d) Proposed Schedule (start-up, duration, and completion dates):  
 Start-up: 2008  
 Completion: 2013

e) Total Project size (clearing, grading, other construction activities):  
277 acres N/A linear feet (if appropriate)

**4. IMPACTED WATER BODIES**

a) Name(s) of Receiving Water(s):  
 San Joaquin River

b) Anticipated stream flow during project activity:  
 728 cubic feet per second (Source: 2003 USGS mean annual stream flow for the San Joaquin River at Crows Landing, CA which is approximately 40 miles to the southeast of Lathrop)

d) Indicate in ACRES and LINEAR FEET (*where appropriate*) the proposed **waters of the United States** to be impacted by any discharge other than dredging, and identify the impacts (s) as permanent and/or temporary for each water body type listed below:

Water Body Type	Permanent Impacts		Temporary Impacts	
	(acres)	(linear feet)	(acres)	(linear feet)
Jurisdictional Wetland	0.446			
Riparian				
Streambed unvegetated				
Lake/Reservoir				
Ocean/Estuary/Bay				

e) Indicate the volume of the dredged material (cubic yards) to be discharged to waters of the United States:  
 360 – 720 cubic yards of soil will be discharged to waters of the United States.

f) Indicate type(s) of material proposed to be discharged to waters of the United States:  
 Material to be discharged will include soil graded and moved on-site.

**5. COMPENSATORY MITIGATION**

a) Indicate in ACRES and LINEAR FEET (*where appropriate*) the total quantity of **waters of the United States** proposed to be Created, Restored and/or Enhanced for purposes of providing Compensatory Mitigation:

Water Body Type	Created		Restored		Enhanced	
Jurisdictional Wetland	0.446					
Riparian						
Streambed						
Lake/Reservoir						
Ocean/Estuary/Bay						
<p>b) If contributing to a Mitigation or Conservation Bank, indicate the agency, dollar amount, acreage, and water body type (<i>if applicable</i>): Conservation Agency <u>N/A</u>, \$ <u>N/A</u> for <u>N/A</u> acres of <u>N/A</u> (<i>water body type</i>)</p> <p>How many acres of this mitigation area qualify as waters of the United States? <u>N/A</u>.</p>						
<p>c) Other Mitigation (<i>omit if not applicable</i>):</p> <p>The applicant proposes to mitigate for impacts to the 0.446 acres of waters of the United States through the Corps in-lieu fee fund.</p> <p>The San Joaquin Multi-Species Conservation Plan (SJMSCP) has already addressed mitigation measures for impacts to the 277 acres of row crops and for impacts to any of the species, and/or unoccupied habitat of species, listed in the SJMSCP.</p> <p>The only Federally listed species which has the potential to occur on the South Lathrop 6a and 6b project site that is not covered under the SJMSCP is the riparian brush rabbit (<i>Sylvilagus bachmani riparius</i>; federally endangered). Riparian brush rabbits (RBR) have historically been found in San Joaquin Valley riparian areas and have been found to inhabit areas of the South Lathrop 6a and 6b project site. The SJMSCP does not cover impacts to RBR when they are observed on a project site. Although the RBR has not been observed on-site nor is there a record within 15 miles of the site, we have requested that the ACOE initiate a consultation with USFWS, pursuant to Section 7 of the federal Endangered Species Act.</p> <p>How many acres of this mitigation area qualify as waters of the United States? <u>0.446</u></p>						
<p>d) Location of Compensatory Mitigation Site(s) (<i>attach map of suitable quality and detail</i>):</p> <p>City or Area: <u>N/A</u> County: <u>N/A</u></p> <p>Longitude/Latitude: <u>N/A</u> Township/Range: <u>N/A</u></p>						

## 6. OTHER ACTIONS/BEST MANAGEMENT PRACTICES (BMPs)

Briefly describe other actions/BMPs to be implemented to avoid and/or minimize impacts to waters of the United States, including preservation of habitat, erosion control measures, project scheduling, flow diversions, etc.

A Notice of Intent for the National Pollutant Discharge Elimination System General Permit for Construction Related Activities will be filed and a site specific Storm Water Pollution Prevention Plan will be designed prior to the start of construction. Existing vegetation will be preserved to the maximum extent practicable (i.e., existing vegetation will not be disturbed in areas not actively being constructed).

The levee on the east bank of the San Joaquin River protects flows originating on-site from reaching the river. The eastern levee along the San Joaquin River (to the west of the site) will not be bored through as a result of proposed storm drainage outfall construction in the southwest corner of the project. Instead, a series of pumps have been designed to pipe site storm water over the San Joaquin River levee.

Hydroseed, straw and tackifier will be applied to the perimeter of the disturbed area by October 1 of each year.

## 7. OTHER PERMITS/AGREEMENTS

### a) U.S. Army Corps of Engineers Permit

Indicate the type of ACOE permit (*check one*): Nationwide Permit No(s):    
 Indicate Permit No(s): No. 7 and No. 39 Regional Permit No(s): \_\_\_\_\_.

Have you notified ACOE of project? NWP's submitted concurrently with this request.

Have you reviewed the General Conditions for your ACOE permit? N/A \_\_\_\_\_.

Have you attached a copy of the application/notification to ACOE? Yes (application) .

### b) California Department of Fish and Game Lake or Streambed Alteration Agreement

Date of Application: Submitted concurrently with this request.

Have you attached a copy of the application? Yes  No \_\_\_\_.

Has the Agreement been issued? No If so, list agreement number: N/A .

## 8. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

### a) Indicate the type of CEQA Document required for project and Lead Agency:

The lead agency, the City of Lathrop, is currently preparing an Environmental Impact Report for the South Lathrop Specific Plan (SLSP) which includes the South Lathrop 6a and 6b project area.

Categorical Exemption \_\_\_\_ Negative Declaration \_\_\_\_ Environmental Impact Report  ,

Has the document been certified/approved, or has a Notice of Exemption been filed?  
No . If yes, date of approval/filing: N/A If no, expected approval/filing date:  
N/A Lead Agency: City of Lathrop .  
Submit final or draft copy if available\*

b) Threatened or Endangered Species impacted by this project (*list all potential species*):

Plants

Delta button-celery (*Eryngium racemosum*)

Invertebrates

Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)

Fish:

Delta smelt (*Hypomesus transpacificus*)

Central Valley steelhead (*Oncorhynchus mykiss*)

Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*)

Winter-run Chinook salmon, Sacramento River *Oncorhynchus tshawytscha*

Reptiles

Giant garter snake (*Thamnophis gigas*)

Birds

Swainson's hawk (*Buteo swainsoni*)

Mammals

Riparian brush rabbit (*Sylvilagus bachmani riparius*)

## 9. PAST/FUTURE PROPOSALS BY THE APPLICANT

Briefly list/describe any projects carried out in the last 5 years or planned for implementation in the next 5 years that are in any way related to the proposed activity or may impact the same receiving body of water. Include the estimated adverse impacts from the past or future projects.

The South Lathrop 6a and 6b project is part of the South Lathrop Specific Plan (SLSP). The SLSP is divided into two portions by State Route 120. South Lathrop 6a and 6b is located south of Highway 120 and the remaining area of the SLSP is to the north of the Highway. Future (or concurrent) development is planned to occur by others in the remaining northern section of the SLSP. Richland Planned Communities were also the applicants for the Central Lathrop Phase I/II projects (part of the Central Lathrop Specific Plan area) to the north of the SLSP area. All adverse impacts for the Central Lathrop Phase I/II project area have been addressed through planning and permitting for that project.

\_\_\_\_\_  
Applicant's Signature (*or agent*)

\_\_\_\_\_  
Date

## DREDGE AND FILL FEE CALCULATOR <sup>1</sup> v8 11/30/2006

This fee schedule is based on California Code of Regulations, Division 3, Chapter 9, Article 1, section 2200(a)(3). TO CALCULATE FEE: Enter the "Discharge Size" in Section A or, if the project qualifies, check the check-box in Section B according to the applicable Flat Fee category. If the project involves multiple discharges, then both Section A and Section B fee charges may apply (see footnote 1(a) below). The project fee owed will appear in the "Total Fee For All Categories" box at the bottom of the Fee Calculator. In any case, dredge and fill operation fees shall not exceed \$40,000, plus any applicable surcharge(s).

A. FEES BASED ON DISCHARGE SIZE							
	FEE CATEGORY	RATE	DISCHARGE SIZE		FEE		
(i)	<b>Fill &amp; Excavation<sup>2</sup> Discharges.</b> Size of the discharge area as expressed in hundredths of acres (0.01 acre; 436 square feet) rounded up.	Discharge Area Acres x \$2150	0.446		\$ 958.90	Categories (i) (iii) will be charged an additional Base Fee amount of \$500 which is included in the total below.	
	To Non-Federal Waters (per fee cat. iv)	Discharge Area Acres x \$2150 x 2	0		\$ -		
(ii)	<b>Dredging Discharges (except Sand Mining-see (v) below)<sup>3</sup></b> Dredge volume expressed in Cubic Yards.	Dredge Volume CY x \$0.08	0		\$ -		
	To Non-Federal Waters (per fee cat. iv)	Dredge Volume CY x \$0.08 x 2	0		\$ -		
(iii)	<b>Channel and Shoreline Discharges.</b> Discharge length shall be reported in Linear Feet. Includes linear discharges to drainage features and shorelines, e.g., bank stabilization, revetment, and channelization projects. (Note): The fee for channel and shoreline linear discharges will be assessed under the "Fill and Excavation" or "Channel and Shoreline" schedules, whichever results in the higher fee.	Discharge Length Feet x \$5.00	0	\$ -	\$ -		
		Discharge Area Acres x \$2150	0	\$ -			
	To Non-Federal Waters (per fee cat. iv)	Discharge Length Feet x \$5.00 x 2	0	\$ -			
		Discharge Area Acres x \$2150 x 2	0	\$ -			
(iv)	<b>Discharges to Non-federal (e.g. "Isolated") Waters.</b> Discharges to waters or portions of waterbodies not regulated as "waters of the United States", including waters determined to be "isolated" pursuant to the findings of <i>Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers</i> (2001) 121 S. Ct. 675. Double the otherwise applicable fee except restoration projects, which shall be charged the normal fee.						
B. FEES BASED ON FLAT FEE CATEGORIES							
(v)	<b>Sand Mining Dredging Discharges.</b> Aggregate extraction in marine waters where the source material is free of pollutants and the dredging operation will not violate any Basin Plan Provisions.	\$800 Flat fee	Check if Applicable	<input type="checkbox"/>	\$ -		
(vi)	<b>Low Impact Discharges.</b> Projects may be classified as low impact discharges if they meet the following criteria: 1. The discharge affects less than (a) 0.1 acre, (b) 200 linear feet, and (c) 25 cubic yards. 2. Demonstrate that the discharger: (a) has taken all practicable measures to avoid impacts, (b) for unavoidable temporary impacts the discharger will restore waters and vegetation to pre-project conditions as quickly as practicable, (c) for unavoidable permanent impacts the discharger will ensure that there is no net loss of wetland, riparian area, or headwater functions, including onsite habitat, habitat connectivity, floodwater retention, and pollutant removal. 3. The discharge will not: (a) directly or indirectly destabilize a bed of a receiving water, (b) contribute to significant cumulative effects, (c) cause pollution, contamination, or nuisance, (d) adversely affect candidate, threatened, or endangered species, (e) degrade water quality or beneficial uses, (f) be toxic, or (g) include "hazardous" or "designated" material. 4. Discharge is to waterbody regulated as "waters of the United States".	\$500 Flat fee.	Check if Applicable	<input type="checkbox"/>	\$ -		
(vii)	<b>Restoration Projects.</b> Projects undertaken for the sole purpose of restoring or enhancing the beneficial uses of water. This schedule does not apply to projects required under a regulatory mandate or to projects that include a non-restorative component, e.g., land development, property protection, or flood management..	\$500 Flat fee	Check if Applicable	<input type="checkbox"/>	\$ -		

(viii) <b>General Orders.</b> Projects which are required to submit notification of a proposed discharge to the State and/or Regional Board pursuant to a general water quality certification permitting discharges authorized by a federal general permit or license, (e.g., a U.S. Army Corps of Engineers nationwide permit). Applies ONLY if general water quality certification was previously granted.	\$60 Flat Fee	Check if Applicable	<input type="checkbox"/>	\$ -
<b>TOTAL FEE FOR ALL CATEGORIES</b> Includes \$500 Base Price for Categories (I)-(III) as applicable. Total fee due is limited to a maximum of \$40,000.				\$ 1,458.90

<b>Amended Orders.</b> Amendments of WDR's or water quality certifications previously issued for one-time discharges not subject to annual billings. Fees charged as follows:				
(a) Minor project changes, not requiring technical analysis and involving only minimal processing time.	No fee required			
(b) Changes to projects eligible for flat fees (fee categories v. - viii. above) where technical analysis is needed to assure continuing eligibility for flat fee and that beneficial uses are still protected.	Appropriate flat fee			
(c) Project changes not involving an increased discharge amount, but requiring some technical analysis to assure that beneficial uses are still protected and that original conditions are still valid, or need to be modified.	\$500 flat fee			
(d) Project changes involving an increased discharge amount and requiring some technical analysis to assure that beneficial uses are still protected and that original conditions are still valid, or need to be modified.	Additional fee assessed per increased amount of discharge(s) per this dredge and fill fee schedule [Section 2200 (a)(3)] (plus \$500 base fee)			
(e) Major project changes requiring an essentially new analysis and re-issuance of WDR's or water quality certification.	New fee assessed per this dredge and fill fee schedule (Section 2200 (a)(3)).			

1(a) When a single project includes multiple discharges within a single dredge and fill category, the fee for that category shall be assessed based on the total area, volume, or length of discharge (as applicable) of the multiple discharges. When a single project includes discharges that are assessed under multiple fee categories, the total fee shall be the sum of the fees assessed under each applicable fee category; however a \$500 base fee, if required, shall be charged only once. Fees shall be based on the largest discharge size specified in the original or revised report of waste discharge or Clean Water Act (CWA) section 401 water quality certification application, or as reduced by the applicant without any State or Regional Board intervention. If water quality certification is issued in conjunction with waste discharge requirements (WDRs) or is issued for a discharge regulated under preexisting WDRs, the current annual WDR fee as derived from this dredge and fill fee schedule shall be paid in advance during the application for water quality certification, and shall comprise the fee for water quality certification.

1(b) Discharges requiring water quality certification and regulated under a federal permit or license other than a US Army Corps of Engineers CWA section 404 permit or a Federal Energy Regulatory Commission License shall be assessed a fee determined from the table in CCR 23, Section 2200(a).

2 "Excavation" refers to moving sediment or soil in shallow waters or under no-flow conditions where impacts to beneficial uses are best described by the area of discharge. It typically is done for purposes other than navigation. Example includes trenching for utility lines, other earthwork preliminary to construction, and removing sediment to increase channel capacity.

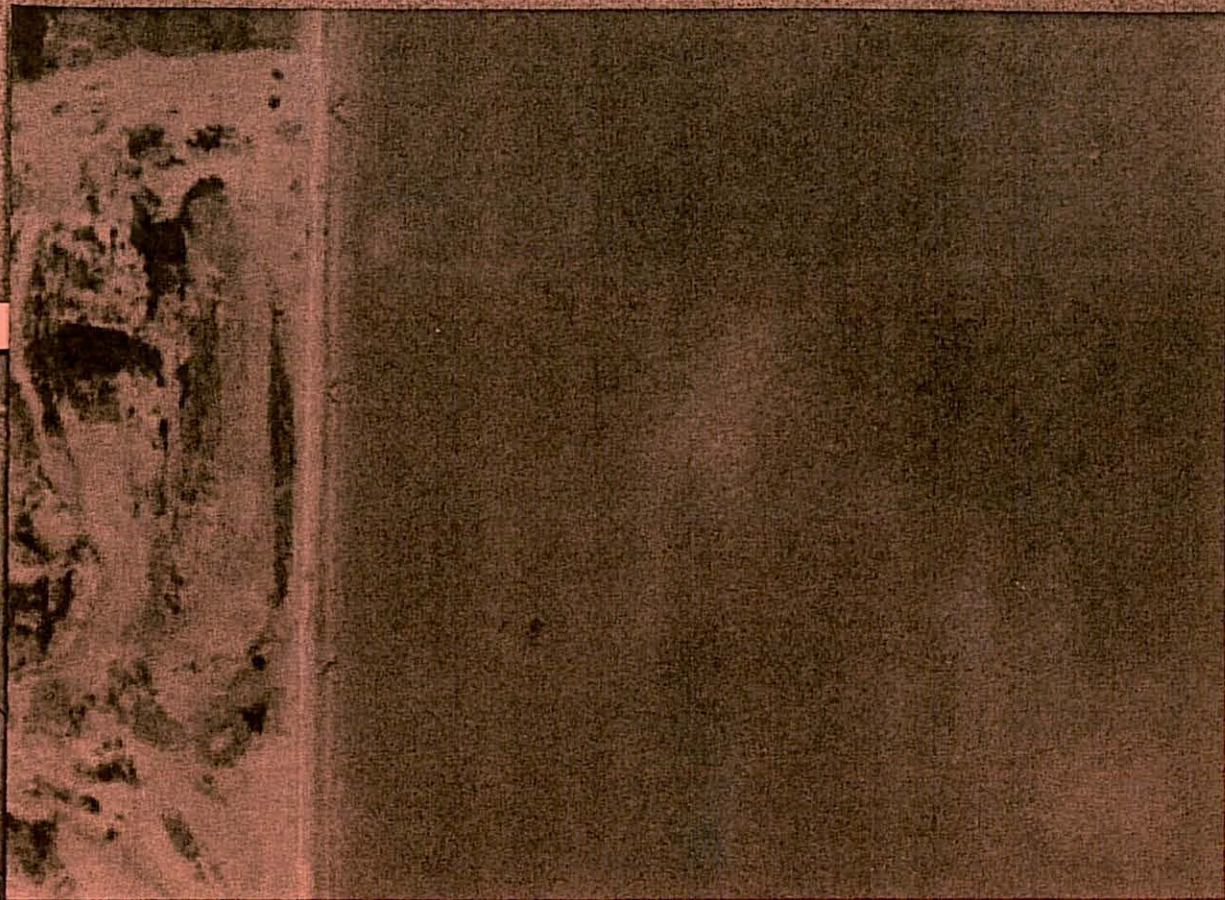
3 "Dredging" generally refers to removing sediment in deeper water to increase depth. The impacts to beneficial uses are best described by the volume of the discharge and typically occur to facilitate navigation. For fee purposes it also includes aggregate extraction within stream channels where the substrate is composed of coarse sediment (e.g., gravel) and is reshaped by normal winter flows (e.g., point bars), where natural flood disturbance precludes establishment of significant riparian vegetation, and where extraction timing, location and volume will not cause changes in channel structure (except as required by regulatory agencies for habitat improvement) or impair the ability of the channel to support beneficial uses.

## **ATTACHMENT B**

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Proposed Impact Plan

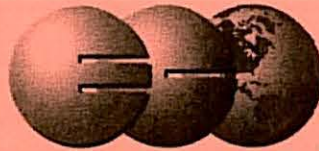




# **SOUTH LATHROP 6A/6B**

## **PROPOSED IMPACT PLAN**

DATE: 22 MAY 2008	REVISION DATE: 6/16/2008	PROJECT NUMBER: 2007-213
CAD SPECIALIST: KO	SCALE: 1"=200'	MAP NAME: SL6A6B_IMP_v3.dwg
MAP LOCATION: N:\2007\2007-213 South Lathrop 6a 6b\MAPS\PRES_IMP	QA/QC: -	
WETLAND VERIFICATION LETTER DATE:		PM: LMA



## **ECORP Consulting, Inc.** **ENVIRONMENTAL CONSULTANTS**

**Northern California**  
2525 Warren Drive  
Rocklin, CA 95677  
Ph: 916.782.9100

**Bay Area**  
2100 Embarcadero, Ste. 202  
Oakland, CA 94606  
Ph: 510.434.0150

**Orange County**  
1801 Park Court Place Bldg B, Ste. 103  
Santa Ana, CA 92701  
Ph: 714.648.0630

**Inland Empire**  
215 North 5th St  
Redlands, CA. 92374  
Ph: 909.307.0046

**San Diego**  
4709 Biona Drive  
San Diego, CA 92116  
Ph: 619.521.0303

# **ATTACHMENT C**

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Wetland Delineation Report

WETLAND DELINEATION  
FOR  
**SOUTH LATHROP 6A & 6B**  
SAN JOAQUIN COUNTY, CALIFORNIA

November 10, 2005

Prepared for:  
**Richland Planned Communities**



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Appendix C. Wetland Delineation  
Appendix D. Wetland Delineation Shape File (to be included with Corps submittal only)  
Appendix E. Corps-Verified Wetland Map and Verification Letter (to be included in ECORP's master copy only)

## 1.0 INTRODUCTION

On behalf of Richland Planned Communities, ECORP Consulting, Inc. (ECORP) has conducted a wetland delineation of the 277-acre South Lathrop 6a & 6b project site. The project site is located south of Highway 120 and east of the Interstate 5 and Highway 560 interchange and south of Madrugá Road with Guthmiller Road dissecting the project site in San Joaquin County, California (Figure 1. *Project Site and Vicinity Map*). The site corresponds to a portion of Section 3, Township 2 South, and Range 6 East Mount Diablo Base Meridian (MDBM) of the "Lathrop, California" 7.5-minute quadrangle (U.S. Department of the Interior, Geological Survey 1996). The approximate center of the site is located at 37° 47' 10" North and 121° 17' 40" West within the San Joaquin Delta Watershed (# 18040003, U.S. Department of Interior, Geological Survey 1978).

This report describes waters of the United States, including wetlands, identified within the project site that may be regulated by the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act. The information presented in this report provides data required by the U.S. Army Corps of Engineers Sacramento District's *Minimum Standards for Acceptance of Preliminary Wetland Delineations* (U.S. Army Corps of Engineers 2001). The waters of the U.S. boundaries depicted in this report represent a calculated estimation of the jurisdictional area within the project site, and are subject to modification following the Corps verification process.

### APPLICANT:

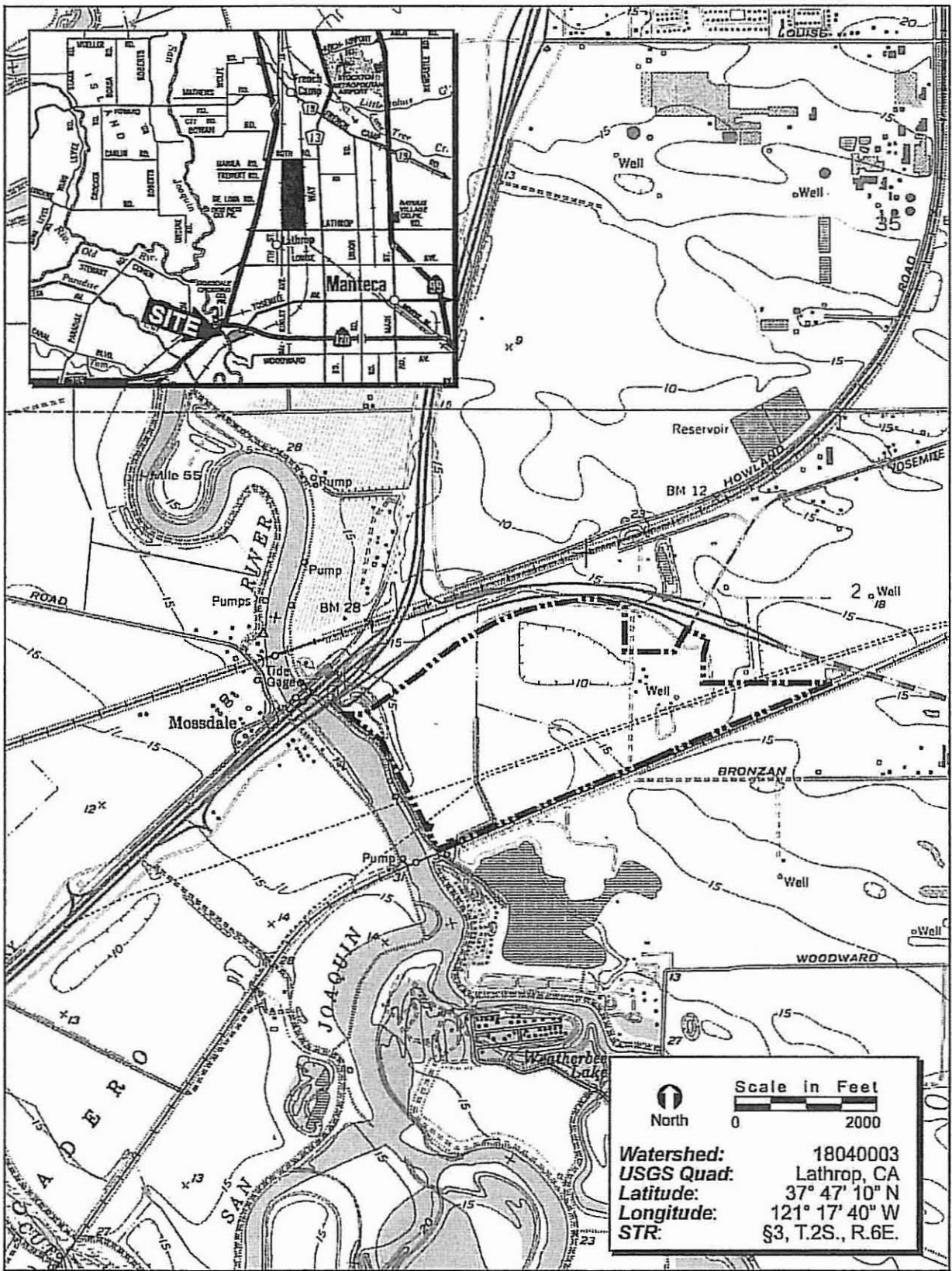
Attn: Mr. Clifton Taylor  
Richland Planned Communities  
2220 Douglas Blvd, Ste 290  
Roseville, California 95661  
Phone: (916) 782-3330  
Fax: (916) 784-3369

### AGENT:

Attn: Ms. Stacy Roper  
ECORP Consulting, Inc.  
2260 Douglas Boulevard, Suite 160  
Roseville, California 95661  
Phone: (916) 782-9100  
Fax: (916) 782-9134

## 1.1 Existing Site Conditions

The site is composed of relatively flat terrain and is situated at an elevation of approximately 15 feet above mean sea level. The majority of the project site is being used for agricultural



**FIGURE 1. Project Site and Vicinity Map**

2004-096 South Lathrop 6a & 6b

practices (i.e., alfalfa, winter wheat, and cattle grazing). The western portion is being utilized for alfalfa and winter wheat production with a small cattle grazing area located in the southern central portion of the project site. The vegetation within the pasture includes rose clover (*Trifolium hirtum*), Bermuda grass (*Cynodon dactylon*), barnyard grass (*Echinochloa crusgalli*), and birdsfoot trefoil (*Lotus corniculatus*). There are several buildings located within the project site including farmhouses and truck maintenance company east of Guthmiller Road. The rest of the project site is ruderal grassland habitat. The vegetation within the ruderal grassland habitat include yellow-star thistle (*Centaurea solstitialis*), Telegraph weed (*Heterotheca grandiflora*), and Common mallow (*Malva neglecta*).

A detention basin is located north of the truck maintenance yard and collects runoff throughout the year. Runoff is coming from storm drains within the parking lot. There is no outflow of water from the detention basin. Water is evaporated out of the detention basin.

Aquatic features on-site include a stock pond, seasonal wetlands, seasonal wetland swales, and a detention basin. These features are further described in the Results section.

According to the *Soil Survey of San Joaquin County, California* (U.S. Department of Agriculture, Soil Conservation Service 1992), six soil units, or types, have been mapped within the project site (Figure 2. *Natural Resource Conservation Service Soil Types*). These are: (109) Bisgani loam coarse sand, partially drained, 0-2% slopes, (148) Dello clay loam, drained, 0-2% slopes, overwashed, (153) Egbert silty clay loam, partially drained, 0-2% slopes, (166) Grangeville fine sandy loam, partially drained, 0-2% slopes, (169) Guard clay loam, drained, 0-2% slopes, and (196) Manteca fine sandy loam, 0-2% slopes. All the soil units contain hydric inclusions. Dello clay loam and Egbert silty clay loam consists of listed hydric components (U.S. Department of Agriculture, Soil Conservation Service 1992).

## **2.0 METHODS**

This wetland delineation was conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987). The waters of the U.S. boundaries were



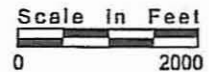
**SOIL KEY**

- 109\* Bisgani loamy coarse sand, partially drained, 0-2% slopes
- 148\*\* Dello clay loam, drained, 0-2% slopes, overwashed
- 153\*\* Egbert silty clay loam, partially drained, 0-2% slopes
- 166\*\* Grangeville fine sandy loam, partially drained, 0-2% slopes
- 169\*\* Guard clay loam, drained, 0-2% slopes
- 196\*\* Manteca fine sandy loam, 0-2% slopes

\* Soil unit consists of listed hydric components.

\*\* Soil unit contains listed hydric inclusions.

**NRCS Soil Survey, San Joaquin County, California, 1992.**



**FIGURE 2. Natural Resources Conservation Service Soil Types**



delineated through aerial photograph interpretation and standard field methodologies (i.e., paired data set analyses), and all wetland data were recorded on Routine Wetland Determination Forms (Appendix A). A color aerial photograph (1"=300' scale, Airphoto 2002) was used to assist with mapping and ground-truthing. *Munsell Soil Color Charts* (Kollmorgen Instruments Co. 1990) and the *Soil Survey of San Joaquin County, California* (U.S. Department of Agriculture, Soil Conservation Service 1992) were used to aid in identifying hydric soils in the field. *The Jepson Manual* (Hickman, ed. 1993) was used for plant nomenclature and identification.

Field wetland surveys were conducted on December 8, 2004 and August 15, 2005 by ECORP biologist Stacy Roper. Ms. Roper walked the entire 277±-acre project site to determine the location of potentially jurisdictional boundaries within the property. Six paired data point locations and four single point locations were sampled to evaluate whether or not the vegetation, hydrology, and soils data supported a determination of wetland or non-wetland status. At each paired location, one point was located such that it was within the estimated wetland area, and the other point was situated outside the limits of the estimated wetland area. The data collected at each single point location was used to support a non-wetland determination. The total area of the wetlands within the property was recorded in the field using a post-processing capable global positioning system (GPS) unit with sub-meter accuracy (Trimble GeoXT).

## **2.1 Waters Of The United States**

This report describes waters of the United States that may be regulated by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act. Wetlands are "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (Environmental Laboratory 1987). Wetlands can be perennial or intermittent, and isolated or adjacent to other waters.

Other waters are non-tidal, perennial, and intermittent watercourses and tributaries to such watercourses (33 CFR 328.3(a) Corps Regulatory Program Regulations, *Federal Register* 51(219), November 13, 1986). The limit of Corps jurisdiction for non-tidal watercourses (without adjacent wetlands) is defined in 33 CFR 328.3 (e) as the "ordinary high water mark" (OHWM). The

OHWB is defined as the "line on the (watercourse banks) established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter and debris; or other appropriate means that consider the characteristics of the surrounding areas" (33 CFR 328.3 (e)). The bank-to-bank extent of the channel that contains the water-flow during a normal rainfall year generally serves as a good first approximation of the lateral limit of Corps jurisdiction. The upstream limits of other waters are defined as the point where the OHWB is no longer perceptible.

## **2.2 Routine Determinations**

To be determined a wetland; the following three parameters should be present:

- A majority of dominant vegetation species are wetland associated species;
- Hydrologic conditions exist that result in periods of flooding, ponding, or saturation during the growing season; and
- Hydric soils are present.

### *2.2.1 Vegetation*

Hydrophytic vegetation is defined as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanent or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present (Environmental Laboratory 1987). The definition of wetlands includes the phrase "a prevalence of vegetation typically adapted for life in saturated soil conditions." Prevalent vegetation is characterized by the dominant plant species comprising the plant community (Environmental Laboratory 1987). The "50/20 rule" was used to determine the dominant plant species at each data point location. The rule states that for each stratum in the plant community, dominant species are the most abundant plant species (when ranked in descending order of abundance and cumulatively totaled) that immediately exceed 50 percent of the total dominance measure for the stratum, plus any additional species that individually

comprise 20 percent or more of the total dominance measure for the stratum (HQUSACE 1992).

Dominant plant species observed at each data point were then classified according to their indicator status (probability of occurrence in wetlands) (Table 1), in accordance with the U.S. Fish and Wildlife Service's (USFWS) National List of Vascular Plant Species That Occur in Wetlands: California (Region 0) (Reed 1988). If the majority (greater than 50 percent) of the dominant vegetation on a site are classified as obligate (OBL), facultative wetland (FACW), or facultative (FAC) (excluding FAC-), then the site is considered to be dominated by hydrophytic vegetation.

**Table 1. Classification of Wetland-Associated Plant Species<sup>1</sup>**

<b>Plant Species Classification</b>	<b>Abbreviation<sup>2</sup></b>	<b>Probability of Occurring in Wetland</b>
Obligate	OBL	>99%
Facultative Wetland	FACW	66-99%
Facultative	FAC	33-66%
Facultative Upland	FACU	1-33%
Upland	UPL	<1%
No indicator status	NI	Insufficient information to determine status
Plants That Are Not Listed (assumed upland species)	NL	Does not occur in wetlands in any region.

<sup>1</sup> Source: Reed 1988

<sup>2</sup> A '+' or '-' symbol can be added to the classification to indicate greater or lesser probability, respectively, of occurrence in a wetland.

### 2.2.2 Soils

A hydric soil is defined as a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (USDA-NRCS 2003). Indicators that a hydric soil is present include soil color (gleyed soils and soils with bright mottles and/or low matrix chroma), aquic or preaquic moisture regime, reducing soil conditions, sulfidic material (odor), soils listed on hydric soils list, iron and manganese concretions, organic soils (Histosols), histic epipedon, high organic content in surface layer in sandy soils, and organic streaking in sandy soils.

A soil pit was excavated to a depth of 16 inches or refusal at each data point. The soil was then examined for hydric soil indicators. The matrix color and mottle color (if present) of the soil was determined using the *Munsell Soil Color Charts*.

### 2.2.3 Hydrology

Wetlands, by definition, are seasonally inundated or saturated at or near (within 12 inches of) the soil surface. To be classified as a wetland, a site should have at least one primary indicator or two secondary indicators of wetland hydrology. Primary indicators of wetland hydrology may include, but are not limited to: water marks, drift lines, sediment deposition, drainage patterns, visual observation of saturated soils, and visual observation of inundation. In addition to the primary indicators, there are a variety of secondary wetland hydrology indicators. Secondary indicators include, but are not limited to: oxidized root channels in the upper 12 inches, water-stained leaves, and local soil survey data. When no primary indicators of wetland hydrology are observed at a data point, two or more secondary indicators are required to confirm wetland hydrology.

## 3.0 RESULTS

A total of 0.306 acre of potentially jurisdictional waters of the U.S has been mapped for this site (Table 2). The routine wetland determination forms are included in Appendix A, and a list of plant species observed at the data points is included in Appendix B. A discussion of the wetlands and other waters is presented below, and wetland delineation maps are presented in Figure 3 and Appendix C.

<b>Table 2. Waters of the U.S.</b>	
<b>Wetland Type</b>	<b>Acreage</b>
<i>Wetlands</i>	
Seasonal Wetland	0.175
Seasonal Wetland Swale	0.010
<i>Other Waters</i>	
Stock Pond	<u>0.121</u>
<b>Total</b>	<b>0.306</b>

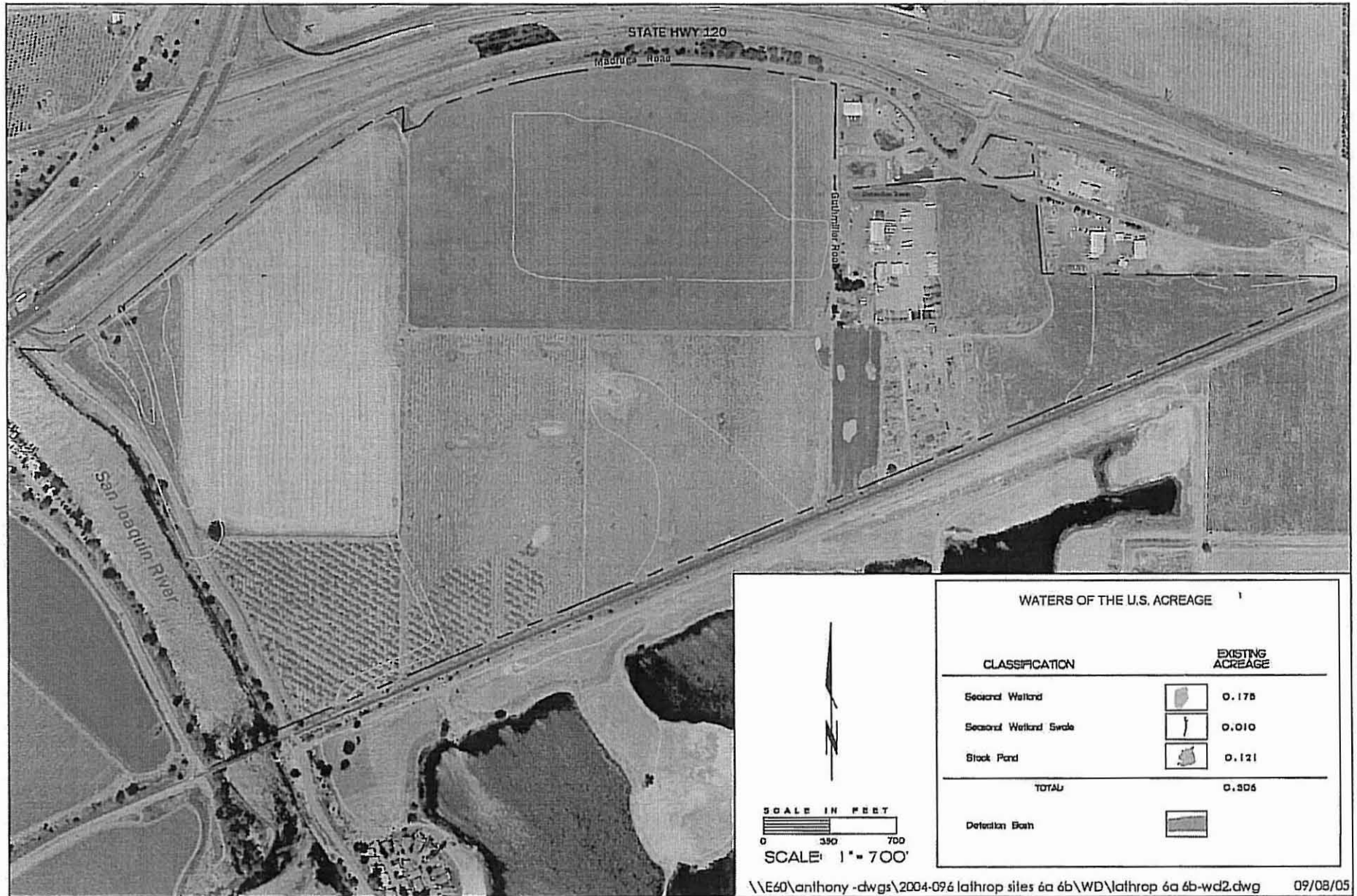


FIGURE 3. Wetland Delineation

### 3.1 Jurisdictional Wetlands

#### 3.1.1 Seasonal Wetland

Seasonal wetlands are ephemeral wet due to accumulation of surface runoff and rainwater within low-lying areas. Inundation periods tend to be relatively short and they are commonly dominated by non-native annual, and sometimes perennial, hydrophytic species. Plant species identified within the seasonal wetland include bentgrass (*Agrostis avenacea*), Bermuda grass, and rose clover (*Trifolium hirtum*).

Wetland hydrology indicators observed within the seasonal wetlands on-site include watermarks. Other hydrologic indicators (i.e., soil saturation and inundation) were not observed due to the time of year that this field survey was conducted. Within seasonal wetland features, these indicators are generally only observable during the wet season and early in the growing season.

The soil matrix color within the seasonal wetland was 10YR4/1 without redoxmorphic (redox) features (i.e., mottles). The soils were determined to be hydric based on the low chroma colors and containing listed hydric inclusions. Soil matrix colors in upland areas adjacent to the seasonal wetlands were of high chroma colors including 10YR3/2 (without redox features).

#### 3.1.2 Seasonal Wetland Swale

These are linear wetland features that do not exhibit an ordinary high water mark. The seasonal wetland swale is located in the southern central portion. Plant species identified within the seasonal wetland swale include barnyard grass (*Echinochloa crusgalli*) and Bermuda grass.

Wetland hydrology indicators observed within the seasonal wetland swales on-site include watermarks. Other hydrologic indicators (i.e., soil saturation and inundation) were not observed due to the time of year that this field survey was conducted.

The soil matrix color within the seasonal wetland swale was 10YR4/1 without redox features. The soils were determined to be hydric based on the low chroma colors and containing listed hydric inclusions. Soil matrix colors in upland areas adjacent to the seasonal wetland swale were of high chroma colors including 10YR3/2 (without redox features).

## **3.2 Other Waters**

### *3.2.1 Stock Pond*

There is a stock pond located in the southern central portion of the irrigated pasture within the project site. Vegetation within the stock pond included predominately water primrose (*Ludwigia peploides* var *peploides*) and an algal bloom.

Wetland hydrology indicators observed within the stock pond on-site include inundation (>12 inches) and soil saturation.

The soil matrix color within the stock pond was 10YR4/1 without redox features. The soils were determined to be hydric based on the low chroma colors and containing listed hydric inclusions. Soil matrix colors in upland areas adjacent to the stock pond were high chroma colors including 10YR4/2 (without redox features).

## **4.0 INTERSTATE COMMERCE**

The San Joaquin River is located along the western side of the project site and is considered navigable waters. The project site is adjacent to the San Joaquin River by a levee. Thus, the seasonal wetlands, seasonal wetland swales, and stock ponds on-site should be considered connected with and/or adjacent to a Waters of a U.S., and would therefore be subject to interstate and/or foreign commerce.

## **5.0 CONCLUSION**

A total of 0.306 acre of potentially jurisdictional waters of the U.S. has been mapped on-site. These acreages represent a calculated estimation of the jurisdictional area within the project site, and are subject to modification following the Corps verification process. Fill within jurisdictional features would require permitting pursuant to Section 404 and 401 of the federal Clean Water Act.



## 6.0 REFERENCES

- AirPhoto USA. -2002. Aerial photograph of the project area.
- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U. S. Army Engineer Waterways Experiment Station. Vicksburg, Mississippi.
- Headquarters, U.S. Army Corps of Engineers (HQUSACE). 1992. Clarification and Interpretation of the 1987 Manual. Memorandum from Major General Arthur E. Williams. Dated: 6 March 1992.
- Hickman, J. C. (ed.). 1993. *The Jepson Manual: Higher Plants of California*. University of California Press. Berkeley, California.
- Kollmorgen Instruments Company. 1990. Munsell Soil Color Charts. Kollmorgen Corporation. Baltimore, Maryland.
- Reed, P.B., Jr. 1988. National List of Plant Species that Occur in Wetlands: California (Region 0). (Biological Report 88[26.10].) U.S. Fish and Wildlife Service, Ft. Collins, Colorado.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2003. National Soil Survey Handbook, title 430-VI. Available Online:  
<http://soils.usda.gov/technical/handbook>.
- U.S. Department of Agriculture, Soil Conservation Service. 1992. Soil Survey of San Joaquin County, California. U.S. Department of Agriculture, Soil Conservation Service. Davis, California.
- U.S. Department of Agriculture, Soil Conservation Service. 1992. Hydric Soils List for San Joaquin County. U.S. Department of Agriculture, Soil Conservation Service, Davis, California.
- U.S. Department of the Army, Corps of Engineers, Sacramento District. November 30, 2001. Minimum Standard for Acceptance of Preliminary Wetland Delineations.
- U.S. Department of the Interior, Geological Survey. 1978. Hydrologic Unit Map, State of California. Geological Survey. Reston, Virginia.
- U.S. Department of the Interior, Geological Survey. 1996. "Lathrop, California" 7.5-minute Quadrangle. Geological Survey. Denver, Colorado.

## **LIST OF APPENDICES**

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Appendix A. Routine Wetland Determination Forms

Appendix B. Plant Species Observed at Data Point Locations

Appendix C. Wetland Delineation

Appendix D. Wetland Delineation Shape File (to be included with Corps submittal only)

Appendix E. Corps-Verified Wetland Map and Verification Letter (to be included in ECORP's master copy only)

**APPENDIX A**

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Routine Wetland Determination Forms

**ECORP Consulting, Inc.**  
 ENVIRONMENTAL CONSULTANTS

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop low # 66 Date: 08-15-05 Sample Point: 01N  
 Applicant/Owner: Richland Communities Field Investigator(s): S. Roger  
 County: San Joaquin State: CA Plant Community: irrigated pasture  
 Quad(s): Lathrop Section/Township/Range: 3 3 T2S R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

HYDROPHYTIC VEGETATION? Yes  No

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Tri tar</u>	<u>NYL</u>	<u>H</u>	<u>34.8</u>	5) _____	_____	_____	_____
2) <u>Agave</u>	<u>FACW</u>	<u>H</u>	<u>34.8</u>	6) _____	_____	_____	_____
3) _____	_____	_____	_____	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/2 = 50 %

Comments: \_\_\_\_\_

**HYDROLOGY**

WETLAND HYDROLOGY? Yes  No

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_  
 Comments: no 1° or 2° indicators

**SOILS**

HYDRIC SOILS? Yes  No

Series/Phase: 1b6 Grangeville fine sandy loam, partially drained <sup>0-75 slopes</sup> Drainage Class: partially drained  
 Taxonomy [Subgroup]: thermic Fluvaquentic Haploxerolls Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretion  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_  
 Inclusions [Series/Phase]: Merritt, Columbia, Della, Elbert On Hydric Soils List: Yes  No   

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>A</u>	<u>A</u>	<u>10YR 4/2</u>	<u>—</u>	<u>—</u>	<u>sandy</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Comments: \_\_\_\_\_

**DECISION**

WETLAND / WATERS DETERMINATION? Yes  No

Rationale: Does not meet any of the parameters

General comments: \_\_\_\_\_

Wetland Type: \_\_\_\_\_



**ECORP Consulting, Inc.**  
**ENVIRONMENTAL CONSULTANTS**

**ROUTINE WETLAND DELINEATION**

Project/Site: Smith Lathrop 6a-6b Date: 08-15-05 Sample Point: 02  
 Applicant/Owner: Richard Communities Field Investigator(s): S. Roger  
 County: San Joaquin State: CA Plant Community: irrigated pasture  
 Quad(s): Lathrop Section/Township/Range: S 3 T 25 R 6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

HYDROPHYTIC VEGETATION? Yes  No

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Lud pep</u>	<u>OBL</u>		<u>100</u>	5) _____			
2) _____				6) _____			
3) _____				7) _____			
4) _____				8) _____			

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/1 = 100 %

Comments: \_\_\_\_\_

**HYDROLOGY**

WETLAND HYDROLOGY? Yes  No

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: >12 (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_

Comments: \_\_\_\_\_

**SOILS**

HYDRIC SOILS? Yes  No

Series/Phase: 16b Grandville fine sandy loam, partially drained Drainage Class: 0-2b slopes partially drained  
 Taxonomy [Subgroup]: Humic Fluvaquents, Haploxerolls Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretions  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_  
 Inclusions [Series/Phase]: Merritt, Columbia, Della, Egbert On Hydric Soils List: Yes  No

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>&gt;12</u>	<u>A</u>	<u>10YR 4/1</u>	<u>-</u>	<u>-</u>	<u>sandy</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Comments: \_\_\_\_\_

**DECISION**

WETLAND / WATERS DETERMINATION? Yes  No

Rationale: Meets all three parameters

General comments: \_\_\_\_\_

Wetland Type: Stock pond



**ECORP Consulting, Inc.**  
**ENVIRONMENTAL CONSULTANTS**

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop 62 ~ 66 Date: 08-15-05 Sample Point: 03N  
 Applicant/Owner: Richard Communities Field Investigator(s): S. Roper  
 County: San Joaquin State: CA Plant Community: irrigated pasture  
 Quad(s): Lathrop Section/Township/Range: S 3 T2S R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

HYDROPHYTIC VEGETATION? Yes  No

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Agave</u>	<u>FACW</u>	<u>H</u>	<u>36.4</u>	5) _____	_____	_____	_____
2) <u>Tri tar</u>	<u>N/L</u>	<u>H</u>	<u>31.8</u>	6) _____	_____	_____	_____
3) <u>Cyn dac</u>	<u>FAC</u>	<u>H</u>	<u>31.8</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/3 = 66%

Comments: \_\_\_\_\_

**HYDROLOGY**

WETLAND HYDROLOGY? Yes  No

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_  
 Comments: no 1° or 2° indicators

**SOILS**

HYDRIC SOILS? Yes  No

Series/Phase: 196 Mantua fine sandy loam, 0-2% slopes Drainage Class: well drained  
 Taxonomy [Subgroup]: thermic Haplic Durixerolls Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chromia Colors  Concretion  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_  
 Inclusions [Series/Phase]: trahern On Hydric Soils List: Yes  No   

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
_____	<u>A</u>	<u>10YR 7/2</u>	<u>-</u>	<u>-</u>	<u>Sandy</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Comments: \_\_\_\_\_

**DECISION \***

WETLAND / WATERS DETERMINATION? Yes  No

Rationale: Does not meet 2 of the 3 parameters  
 General comments: \_\_\_\_\_  
 Wetland Type: \_\_\_\_\_



HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
Aggr ave	40	36.4
Tri wir	35	31.8
Cyn dac	35	31.8
TOTAL SUM (Σ) =	110	100%

COVER:

Vegetation	100
Bare Ground	
Rocks	
Other	
TOTAL =	100%

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
Aggr ave	36.4	36.4		
Tri wir	31.8	68.2		
Cyn dac	31.8	100		
TOTAL SUM (Σ) =	100%			

**ECORP Consulting, Inc.**  
**ENVIRONMENTAL CONSULTANTS**

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop 62 + 6b Date: 08-15-05 Sample Point: 04  
 Applicant/Owner: Richland Communities Field Investigator(s): S. Roger  
 County: San Joaquin State: CA Plant Community: irrigated pasture  
 Quad(s): Lathrop Section/Township/Range: S3 T25 R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

HYDROPHYTIC VEGETATION? Yes  No

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Cyperus</u>	<u>FAC</u>	<u>H</u>	<u>71.4</u>	5) _____	_____	_____	_____
2) <u>Eriogonum</u>	<u>FACW</u>	<u>H</u>	<u>28.6</u>	6) _____	_____	_____	_____
3) _____	_____	_____	_____	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/1 = 100 %

Comments: \_\_\_\_\_

**HYDROLOGY**

WETLAND HYDROLOGY? Yes  No

Recorded Data: Yes  No  If yes, \_\_\_\_\_

Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)

Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland

Secondary Indicators (2 or more required):

Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_

Comments: \_\_\_\_\_

**SOILS**

HYDRIC SOILS? Yes  No

Series/Phase: 1910 Matted fine sandy loam, 0-2% slopes Drainage Class: well drained

Taxonomy [Subgroup]: thermic Haplic Durixerolls Confirm Map Type: Yes  No

Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretion

High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_

Inclusions [Series/Phase]: frabern On Hydric Soils List: Yes  No

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>6</u>	<u>A</u>	<u>10YR 2.5/1</u>	<u>-</u>	<u>-</u>	<u>sandy</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Comments: \_\_\_\_\_

**DECISION**

WETLAND / WATERS DETERMINATION? Yes  No

Rationale: Meets all 3 criteria

General comments: \_\_\_\_\_

Wetland Type: Seasonal Wetland Sudd



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**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop barlob Date: 08-15-05 Sample Point: 05N  
 Applicant/Owner: Richard Communities Field Investigator(s): S. Poper  
 County: San Joaquin State: CA Plant Community: irrigated pasture  
 Quad(s): Lathrop Section/Township/Range: S3 T2S R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

HYDROPHYTIC VEGETATION? Yes  No

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Agrostis</u>	<u>FACW</u>	<u>H</u>	<u>36.4</u>	5) _____	_____	_____	_____
2) <u>Cynodon</u>	<u>FAC</u>	<u>H</u>	<u>31.8</u>	6) _____	_____	_____	_____
3) <u>Trifolium</u>	<u>M/L</u>	<u>H</u>	<u>31.8</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/3 = 66%

Comments: \_\_\_\_\_

**HYDROLOGY**

WETLAND HYDROLOGY? Yes  No

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_  
 Comments: \_\_\_\_\_

**SOILS**

HYDRIC SOILS? Yes  No

Series/Phase: <sup>M/L</sup> Montez fine sandy loam 0-2% slope Drainage Class: well drained  
 Taxonomy [Subgroup]: thermic Haplic Durixerolls Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretion  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_  
 Inclusions [Series/Phase]: trahern On Hydric Soils List: Yes  No   

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>6</u>	<u>A</u>	<u>10YR 3/2</u>	<u>-</u>	<u>-</u>	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

  
 Comments: \_\_\_\_\_

**DECISION \***

WETLAND / WATERS DETERMINATION? Yes  No

Rationale: Does not meet hydrology or soils parameters  
 General comments: \_\_\_\_\_  
 Wetland Type: \_\_\_\_\_

## HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
unk A	40	36.4
Cyn dcl	35	31.8
Tri kir	35	31.8
TOTAL SUM ( $\Sigma$ ) =	110	100%

COVER:

Vegetation \_\_\_\_\_

Bare Ground \_\_\_\_\_

Rocks \_\_\_\_\_

Other \_\_\_\_\_

TOTAL = 100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
unk A	36.4	36.4	_____	_____
Cyn dcl	31.8	68.2	_____	_____
Tri kir	31.8	100	_____	_____
TOTAL SUM ( $\Sigma$ ) =	100%			

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**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop 62+66 Date: 08-15-05 Sample Point: 06  
 Applicant/Owner: Richland Communities Field Investigator(s): S. Roper  
 County: San Joaquin State: CA Plant Community: irrigated pasture  
 Quad(s): Lathrop Section/Township/Range: 33 T2S R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

HYDROPHYTIC VEGETATION? Yes  No

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Cyn dac</u>	<u>FAC</u>	<u>H</u>	<u>58.8</u>	5) _____	_____	_____	_____
2) <u>Tri hir</u>	<u>N/L</u>	<u>H</u>	<u>23.5</u>	6) _____	_____	_____	_____
3) <u>Agc ave</u>	<u>FACW</u>	<u>H</u>	<u>17.6</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/3 = 66 %

Comments: \_\_\_\_\_

**HYDROLOGY**

WETLAND HYDROLOGY? Yes  No

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_  
 Comments: \_\_\_\_\_

**SOILS**

HYDRIC SOILS? Yes  No

Series/Phase: <sup>A<sub>1</sub></sup> Mantua fine sandy loam, 0-2% slope Drainage Class: well drained  
 Taxonomy [Subgroup]: thermic Haplic Durixerolls Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretions  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_  
 Inclusions [Series/Phase]: trahern On Hydric Soils List: Yes  No   

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>6</u>	<u>A</u>	<u>10YR 4/1</u>	<u>-</u>	<u>-</u>	<u>sandy</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

  
 Comments: \_\_\_\_\_

**DECISION**

WETLAND / WATERS DETERMINATION? Yes  No

Rationale: Meets all 3 parameters  
 General comments: \_\_\_\_\_  
 Wetland Type: seasonal wetland

## HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Agg ave	15	17.6
Cyn dac	50	58.8
Tri hir	20	23.5
<b>TOTAL SUM (<math>\Sigma</math>) =</b>	<u>85</u>	100%

<u>COVER:</u>	
Vegetation	<u>85</u>
Bare Ground	<u>15</u>
Rocks	<u>          </u>
Other	<u>          </u>
<b>TOTAL =</b>	<b>100%</b>

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Cyn dac	58.8	58.8	<u>          </u>	<u>          </u>
Tri hir	23.5	82.3	<u>          </u>	<u>          </u>
Agg ave	17.6	100	<u>          </u>	<u>          </u>
<b>TOTAL SUM (<math>\Sigma</math>) =</b>	100%			

**ECORP Consulting, Inc.**  
**ENVIRONMENTAL CONSULTANTS**

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop 6a<sup>100</sup> Date: 08-15-05 Sample Point: 07N  
 Applicant/Owner: Richland Communities Field Investigator(s): S. Roper  
 County: San Joaquin State: CA Plant Community: irrigated pasture  
 Quad(s): Lathrop Section/Township/Range: S3 T2S R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

**HYDROPHYTIC VEGETATION?** Yes  No

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Agave</u>	<u>FACW</u>	<u>H</u>	<u>33.3</u>	5) _____	_____	_____	_____
2) <u>Cyn dac</u>	<u>FAC</u>	<u>H</u>	<u>33.3</u>	6) _____	_____	_____	_____
3) <u>Tri wis</u>	<u>1/2</u>	<u>H</u>	<u>33.3</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/3 = 66 %

Comments: \_\_\_\_\_

**HYDROLOGY**

**WETLAND HYDROLOGY?** Yes  No

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_  
 Comments: no 1<sup>o</sup> or 2<sup>o</sup> indicators

**SOILS**

**HYDRIC SOILS?** Yes  No

Series/Phase: A<sup>10</sup> Mantled fine sandy loam, 0-2% slope Drainage Class: well drained  
 Taxonomy [Subgroup]: thermic Haplic Durixerolls Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretions  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_  
 Inclusions (Series/Phase): trabern On Hydric Soils List: Yes  No   

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>6</u>	<u>A</u>	<u>10YR 3/2</u>	<u>-</u>	<u>-</u>	<u>Sandy</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Comments: \_\_\_\_\_

**DECISION**

**WETLAND / WATERS DETERMINATION?** Yes  No

Rationale: Does not meet all of the parameters  
 General comments: \_\_\_\_\_  
 Wetland Type: \_\_\_\_\_



## HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
<u>Aggr sne</u>	<u>35</u>	<u>33.3</u>
<u>cyn dac</u>	<u>35</u>	<u>33.3</u>
<u>Tri hir</u>	<u>35</u>	<u>33.3</u>
TOTAL SUM (Σ) =	<u>105</u>	<u>100%</u>

COVER:

Vegetation	<u>100</u>
Bare Ground	_____
Rocks	_____
Other	_____
TOTAL =	<u>100%</u>

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
<u>Aggr sne</u>	<u>33.3</u>	<u>33.3</u>	_____	_____
<u>cyn dac</u>	<u>33.3</u>	<u>66.6</u>	_____	_____
<u>Tri hir</u>	<u>33.3</u>	<u>99.9</u>	_____	_____
TOTAL SUM (Σ) =	<u>100%</u>			

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 ENVIRONMENTAL CONSULTANTS

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop 62 + 66 Date: 08-15-05 Sample Point: 08N  
 Applicant/Owner: Richland Communities Field Investigator(s): S. Roper  
 County: San Joaquin State: CA Plant Community: grassland  
 Quad(s): Lathrop Section/Township/Range: S 3 T 23 R 6 E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

HYDROPHYTIC VEGETATION? Yes  No

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Pop fre</u>	<u>FAC+*</u>	<u>T</u>	<u>56.25</u>	5)			
2) <u>Cyn dac</u>	<u>FAC</u>	<u>H</u>	<u>18.75</u>	6)			
3) <u>Poa hor</u>	<u>FACU</u>	<u>H</u>	<u>12.5</u>	7)			
4) <u>Ad vic</u>	<u>N/L</u>	<u>H</u>	<u>12.5</u>	8)			

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/4 = 50 %

Comments: \_\_\_\_\_

**HYDROLOGY**

WETLAND HYDROLOGY? Yes  No

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_  
 Comments: no 1<sup>o</sup> or 2<sup>o</sup> indicators

**SOILS**

HYDRIC SOILS? Yes  No

Series/Phase: 166 Grangeville fine sandy loam, partially drained or 25 slope Drainage Class: partially drained  
 Taxonomy [Subgroup]: thermic Fluvaquentic Haploxerolls Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretion  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_  
 Inclusions [Series/Phase]: merritt, columbia, Dello, Egbert On Hydric Soils List: Yes  No   

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>8</u>	<u>A</u>	<u>10YR 3/3</u>	<u>-</u>	<u>-</u>	<u>sandy</u>

Comments: \_\_\_\_\_

**DECISION**

WETLAND / WATERS DETERMINATION? Yes  No

Rationale: Does not meet any of the parameters

General comments: \_\_\_\_\_

Wetland Type: \_\_\_\_\_

## HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Bro hor	10	12.5
Pop fre	45	56.25
Hol vic	10	12.5
Cyn dac	15	18.75
TOTAL SUM ( $\Sigma$ ) =	<u>80</u>	100%

<u>COVER:</u>	
Vegetation	<u>80</u>
Bare Ground	<u>20</u>
Rocks	_____
Other	_____
TOTAL =	100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Curmlative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Pop fre	56.25	56.25	_____	_____
Cyn dac	18.75	75	_____	_____
Bro hor	12.5	87.5	_____	_____
Hol vic	12.5	100	_____	_____
TOTAL SUM ( $\Sigma$ ) =	100%			

**ECORP Consulting, Inc.**  
**ENVIRONMENTAL CONSULTANTS**

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop 6a rbb Date: 12-8-05 Sample Point: Q1  
 Applicant/Owner: Richland Communities Field Investigator(s): S. Stoker  
 County: San Joaquin State: CA Plant Community: \_\_\_\_\_  
 Quad(s): Lathrop Section/Township/Range: S3 T2S R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

**HYDROPHYTIC VEGETATION? Yes  No**

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Con ar v</u>	<u>N/L</u>	<u>H</u>	<u>50</u>	5) _____	_____	_____	_____
2) <u>Cyn dac</u>	<u>FAC</u>	<u>H</u>	<u>30</u>	6) _____	_____	_____	_____
3) _____	_____	_____	_____	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/2 = 50 %

Comments: \_\_\_\_\_

**HYDROLOGY**

**WETLAND HYDROLOGY? Yes  No**

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_

Comments: no 1<sup>o</sup> or 2<sup>o</sup> indicators

**SOILS**

**HYDRIC SOILS? Yes  No**

Series/Phase: Dello clay loam, drained, 0-2% slope, overwashed Drainage Class: poorly drained  
 Taxonomy [Subgroup]: thermic Typic Psammaquents Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretion  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_  
 Inclusions [Series/Phase]: Columbia, merritt, ebert On Hydric Soils List: Yes  No

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>10</u>	<u>A</u>	<u>7.5YR 3/2</u>	<u>-</u>	<u>-</u>	<u>-</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Comments: \_\_\_\_\_

**DECISION**

**WETLAND / WATERS DETERMINATION? Yes  No**

Rationale: Does not meet any of the criteria

General comments: \_\_\_\_\_

Wetland Type: \_\_\_\_\_

## HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Con arv	25	50
Cir spe	10	20
Cyn dat	15	30
<b>TOTAL SUM (Σ) =</b>	<u>50</u>	100%

**COVER:**

Vegetation	<u>50</u>
Bare Ground	<u>50</u>
Rocks	_____
Other	_____
<b>TOTAL =</b>	<b>100%</b>

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Con arv	50	50	_____	_____
Cyn dat	30	80	_____	_____
<b>TOTAL SUM (Σ) =</b>	100%			

**ECORP Consulting, Inc.**  
**ENVIRONMENTAL CONSULTANTS**

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop Rd 560 Date: 12-8-05 Sample Point: 10N  
 Applicant/Owner: Richland Communities Field Investigator(s): S. Starker  
 County: San Joaquin State: CA Plant Community: \_\_\_\_\_  
 Quad(s): Lathrop Section/Township/Range: S3 T25 R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

**HYDROPHYTIC VEGETATION?** Yes  No

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Cyn dac</u>	<u>FAC</u>	<u>H</u>	<u>50</u>	5) _____	_____	_____	_____
2) <u>Conarv</u>	<u>H/L</u>	<u>H</u>	<u>25</u>	6) _____	_____	_____	_____
3) <u>Cir spe</u>	<u>-</u>	<u>H</u>	<u>25</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/3 = 33 %

Comments: \_\_\_\_\_

**HYDROLOGY**

**WETLAND HYDROLOGY?** Yes  No

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: - (in.) Depth to free water in pit: - (in.) Depth to saturated soil: - (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_  
 Comments: no 1<sup>o</sup> or 2<sup>o</sup> indicators

**SOILS**

**HYDRIC SOILS?** Yes  No

Series/Phase: <sup>148</sup> Dello clay loam, drained, 0-2% slope overwash Drainage Class: poorly drained  
 Taxonomy [Subgroup]: thermic Typic Psammaquents Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretion  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_  
 Inclusions [Series/Phase]: Columbia, merritt, eghert On Hydric Soils List: Yes  No   

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>10</u>	<u>A</u>	<u>7.5YR 3/2</u>	<u>-</u>	<u>-</u>	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

  
 Comments: \_\_\_\_\_

**DECISION**

**WETLAND / WATERS DETERMINATION?** Yes  No

Rationale: Does not meet any of the parameters  
 General comments: \_\_\_\_\_  
 Wetland Type: \_\_\_\_\_

## HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
Cyn dac	40	50
Con arv	20	25
Cir spe	20	25
<b>TOTAL SUM (<math>\Sigma</math>) =</b>	<u>80</u>	100%

COVER:

Vegetation	<u>80</u>
Bare Ground	<u>20</u>
Rocks	_____
Other	_____
<b>TOTAL =</b>	<b>100%</b>

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
Cyn dac	50	50	_____	_____
Con arv	25	75	_____	_____
Cir spe	25	100	_____	_____
<b>TOTAL SUM (<math>\Sigma</math>) =</b>	100%			

**APPENDIX B**

---

Plant Species Observed at Data Point Locations



**Attachment B – Dominant Plant Species at the Lathrop 6a and 6b Project Area  
December, 2004 and August 2005.**

<b>Abbr.</b>	<b>Scientific Name</b>	<b>Common Name</b>	<b>Indicator Status</b>
AGR AVE	<i>Agrostis avenacea</i>	Bentgrass	FACW
BRA spe.	<i>Brassica species</i>	Mustard	N/L
BRO HOR	<i>Bromus hordeaceus</i>	Soft brome	FACU-
CEN SOL	<i>Centaurea solstitialis</i>	Yellow star-thistle	N/L
CIR VUL	<i>Cirsium vulgare</i>	Bull thistle	FAC
CON ARV	<i>Convolvulus arvensis</i>	Morning glory	N/L
CYN DAC	<i>Cynodon dactylon</i>	Bermuda grass	FAC
ECH CRU	<i>Echinochloa crusgalli</i>	Barnyard grass	FACW
HEM PUN	<i>Hemizonia pungens</i>	Common tarweed	FAC
HOL VIR	<i>Holcarpha virgata</i>	Sticky tarweed	N/L
LUD PEP	<i>Ludwigia peploides var peploides</i>	Water primrose	OBL
LUP spe.	<i>Lupinus species</i>	Lupine	N/L
PIC ECH	<i>Picris echioides</i>	Bristly oxtongue	FAC
POP FRE	<i>Populus fremontii</i>	Fremont's cottonwood	FAC+*
QUE LOB	<i>Quercus lobata</i>	Valley oak	FACU
TRI HIR	<i>Trifolium hirtum</i>	Rose clover	N/L
TRI spe.	<i>Trifolium species</i>	Clover	N/L

**Indicator Status Codes**

**OBL** = Obligate Wetland; occur almost always (estimated probability >99%) under natural conditions in wetlands.

**FACW** = Facultative Wetland; usually occur in wetlands (estimated probability 67%-99%) under natural conditions in wetlands.

**FAC** = Facultative; equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%).

**FACU** = Facultative Upland; usually occur in non-wetlands (estimated probability 67%-99%).

**UPL** = Obligate Upland; occur almost always (estimated probability >99%) in non-wetlands in the region specified.

**N/L** = Not Listed.

**NI** = No indicator was recorded for those species for which insufficient information was available to determine a status.

**--** = May or may not occur in wetlands depending upon species.

A positive (+) sign indicates a frequency toward the higher (more frequently found in wetlands) end of the facultative categories.

A negative (-) sign indicates a frequency toward the lower (less frequently found in wetlands) end of the facultative categories.

An asterisk (\*) indicates a tentative assignment based upon limited information or conflicting review.

**APPENDIX C**

Wetland Delineation

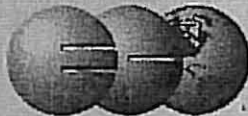


# SOUTH LATHROP 6A & 6B

## WETLAND DELINEATION

Subject to U.S. Army Corp of Engineer's verification

DATE: 08 SEPTEMBER 2005	REVISION:	PROJECT NO: 2004-096
DRAWN BY: GN/ET	SCALE: 1"=300'	FILE NAME Lathrop 6a 6b-wd2.dwg
CHECKED BY:		LAYOUT: 30X25
WETLAND VERIFICATION LETTER DATE:		



**ECORP Consulting, Inc.**  
ENVIRONMENTAL CONSULTANTS

**Headquarters**  
2260 Douglas Blvd., Suite 160  
Roseville, Ca 95661  
Ph: (916) 782-9100

**Roseville Annex**  
1876 Lead Hill Blvd. Suite 130  
Roseville, CA 95661  
Ph: (916) 782-9100

**Oakland Office**  
2100 Embarcadero, Suite 201  
Oakland, CA 94606  
Ph: (510) 434-0150

**Redlands Office**  
412 East State St.  
Redlands, CA, 92373  
Ph: (909) 307-0046

**APPENDIX D**

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Wetland Delineation Shape File (to be include with Corps submittal only)

**APPENDIX E**

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Corps-Verified Wetland Map and Verification Letter (to be included in ECORP's master  
copy only)

## **ATTACHMENT D**

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Nationwide Permits (NWPs) No. 7 and No. 39

**PENDING**

## **ATTACHMENT E**

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Initial Study and Notice of Preparation for the SLSP EIR



Initial Study and Notice of Preparation  
for the South Lathrop Specific Plan EIR

Prepared for:

City of Lathrop

Prepared by:

EIP Associates, a Division of PBS&J

September 2006

Initial Study and Notice of Preparation  
for the South Lathrop Specific Plan EIR

Prepared for:

City of Lathrop

Prepared by:

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September 2006

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**FIGURES**

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**ENVIRONMENTAL CHECKLIST**

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**I. BACKGROUND**

1. Project Title: South Lathrop Specific Plan (SLSP)
2. Lead Agency Name and Address: City of Lathrop  
390 Towne Centre Dr.  
Lathrop, CA 95330
3. Contact Person and Phone Number: Marilyn Ponton, AICP  
(209) 941-7290
4. Project Location: Unincorporated San Joaquin County, within the City of Lathrop  
Sphere of Influence; Vierra Road and Yosemite Avenue to  
the north; the Union Pacific Railroad tracks to the west, south,  
and east; and, the San Joaquin River to the southwest
5. Project Sponsors' Name and Address: Richland Planned Communities, Inc.  
Clifton Taylor, Senior Project Manager  
2220 Douglas Boulevard, Suite 290  
Roseville, CA 95661  
  
South Lathrop LLC/TCN Properties  
Tom Luckey  
P.O. Box 317  
Lathrop, CA 95330  
  
South Lathrop LLC/Lazares Companies  
David Lazares  
634 N. Santa Cruz Avenue, Suite 100  
Los Gatos, CA 95030
6. General Plan Designation (San Joaquin County): Resource Conservation (OS/RC),  
Limited Industrial (I/L),  
Agricultural-Urban Reserve (A/UR),  
General Commercial (C/G)
7. Zoning (San Joaquin County): General Agriculture (AG-40),  
Warehouse Industrial (I-W),  
Agriculture-Urban Reserve (AU-20),  
General Commercial (C-G)

## II. PROJECT DESCRIPTION

### Introduction

The South Lathrop Specific Plan (SLSP) project consists of an application to annex approximately 689 acres of land in unincorporated San Joaquin County into the City of Lathrop and the approval of the appropriate entitlements to plan for the ultimate development of that area. Approvals requested from the City of Lathrop include a Specific Plan, General Plan Amendment, Pre-zoning, Design Guidelines, and related entitlements required to establish land uses, circulation, utilities, services, design requirements and other criteria for the development of the project area. Annexation of the project area to the City of Lathrop would require approval of the San Joaquin Local Agency Formation Commission (LAFCO). The SLSP would be developed with residential, office, commercial, industrial, parks and open space, school, and transit uses.

Below is a detailed description of the project as currently proposed. This level of detail is provided so that those commenting on the Initial Study and Notice of Preparation can make specific comments. It should be understood, though, that the project is subject to change as it moves through the CEQA process, planning process, and other permit processes. In fact, one of the primary purposes of the CEQA process is to bring to light ways in which a project can be changed to reduce its environmental impacts or otherwise improve the project. In addition, the City of Lathrop will subject the project to a rigorous process to ensure that it is consistent with the City's General Plan and zoning requirements. Because of the dynamic nature of the process, the project ultimately considered by the City and other responsible agencies may differ from the detailed project description set forth below.

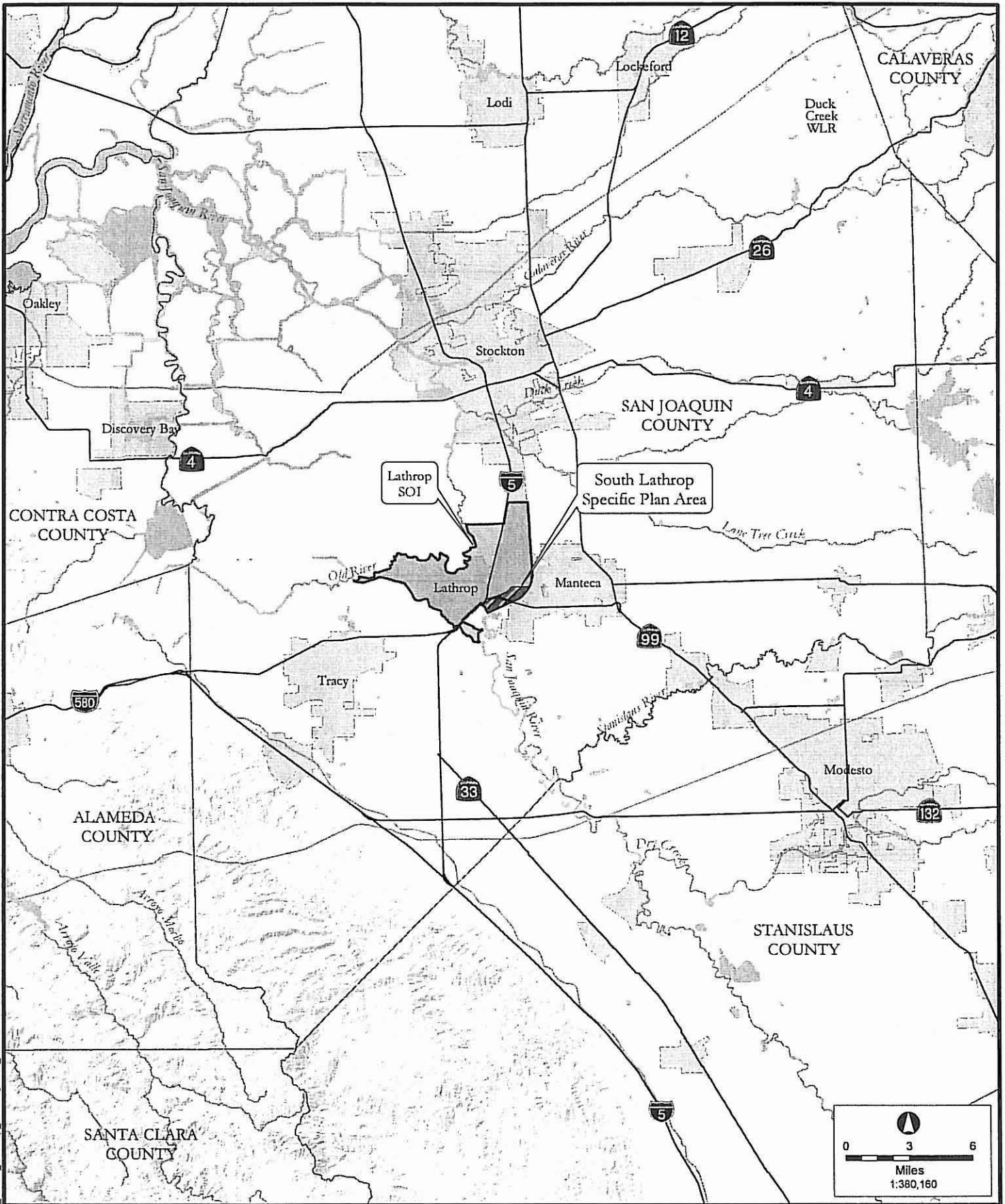
### Project Location

The South Lathrop Specific Plan (SLSP) area encompasses approximately 689 acres immediately south and west of the existing corporate limits of the City of Lathrop (see Figure 1). The proposed project is within the City's Sphere of Influence and General Plan area, and is identified as the southern portion of the City's Sub-Plan Area 1. The specific plan area is situated south of Vierra Road and Yosemite Avenue, between the two Union Pacific Railroad (UPRR) tracks that pass through southern Lathrop, and east of the San Joaquin River and Interstate 5 (I-5) (see Figure 2). Project approval and implementation would require annexation of the specific plan area into the City from San Joaquin County, and will complete the City's planning vision in the southeastern area of the City.

### Existing Conditions

The current uses in the SLSP area and adjacent lands are predominantly a mix of agricultural activities, interspersed with rural residential and industrial uses. No lands are under Williamson Act contracts. Approximately half of the SLSP area is under the control of two entities, being Richland Planned Communities, Inc. and South Lathrop LLC.

The City of Lathrop is a city of villages. As the City has grown, it has had to overcome natural and manmade barriers such as freeways, railroads, and the San Joaquin River to become one unified City. Due to these constraints, each separate sub-area has become a complete village unto itself, providing residential neighborhoods, parks, schools, and commercial uses. The incorporation of pedestrian, bicycle, and vehicular circulation networks, open space corridors, and significant unique destinations including town centers, City Hall, and the Lathrop-Manteca Altamont Commuter Express (ACE) station provide shared and unifying elements that give identity to each village while



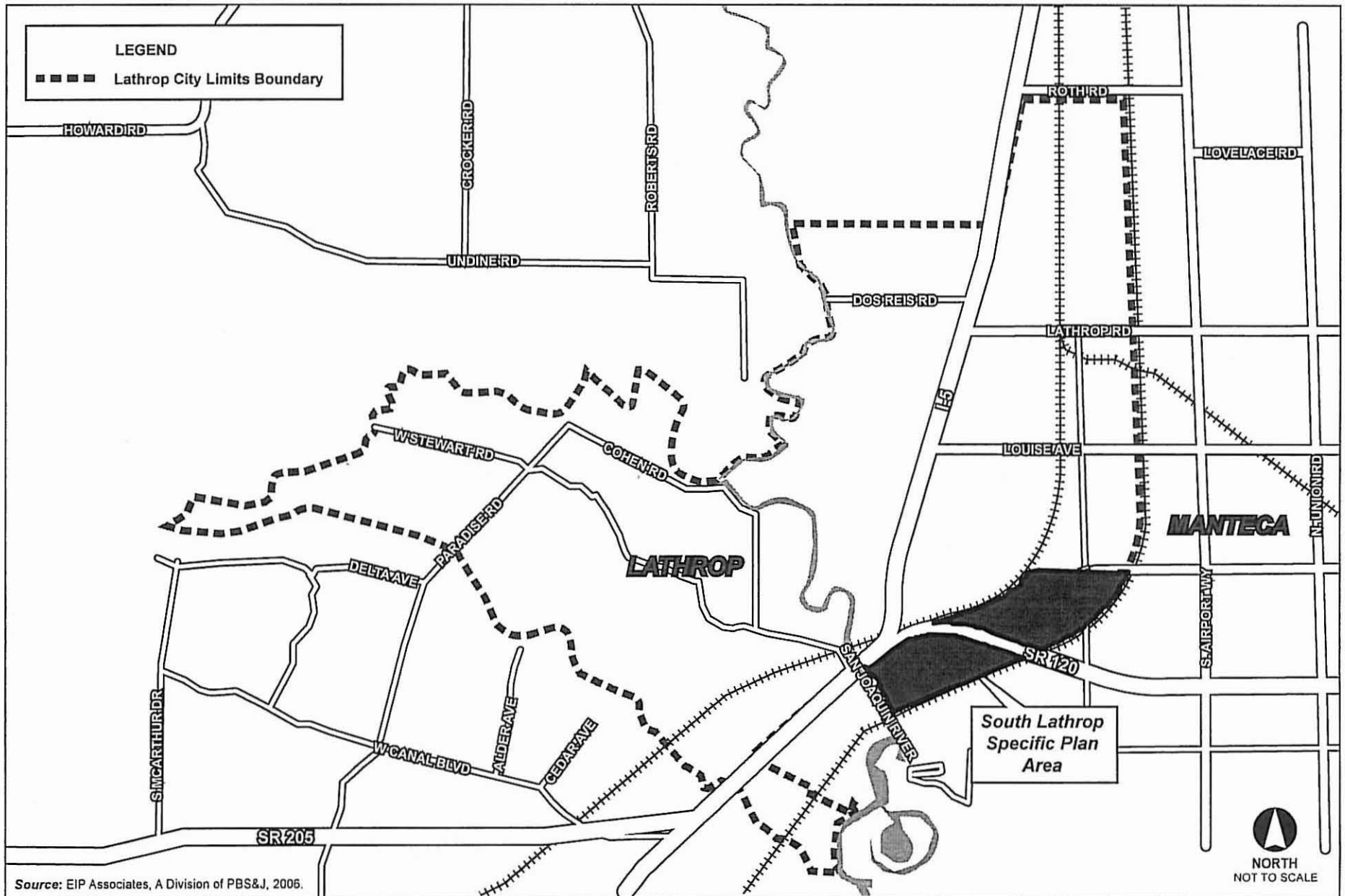
N:\GIS\Projects\DS1235\_South\_Lathrop\_SPA\Regional\_Location.mxd



**FIGURE 1**  
**Regional Location**

D51235.00

South Lathrop Specific Plan EIR



Source: EIP Associates, A Division of PBS&J, 2006.

FIGURE 2  
Project Site Location



A Division of PBS&J

D51235.00

South Lathrop Specific Plan EIR



also linking them together to create a shared sense of community for the City. Within the SLSP area the portion above State Route 120 (SR 120) is referred to as the North Village, while that area below SR 120 is the South Village; together they comprise the South Lathrop Specific Plan area.

The SLSP is within the City of Lathrop Sphere of Influence, but outside of the city limits. The land is designated in the San Joaquin County General Plan as Resource Conservation (OS/RC), Limited Industrial (I/L), Agricultural-Urban Reserve (A/UR), and General Commercial (C/G) and zoned in the San Joaquin County Zoning Ordinance as General Agriculture (AG-40), Warehouse Industrial (I-W), Agriculture-Urban Reserve (AU-20), and General Commercial (C-G).

The project site is one of the last pockets of unincorporated San Joaquin County within the vicinity, as the project area is surrounded by built or approved projects that are within the Cities of Lathrop and Manteca. The General Plans of the County and the City of Manteca illustrate significant and extensive urban development occurring along the I-5 and SR 120 routes. Lands to the south and east, within the County of San Joaquin and the City of Manteca, are undergoing transition from primarily agricultural activities to residential and commercial development, with many neighborhoods built, under construction, or in the planning stages.

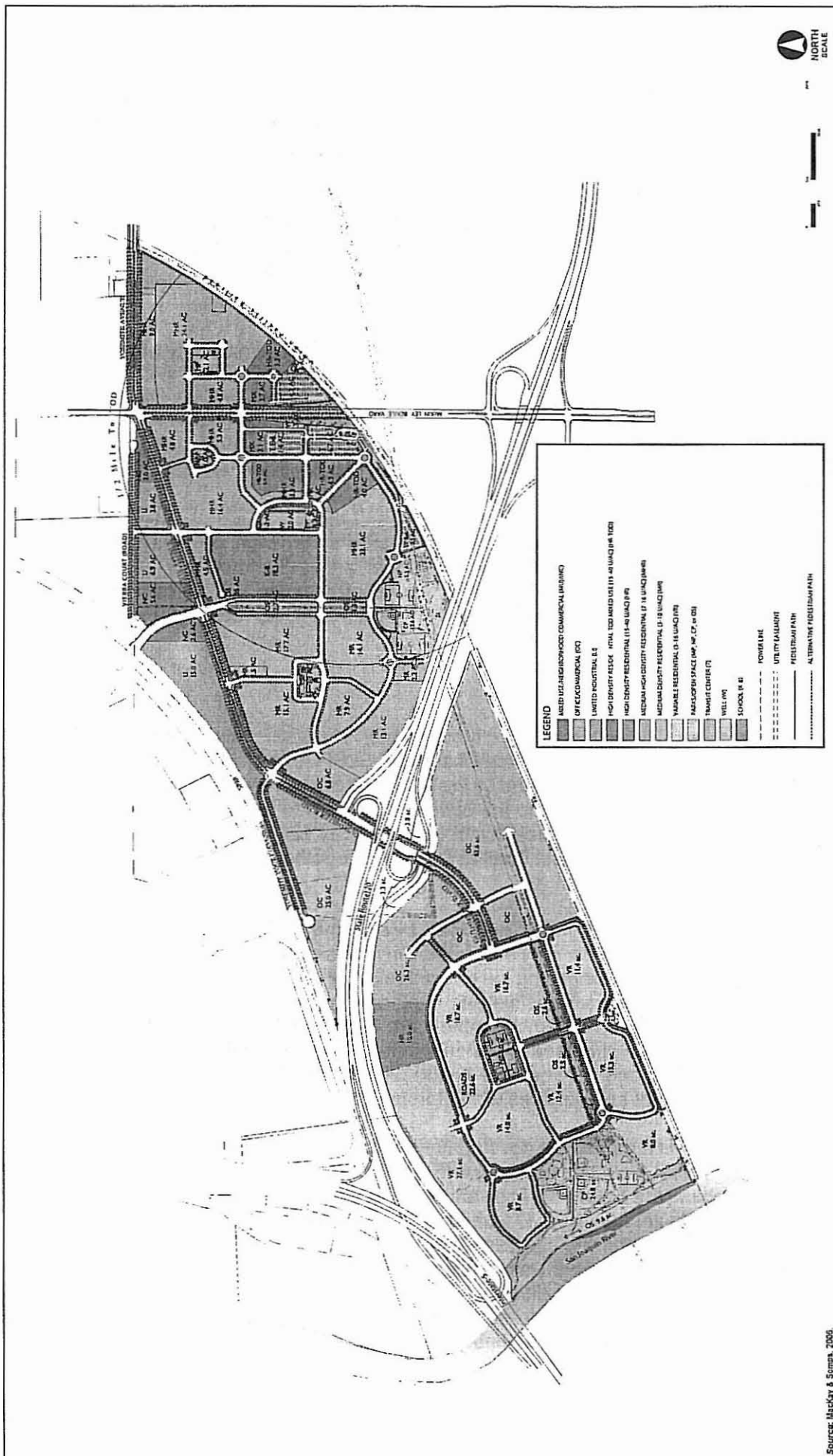
Existing local vehicular access to and through the SLSP area is from McKinley Boulevard, Yosemite Avenue, Guthmiller Road, and D'Arcy Road. Regional access is currently provided by the Yosemite/Guthmiller and SR 120 interchange. A future interchange will be constructed where McKinley Boulevard meets SR 120; a Project Study Report (PSR) has recently been approved for this interchange.

### **The Land Plan**

As mentioned above, the City of Lathrop is a city of villages. The SLSP would continue this concept by creating a North Village and a South Village within the SLSP Area. The North Village would be the northern portion of the project site bound by the UPRR tracks to the west, Yosemite Avenue and Vierra Road to the north, UPRR tracks to the east, and SR 120 to the south. The South Village would be the southern portion of the project site bound by SR 120 to the north and east, UPRR tracks to the south, and the San Joaquin River to the west. Together, the North and South Villages form the SLSP Area.

The SLSP area would follow smart growth principles by allowing for a variety of housing types and densities in compact neighborhoods; providing homes in mid- and higher densities to allow for a mix of family types and affordability; proposing the relocation of the Lathrop-Manteca ACE train station within the project site to provide accessible and integrated transit and allowing a portion of the project to be transit-oriented; creating walkable and livable streets and neighborhoods with integrated schools, parks, and open space systems that support walking and bicycling as a viable alternative to driving within and between the South Lathrop villages; and providing convenient opportunities for employment and services within the area for the villages' residents.

The SLSP land use plan is a mixed use development consisting of residential, commercial, office, mixed use, industrial, transit center, school, park, open space and trails, and well sites shared between the two villages (see Figure 3). The various residential designations comprise the largest proportion of the project site, totaling 3,171 units on approximately 323 acres. The density of the residential neighborhoods generally increases the closer they are to the proposed relocated Lathrop-Manteca ACE transit station. Parks, a school, and open spaces would be provided for recreational and educational opportunities. Office, retail, and industrial uses, encompassing approximately 27 acres of limited industrial and approximately 122 acres of office/commercial uses would be located along the regional and primary local street systems.



Sources: Mackey & Somph, 2006.

**FIGURE 3**  
**Land Use Plan**

D51235.P0



A Division of **PBSJ**

Pedestrian and bicycle trails would be a significant component of the plan. They are planned to be extended under I-5 at the levee, SR 120 at the Yosemite/Guthmiller interchange, and adjacent to the eastern UPRR tracks under SR 120 to connect the villages within the SLSP area together, and to link the villages with the rest of the City.

High voltage power lines run through a portion of the site. Residential and school uses would be appropriately set back from the power line easements. Community and neighborhood parks, open space, and commercial, and transit station area parking would occur under the lines with appropriate separations between buildings and other facilities with the power lines. Storm water detention basins could be placed within community parks and within open space areas including power line easements.

### The Transit Center

The Lathrop-Manteca ACE station is currently located at the northwest corner of the intersection of Yosemite Avenue and the UPRR tracks, north of the proposed project site. The existing location of the Lathrop-Manteca ACE station is constrained by multiple factors including lack of expansion room for parking and services, difficult access from major roads, distance from freeway access, and surrounding low intensity uses such as warehousing, light industry, rural residential homes which do not provide significant ridership, and the platform on the main UPRR line. The SLSP proposes to relocate the existing station along McKinley Boulevard at the southeast portion of the North Village. With the proposed relocation of the Lathrop-Manteca ACE transit station, it is possible to create transit-oriented neighborhoods around the station, while providing for expanded station facilities to address increasing city and regional ridership demands.

The station would be designed to at least double the amount of parking to 1,000 stalls, with another 500 stalls possible by expanding the parking lots westward onto excess open space lands, or by possibly locating some facilities south of the railway tracks in Manteca. A rail line siding would be incorporated to allow the passenger trains to pull off the main line to decrease potential conflicts with freight train activity. Parking would be distributed into smaller parking lots to limit the impact of large paved areas and decrease the amount of vehicular activity within one portion of the site. When McKinley Boulevard is elevated in the future to span the railroad track, pedestrian access would be provided underneath to allow riders to park on the eastern side of McKinley Boulevard and walk a short distance to the platform on the west side. Multi-modal access would be supported by drop-off areas, off-street regional bus stops, and bicycle parking. The street networks in the plan area, and particularly leading to the station, would have enhanced pedestrian and bicycle amenities to facilitate multi-modal connectivity to the station from the surrounding neighborhoods and the city.

### Residential Neighborhoods

A wide range of residential designations and densities are defined within the SLSP resulting in approximately 3,171 total units, with 2,029 units in the North Village and 1,142 units in the South Village. Higher density neighborhoods (including High Density Residential Transit-Oriented Development (HD-TOD), Medium High Density Residential (MHR), and Mixed Use (MU)) would surround the relocated Lathrop-Manteca ACE station with density decreasing as neighborhoods extend away from the station. This pattern of density is an important element of what is referred to as transit-oriented development. This pattern locates more residents within close walking distance of the station. The mixed use designation permits the combining of residential and commercial uses either vertically or horizontally. Mixed use areas are located close to the station on the main vehicular corridors to provide for visibility to retail uses as well as convenience to surrounding residents. The HR-TOD areas would also have the provision for some local retail that can serve local residents as well as the pedestrian activity generated by the station.

The Medium Density Residential (MR) designation provides additional ranges of housing types and would be used to provide for the stepping down of density from the Lathrop-Manteca ACE station and other more regionally accessible areas.

The Variable Density Residential (VR) category generally encompasses the range of low and medium densities from the City's General Plan. This approach is intended to provide flexibility in the planning and development of the neighborhoods. The residential neighborhoods would offer a wide range of housing types, ranging from single family detached to townhouses and flats. The majority of the medium and variable density residential designations are anticipated to be detached single family neighborhoods comprised of products such as small lot conventional, courtyard, motor court, and alley loaded homes. The High Density (HD) designation provides a concentration of residents near the non-residential uses, and within easy access of the freeway. Attached multi-family housing including brownstones, townhomes, condominiums, and apartments are anticipated, but not limited to, the primary product types.

### Commercial Opportunities

A range of employment opportunities and services are planned for within the South Lathrop villages. Office, regional and neighborhood retail, mixed use, flex/research and development, and industrial uses provide a balanced commercial component within the SLSP and complement other commercial areas of the city. Up to approximately 231,739 square feet of industrial uses on 27 acres and approximately 1.7 million square feet of commercial office and retail on 132 acres are permitted within the SLSP project.

Regionally-oriented office and commercial uses are anticipated to not only be convenient to City residents, but also draw from surrounding cities to help alleviate business and employment commutes to distant job centers. These uses are located on sites with high visibility and accessibility to local and regional users, while being convenient to the residents of the South Lathrop villages. Mixed use and neighborhood commercial sites are designated at locations that can draw from high concentrations of local residents and are placed at significant intersections for visibility and easy access. Industrial sites are maintained to allow existing and new users to locate, while tying into the adjacent industrial base to the north and west.

### Parks and Open Spaces

A hierarchy of parks and open spaces are integrated into the community to provide a range of recreational opportunities and facilities within easy access to residents. Residential design guidelines encourage the fronting of homes onto parks and other open spaces to provide a shared sense of community and security.

The plan provides approximately 37 acres of community parks and a little more than 18 acres of neighborhood parks/mini parks. Storm water detention basins are planned to be located within community parks and/or open space areas. Basins located within parks would be designed to allow dual use of ball fields or general play within them. The basins would only detain water during significant storm events and would be designed to limit the time water would remain within the basin so that there would be minimal impacts to the fields.

Community parks are focused towards group activities such as team ball fields and picnic areas that would attract larger groups of users from the South Lathrop villages. Facilities include adult and youth sized baseball, softball, and soccer fields, as well as covered group picnic areas, court games

(volleyball, basketball, and/or tennis), tot and child play areas, restroom and concession buildings, and on-site parking lots, as well as adjacent on-street parking.

Neighborhood parks provide facilities for the residents of South Lathrop and are more localized in scope. Youth ball fields, tot and child play areas, free play/open lawn areas, court games (volleyball, basketball, and/or tennis) as well as covered group picnic and seating areas would be provided. Neighborhood parks vary in size from three to five acres.

Mini parks are programmed to provide facilities for the surrounding residents, and as such, are distributed throughout the project to serve as many residents as possible. Tot and child play areas, free play/open lawn areas, court games (volleyball, basketball, and/or tennis) as well as covered picnic/seating areas would be provided. Mini parks vary in size and are less than three acres. They are used, in combination with the other parks, to provide public parks within a convenient 1/8-mile or 660-foot distance to as many residents as feasible. By doing this, approximately 95 percent of the North Village is within walking distance of a park. Having a network of smaller mini parks in a well-connected community helps enhance park usage and value to the community.

Some parks, predominantly community parks, would have high voltage power lines running through them. Parks have been designed to minimize safety impacts and locate more sensitive uses away from power lines. The design of the SLSP area does not locate play facilities within the easements. Only trails, basins, parking, and similar uses occur within the Pacific Gas and Electric (PG&E) easements.

In addition to parks, a variety of open spaces are provided in the specific plan area. The open spaces provide connections between parks, buffering along the San Joaquin River and certain railroad tracks, enable trail connections, and improve pedestrian and bicycling access to the proposed relocated Lathrop-Manteca ACE station. In all, approximately 38 acres of open space and river areas are provided. The City's river park corridor and trail system established within Mossdale Village and Central Lathrop would be continued within the SLSP's South Village, with direct connection occurring underneath I-5 as part of Reclamation District 17's (RD 17) maintenance road. A minimum 100-foot width of open space would be provided from the levee's toe of slope before development can occur. Another open space and trail system is planned along portions of the southern UPRR tracks to allow the North and South Village residents to directly access areas on either side of SR 120 via either Yosemite/Guthmiller or at the eastern edge via a new pedestrian/bicycle undercrossing of SR 120 paralleling the railroad tracks.

#### K-8 School

One K-8 school would be shared between the North and South Villages as determined by using the student yield rates established and approved by the Manteca Unified School District. High school students would attend Lathrop High School located in Central Lathrop as not enough students would be generated to warrant a new high school within the SLSP area. The K-8 school site would be approximately 18 net acres and would serve up to 1,200 students. The school site would be located in an area that allows a high level of access by walking and bicycling from the transit oriented areas of the North Village and with good road and trail access from the South Village. Students generated in the South Village could also be bussed to the K-8 school in the North Village. The site is also the least constrained by surrounding elements and uses.

#### Street and Trail Networks

The project is planned to provide an interconnected and pedestrian oriented street and trail network to link the neighborhoods and villages together and to tie into surrounding local and regional systems.

The project area is divided by SR 120. Improvements would be made to the SR 120/Yosemite-Guthmiller interchange to allow enhanced pedestrian and bicycle connections while meeting Caltrans standards for vehicular safety. Apart from the proposed project, a new interchange at SR 120/McKinley has been approved and is anticipated to be completed by 2010. These interchanges would provide for improved accessibility and safety to and from the project area.

Regional streets located within the site are Yosemite Avenue/Guthmiller Road and McKinley Boulevard. These routes provide the backbone structure for the community by providing a transition from regional routes to local access of neighborhoods and commercial facilities. The use of a boulevard design on Guthmiller Road is anticipated to provide emergency access for the South Village. Secondary access could also be provided to the west, under the I-5/SR 120 braid along the levee, using RD 17's maintenance road.

Local neighborhood streets would be interconnected and designed to create walkable and livable neighborhoods and commercial districts. Separated sidewalks would be provided in residential neighborhoods, while widened sidewalks and tree grates are generally anticipated in commercial and mixed use areas.

Walking and bicycling trails are designed into the villages' parks, open spaces, and major street rights-of-way to provide an interconnected network. Bike lanes are incorporated into major residential streets and other primary streets. Bike parking would be required at commercial sites and would be provided at the relocated Lathrop-Manteca ACE train station. As noted in the park and open space section, multi-use trails would be located within the river front park system, and along portions of the southern rail line, serving to connect both villages together for convenient access for all to the river, parks, and Lathrop-Manteca ACE station. Seating, par courses, and other facilities could be located along these trail systems.

Traffic calming features would be placed within the villages to encourage slower vehicle speeds while enhancing the pedestrian and bicycle experience. Elements such as narrower streets, roundabouts, and corner bulb outs at pedestrian crossings would be incorporated into the design of the village's streets.

### Infrastructure

The SLSP area has been designed to meet city standards and work with the City's urban water master plans. The project could utilize wastewater treatment plant #1 (WRP-1) and/or wastewater treatment plant #2 (WRP-2), located immediately north of the project site. The potential also exists to pipe some of the sewage to Manteca as part of the sewer agreement between the Cities of Lathrop and Manteca. Recycled water piped to WRP-1 or WRP-2 for treatment could possibly be piped to spray fields located north of the City of Lathrop's Sub-Plan Area 2 or southeast of the project site, on the Mainstone property located in San Joaquin County.

The development of residential, commercial, office, and other urban uses would result in the increase of impervious surfaces, thereby increasing runoff. As a result, adequate storm water facilities would be added to the project site, including an outfall placed in the southwest corner of the project site that would drain to the San Joaquin River. Storm water detention basins are planned to be located within community parks and/or open space areas. Basins located within parks would be designed to allow dual use of ball fields or general play within them. The basins would only detain water during significant storm events and would be designed to limit the time water remains within the basin so that there would be minimal impacts to the fields.

The City relies on groundwater and surface water supplied by South San Joaquin Irrigation District (SSJID) for its water supply. The City's groundwater supply is from the Central Valley aquifer system. There is currently one operating well on the SLSP site, Well 21, and it is located in the North Village. The proposed SLSP includes two groundwater well sites (Well 21 and Well 22) that would be used towards meeting projected SLSP water demand as well as demand in other areas within the City. As many as three future well sites have been identified in the SLSP area by the City as part of the 2004 Update to the Water Master Plan to meet city-wide demand. Two other wells have been discussed for placement in the SLSP area but have not been located. Proposed SLSP land uses would be designated to allow for the installation of future well sites identified in the 2004 Water Master Plan Update. Due to the existing rural nature of the site, a water conveyance system would be installed on the site. The project is reliant upon phase 2 of the SSJID project. The SSJID pipeline runs along the northern edge of the SLSP area, in the Yosemite Avenue/Mierra Road alignment, and then parallels SR 120, crossing under I-5 and finally paralleling I-5 towards the City of Tracy.

As part of the Manteca-Lathrop Fire Department's master plan, a fire station is planned to be sited on Yosemite Avenue within the SLSP area. The Fire Department has stated that the entire SLSP area is within the department's service time boundary.

### **Project Objectives**

The following objectives would guide development of the South Lathrop Specific Plan.

1. A New Vision for South Lathrop – Establish a new vision for South Lathrop supporting the development of a mixed use community that capitalizes on the site's locational attributes, reflects evolving innovations in land use planning, and takes advantage of market opportunities to maximize the Plan Area's highest and best use.
2. Balanced Mix of Land Uses – Provide a balanced mix of residential, commercial, office, mixed use, transit center, limited industrial, school, park, and open space uses that afford Plan Area residents the opportunity to live, work, shop, and recreate within their community.
3. Smart Growth Principles – Support smart growth principles by allowing for a variety of housing types and densities; compact and walkable neighborhoods; mixed-use transit-oriented development; convenient employment and services; livable streets; and integrated schools, parks, and open spaces.
4. Relocated Lathrop-Manteca ACE Station – Provide a site for potential relocation of the Lathrop-Manteca ACE station that allows for improved access and visibility – both locally and regionally, multi-modal opportunities, improved interaction with freight rail traffic, adjacent TOD opportunities, and space for expansion to address potential increased ridership demands over time.
5. Transit Oriented Development – Organize land uses in the vicinity of the relocated Lathrop-Manteca ACE station to incorporate transit oriented development concepts including mixed uses, multimodal accessibility, and overall higher residential densities that contribute to a high-quality transit supportive environment around the commute rail station.
6. Livable Neighborhoods – Create livable neighborhoods organized around gathering points such as parks and open spaces, with interconnected walkable streetscapes and homes that engage their living spaces with the public realm.
7. Housing Choice and Diversity – Provide flexibility for the development of a wide variety of mid- and high-density housing types with variable densities and lot sizes that meet the

differing needs of households in the marketplace and further expand the diversity of housing choices available in the City.

8. Office and Commercial Core – Establish a core of regional and local serving business and commercial uses that capitalize upon the prime visibility and access provided by SR 120, diversify Lathrop’s employment base, reduce commutes to outside employment and service centers, and augment City sales tax revenues.
9. Non-Residential Transition – Establish a band of limited industrial and neighborhood commercial uses along the northern and northwestern edges of the Plan Area forming a buffer between the SLSP’s residential neighborhoods and existing/planned industrial areas to the north, and providing additional employment and service opportunities.
10. Parks and Recreation – Incorporate park lands that support the SLSP’s active and passive recreational needs, sited to maximize walking and bicycling access by residents, promote park usage, and enhance neighborhood identity.
11. Interconnected Open Space and Trails – Create an interconnected network of linear open space corridors incorporating a system of multi-use pedestrian and bicycle paths that provide connectivity between Plan Area uses, access between the SLSP villages, and linkages to existing and planned trails elsewhere in the City.
12. San Joaquin River – Provide open space along the San Joaquin River frontage allowing access by Plan Area residents, connectivity to the larger river park corridor and trail system established within Mossdale Village and Central Lathrop, and enhancing the City’s interface with the River.
13. School Site – Establish a site for construction of a K-8 school to serve the SLSP, sited in consideration of Plan Area constraints and to facilitate access by residents.
14. Transportation Choices – Provide an efficient circulation system that satisfies public safety access standards and maximizes opportunities to all forms of mobility including walking, biking, and public transit, as alternatives to the car.
15. Public Facilities and Services – Provide infrastructure and services that meet City standards, integrate with existing and planned facilities and connections, and do not diminish services to existing residents of the City.
16. Phasing – Establish a logical phasing plan designed to ensure that each phase of development includes all necessary public improvements required to meet City standards.
17. Environmental Mitigation – Create a “self mitigating” plan that, to the extent practical, incorporates environmental mitigation measures into project design.
18. Economic Contribution – Strengthen the City’s economic base through Plan Area job creation; development related investment; disposable income from future SLSP residents and employees; and increased property, sales, and transient occupancy taxes.

### **Required Approvals**

#### **City of Lathrop**

The Lathrop City Council would have to certify the Environmental Impact Report and approve the following entitlements in order to implement the proposed project:

- General Plan Amendment to change the land use designation from Resource Conservation (OS/RC), Limited Industrial (I/L), Agricultural-Urban Reserve (A/UR), and General Commercial (C/G) to Variable Density Residential (VR), Medium Density Residential (MR), Medium High Density Residential (MHR), High Density Residential (HR), High Density Residential-TOD



- (HR-TOD), Mixed Use (MU), Transit (T), Neighborhood Commercial (NC), Office/Commercial (OC), Limited Industrial (LI), Mini Park (MP), Neighborhood Park (NP), Community Park (CP), Open Space (OS), and K-8 School (K-8);
- Approve a Specific Plan that identifies land uses, infrastructure improvements and project approval structure for the project;
  - Zoning Ordinance Amendment and prezone land from General Agriculture (AG-40), Warehouse Industrial (I-W), Agriculture-Urban Reserve (AU-20), and General Commercial (C-G) to Variable Density Residential (VR/DS-SL), Medium Density Residential (MR/DS-SL); Medium High Density Residential (MHR/DS-SL), High Density Residential (HR/DS-SL), High Density Residential – Transit-Oriented Development (HR-TOD/DS-SL), Mixed Use (MU/DS-SL), Transit (TC/DS-SL) with underlying zone of Mixed Use (MU/DS-SL), Neighborhood Commercial (NC/DS-SL), Office/Commercial (OC/DS-SL), Limited Industrial (LI/DS-SL), Neighborhood Mini Park (NP/DS-SL) with an underlying zone of various residential zones depending on location, Community Park (CP/DS-SL) with an underlying zone of various residential zones depending on location, Open Space (OS/DS-SL), and Public (P/DS-SL) with underlying zone of Medium High Density Residential (MHR/DS-SL).
  - Amendments to the Water, Wastewater and Recycled Water Master Plans;
  - Approve a Project Area Drainage Plan;
  - Bicycle Master Plan Amendment;
  - Approve Design Guidelines to provide a cohesive approach for site, architectural, landscaping and lighting design, and signage;
  - Approve an Annexation Application of approximately 689 acres of unincorporated San Joaquin County into the City of Lathrop city limits;
  - Approve a Large Lot Tentative Map;
  - Approve a Small Lot Tentative Map; and
  - Approve Development Agreements with the landowners.

### Other Agencies

The EIR prepared for the SLSP would be used by Responsible Agencies and Trustee Agencies that may have some approval authority over the SLSP. The project applicant would obtain all permits, as required by law. The following agencies, which may be considered Responsible Agencies, have discretionary authority over approval of certain project elements, or alternatively, may serve in a ministerial capacity:

- San Joaquin Local Agency Formation Commission, for approval for annexation of the 689-acre proposed project site into the City of Lathrop;
- U.S. Army Corps of Engineers for Section 404 Individual Permits;
- U.S. Fish and Wildlife Service, for federal Endangered Species Act consultation and issuance of take authorization;
- National Oceanic and Atmospheric Administration – National Marine Fisheries Service, for federal Endangered Species Act consultation and issuance of take authorization;
- California Department of Transportation (Caltrans) District 10 for encroachment permits on SR 120;
- California Department of Water Resources (State Reclamation Board), for encroachment permit to work on or adjacent to levees;
- California State Lands Commission, for a lease agreement/permit for proposed stormwater outfall in San Joaquin River;
- California Department of Fish and Game, for potential California Endangered Species Act consultation and issuance of take authorization (Fish and Game Code §2081);

- California Department of Education, for approval of new school site for which state funding is sought;
- California Department of Health Services, for permit for land application of recycled water;
- State Reclamation Board;
- California Public Utilities Commission;
- San Joaquin Council of Governments; for roadway encroachment permits;
- Regional Water Quality Control Board – Central Valley Region 5, for permits related to the control of nonpoint source runoff, pursuant to the National Pollutant Discharge Elimination System requirements (i.e., Section 401 Water Quality Certification) and recycled water permit;
- Altamont Commuter Express, for approval of Lathrop-Manteca ACE station relocation;
- Reclamation District 17, for an encroachment permit for the stormdrainage outfall into the San Joaquin River and associated levee issues;
- City of Lathrop, for annexation into the City; and
- Manteca Unified School District, for approval of a new school within the District's boundaries.

### **Other Ministerial Approvals**

The SLSP may require the following additional approvals from the City of Lathrop or other regional agencies: building permits, encroachment permits, improvement plan approvals, design review approvals, Specific Development Plan and Development Permits, and other actions related to the proposed development of the residential portion of the project.

### **Schedule**

Development of the SLSP would begin in 2009 and development of the North and South Villages would occur simultaneously. For fiscal years ending 2009, 2010, and 2011, only residential units would be constructed. By the end of fiscal year 2012, approximately 77 percent of the total residential and 25 percent of the nonresidential (office/commercial, retail, and limited industrial) uses would be built. All of the residential uses would be built out by 2013. Both the North and South Villages would be completely built out by end of fiscal year 2017.

### **Public Agency Review**

This document will be circulated for public and agency review from September 25, 2006 to October 24, 2006. Comments on this document should be submitted by 5:00 p.m. on October 24, 2006 to:

Marilyn Ponton, AICP  
Community Development Department  
390 Towne Center Drive  
Lathrop, CA 95330

Copies of this document can be obtained at the above address.

The City of Lathrop will hold a Scoping Meeting on October 12, 2006 from 5:00 p.m. to 8:00 p.m. with a presentation at 5:30 p.m. in the Council Chambers at City Hall, located at 390 Towne Center Drive in Lathrop. This is an opportunity for agencies and interested members of the public to provide comments and/or ask questions about the scope and content of the environmental review. Staff and/or consultants will provide a brief overview of the proposed project and the environmental review process. The main purpose of the Scoping Meeting is to take comments from agencies and the public about what issues should be addressed in the EIR.

**III. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED**

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- Aesthetics
- Agriculture Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology/Soils
- Hazards & Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning
- Mineral Resources
- Noise
- Population/Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities/Service Systems
- Mandatory Findings of Significance

**IV. DETERMINATION (To be completed by the Lead Agency)**

On the basis of this initial evaluation:

- I find that the Proposed Project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- I find that the Proposed Project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR OR **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Mary Patton  
Signature

Sept 21, 2006  
Date

Marilyn Sonton  
Printed Name

\_\_\_\_\_  
For

## V. ENVIRONMENTAL CHECKLIST

### Introduction

The following Checklist contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue identified in the checklist. Included in each discussion are project-specific mitigation measures recommended as appropriate as part of the proposed project.

For this checklist, the following designations are used:

**Potentially Significant Impact:** An impact that could be significant, and for which no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared.

**Potentially Significant With Mitigation Incorporated:** An impact that requires mitigation to reduce the impact to a less-than significant level.

**Less-Than-Significant Impact:** Any impact that would not be considered significant under CEQA relative to existing standards.

**No Impact:** The project would not have any impact.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
<b>1. AESTHETICS.</b> <i>Would the project:</i>				
a. Have a substantial adverse effect on a scenic vista?	■	□	□	□
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	□	□	□	■
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	■	□	□	□
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	■	□	□	□

**Discussion**

- a, c. Development of the SLSP would convert primarily agricultural lands to more intensive uses such as residential, commercial, office, and industrial. The construction of buildings on the site could disrupt background views of Mt. Diablo and the Coast Range from areas east of the project site. The SLSP could also potentially degrade the existing visual character of the site through conversion of the site from rural uses to urban uses. Although City design standards could minimize visual effects of the project, the impact is considered **potentially significant** and it will be addressed in the EIR.
  
- b. The SLSP is in San Joaquin County, near the I-5 and SR 120 interchange. The project site has scattered ornamental trees, orchards, actively farmed agricultural row crop fields, trucking facilities, and housing that may or may not be of historical significance. There is only one officially designated scenic highway in San Joaquin County, Interstate 580, which is in the southwestern portion of the county. There are no designated or eligible scenic highways near the project site.<sup>1</sup> Therefore, development of the SLSP would not damage scenic resources associated with a State scenic highway, and there would be **no impact** and it will not be discussed in the EIR.
  
- d. The SLSP would develop mostly agricultural lands with more intensive uses such as residential, office, commercial, industrial, and transit uses. The intensification of land uses would create new sources of light and glare that could adversely affect daytime or nighttime views in the area. Lighted commercial areas and traffic generated by the project could result in light and glare effects on surrounding areas. Therefore, the impact is considered **potentially significant** and it will be addressed in the EIR.

1 California Department of Transportation (Caltrans) website, Scenic Highways, San Joaquin County, [http://www.dot.ca.gov/hq/LandArch/scenic\\_highways/index.htm](http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm), accessed July 13, 2006.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
<p><b>2. AGRICULTURE RESOURCES:</b>  <i>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:</i></p>				
<p>a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program in the California Resources Agency, to non-agricultural use?</p>	■	□	□	□
<p>b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?</p>	■	□	□	□
<p>c. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?</p>	■	□	□	□

**Discussion**

a-c. Existing land uses on the project site are largely agriculture-based. Approximately two-thirds of the 689 acres of the proposed project are designated by the San Joaquin County zoning designations as agricultural land. The SLSP site is within the City's planning Sub Plan Area 1, and is designated for future development in the City of Lathrop General Plan. While no lands are under Williamson Act contract, much of this agricultural land is identified as either Prime Farmland or Farmland of Statewide Importance. Implementation of the proposed project would result in the conversion of these farmland categories to a non-agricultural use. This is considered a **potentially significant impact** and it will be addressed in the EIR.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
<p><b>3. AIR QUALITY.</b>  <i>Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations:</i>  <i>Would the project:</i></p>				
<p>a. Conflict with or obstruct implementation of the applicable air quality plan?</p>	■	□	□	□
<p>b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?</p>	■	□	□	□
<p>c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?</p>	■	□	□	□
<p>d. Expose sensitive receptors to substantial pollutant concentrations?</p>	■	□	□	□
<p>e. Create objectionable odors affecting a substantial number of people?</p>	■	□	□	□

**Discussion**

The project site is located in the San Joaquin Valley Air Basin and within the jurisdiction of the San Joaquin Valley Unified Air Pollution Control District (District). The District has CEQA review authority for projects in the San Joaquin Valley Air Basin.

a-c. Short-term construction activities associated with the proposed project could result in air emissions that would contribute to the cumulative emissions of ozone precursors and fine particulate matter less than or equal to 10 microns in diameter (PM<sub>10</sub>). The San Joaquin Valley Air Basin is currently in nonattainment for PM<sub>10</sub> and PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter).<sup>2</sup> Graders, scrapers, bulldozers, construction worker trips, material deliveries, and other earth moving equipment would produce reactive organic gases (ROG),

2 California Air Resources Board, San Joaquin Valley Air Basin Website, <http://www.arb.ca.gov/pm/pmmeasures/pmch05/sjv05.pdf>, accessed July 13, 2006.



nitrous oxides (NO<sub>x</sub>), carbon monoxide (CO), and PM<sub>10</sub>. The California Environmental Protection Agency and the California Air Resources Board have identified that these substances may have adverse health effects to humans. Consequently, the proposed project could conflict with the District's Air Quality Attainment Plan (AQAP) and could potentially violate other air quality standards.

In addition to construction activities, operation of the proposed project could generate ROG, NO<sub>x</sub>, and CO emissions from employee, and resident trips. Construction-related and operational air emissions could be **potentially significant impacts** and they will be addressed in the EIR.

- d, e. Sensitive receptors for air emissions are typically considered to include residential neighborhoods, hospitals and other facilities where people with compromised health would gather, retirement facilities and other locations where the elderly are concentrated, and schools and childcare facilities where children are concentrated. The project site currently contains private residences with farming operations. In addition, the proposed project includes residential uses, open space areas, and a school. These sensitive receptors could be exposed to construction and operational air emissions. Objectionable odors may also result from construction-related and operational related pollutant concentrations. These impacts are considered **potentially significant** and they will be addressed in the EIR.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
<b>4. BIOLOGICAL RESOURCES.</b>				
<i>Would the project:</i>				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	■	□	□	□
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	■	□	□	□
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	■	□	□	□
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	■	□	□	□
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	■	□	□	□

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	■	□	□	□

**Discussion**

a. The project site consists of cultivated parcels that are predominantly field and row crops and orchards. Due to cultivation and agricultural uses of the project site, little to no natural grasses and herbs are present. Regardless, row crops (depending on number of crops per year) and cultivated fields are host to rodents and rabbits as foraging and nesting habitats. Several listed and nonlisted special-status species may be present, including Swainson’s hawk (*Buteo swainsoni*), a state-listed Threatened species, and giant garter snake (*Thamnophis gigas*), a state and federally listed Threatened species. The possible loss of or damage to foraging and other ruderal habitats is considered a **potentially significant impact** that will be addressed in the EIR.

b,c. The San Joaquin River is immediately adjacent to the southwestern border of the project site. The river provides habitat for several special-status fish species including the Central Valley winter-run chinook salmon (*Oncorhynchus tshawytsch*), a state and federally listed Endangered species, and steelhead (*O. mykiss*), a federally listed threatened species.

Based on the wetland delineations completed for the proposed project, potentially jurisdictional waters of the U.S. have been mapped on the site. These acreages represent a calculated estimation of the jurisdictional area within the project site, and are subject to modification following the U.S. Army Corps of Engineers verification process. Fill within these jurisdictional features would require permitting pursuant to Section 404 and 401 of the federal Clean Water Act.<sup>3</sup> Implementation of the proposed project could directly remove habitat used by these species, or indirectly degrade habitat quality at or adjacent to the project site. This is considered a **potentially significant impact** and it will be addressed in the EIR.

d. Various segments of the San Joaquin River are considered to function as a corridor for wildlife movement. The proposed project may reduce the value of the river segment bordering the project site as a movement corridor, either directly or indirectly. Therefore, this issue is considered a **potentially significant impact** and it will be addressed in the EIR.

e,f. The San Joaquin County Multi-Species Habitat Conservation and Open-Space Plan (SJMSCP) may potentially apply to the proposed project.<sup>4</sup> Implementation of the proposed project may also require removal of jurisdictional waters of the US which are vital habitat for a variety of species that may be protected under the SJMSCP.<sup>5</sup> This impact is considered

3 ECORP Consulting, Inc., *Wetland Delineation for South Lathrop 6A and 6B*, November 10, 2005.  
 4 City of Lathrop, *Central Lathrop Specific Plan DEIR, Volume II*, July 2004, page 6.  
 5 ECORP Consulting, Inc., *Wetland Delineation for South Lathrop 6A and 6B*, November 10, 2005, page 12.

*potentially significant* and the applicability of these and other local, regional, state, and federal plans will be addressed in the EIR.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
<b>5. CULTURAL RESOURCES.</b>				
<i>Would the project:</i>				
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	■	□	□	□
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	■	□	□	□
c. Directly or indirectly destroy a unique paleontological resource or unique geologic feature?	■	□	□	□
d. Disturb any human remains, including those interred outside of formal cemeteries?	■	□	□	□

**Discussion**

a-d. The SLSP would develop land that is primarily used for agricultural uses, interspersed with some rural residential and industrial uses. Previous record searches and field surveys conducted in the project area indicated the presence of historic resources within the SLSP project area, and both prehistoric and historic resources, including a recorded burial site, within a one mile radius of the project site. Development of the SLSP could cause an adverse change in the significance of a prehistoric or historic resource. The potential also exists for human remains to be disturbed. Therefore, the impact is considered ***potentially significant*** and it will be addressed in the EIR.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
<b>6. GEOLOGY AND SOILS.</b> <i>Would the project:</i>				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist - Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	■	□	□	□
ii. Strong seismic ground shaking?	■	□	□	□
iii. Seismic-related ground failure, including liquefaction?	■	□	□	□
iv. Landslides?	□	□	□	■
b. Result in substantial soil erosion, or the loss of topsoil?	■	□	□	□
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	■	□	□	□
d. Be located on expansive soils, as defined in Table 18-1-13 of the Uniform Building Code (1994), creating substantial risks to life or property?	■	□	□	□
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	□	□	□	■

## Discussion

- ai-aiii. The proposed project site is situated between two seismically active regions. The Geologic Map of the San Francisco-San Jose Quadrangle shows no faults within the project site. The California Geological Survey does not list Lathrop as an area included in the Alquist-Priolo earthquake hazard zones. However, there are approximately eight faults located within a 60-mile radius of the project site.<sup>6</sup> Potential seismic hazards resulting from a nearby moderate to major earthquake could cause considerable ground shaking at the site. This is considered a **potentially significant impact** and it will be addressed in the EIR.
- aiv. The SLSP site is flat, as is the land surrounding the site. The SLSP area is not near any hills or mountains where a landslide could occur. Therefore, there would be **no impact** and land slide potential will not be addressed in the EIR.
- b-d. The Geologic Map of the San Francisco-San Jose Quadrangle lists the geologic formation at the project site as the Pleistocene Modesto Formation. The Modesto Formation is described as loose eolian sands, loose fluvial sands and silts, and compacted fluvial sands and silts. According to the USDA Soil Survey of San Joaquin County, the soils on the project site consists of Timor loamy sand, Grangeville fine sandy loam, partially drained, and Bisgani loamy course sand, partially drained. Because some of the granular materials were characterized as loose to medium dense and liquefiable, liquefaction and lateral spreading could result from construction of the proposed project.<sup>7</sup> The Geotechnical Explorations concluded that construction of single-family residential housing could be feasible if recommendations in the Geotechnical Exploration reports are followed. However, because the development plan includes additional, more intense land uses, the conclusions from the reports must be reevaluated. This is considered a **potentially significant impact** and it will be addressed in the EIR.
- e. The SLSP would connect to the City's sewer system and no septic tanks would be installed as part of the proposed project. Therefore, there would be **no impact** and use of septic systems will not be addressed in the EIR.

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6 ENGEO Incorporated, *Geotechnical Exploration Terra Ranch*, September 12, 2005; *Geotechnical Exploration Lin Properties*, September 16, 2005; *Geotechnical Exploration Morimoto Property*, September 16, 2005.

7 ENGEO Incorporated, *Geotechnical Exploration Terra Ranch*, September 12, 2005, page 9.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
<b>7. HAZARDS AND HAZARDOUS MATERIALS.</b>				
<i>Would the project:</i>				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	■	□	□	□
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	■	□	□	□
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	■	□	□	□
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	□	□	■	□
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	□	□	□	■
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	□	□	□	■
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	■	□	□	□



Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Discussion**

- a, b. The project site's proximity to I-5, SR 120 and the UPRR tracks could expose project residents and workers to the routine transport of hazardous materials along those routes. The SLSP would result in the construction and occupancy of limited industrial uses which could generate, use, transport, or store hazardous materials. Due to past uses of pesticides and other contaminants on the site, several Phase I Environmental Site Assessments were prepared for the site to determine the potential for existing contamination within the project area. In addition, overhead electricity transmission lines on the project site could expose project residents to electromagnetic fields (EMF) which could pose a health risk. This is considered a **potentially significant impact** and it will be addressed in the EIR.
- c. The SLSP proposes to place a K-8 school in the North Village. This school would be within one-quarter mile of limited industrial uses which could emit or handle hazardous materials. The school would also be adjacent to a well which includes water treatment chemicals and within one-quarter mile of overhead electricity transmission lines which could expose students to EMF. Due to the proximity of the school to the potentially hazardous uses, this impact is considered **potentially significant** and it will be addressed in the EIR.
- d. The SLSP site is not on the Cortese List, which identifies hazardous waste and substances sites.<sup>8</sup> This impact would be **less than significant** and it will not be addressed in the EIR.
- e, f. The SLSP area is located seven miles south of the Stockton Metropolitan Airport. It is not within an airport land use plan or within the vicinity of a private airstrip. Development of the SLSP would not result in a safety hazard related to airport uses for people residing or working in the project area. Therefore, there would be **no impact** and this issue will not be addressed in the EIR.
- g. The SLSP would develop an area that is currently underdeveloped. The project would construct roads through the project site, which would give additional access to emergency vehicles. Existing roadways surrounding the project site would be widened to allow for increased road capacity and site accessibility. The Yosemite-Guthmiller/SR 120 undercrossing would be widened with a boulevard design to provide access to the South Village. Access to the South Village may also be provided under the I-5/SR 120 braid along the levee. The Yosemite-Guthmiller/SR 120 interchange would be improved, providing improved emergency vehicle access to and from the highway. However, because there would be a new roadway network within the project site and an improved network around the site, emergency access to

<sup>8</sup> Department of Toxic Substances Control website, EnviroStor Database, <http://www.envirostor.dtsc.ca.gov/public/>, accessed July 14, 2006.

the site would need to be fully evaluated. Therefore, this impact is considered ***potentially significant*** and it will be addressed in the EIR.

- h. The project area consists of primarily actively cultivated agricultural fields and interspersed rural residential and industrial uses. Current and proposed land uses surrounding the site are limited to residential, industrial, agricultural and open space. The vacant land south of the project site is agricultural land, similar to the project site. The project would reduce the amount of agricultural land by introducing residential, commercial, office, industrial and transit uses and introducing irrigated landscaping at these uses. This would reduce the risk of wildland fires on the site. In addition, as stated above, the SLSP would include roadways that would allow for emergency access for fire suppression equipment. Therefore, this impact is considered ***less than significant*** and it will not be addressed in the EIR.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
<b>8. HYDROLOGY AND WATER QUALITY</b>				
<i>Would the project:</i>				
a. Violate any water quality standards or waste discharge requirements?	■	□	□	□
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	■	□	□	□
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	■	□	□	□
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	■	□	□	□
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	■	□	□	□
f. Otherwise substantially degrade water quality?	■	□	□	□
g. Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	■	□	□	□

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
h. Place within a 100-year floodplain structures which would impede or redirect flood flows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Discussion**

a, c, f. Construction of the SLSP would involve earth-disturbing and building activities that could result in the discharge of sediment or other pollutants (e.g., petroleum products or building materials such as paints and cement) to the San Joaquin River. Because activities associated with project development would disturb more than five acres of land, contractors would be required to obtain and comply with the State General Construction Activity Stormwater Permit. General Permit applicants are required to prepare a stormwater pollution prevention plan (SWPPP) prior to construction.

The SLSP would result in the conversion of mostly undeveloped land to urban uses, which would increase the amount of impervious surface area and change the quality of stormwater runoff over existing conditions. During project operation, stormwater runoff could carry small amounts of oil, grease, and heavy metals from the SLSP area into the San Joaquin River. Development of the project would also require modifications to the existing drainage system, which would include constructing stormwater drainage pipes and creating detention facilities, which could alter post-development water quality characteristics by increasing siltation or erosion. This is considered a **potentially significant impact** and it will be addressed in the EIR.

b. The City of Lathrop uses groundwater and surface water supplies for potable water use in the city. Additional City wells would be located on the SLSP, providing water to the City system. Some portion of this water would be allocated to the SLSP area. The drawing of water from local aquifers could result in an overall lowering of the local groundwater table level. Therefore, the impact is considered **potentially significant** and it will be addressed in the EIR.

d, e. Development of the SLSP would change the character of the site from rural to urban and add large amounts of impervious surfaces. The introduction of impervious surfaces to the area would alter the drainage patterns of the site, potentially leading to on- or off-site flooding. This increase in stormwater runoff could exceed the capacity of existing or planned stormwater drainage systems. This is considered a **potentially significant impact** and it will be addressed in the EIR.

g-i. A San Joaquin River levee borders the SLSP site to the southwest. According to the Flood Insurance Rate Map, the project site is within Zone X, which are areas of 0.2 percent annual chance flood; areas of 1 percent annual chance flood with average depths of less than 1 foot

or with drainage areas less than 1 square mile; and areas protected by levees from 1 percent annual chance flood.<sup>9</sup> This means that the project site is protected from a 100-year flood. However, Reclamation District 17, under direction from the Federal Emergency Management Agency (FEMA) and the California Department of Water Resources (DWR), is reevaluating the strength of levees in the area. It is also known that some land in the South Village near the levee has experienced flooding. Because the SLSP would construct structures that could impede flows or expose people to potential flooding risks, the impact is considered **potentially significant** and it will be addressed in the EIR.

- j. The project site and its surroundings are flat. A mudflow could not directly or indirectly affect the site. Therefore, there would be no impact from mudflows. The SLSP project site is located adjacent to the San Joaquin River, but is not near a lake, sea, or ocean. Seiches can occur in an enclosed or partially enclosed body of water. However, seiches most likely occur in lakes and seas. Tsunamis occur in oceans. Due to the distance of the project site from a lake, sea or ocean, the likelihood of a seiche or tsunami affecting the project site would be **less than significant** and it will not be addressed in the EIR.

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9 Federal Emergency Management Agency (FEMA), *Flood Insurance Rate Map (FIRM), San Joaquin County, California, Map Number 0602990595E, Panel 0595E*, map revised December 16, 2005.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
<b>9. LAND USE AND PLANNING</b> <i>Would the project:</i>				
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating on environmental effect?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Discussion**

- a. The proposed project is located south and west of the existing City of Lathrop and west of the City of Manteca. The SLSP area is surrounded by Yosemite Avenue and Vierra Road to the north, the Union Pacific Railroad to the northwest and along the southeast border, and by the San Joaquin River and Interstate 5 to the west. State Route 120 bisects the project area. The current uses in the SLSP area are predominantly a mix of agricultural activities with rural residential and industrial uses. The proposed project would not divide an established community; the SLSP is designed to develop neighborhoods that incorporates pedestrian, bicycle, and vehicular circulation networks, open space corridors, a school, and transit oriented residential uses that create a shared sense of community. Therefore, this impact is considered **less than significant** and it will not be addressed in the EIR.
- b. Currently the San Joaquin County Zoning designations for the proposed project site are General Agriculture (AG-40), Agriculture-Urban Reserve (AU-20), Warehouse Industrial (I-W), and General Commercial (C-G). The San Joaquin County General Plan designations are Resource Conservation (OS/RC), Agricultural-Urban Reserve (A/UR), Limited Industrial (I/L), and General Commercial (C/G). The SLSP site is within the City's planning Sub Plan Area 1, and is designated for future development in the City of Lathrop General Plan. The SLSP proposes to change the land use for the project area to a variety of residential uses, office and commercial uses, mixed use, open space and park uses, as well as a school and a relocated Lathrop-Manteca ACE station. To accommodate these uses and other characteristics of the proposed project will require annexation into the City of Lathrop, a General Plan amendment, Specific Plan, rezoning, and other related entitlements. This impact is considered **potentially significant**. In order to fully evaluate consistency and compatibility with existing land uses, as well as surrounding land uses, this issue will be addressed in the EIR.

- c. The San Joaquin County Multi-Species Habitat Conservation and Open-Space Plan (SJMSCP) may apply to the proposed project.<sup>10</sup> Implementation of the proposed project may also require removal of jurisdictional waters of the U.S. which are vital habitat for a variety of species that may be protected under the SJMSCP.<sup>11</sup> This impact is considered **potentially significant**. The applicability of these and other local, regional, state, and federal plans will be addressed in the EIR.

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10 City of Lathrop, *Central Lathrop Specific Plan DEIR, Volume II*, July 2004, page 6.

11 ECORP Consulting, Inc., *Wetland Delineation for South Lathrop 6A and 6B*, November 10, 2005, page 12.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
<b>10. MINERAL RESOURCES.</b> <i>Would the project:</i>				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	■	□	□	□
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	■	□	□	□

**Discussion**

a, b. The SLSP project site is within three mineral resource zones (MRZ): MRZ-1, MRZ-2 and MRZ-3.<sup>12</sup> In areas with an MRZ-1 designation, there is sufficient information to indicate that no significant mineral deposits are present. In areas with an MRZ-2 designation, there is sufficient information to indicate that significant mineral deposits are present or are likely to occur. MRZ-3 zones are areas containing mineral deposits, the importance of which cannot be evaluated using existing data. It is possible that the SLSP site could contain sand deposits which are considered important to the area and to be of regional and statewide significance. Converting the project site from rural to urban uses would make it impossible to retrieve sand deposits that may be present on the project site. Therefore, this is considered a ***potentially significant impact*** and it will be addressed in the EIR.

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12 City of Lathrop, *Comprehensive General Plan for the City of Lathrop*, December 17, 1991, page 5-5, Figure V-I.



Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
<b>11. NOISE.</b> <i>Would the project result in:</i>				
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	■	□	□	□
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	■	□	□	□
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	■	□	□	□
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	■	□	□	□
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	□	□	□	■
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	□	□	□	■

**Discussion**

a-d. Implementation of the SLSP could potentially generate increased noise levels associated with construction activities, project operations, and project-generated automobile traffic. Operation of heavy machinery and construction vehicles during construction would introduce temporary noise emitters to the project area and vicinity. The SLSP could permanently increase the existing ambient noise levels in the project area by introducing new uses to the area and generating additional traffic, including near the relocated Lathrop-Manteca ACE station. In addition, wells and water pumps on the project site could produce additional noise and further increase ambient noise levels in the area.

With the development of the SLSP, new uses such as residential, commercial, industrial, and a school would be placed near SR 120 and the UPRR tracks. Depending on the types of land uses placed within the noise contours associated with SR 120, significant noise-related impacts could occur. Because there could be temporary construction-related and permanent ambient increases in noise levels in the vicinity, the impact is considered ***potentially significant*** and it will be addressed in the EIR.

- e, f. The SLSP is not within an airport land use plan and is not within two miles of a public airport or private airstrip. Therefore, there would be ***no impact*** and it will not be addressed in the EIR.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
<b>12. POPULATION AND HOUSING.</b> <i>Would the project:</i>				
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	■	□	□	□
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	■	□	□	□
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	■	□	□	□

**Discussion**

- a. The SLSP site is within the City’s planning Sub Plan Area 1 and Sphere of Influence, and is designated for future development in the City of Lathrop General Plan. Areas to the north and northwest of the project site are already developed or planned for development. Implementation of the SLSP would add new homes and business to the City of Lathrop and extend services to an area that was previously not served. This addition to the City could induce population growth beyond the population projections in the City of Lathrop General Plan. In addition, the proposed project would expand the boundaries of the City and result in the extension of municipal utilities and services to new areas. This extension of utility services could remove existing obstacles to growth in the area and support further development activity. This is considered a ***potentially significant impact*** and it will be addressed in the EIR.
- b, c. The proposed project site contains several existing rural residences and farms. The development of new homes, parks, office and commercial uses, as well as a school and relocated Lathrop-Manteca ACE station could displace the existing housing and residents. This impact is considered ***potentially significant*** and it will be addressed in the EIR.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
<p><b>13. PUBLIC SERVICES.</b>  <i>Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:</i></p>				
a. Fire protection?	■	□	□	□
b. Police protection?	■	□	□	□
c. Schools?	■	□	□	□
d. Parks?	■	□	□	□
e. Other public facilities?	■	□	□	□

**Discussion**

a-e. The Lathrop-Manteca Fire Protection District (LMFPD) provides fire protection and responds to emergency situations in the City of Lathrop and would serve the SLSP site. Police service would be provided by the San Joaquin County Sheriff's Department. The Manteca Unified School District (MUSD) provides educational services in the City for grades K-12. The increase in population associated with the SLSP would be anticipated to increase the demand for fire protection, police protection, schools, parks, and other public services such as animal control. The impact on these services is considered **potentially significant** and they will be addressed in the EIR.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
<b>14. RECREATION.</b>				
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	■	□	□	□
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	■	□	□	□

**Discussion**

a-b. The increase in population associated with the SLSP would be anticipated to increase the use of parks in the City, which could possibly result in the deterioration of existing park facilities. The City of Lathrop requires the dedication of parkland for increases in the residential population. The City's standard for parkland dedication is 2.0 acres per 1,000 population of developed neighborhood parks or mini parks, plus 3.0 acres per 1,000 population of developed community parks.<sup>13</sup> The SLSP would be required to meet this General Plan acreage. Because the SLSP could result in the deterioration of existing parks and would require the construction of additional recreation facilities, the impact is considered ***potentially significant*** and it will be addressed in the EIR.

13 City of Lathrop, *Comprehensive General Plan for the City of Lathrop*, December 17, 1991, pages 5-18 and 5-19.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
<b>15. TRANSPORTATION/TRAFFIC</b> <i>Would the project:</i>				
a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	■	□	□	□
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	■	□	□	□
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	□	□	□	■
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	■	□	□	□
e. Result in inadequate emergency access?	■	□	□	□
f. Result in inadequate parking capacity?	■	□	□	□
g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	■	□	□	□

**Discussion**

- a. It is anticipated that development of the proposed project would substantially increase the number of vehicles on roads within the City of Lathrop (i.e., D'Arcy Parkway and Yosemite Avenue) and regional highways (i.e., I-5 and SR 120). To determine the potential traffic-related impacts, the transportation analysis in the EIR will examine the existing traffic conditions, existing plus project conditions, cumulative conditions, and cumulative plus project conditions. This is considered a ***potentially significant impact*** and it will be addressed in the EIR.

- b. It is anticipated that the proposed project would exceed some of the level of service standards, either individually or cumulatively, established by the San Joaquin Transportation Authority for certain roads. The intersections of SR 120 and Yosemite Avenue, as well as the intersection of SR 120 and I-5 will be evaluated for level of service impacts. This is considered a ***potentially significant impact*** and it will be addressed in the EIR.
- c. The northern boundary of the City of Lathrop is approximately seven miles south of the nearest airport (Stockton Metropolitan Airport), and the project does not include activities or structures that could hinder aviation activity. Therefore, ***no impact*** would occur and this issue will not be addressed in the EIR.
- d. The increase of heavy traffic in the project area and on SR 120 and I-5 could create vehicle conflicts between the anticipated high volumes of passenger vehicles and heavy-trucks requiring access to office, commercial, and limited industrial uses within the proposed project area. This is considered a ***potentially significant impact*** and it will be addressed in the EIR.
- e. Though the proposed project is not considered inherently adverse to emergency access, it is unknown whether the project could create barriers to providing adequate emergency access. This is considered a ***potentially significant impact*** and it will be addressed in the EIR.
- f. The SLSP would include the development of parking areas associated with particular land uses. The proposed relocated Lathrop-Manteca ACE station also includes the potential for expansion of their parking facilities. Because parking areas have not been specifically identified in the proposed project, the ability of the proposed project to meet existing City parking requirements will be evaluated in the EIR. This is considered a ***potentially significant impact*** and it will be addressed in the EIR.
- g. The SLSP would develop an area that does not currently provide alternative transportation facilities. However, the SLSP would develop facilities such as the relocated Lathrop-Manteca ACE station, bike trails and parking areas, walking trails and sidewalks, and off-street regional bus stops. The development of these facilities could conflict with adopted alternative transportation policies or programs. This is considered a ***potentially significant impact*** and it will be addressed in the EIR.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
<b>16. UTILITIES AND SERVICE SYSTEMS.</b> <i>Would the project:</i>				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	■	□	□	□
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	■	□	□	□
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	■	□	□	□
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	■	□	□	□
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	■	□	□	□
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	■	□	□	□
g. Comply with federal, state, and local statutes, and regulations related to solid waste?	■	□	□	□

**Discussion**

a, b, e. While the SLSP project area does not currently tie into the City's sewer system, the SLSP would be required to connect the project site to existing or new City systems for wastewater and recycled water treatment. The SLSP could use the City's WRP-1 or WRP-2, located



- immediately north of the project site. The potential also exists to pipe some of the sewage to Manteca as part of the sewer agreement between the Cities of Lathrop and Manteca. Recycled water piped to WRP-1 or WRP-2 for treatment could possibly be piped to spray fields located north of the City of Lathrop's Sub-Plan Area 2 or southeast of the project site, on the Mainstone property located in San Joaquin County. The increase in population associated with the SLSP would be anticipated to increase the demand for wastewater facilities and could result in the construction of additional wastewater treatment and/or collection facilities. Therefore, the impact is considered ***potentially significant*** and it will be addressed in the EIR.
- c. Currently, on-site storm water does not result in much runoff due to the high permeability of the agricultural uses. However, the development of residential, commercial, office, and other urban uses would result in the increase of impervious surfaces, thereby increasing runoff. As a result, adequate storm water facilities would be added to the project site, including an outfall placed in the southwest corner of the project site that would drain to the San Joaquin River. Storm water detention basins are planned to be located within community parks and/or open space areas. Basins located within parks will be designed to allow dual use of ball fields or general play within them. The basins would only detain water during significant storm events and would be designed to limit the time water will remain within the basin so that there would be minimal impacts to the fields. Additional storm water flows could exacerbate existing off-site storm water facilities or localized flooding. The impact is considered ***potentially significant*** and it will be addressed in the EIR.
- d. The City of Lathrop would supply potable water for the SLSP project. The City relies on groundwater and surface water supplied by SSJID for its water supply. The City's groundwater supply is from the Central Valley aquifer system. There is currently one operating well on the SLSP site, Well 21, and it is located in the North Village. The proposed SLSP includes two groundwater well sites (Well 21 and Well 22) that would be used towards meeting projected SLSP water demand. As many as three future well sites have been identified in the SLSP area by the City as part of the 2004 Update to the Water Master Plan to meet city-wide demand. Two other wells have been discussed for placement in the SLSP area but have not been located. Proposed SLSP land uses would be designated to allow for the installation of future well sites identified in the 2004 Water Master Plan Update. Due to the existing rural nature of the site, a water conveyance system would need to be installed on the site. Development of the SLSP is also reliant upon the development of SSJID Water Supply Program Phase 2. The increase in population associated with the SLSP would be anticipated to increase the demand for water. Therefore, the impact is considered ***potentially significant*** and it will be addressed in the EIR.
- f, g. Solid waste collected in the City and County is hauled to the Lovelace Transfer Station approximately one mile north of the City of Lathrop. Waste is then hauled to the County's Class III Foothill Sanitary Landfill in Linden. The increase in population associated with the SLSP would be anticipated to increase the generation of solid waste and demand for solid waste services. Therefore, the impact is considered ***potentially significant*** and it will be addressed in the EIR.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
<b>17. MANDATORY FINDINGS OF SIGNIFICANCE.</b>				
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	■	□	□	□
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	■	□	□	□
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	■	□	□	□

**Discussion**

- a. As discussed above, impacts on biological resources and cultural resources could occur with development of the SLSP. These impacts are considered ***potentially significant*** and they will be addressed in the EIR.
- b. The SLSP would provide for additional growth in the City of Lathrop. As discussed above, the project site is not currently within the City of Lathrop, and would be annexed to the City upon project approval. Cumulative impacts to land use; agricultural resources; population, employment, and housing; hydrology and water quality; biological resources; aesthetics; parks and recreation; hazardous materials; transportation; air quality; noise; and public services and utilities are considered ***potentially significant*** and they will be addressed in the EIR.
- c. As discussed above, uses in the SLSP could use and transport hazardous materials. Natural hazards that could endanger project residents such as flooding are possible on the project site.

Increase in air emissions could affect nearby residents. Increased temporary and permanent noise levels could also affect nearby residents. The SLSP could result in substantial adverse effects on human beings, and this is considered a ***potentially significant impact*** that will be addressed in the EIR.

# Preserve Inspection Sheet

Preserve Name: Woodcreek East (Diamond Woods)

Inspector(s): Natasha Bartley

Date: 2 May 2008

Y/N	Preserve Condition	Actions Taken
<input type="checkbox"/>	Trash Accumulation? Trash blown in. A general trash pick-up is recommended (see photos).	
<input type="checkbox"/>	Unauthorized Construction/Fill? A resident has bumped a large amount of dirt into oak mitigation area and is installing new plantings.	
<input type="checkbox"/>	Fencing and Signage? Several opening in the Preserve fencing (see map for location). Signage is good.	
<input type="checkbox"/>	Erosion/Hydrology? None observed at this time.	
<input type="checkbox"/>	Unauthorized Activity/Other? Graffiti on the cement wall on the north section of the Preserve. Some areas with thatch (see map). This thatchy area is mainly TAE CAP. Several of the pools were flagged.	

Wildlife: black phoebe      mourning dove  
western scrubjay      house sparrow  
California quail      red-tailed hawk  
w. meadowlark      white-crowned spari

Invasives: Medusahead grass      \_\_\_\_\_  
Yellow starthistle      \_\_\_\_\_  
Italian thistle      \_\_\_\_\_  
 \_\_\_\_\_      \_\_\_\_\_

## CITY OF LATHROP

### NOTICE OF PREPARATION OF A DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT AND NOTICE OF EIR SCOPING MEETING

*pursuant to the California Environmental Quality Act, as amended.*

#### SOUTH LATHROP SPECIFIC PLAN PROJECT

NOTICE IS HEREBY GIVEN that the City of Lathrop is undertaking the preparation of an Environmental Impact Report (EIR) to study the proposed South Lathrop Specific Plan (SLSP) Project. The SLSP Project is a proposed mixed-use development with approximately 3,164 dwellings at varying densities, a transit center site for the relocation and expansion of the Lathrop-Manteca ACE Train station, adjacent mixed-use sites near the station, a K-8 school site, limited industrial uses, community and neighborhood parks, open spaces and a mix of offices, office/commercial and neighborhood-serving land uses on approximately 683 acres of land.

The Project site is south of the existing City of Lathrop City limits, located south of Vierra Road and Yosemite Avenue, between two Union Pacific Railroad tracks that pass through southern Lathrop and east of the I-5 freeway and San Joaquin River.

Serving as the Lead Agency, the City of Lathrop will be preparing an Environmental Impact Report (EIR), which will examine the potentially significant environmental effects of potential development described above that could occur as a result of the Specific Plan. A Draft EIR will be published for public review and comment, and a Final EIR will be prepared to respond to comments received during the review period.

The Lead Agency needs to know your views as to the scope and content of the EIR. If you represent a public agency, please provide information that is germane to your statutory responsibilities as they may be affected by this project. Responsible and trustee agencies are encouraged to use the EIR that will be prepared by the City when considering approvals they may grant related to the project.

By State law, your response must be sent **not later than October 30, 2006**. Please send your response to:

Marilyn Ponton, AICP, Community Development Director  
City of Lathrop  
390 Towne Centre Drive  
Lathrop, CA 95330

Please provide the name, mailing address, telephone number and e-mail address of a contact person with your response.

#### NOTICE OF SCOPING MEETING

A scoping meeting will be held on **October 12, 2006 between 5 and 7:30 p.m.** in the Council Chambers, Lathrop City Hall, 390 Towne Centre Drive, Lathrop to provide additional information regarding the project and to hear environmental concerns. A presentation on the proposed SLSP project will be made at 5:30 at the Scoping Meeting.

Signed: \_\_\_\_\_

Date: September 25, 2006

# Notice of Preparation

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**To: Interested Persons**

\_\_\_\_\_  
(Agency)

\_\_\_\_\_  
(Address)

**Subject: Notice of Preparation of a Draft Environmental Impact Report**

**Lead Agency:**

Agency Name City of Lathrop

Street Address 390 Towne Centre Dr.

City/State/Zip Lathrop, CA 95330

Contact Marilyn Ponton, AICP

**Consulting Firm (If applicable):**

Firm Name EIP Associates, a Division of PBS&J

Street Address 1200 Second Street, Suite 200

City/State/Zip Sacramento, CA 95814

Contact Cathy McEfee

The City of Lathrop will be the Lead Agency and will prepare an environmental impact report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the potential environmental effects are contained in the attached materials. A copy of the Initial Study ( is  is not) attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date **but not later than 30 days** after receipt of this notice.

Please send your response to Marilyn Ponton at the address shown above. We will need the name for a contact person in your agency.

**Project Title: South Lathrop Specific Plan Environmental Impact Report**

**Project Location:** City of Lathrop San Joaquin County  
City (nearest) County

**Project Description:** The SLSP proposes a mixed use development that includes approximately 3,164 residential units with varying densities; a transit center site for the relocation and expansion of the Lathrop-Manteca ACE Train station; adjacent mixed use sites; K-8 school site; limited industrial land uses; community and neighborhood parks; open space; and a mix of office, office/commercial, and neighborhood commercial serving land uses on approximately 683 acres.

# Notice of Preparation

Date Sept 21, 2006

Signature May Kanta

Title County Development Director

Telephone 209 941 7290

# Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P. O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613  
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH# \_\_\_\_\_

## Project Title: South Lathrop Specific Plan EIR

Lead Agency: City of Lathrop Contact Person: Marilyn Ponton, AICP  
Mailing Address: 390 Towne Centre Drive, Phone: (209) 941-7290  
City: Lathrop Zip: 95330 County: San Joaquin

## Project Location:

County: San Joaquin City/Nearest Community: City of Lathrop  
Cross Streets: State Route 120 and Yosemite Avenue/Guthmiller Road Zip Code: 95330  
Assessor's Parcel No.: several Section: \_\_\_\_\_ Twp.: \_\_\_\_\_ Range: \_\_\_\_\_ Base: \_\_\_\_\_  
Within 2 Miles: State Hwy #: I-5, SR 120 Waterways: San Joaquin River  
Airports: \_\_\_\_\_ Railways: UPRR Schools: \_\_\_\_\_

## Document Type:

CEQA:  NOP  Draft EIR NEPA:  NOI Other:  Joint Document  
 Early Cons  Supplemental/Subsequent EIR  EA  Final Document  
 Neg Dec (Prior SCH No.) \_\_\_\_\_  Draft EIS  Other \_\_\_\_\_  
 Mit Neg Dec  Other \_\_\_\_\_  FONSI

## Local Action Type:

General Plan Update  Specific Plan  Rezone  Annexation  
 General Plan Amendment  Master Plan  Prezone  Redevelopment  
 General Plan Element  Planned Unit Development  Use Permit  Coastal Permit  
 Community Plan  Site Plan  Land Division (Subdivision, etc.)  Other \_\_\_\_\_

## Development Type:

■ Residential: Units 3,171 Acres 324 ■ Water Facilities: Type Wells MGD \_\_\_\_\_  
■ Office: Sq.ft. 1,589,722 Acres 122 Employees \_\_\_\_\_ ■ Transportation: Type Transit Station  
■ Commercial: Sq.ft. 172,622 Acres 16 Employees \_\_\_\_\_  Mining: Mineral \_\_\_\_\_  
■ Industrial: Sq.ft. 231,739 Acres 27 Employees \_\_\_\_\_  Power: Type \_\_\_\_\_ MW \_\_\_\_\_  
■ Educational: One K-8 school, 18 acres  Waste Treatment: Type \_\_\_\_\_ MGD \_\_\_\_\_  
■ Recreational: Community, Neighborhood, Mini Parks, 93 acres total  Hazardous Waste: Type \_\_\_\_\_  
Total Acres (approx.) 689  Other: \_\_\_\_\_

## Project Issues Discussed in Document:

Aesthetic/Visual  Fiscal  Recreational/Parks  Vegetation  
 Agricultural Land  Flood Plan/Flooding  Schools/Universities  Water Quality  
 Air Quality  Forest Land/Fire Hazard  Septic Systems  Water Supply/Groundwater  
 Archeological/Historical  Geologic/Seismic  Sewer Capacity  Wetland/Riparian  
 Biological Resources  Minerals  Soil Erosion/Compaction/Grading  Wildlife  
 Coastal Zone  Noise  Solid Waste  Growth Inducing  
 Drainage/Absorption  Population/Housing Balance  Toxic/Hazardous  Land Use  
 Economics/Jobs  Public Services/Facilities  Traffic/Circulation  Cumulative Effects  
 Other \_\_\_\_\_

Present Land Use/Zoning/General Plan Designation: San Joaquin County General Plan designations: Resource Conservation (OS/RC), Agricultural-Urban Reserve (A/UR), Limited Industrial (I/L), and General Commercial (C/G); San Joaquin County Zoning designations: General Agriculture (AG-40), Agriculture-Urban Reserve (AU-20), Warehouse Industrial (I-W), and General Commercial (C-G).

Project Description: The South Lathrop Specific Plan (SLSP) project consists of an application to annex approximately 689 acres of land in unincorporated San Joaquin County into the City of Lathrop and the approval of the appropriate entitlements to plan for the ultimate development of that area. The SLSP would be developed with residential, office, commercial, industrial, parks and open space, school, and transit uses.

Note: The State Clearinghouse will assign identification numbers for all projects. If a SCH number already exists for a project (e.g., Notice of Preparation or previous draft document) please fill in.



**Reviewing Agencies Checklist**

Appendix C, continued

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with an "X".  
If you have already sent your document to the agency please denote that with an "S".

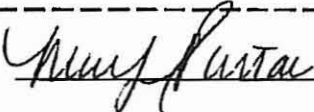
- |                                                                    |                                                                                    |
|--------------------------------------------------------------------|------------------------------------------------------------------------------------|
| <input type="checkbox"/> Air Resources Board                       | <input type="checkbox"/> Office of Historic Preservation                           |
| <input type="checkbox"/> Boating & Waterways, Department of        | <input type="checkbox"/> Office of Public School Construction                      |
| <input type="checkbox"/> California Highway Patrol                 | <input type="checkbox"/> Parks & Recreation                                        |
| <input checked="" type="checkbox"/> Caltrans District # <u>10</u>  | <input type="checkbox"/> Pesticide Regulation, Department of                       |
| <input type="checkbox"/> Caltrans District of Aeronautics          | <input checked="" type="checkbox"/> Public Utilities Commission                    |
| <input type="checkbox"/> Caltrans Planning (Headquarters)          | <input checked="" type="checkbox"/> Reclamation Board _____                        |
| <input type="checkbox"/> Coachella Valley Mountains Conservancy    | <input checked="" type="checkbox"/> Regional WQCB # <u>Central Valley Region 5</u> |
| <input type="checkbox"/> Coastal Commission                        | <input type="checkbox"/> Resources Agency                                          |
| <input type="checkbox"/> Colorado River Board                      | <input type="checkbox"/> S.F Bay Conservation & Development Commission             |
| <input type="checkbox"/> Conservation, Department of               | <input type="checkbox"/> San Gabriel & Lower L.A. Rivers and Mtns Conservancy      |
| <input type="checkbox"/> Corrections, Department of                | <input type="checkbox"/> San Joaquin River Conservancy                             |
| <input type="checkbox"/> Delta Protection Commission               | <input type="checkbox"/> Santa Monica Mountains Conservancy                        |
| <input checked="" type="checkbox"/> Education, Department of       | <input type="checkbox"/> State Lands Commission                                    |
| <input type="checkbox"/> Energy Commission                         | <input type="checkbox"/> SWRCB: Clean Water Grants                                 |
| <input checked="" type="checkbox"/> Fish & Game Region # _____     | <input type="checkbox"/> SWRCB: Water Quality                                      |
| <input type="checkbox"/> Food & Agriculture, Department of         | <input type="checkbox"/> SWRCB: Water Rights                                       |
| <input type="checkbox"/> Forestry & Fire Protection                | <input type="checkbox"/> Tahoe Regional Planning Agency                            |
| <input type="checkbox"/> General Services, Department of           | <input type="checkbox"/> Toxic Substances Control, Department of                   |
| <input checked="" type="checkbox"/> Health Services, Department of | <input type="checkbox"/> Water Resources, Department of                            |
| <input type="checkbox"/> Housing & Community Development           |                                                                                    |
| <input type="checkbox"/> Integrated Waste Management Board         | <input type="checkbox"/> Other _____                                               |
| <input type="checkbox"/> Native American Heritage Commission       | <input type="checkbox"/> Other _____                                               |
| <input type="checkbox"/> Office of Emergency Services              |                                                                                    |

-----  
**Local Public Review Period (to be filled in by lead agency)**

Starting Date September 25, 2006 Ending Date October 24, 2006

-----  
**Lead Agency (Complete if applicable):**

Consulting Firm: <u>EIP Associates, a Division of PBS&amp;J</u>	Applicant: _____
Address: <u>1200 Second Street, Suite 200</u>	Address: _____
City/State/Zip: <u>Sacramento, CA 95814</u>	City/State/Zip: _____
Contact: <u>Cathy McEfee</u>	Phone: _____
Phone: <u>(916) 325-4800</u>	

-----  
Signature of Lead Agency Representative:  Date: Sept 21, 2006

## **ATTACHMENT F**

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1602 Notification

**PENDING**

## **LIST OF FIGURES**

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Figure 1. Project Site and Vicinity

Figure 2. Natural Resource Conservation Service Soil Types

Figure 3. Proposed Impact Plan

## **LIST OF ATTACHMENTS**

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Attachment A – SWRCB Section 401 Water Quality Certification Application

Attachment B – Proposed Impact Plan

Attachment C – Wetland Delineation Report

Attachment D – Nationwide Permits (NWP) No. 7 and No. 39

Attachment E – Initial Study and Notice of Preparation for the SLSP EIR

Attachment F – 1602 Notification

**ATTACHMENT A**

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SWRQB 401 Section 401 Water Quality Certification Application

## **ATTACHMENT B**

---

Proposed Impact Plan

# **ATTACHMENT C**

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Wetland Delineation Report



## **ATTACHMENT D**

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Nationwide Permits (NWPs) No. 7 and No. 39

## **ATTACHMENT E**

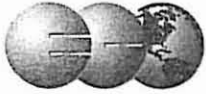
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Initial Study and Notice of Preparation for the SLSP EIR

## **ATTACHMENT F**

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1602 Notification



23 June 2008

California Department of Fish and Game  
1701 Nimbus Road, Suite A  
Rancho Cordova, California 95670

**RE: 1602 Notification – South Lathrop 6a and 6b, San Joaquin County, California**

Dear Sir or Madam:

On behalf of the Richland Planned Communities, Inc., please find enclosed Form 2023 - Notification of Lake or Streambed Alteration and the attached Exhibit A with additional information regarding the above-referenced project. The proposed South Lathrop 6a and 6b project is located in San Joaquin County, California. Enclosed is a check in the amount of \$4,000.00 to cover the application fee.

Thank you for your consideration of this application. Should you have any questions, or require additional information, please call me at (916) 782-9100.

Sincerely,

*DRAFT*

Michelle Archuleta  
Natural Resource Specialist

Attachment(s)

Cc: Clifton Taylor / Richland Planned Communities, Inc.

FOR DEPARTMENT USE ONLY

Date Received	Amount Received	Amount Due	Date Complete	Notification No.
	\$	\$		



STATE OF CALIFORNIA  
DEPARTMENT OF FISH AND GAME  
**NOTIFICATION OF LAKE OR STREAMBED ALTERATION**



Complete EACH field, unless otherwise indicated, following the enclosed instruction and submit ALL required enclosures. Attach additional pages, if necessary.

**1. APPLICANT PROPOSING PROJECT**

Name	Clifton Taylor			
Business / Agency	Richland Planned Communities			
Street Address	2220 Douglas Blvd, Suite 290			
City, State, Zip	Roseville, CA 95661			
Telephone	(916) 782-3330	Fax	(916) 784-3369	
Email				

**2. CONTACT PERSON** *(Complete only if different from applicant)*

Name	Michelle Archuleta of ECORP Consulting, Inc.			
Street Address	2525 Warren Drive			
City, State, Zip	Rocklin, CA 95677			
Telephone	(916) 782-9100	Fax	(916) 782-9134	
Email	marchuleta@ecorpconsulting.com			

**3. PROPERTY OWNER** *(Complete only if different from applicant)*

Name				
Street Address				
City, State, Zip				
Telephone		Fax		
Email				

**4. PROJECT NAME AND AGREEMENT TERM**

A. Project Name		South Lathrop 6a and 6b		
B. Agreement Term Request		<input checked="" type="checkbox"/> Regular (5 years or less) <input type="checkbox"/> Long-term (greater than 5 years)		
C. Project Term		D. Seasonal Work Period		E. Number of Work Days
Beginning (year)	Ending (year)	Start Date (month/day)	End Date (month/day)	
2008	2013	May 15	October 15	~900 days

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

**5. AGREEMENT TYPE**

Check the application box. If box B, C, D, or E is checked, complete the specified attachment.

A.	<input checked="" type="checkbox"/> Standard (Most construction projects, excluding the categories listed below)
B.	<input type="checkbox"/> Gravel/Sand/Rock Extraction (Attachment A) Mine I.D. Number:
C.	<input type="checkbox"/> Timber Harvesting (Attachment B) THP Number:
D.	<input type="checkbox"/> Water Diversion/Extraction/Impoundment (Attachment C) SWRCB Number:
E.	<input type="checkbox"/> Routine Maintenance (Attachment D)
F.	<input type="checkbox"/> DFG Fisheries Restoration Grant Program (FRGP) FRGP Contract Number:
G.	<input type="checkbox"/> Master
H.	<input type="checkbox"/> Master Timber Harvesting

**6. FEES**

Please see the current fee schedule to determine the appropriate notification fee. Itemize each project's estimated cost and corresponding fee. *Note: The Department may not process this notification until the correct fee has been received.*

A. Project		B. Project Cost	C. Project Fee
1	South Lathrop 6a and 6b - project cost is more than \$500,000	>\$500,000	\$4,000
2			
3			
4			
5			
		D. Base Fee (if applicable)	
		E. TOTAL FEE ENCLOSED	\$4,000

**7. PRIOR NOTIFICATION OR ORDER**

A. Has a notification previously been submitted to, or a Lake or Streambed Alteration Agreement previously been issued by, the Department for the project description in this notification?

Yes (Provided the information below)       No

Applicant: \_\_\_\_\_ Notification Number: \_\_\_\_\_ Date: \_\_\_\_\_

B. Is this notification being submitted in response to an order, notice, or other directive ("order") by a court or administrative agency (including the Department)?

No       Yes (Enclose a copy of the order, notice, or other directive. If the directive is not in writing, identify the person who directed the applicant to submit this notification and the agency he or she represents, and describe the circumstances relating to the order.)

Continued on additional page(s)

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

**8. PROJECT LOCATION**

A. Address or description of project location.

*(Include a map that marks the location of the project with a reference to the nearest city or town, and provide driving direction from a major road or highway)*

The project site is located south of Highway 120 and east of the Interstate 5 and Interstate 205 interchange and south of Madrugá Road with Guthmiller Road dissecting the project site in San Joaquin County, California (see Figure 1. Project Site and Vicinity, included with this notification). The approximate center of the site is located at 37° 47' 10" North and 121° 17' 40" West within the San Joaquin Delta Watershed (#18040003, U.S. Department of Interior, Geological Survey 1978).

- From I-5 South (SACRAMENTO/LOS ANGELES) head toward the City of Lathrop.
- Merge onto CA-120 East via EXIT 461 toward MANTECA/SONORA.
- Take the exit toward YOSEMITE AVENUE off of CA-120 East
- Turn Right onto GUTHMILLER Road (will be intersected by MADRUGA Road)
- MADRUGA ROAD is parallel to and just north of the northern perimeter of the site

Continued on additional page(s)

B. River, stream, or lake affected by the project.      San Joaquin River

C. What water body is the river, stream, or lake tributary to?      Sacramento-San Joaquin Delta

D. Is the river or stream segment affected by the project listed in the state or federal Wild and Scenic Rivers Act?       Yes       No       Unknown

E. County      San Joaquin

F. USGS 7.5 Minute Quad Map Name	G. Township	H. Range	I. Section	J. ¼ Section
Lathrop, California	2 South	6 East	3	

Continued on additional page(s)

K. Meridian (check one)       Humboldt       Mt. Diablo       San Bernardino

L. Assessor's Parcel Number(s)

- 241-410-43
- 241-410-42
- 241-410-41
- 241-410-37
- 241-410-07
- 241-410-03
- 241-410-06
- 241-020-11
- 241-030-03

Continued on additional page(s)

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

M. Coordinates (If available, provide at least latitude/longitude or UTM coordinates and check appropriate boxes)			
Latitude/Longitude	Latitude: 37° 47' 10" North		Longitude: 121° 17' 40" West
	<input checked="" type="checkbox"/> Degrees/Minutes/Seconds <input type="checkbox"/> Decimal Degrees <input type="checkbox"/> Decimal Minutes		
UTM	Easting:	Northing:	<input type="checkbox"/> Zone 10 <input type="checkbox"/> Zone 11
Datum used for Latitude/Longitude or UTM		<input checked="" type="checkbox"/> NAD 21	<input type="checkbox"/> NAD 83 or WGS 84

**9. PROJECT CATEGORY AND WORK TYPE** (Check each Box that applies)

PROJECT CATEGORY	NEW CONSTRUCTION	REPLACE EXISTING STRUCTURE	REPAIR/MAINTAIN EXISTING STRUCTURE
Bank stabilization – bioengineering/recontouring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bank stabilization – rib-rap/retaining wall/gabion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Boat dock/pier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Boat ramp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bridge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Channel clearing/vegetation management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Culvert	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Debris basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diversion structure – weir or pump intake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Filling of wetland, river, stream, or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geotechnical survey	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Habitat enhancement – revegetation/mitigation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Levee	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Low water crossing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Road/trail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sediment removal – pond, stream, or marina	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Storm drain outfall structure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Temporary stream crossing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utility: Horizontal Directional Drilling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jack/bore	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open trench	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



NOTIFICATION OF LAKE OR STREAMBED ALTERATION

**10. PROJECT DESCRIPTION**

A. Description of the project in detail. Photographs of the project location and immediate surrounding area should be included.

- Include any structures (e.g., rip-rap, culverts, or channel clearing) that will be placed, built, or completed in or near the stream, river, or lake.
- Specify the type and volume of materials that will be used.
- If water will be diverted or drafted, specify the purpose or use.

Enclose diagrams, drawings, plans, and/or maps that provide all of the following: site specific construction details; the dimensions of each structure and/or extent of each activity in the bed, channel, bank or flood plan; an overview of the entire project area (i.e., "bird's-eye view") showing the location of each structure and/or activity, significant area features, and where the equipment/machinery will enter and exit the project area.

The property to be developed consists of approximately 277 acres proposed for the construction of a light industrial, office, and commercial development in south-central San Joaquin County within the City of Lathrop. Construction activities for the Project would consist of grading, installation of utilities, installation of an outfall, paving, and the construction of structures and related infrastructure throughout the Project. Project activities which fall under CDFG jurisdiction (and this notification) include the construction of the storm drain outfall in the southwest corner of the site on the eastern levee of the San Joaquin River. Refer to Figure 3, *Storm Water Outfall Plan and Profile* located in Exhibit A (*Supplemental Information to Notification of Lake or Streambed Alteration Form for South Lathrop 6a and 6b*). An aerial photo depicting the proposed project and the surrounding area is included as Figure 4. Representative site photos are included as Figure 5.

Continued on additional page(s)

B. Specify the equipment and machinery that will be used to complete the project.

Scrapers, excavators, back hoes and loaders are examples of equipment to be used during construction.

Continued on additional page(s)

C. Will water be present during the proposed work period (specified in box. 4.D) in the stream, river, or lake (specified in box 8.B).

Yes     No (Skip to box 11)

D. Will the proposed project require work in the wetted portion of the channel?

Yes (*Enclosed a plan to divert water around work site*) – See Section 12.A of this notification form.  
 No

**11. PROJECT IMPACTS**

A. Describe impacts to the bed, channel, and bank of the river, stream, or lake, and the associated riparian habitat. Specify the dimensions of the modification in length (linear feet) and area (square feet or acres) and the type and volume of material (cubic yards) that will be moved, displaced, or otherwise disturbed, if applicable.

Potential impacts that fall under CDFG jurisdiction are planned to occur during storm drain outfall construction at the eastern levee of the San Joaquin River. The storm drain system has been designed to carry water from the project area, over the eastern levee of the San Joaquin River (via a series of pumps), to the proposed storm drain outfall structure on the eastern levee. In efforts to limit potential impacts, the eastern San Joaquin River levee will not be bored through during planned storm drain outfall construction. All impacts to the levee will be limited to the maximum extent practical.

Continued on additional page(s)

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

B. Will the project affect any vegetation?  Yes (Complete the tables below)  No

Vegetation Type	Temporary Impact	Permanent Impact
grass adjacent to San Joaquin River	Linear feet: _____ Total area: _____	Linear feet: 213.83 Total area: _____
	Linear feet: _____ Total area: _____	Linear feet: _____ Total area: _____

Tree Species	Number of Trees to be Removed	Trunk Diameter (range)

Continued on additional page(s)

C. Are any special status animals or plant species, or habitat that could support such species, known to be present on or near project site?

Yes (List each species and/or describe the habitat below)  No  Unknown

The riparian brush rabbit (*Sylvilagus bachmani riparius*) is known to occur along the San Joaquin River, however, due to the relatively small amount of riparian vegetation and suitable refuge within the site the species is not expected to occur within the site. Two elderberry shrubs (*Sambucus Mexicana*) shrubs were found within the site boundary. These shrubs represent suitable habitat for the federally threatened Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*). However, surveys showed the shrubs found on-site lacked evidence of the beetle's presence. The San Joaquin river represents potential habitat for the Giant Garter snake (*Thamnophis gigas*). The closest known occurrence is more than 15 miles from the site. Delta Button celery is known to occur within close proximity of the site. A rare plant survey was conducted to determine the presence of this species. All relevant reports are included as attachments to the Nationwide Permit application included herein as Attachment C.

Continued on additional page(s)

D. Identify the source(s) of information that supports a "yes" or "no" answer above in Box 11.C.

"Special Status Species Assessment for South Lathrop South Village"  
 "Elderberry Survey for South Lathrop 6a and 6b"  
 "Rare Plant Survey for South Lathrop 6a and 6b"  
 "Burrowing Owl and Riparian Brush Rabbit Habitat Assessment for South Lathrop 6a and 6b"

Continued on additional page(s)

E. Has a biological study been completed for the project site?

Yes (Enclose the biological study)  No

Note: A biological assessment or study may be required to evaluate potential project impacts on biological resources.

F. Has a hydrological study been completed for the project or project site?

Yes (Enclosed the hydrological study)  No (Hydrological study is to be completed as part of the SLSP EIR, which is currently being drafted).

Note: A hydrological study or other information on site hydraulics (e.g., flows, channel characters, and/or flood recurrence intervals) may be required to evaluate potential project impacts on hydrology.

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

**12. MEASURES TO PROTECT FISH, WILDLIFE, AND PLANT RESOURCES**

A. Describe the techniques that will be used to prevent sediment from entering watercourses during and after construction.

The proposed outfall construction on the eastern levee of the San Joaquin River is anticipated to occur in the wetted portion of the channel. Clear water diversion BMPs shall be used to protect water quality during outfall construction. Some examples of clear water diversion techniques include diversion ditches, berms, dykes, wood, aqua barriers, cofferdams, turbidity/silt curtains, interceptor swales, pipes and flumes. Clear Water Diversion may also be used in conjunction with other methods such as bypasses, pumps, or other BMPs. The exact de-watering plan for storm drain outfall construction in the southwestern section of the site shall be designed by the contractor to be performing the work.

Continued on additional page(s)

B. Describe project avoidance and/or minimization measures to protect fish, wildlife, and plant resources.

The storm drain system and outfall structure design: The eastern levee of the San Joaquin River will not be bored through or significantly disturbed during planned storm drain outfall construction. The storm drain system has been designed to carry water from the project site over the eastern levee of the San Joaquin River (via a series of pumps) to the proposed storm drain outfall structure in the southwest corner of the site.

Continued on additional page(s)

C. Describe any project mitigation and/or compensation measures to protect fish, wildlife, and plant resources.

The San Joaquin Multi-Species Conservation Plan (SJMSCP) has addressed mitigation measures for impacts to the 277 acres of row crops and for impacts to any of the species, and/or unoccupied habitat of species, listed in the SJMSCP. The only Federally listed species which has the potential to occur on the South Lathrop 6a and 6b project site that is not covered under the SJMSCP is the riparian brush rabbit (*Sylvilagus bachmani riparius*; federally endangered). Riparian brush rabbits (RBR) have historically been found in San Joaquin Valley riparian areas. The SJMSCP does not cover impacts to RBR when they are observed on a project site, however no RBR have been observed on-site. We have requested that the ACOE initiate a consultation with USFWS, pursuant to Section 7 of the federal Endangered Species Act.

The applicant also proposes to mitigate for impacts to the 0.446 acres of waters of the United States through the ACOE in-lieu fee fund.

Continued on additional page(s)

**13. PERMITS**

List any local, state, and federal permits required for the project and check the corresponding box(es). Enclose a copy of each permit that has been issued.

A. Federal Clean Water Act, Sec. 404 Nationwide No. 7 and No. 39	<input checked="" type="checkbox"/> Applied	<input type="checkbox"/> Issued
B. Federal Clean Water Act, Sec. 401 Water Quality Certification Request	<input checked="" type="checkbox"/> Applied	<input type="checkbox"/> Issued
C. National Historic Preservation Act Sec. 106	<input checked="" type="checkbox"/> Applied	<input type="checkbox"/> Issued

D. Unknown whether  local,  state, or  federal permit is needed for the project. (Check each box that applies)

Continued on additional page(s)

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

**14. ENVIRONMENTAL REVIEW**

A. Has a draft or final document been prepared for the project pursuant to the California Environmental Quality Act (CEQA), National Environmental Protection Act (NEPA), California Endangered Species Act (CESA) and/or federal Endangered Species Act (ESA)?

Yes (Check the box for each CEQA, NEPA, CESA, and ESA document that has been prepared and enclose a copy of each)

No (Check the box for each CEQA, NEPA, CESA, and ESA document listed below that will be or is being prepared)

- |                                                   |                                                                 |                                                                                    |
|---------------------------------------------------|-----------------------------------------------------------------|------------------------------------------------------------------------------------|
| <input type="checkbox"/> Notice of Exemption      | <input type="checkbox"/> Mitigated Negative Declaration         | <input type="checkbox"/> NEPA document (type): _____                               |
| <input checked="" type="checkbox"/> Initial Study | <input checked="" type="checkbox"/> EIR (being prepared)        | <input type="checkbox"/> CESA document (type): _____                               |
| <input type="checkbox"/> Negative Declaration     | <input type="checkbox"/> Notice of Determination (Enclose)      | <input checked="" type="checkbox"/> ESA document (type): <u>SJMSCP &amp; Sec.7</u> |
| <input type="checkbox"/> THP / NTMP               | <input type="checkbox"/> Mitigation, Monitoring, Reporting Plan |                                                                                    |

B. State Clearinghouse Number (if applicable) | N/A

C. Has a CEQA led agency been determined? |  Yes (Complete boxes D, E, and F) |  No (Skip to box 14.G)

D. CEQA Lead Agency | The City of Lathrop

E. Contact Person | Marilyn Ponton | F. Telephone Number | (209) 941-7200

G. If the project description in this notification is part of a larger project or plan, briefly describe that larger project or plan.

The project site is part of the South Lathrop Specific Plan (SLSP). The SLSP is within the City of Lathrop's Sub Plan Area 1 and Sphere of Influence, and is designated for future development in the City of Lathrop General Plan. The SLSP is comprised of a transit center site for the relocation and expansion of the Lathrop-Mantecca ACE Train Station, adjacent mixed use sites near the station, a K-8 school site, limited industrial uses, community and neighborhood parks, open spaces, and a mix of offices, office/commercial and neighborhood serving land uses on approximately 676 acres of land.

Continued on additional page(s)

H. Has an environmental filing fee (Fish and Game Code section 711.4) been paid?

Yes (Enclose proof of payment) |  No (Briefly explain below the reason a filing fee has not been paid)

A check for \$4,000 (check# XXX), for the environmental filing fee has been included with this notification.

*Note: If a filing fee is required, the Department may not finalize a Lake or Streambed Alteration Agreement until the filing fee is paid.*

**15. SITE INSPECTION**

Check one box only.

In the event the Department determines that a site inspection is necessary, I hereby authorize a Department representative to enter the property where the project described in this notification will take place at any reasonable time, and hereby certify that I am authorized to grant the Department such entry.

I request the Department to first contact: *Clifton Taylor*  
at: (916) 782-3330 to schedule a date and time to enter the property where the project described in this notification will take place. I understand that this may delay the Department's issuance of a draft agreement pursuant to this notification.

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

**16. DIGITAL FORMAT**

Is any of the information included as part of the notification available in digital format (i.e., CD, DVD, etc.)?

- Yes (Please enclose the information via digital media with the complete notification form)  
 No

**17. SIGNATURE**

I hereby certify that to the best of my knowledge the information in this notification is true and correct and that I am authorized to sign this notification as, or on behalf of, the applicant. I understand that if any information in this notification is found to be untrue or incorrect, the Department may suspend processing this notification or suspend or revoke any draft of final Lake or Streambed Alteration Agreement issued pursuant to this notification. I understand also that if any information in this notification is found to be untrue or incorrect and the project described in this notification has already begun, I and/or the applicant may be subject to civil or criminal prosecution. I understand that this notification applies only to the project(s) described herein and that I and/or the applicant may be subject to civil or criminal prosecution for undertaking any project not described herein unless the Department has been separately notified of that project in accordance with Fish and Game Code section 1602 or 1611.

\_\_\_\_\_  
Signature of Applicant or Applicant's Authorized Representative

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

**EXHIBIT A**  
**Supplemental Information to Notification of**  
**Lake or Streambed Alteration Form**  
**For South Lathrop 6a and 6b**  
**San Joaquin County, California**

On behalf of Richland Planned Communities, the following information is provided as supplemental information to Form 2023 – *Notification of Lake or Streambed Alteration* for the proposed South Lathrop 6a and 6b project, San Joaquin County, California. The proposed project involves the construction of an outfall structure along the eastern levee of the San Joaquin River (at the southwestern corner of the project site).

**PROJECT LOCATION**

The project site is located south of Highway 120, east of Interstate 5 and Interstate 205 interchange, and south of Madrugada Road with Guthmiller Road in San Joaquin County, California (Figure 1. *Project Site and Vicinity*). The site corresponds to a portion of the Section 3, Township 2 South, and Range 6 East, Mount Diablo Base Meridian (MDBM) of the "Lathrop, California" 7.5-minute quadrangle (U.S. Department of the Interior, Geological Survey 1996). The approximate center of the site is located at 37° 47' 10" North and 121° 17' 40" West within the San Joaquin Delta Watershed (#18040003, U.S. Department of Interior, Geological Survey 1978).

**PROJECT DESCRIPTION**

**Background**

The South Lathrop 6a and 6b project is part of the South Lathrop Specific Plan (SLSP). The SLSP is divided into two portions by State Route 120. South Lathrop 6a and 6b is located south of State Highway 120 and the remaining area of the SLSP is to the north of Highway 120. Development is planned to occur in the remaining northern section of the SLSP.

The Northern Area Portion Master Plan of Drainage (NAPMPD) includes multiple areas surrounding and including the City of Lathrop. As a result of this drainage plan, during a 100-year storm event, the SLSP cannot discharge stormwater into the San Joaquin River greater than 30% of the peak storm water flow rate.

### **Project Elements**

The proposed project includes construction of a light industrial, office, and commercial development on approximately 277 acres of land (see Figure 2. *Proposed Impact Plan*, with large format located in Attachment A).

The project will be constructed in the following stages: 1) grading, 2) installation of utilities, 3) paving, 4) the construction of building structures and related infrastructure.

The project will require the filling and grading of approximately 0.446 acres of jurisdictional Waters of the U.S. The project proponents propose to mitigate for impacts to seasonal wetlands and other waters through contributing to the ACOE in-lieu fee fund. Figure 2 illustrates the anticipated impacts

### **PROJECT DESCRIPTION OF WORK WITHIN CDFG JURISDICTION**

Under Section 1600 et seq. of the California Fish and Game Code, the California Department of Fish and Game requires project applicants to obtain a Streambed Alteration Agreement for projects affecting the bed, bank, or channel of a lake, river, or stream. The application to CDFG must include proof of CEQA compliance and a processing fee proportional to the cost of the project. For the proposed South Lathrop 6a and 6b project, the fee amount would be \$4,000.00. Processing time for Streambed Alteration Agreements includes a 30-day review of the application for completeness, followed by an additional 30-day period to develop a draft agreement.

The proposed impacts to the eastern levee of the San Joaquin River are under the jurisdiction of the California Department of Fish and Game (CDFG) and will require a Streambed Alteration Agreement.

The South Lathrop 6a and 6b plan calls for the excavation, grading, and fill of 0.446 acres waters of the United States. Impacts that fall under CDFG jurisdiction include the 0.140 acres of impacts to the eastern levee of the San Joaquin River (which will be disturbed as a result of storm drain outfall construction in this section of the site). Refer to Figure 3. *Storm Water Outfall Plan and Profile*.

## **SITE DESCRIPTION**

The site is composed of relatively flat terrain and is situated at an elevation of approximately 15 feet above mean sea level. The majority of the project site is being used for agricultural practices (i.e., alfalfa, winter wheat, and cattle grazing). The western portion is being utilized for alfalfa and winter wheat production with a small cattle grazing area located in the southern central portion of the project site. The vegetation within the pasture includes rose clover (*Trifolium hirtum*), Bermuda grass (*Cynodon dactylon*), barnyard grass (*Echinochloa crusgalli*), and birdsfoot trefoil (*Lotus corniculatus*). The rest of the project site is ruderal grassland habitat. The vegetation within the ruderal grassland habitat include yellow-star thistle (*Centaurea solstitialis*), Telegraph weed (*Heterotheca grandiflora*), and Common mallow (*Malva neglecta*).

A relatively small amount of native vegetation occurs along the San Joaquin River, which borders the western edge of the project area. Cropland accounts for approximately 270 acres of the project site. An aerial photo as well as representative site photos depicting the site and the surrounding area is included as Figures 4 and 5.

There are several existing buildings within the project site including farmhouses and truck maintenance company located east of Guthmiller Road.



According to the *Soil Survey of San Joaquin County, California* (U.S. Department of Agriculture, Soil Conservation Service 1992), seven soil units, or types, have been mapped within the project site (Figure 6. *Natural Resource Conservation Service Soil Types*). These are: (109) Bisgani loam coarse sand, partially drained, 0-2% slopes, (142) Delhi loamy sand, 0-2% slopes, (148) Dello clay loam, drained, 0-2% slopes, overwashed, (153) Egbert silty clay loam, partially drained, 0-2% slopes, (166) Grangeville fine sandy loam, partially drained, 0-2% slopes, (169) Guard clay loam, drained, 0-2% slopes, and (196) Manteca fine sandy loam, 0-2% slopes. All the soil units contain hydric inclusions, except for Delhi loamy sand. Dello clay loam and Egbert silty clay loam consists of listed hydric components (U.S. Department of Agriculture, Soil Conservation Service 1992).

A detention basin is located north of the truck maintenance yard and collects runoff throughout the year. Runoff is coming from storm drains within the parking lot. There is no outflow of water from the detention basin. Water is evaporated out of the detention basin.

Aquatic features on-site include a stock pond (0.121 acre), seasonal wetlands (0.175 acre), seasonal wetland swales (0.010 acre), and a detention basin.

To determine the location of potentially jurisdictional boundaries within the property, field wetland surveys were conducted for the entire 277±-acre project site on December 8, 2004 and August 15, 2005 by ECORP biologist Stacy Roper. A wetland delineation report was subsequently prepared for the project on November 10, 2005. A copy of the Wetland Delineation Report is provided in Attachment B.

A total of 0.446 acre of potentially jurisdictional waters of the U.S. has been mapped on-site. These acreages represent a calculated estimation of the jurisdictional area within the project site, and are subject to modification following the Corps verification process. Fill within jurisdictional features would require permitting pursuant to Section 404 and 401 of the federal Clean Water Act.

The South Lathrop 6a and 6b project applicant proposes to fill 0.175 acre of seasonal wetlands, 0.010 acre of seasonal wetland swales, 0.121 acre of stock pond and 0.140 acre of San Joaquin River.

**Table 1 – Existing and Proposed Impact Acreages of Waters of the U.S.**

<b>Type</b>	<b>Existing</b>	<b>Direct Impact</b>
<i>Wetlands</i>		
Seasonal Wetland	0.175	0.175
Seasonal Wetland Swale	0.010	0.010
<i>Other Waters</i>		
Stock Pond	0.121	0.121
San Joaquin River*	<u>0.140</u>	<u>0.140</u>
<b>Total:</b>	<b>0.446</b>	<b>0.446</b>

\*Although not delineated in the 10 November 2005 submittal, the proposed outfall design is anticipated to impact 0.140 acre of the San Joaquin River.

## **OTHER AGENCY APPROVALS**

### **Federal Clean Water Act, Section 404**

A total of 0.446 acres of jurisdictional waters of the U.S. have been identified for the project area including 0.175 acres of seasonal wetland, 0.010 acres of seasonal wetland swale, 0.121 acres of stock pond and 0.140 acres of the San Joaquin River. The applicant is requesting authorization for the fill of 0.446 acres of waters of the U.S. through Nationwide Permits No. 7 (Outfall Structures and Associated Intake Structures) and No. 39 (Commercial and Institutional Developments). The applications submitted to the Corps have been included in Attachment C.

### **Federal Clean Water Act, Section 401**

A request for water quality certification is being submitted to the Central Valley Regional Water Quality Control Board concurrently with this application. A copy of the certification request has been included in Attachment D.

## Federal Endangered Species Act

A Special-Status Species Assessment was prepared for the South Lathrop 6a and 6b project on 8 September 2006. The Special-Status Species Assessment report is included with the Section 7 information submitted with the Nationwide Permit No. 7 and 39 application (see Attachment C). Impacts to the following federally endangered (E) or threatened (T) species potentially occurring on the CLPI are covered through the San Joaquin Multiple Species Habitat Conservation and Open Space Plan (SJMSCP) Minimization Measures (also refer to SJMSCP Information Packet provided in Attachment E):

### *Invertebrates*

- *Branchinecta lynchi* – vernal pool fairy shrimp (T)
- *Desmocerus californicus dimorphus* – valley elderberry longhorn beetle (T)
- *Lepidurus packardi* – vernal pool tadpole shrimp (E)

### *Fish*

- *Hypomesus transpacificus* – delta smelt (T)
- *Oncorhynchus mykiss* – Central Valley steelhead (T)
- *Oncorhynchus tshawytscha* – Central Valley spring-run chinook salmon (T)
- *Oncorhynchus tshawytscha* – winter-run chinook salmon, Sacramento River (E)

### *Amphibians*

- *Ambystoma californiense* – California tiger salamander (T)
- *Rana aurora draytonii* – California red-legged frog (T)

### *Reptiles*

- *Thamnophis gigas* – giant garter snake

## *Birds*

- *Haliaeetus leucocephalus* – bald eagle (T)

The only Federally listed species which has the potential to occur at the South Lathrop 6a and 6b project site, which is not covered under the SJMSCP, is the riparian brush rabbit (*Sylvilagus bachmani riparius*; federally endangered). Historically, they have been found in the San Joaquin Valley riparian areas. The SJMSCP does not cover impacts to RBR when they are observed on a project site. Accordingly, we have requested that the Corps initiate consultation with USFWS, pursuant to Section 7 of the federal Endangered Species Act. Section 7 information is included in the Nationwide Permit application located in Attachment C. Additionally, an assessment of habitat for the RBR and Burrowing owls (*Athene cunicularia*) was conducted and is included in the Section 7 Information for Nationwide Permit application (see Attachment C).

Rare Plant Surveys were performed in May of 2008 (include with Attachment C). The South Lathrop 6a and 6b project site has the potential for the following rare plant species to occur on-site: Delta button celery (*Eryngium racemosum*), slough thistle (*Cirsium crassicaule*), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*). Potential suitable habitat for delta button celery and slough thistle occurs on the San Joaquin River banks within the levee. None of the listed rare species were found within the project boundaries during the May 2008 survey.

## **National Historic Preservation Act, Section 106**

A literature and records search, a cultural resource survey, and testing and evaluation program was done for the South Lathrop 6a and 6b project site. The resulting reports are included in ACOE permit application located in Attachment C.

## **California Environmental Quality Act**

The proposed project is subject to the California Environmental Quality Act (CEQA). The CEQA lead agency is the City of Lathrop. An Initial Study and Notice of Preparation were prepared for the South Lathrop Specific Plan (SLSP) - Environmental Impact Report (EIR) in September of 2006 (included as Attachment F). The project will be part of the Final SLSP EIR (which is currently being prepared by the City of Lathrop).

## **California Endangered Species Act**

The California Endangered Species Act (CESA) provides protection for threatened and endangered species under Sections 2050-2098 of the California Fish and Game Code. CESA prohibits the "take" of a species, which is further defined as to kill, hunt, pursue, capture, or catch a species. Recently, this definition has been expanded to include habitat modification. The California Department of Fish and Game (CDFG) requires a Take permit that includes substantial biological documentation and requires full mitigation for the impacts to the species. Where a state-listed species is also federally listed, (as is the Riparian Brush Rabbit (RBR), which could be affected by the proposed project) the required state-level incidental take authorization may be obtained via a "consistency determination" to be made by CDFG regarding the federal Biological Opinion from the USFWS.

## **MITIGATION PLAN**

### **Federal Wetland Dredge / Fill Authorization and Compensation**

Wetland features and waters of the U.S. proposed for impact consist of features that developed historically as a result of construction of irrigation conveyance structures in otherwise upland habitat. Until recently, water delivery and hydrologic regime has, since the time of construction of the system, occurred through the manual operation of pumps and placement of irrigation water. The habitat value of these features is low due to erratic water

delivery and intensive agricultural use and tendency for erosion. In-kind mitigation is, therefore, not proposed.

The proposed project impacts total 0.446 acre, which is below the 0.5-acre threshold for Nationwide Permit No. 39. Due to the small size of impact and the current land use design avoidance would be infeasible. Any on-site minimization and/or avoidance of the jurisdictional features would make the project unviable.

The applicant proposes to mitigate for impacts to the 0.446 acres of waters of the United States through the Corps in-lieu fee fund. Table 2 outlines impacts and proposed mitigation.

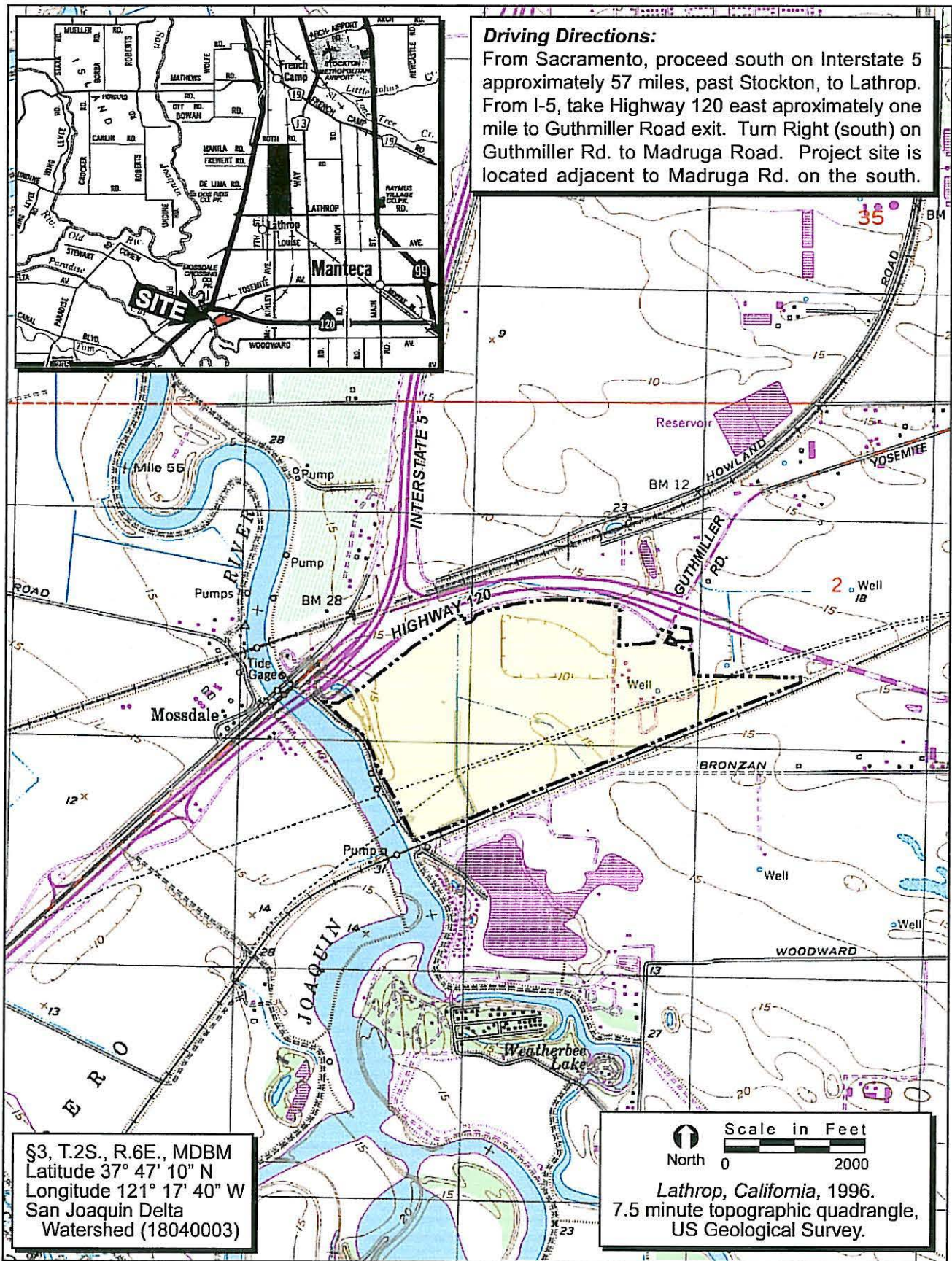
<b>Table 2 – Proposed Wetland Mitigation</b>			
<b>Type</b>	<b>Existing</b>	<b>Impacted</b> <i>Direct</i>	<b>Proposed Mitigation</b>
<i>Wetlands</i>			
Seasonal Wetland	0.175	0.175	0.175
Seasonal Wetland Swale	0.010	0.010	0.010
<i>Other Waters</i>			
Stock Pond	0.121	0.121	0.121
San Joaquin River	<u>0.140</u>	<u>0.140</u>	<u>0.140</u>
<b>Total:</b>	0.446	0.446	0.446

Based on the estimates provided in this document, the amount of fill requiring compensatory mitigation for habitat loss by this project would be approximately 0.446 acres.

## **LIST OF FIGURES**

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- Figure 1. Project Site and Vicinity
- Figure 2. Proposed Impact Plan
- Figure 3. Storm Water Outfall Plan and Profile
- Figure 4. Aerial Photo
- Figure 5. Representative Site Photos
- Figure 6. Natural Resources Conservation Service Soil Types



**FIGURE 1. Project Site and Vicinity**

2007-213 South Lathrop 6a & 6b



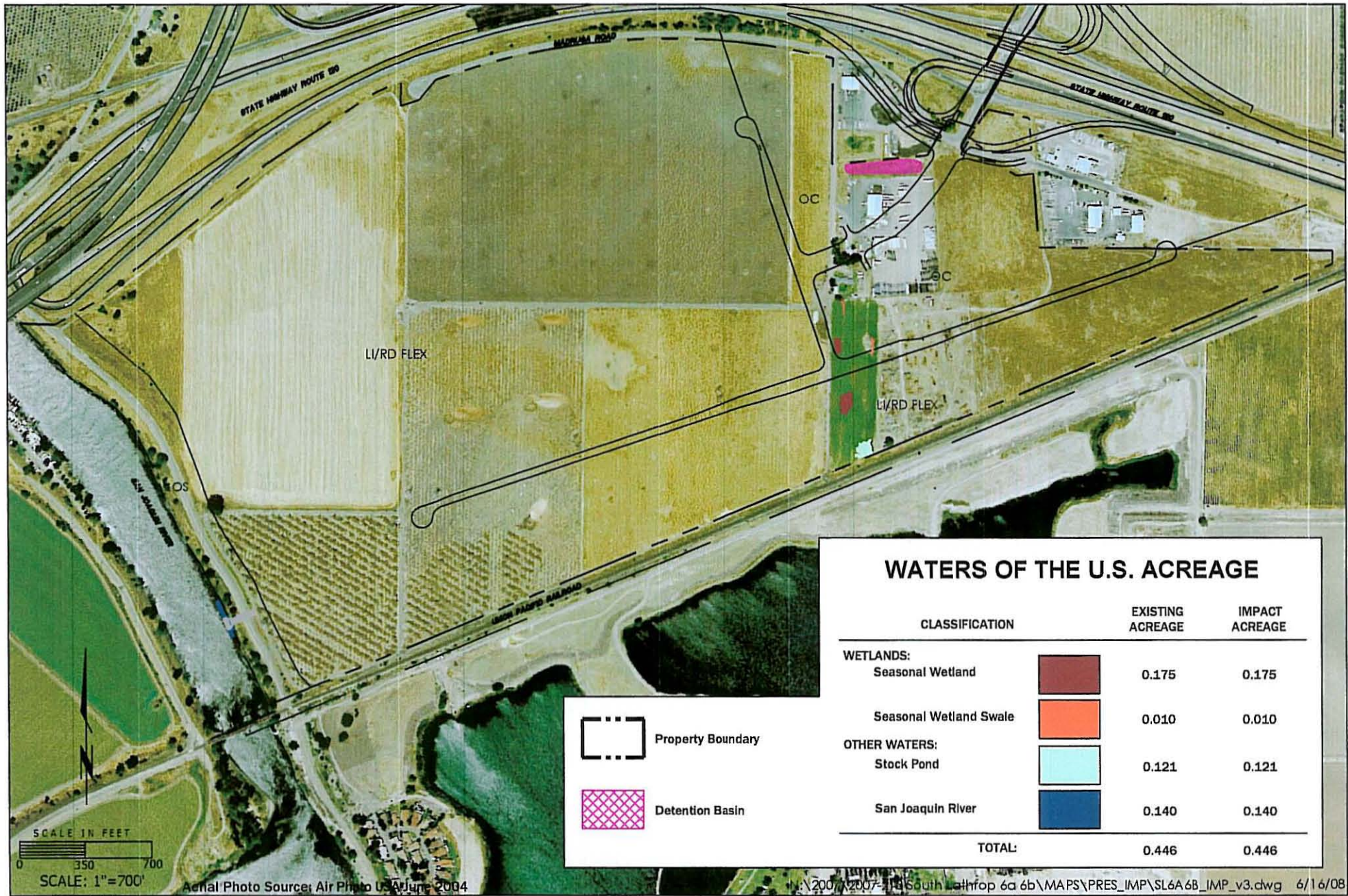


FIGURE 2. Proposed Impact Plan



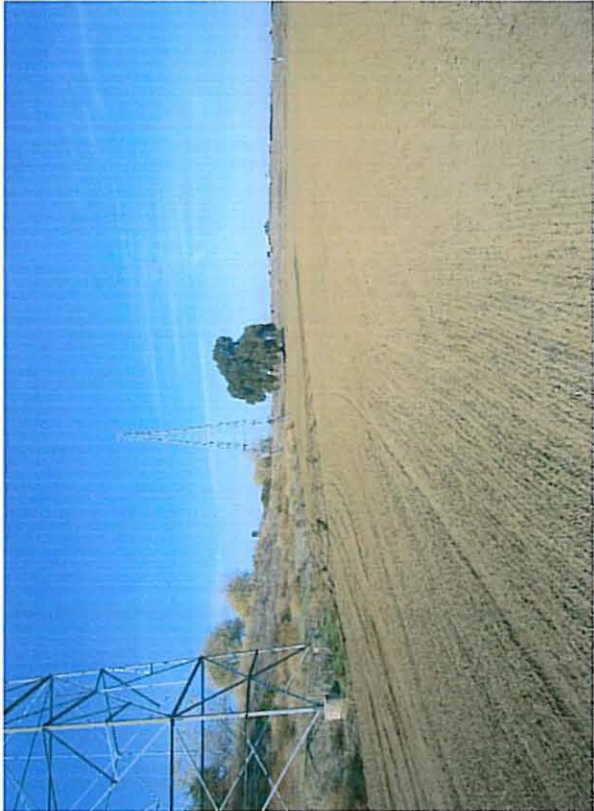


Aerial Photo Source: AirPhoto USA June 2004

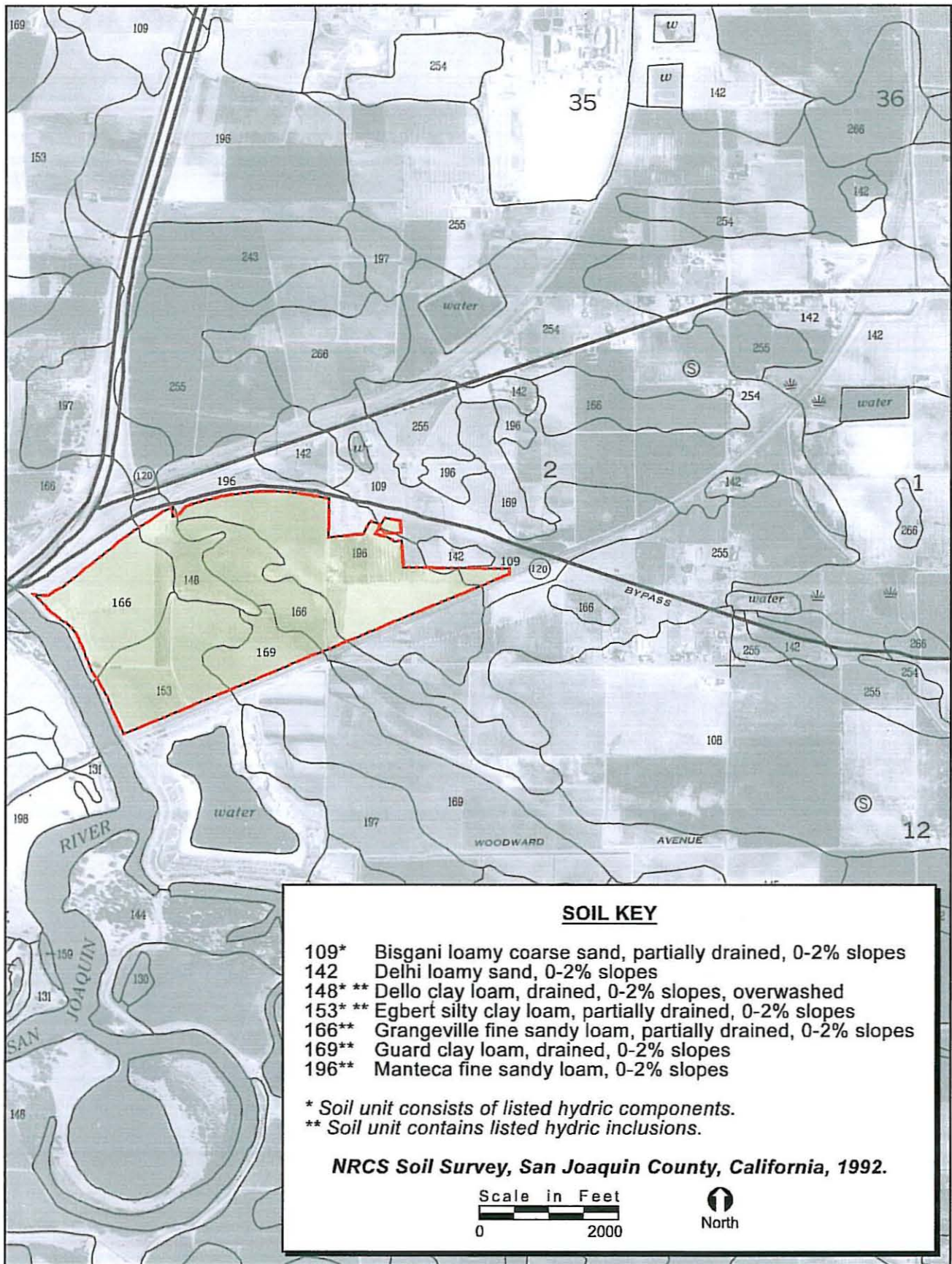


**ECORP Consulting, Inc.**  
ENVIRONMENTAL CONSULTANTS

FIGURE 4. Aerial Photo



**FIGURE 5. Representative Site Photos - 2008**



**FIGURE 6. Natural Resources Conservation Service Soil Types**

## **LIST OF ATTACHMENTS**

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Attachment A – Proposed Impact Plan

Attachment B – Wetland Delineation Report

Attachment C – Nationwide Permits (NWP) No. 7 and No. 39

Attachment D – Water Quality Certification Request

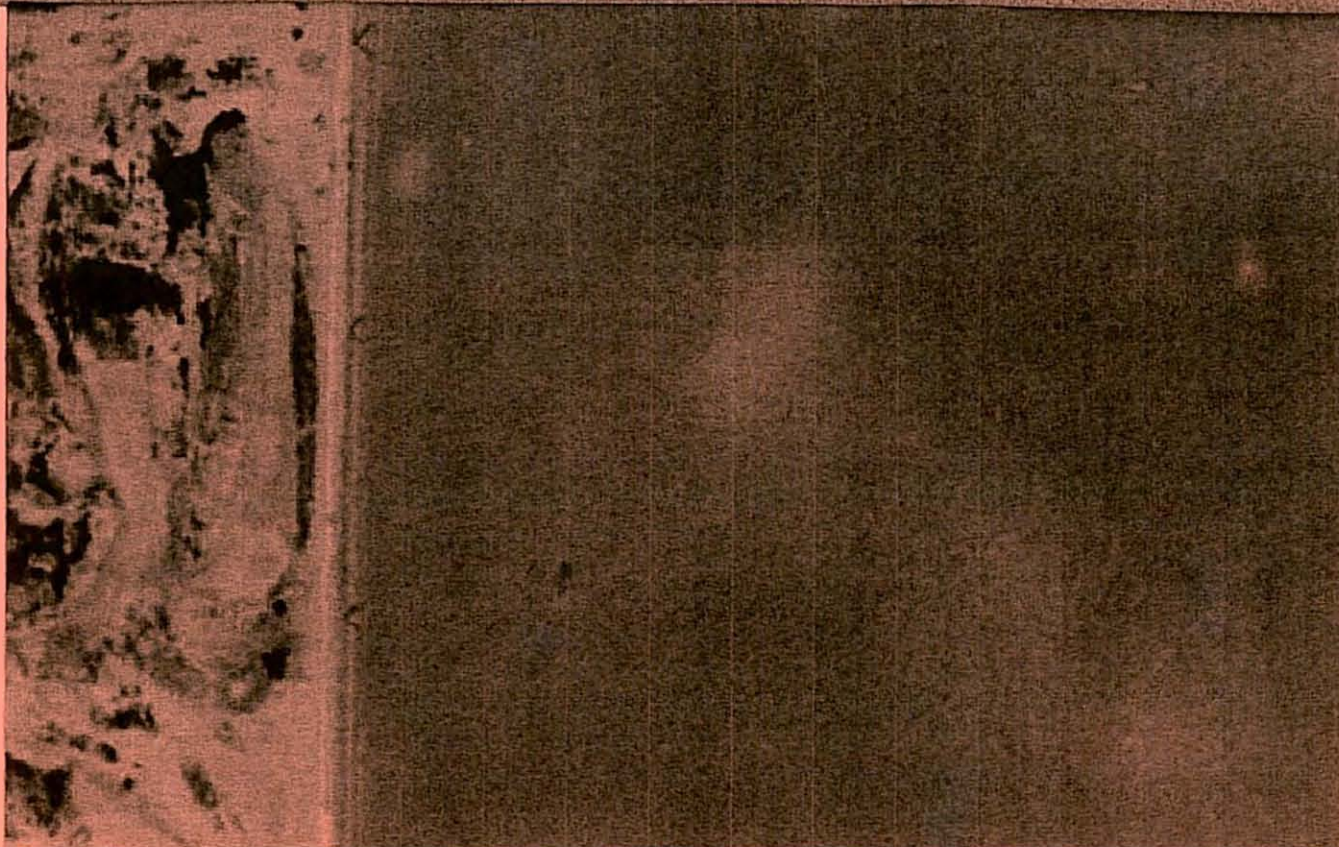
Attachment E – SJMSCP Information Packet

Attachment F – Initial Study and Notice of Preparation for the South Lathrop Specific  
Plan EIR

# **ATTACHMENT A**

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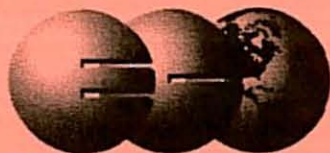
Proposed Impact Plan



# SOUTH LATHROP 6A/6B

## PROPOSED IMPACT PLAN

DATE: 22 MAY 2008	REVISION DATE: 6/16/2008	PROJECT NUMBER: 2007-213
CAD SPECIALIST: KO	SCALE: 1"=200'	MAP NAME: SL6A6B_IMP_v3.dwg
MAP LOCATION: N:\2007\2007-213 South Lathrop 6a 6b\MAPS\PRES_IMP		QA/QC: -
WETLAND VERIFICATION LETTER DATE:		PM: LMA



## **ECORP Consulting, Inc.** ENVIRONMENTAL CONSULTANTS

**Northern California**  
2525 Warren Drive  
Rocklin, CA 95677  
Ph: 916.782.9100

**Bay Area**  
2100 Embarcadero, Ste. 202  
Oakland, CA 94606  
Ph: 510.434.0150

**Orange County**  
1801 Park Court Place Bldg B. Ste. 103  
Santa Ana, CA 92701  
Ph: 714.648.0630

**Inland Empire**  
215 North 5th St  
Redlands, CA. 92374  
Ph: 909.307.0046

**San Diego**  
4709 Blona Drive  
San Diego, CA 92116  
Ph: 619.521.0303



## **ATTACHMENT B**

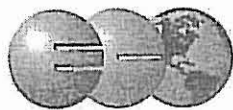
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Wetland Delineation Report

WETLAND DELINEATION  
FOR  
**SOUTH LATHROP 6A & 6B**  
SAN JOAQUIN COUNTY, CALIFORNIA

November 10, 2005

Prepared for:  
**Richland Planned Communities**



**ECORP Consulting, Inc.**  
ENVIRONMENTAL CONSULTANTS

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## 1.0 INTRODUCTION

On behalf of Richland Planned Communities, ECORP Consulting, Inc. (ECORP) has conducted a wetland delineation of the 277-acre South Lathrop 6a & 6b project site. The project site is located south of Highway 120 and east of the Interstate 5 and Highway 560 interchange and south of Madrugá Road with Guthmiller Road dissecting the project site in San Joaquin County, California (Figure 1. *Project Site and Vicinity Map*). The site corresponds to a portion of Section 3, Township 2 South, and Range 6 East Mount Diablo Base Meridian (MDBM) of the "Lathrop, California" 7.5-minute quadrangle (U.S. Department of the Interior, Geological Survey 1996). The approximate center of the site is located at 37° 47' 10" North and 121° 17' 40" West within the San Joaquin Delta Watershed (# 18040003, U.S. Department of Interior, Geological Survey 1978).

This report describes waters of the United States, including wetlands, identified within the project site that may be regulated by the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act. The information presented in this report provides data required by the U.S. Army Corps of Engineers Sacramento District's *Minimum Standards for Acceptance of Preliminary Wetland Delineations* (U.S. Army Corps of Engineers 2001). The waters of the U.S. boundaries depicted in this report represent a calculated estimation of the jurisdictional area within the project site, and are subject to modification following the Corps verification process.

### APPLICANT:

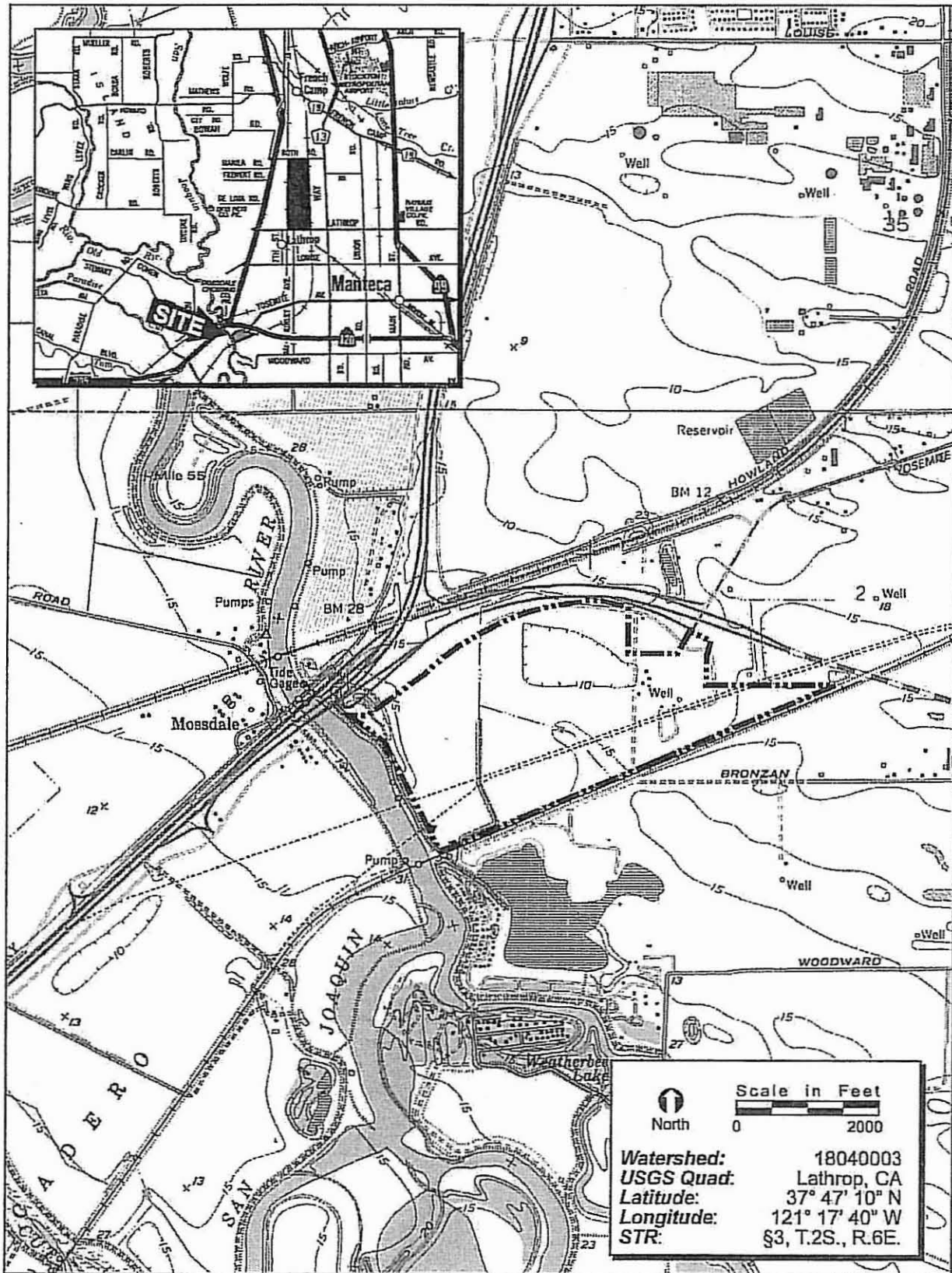
Attn: Mr. Clifton Taylor  
Richland Planned Communities  
2220 Douglas Blvd, Ste 290  
Roseville, California 95661  
Phone: (916) 782-3330  
Fax: (916) 784-3369

### AGENT:

Attn: Ms. Stacy Roper  
ECORP Consulting, Inc.  
2260 Douglas Boulevard, Suite 160  
Roseville, California 95661  
Phone: (916) 782-9100  
Fax: (916) 782-9134

## 1.1 Existing Site Conditions

The site is composed of relatively flat terrain and is situated at an elevation of approximately 15 feet above mean sea level. The majority of the project site is being used for agricultural



**FIGURE 1. Project Site and Vicinity Map**

2004-096 South Lathrop 6a & 6b

practices (i.e., alfalfa, winter wheat, and cattle grazing). The western portion is being utilized for alfalfa and winter wheat production with a small cattle grazing area located in the southern central portion of the project site. The vegetation within the pasture includes rose clover (*Trifolium hirtum*), Bermuda grass (*Cynodon dactylon*), barnyard grass (*Echinochloa crusgalli*), and birdsfoot trefoil (*Lotus corniculatus*). There are several buildings located within the project site including farmhouses and truck maintenance company east of Guthmiller Road. The rest of the project site is ruderal grassland habitat. The vegetation within the ruderal grassland habitat include yellow-star thistle (*Centaurea solstitialis*), Telegraph weed (*Heterotheca grandiflora*), and Common mallow (*Malva neglecta*).

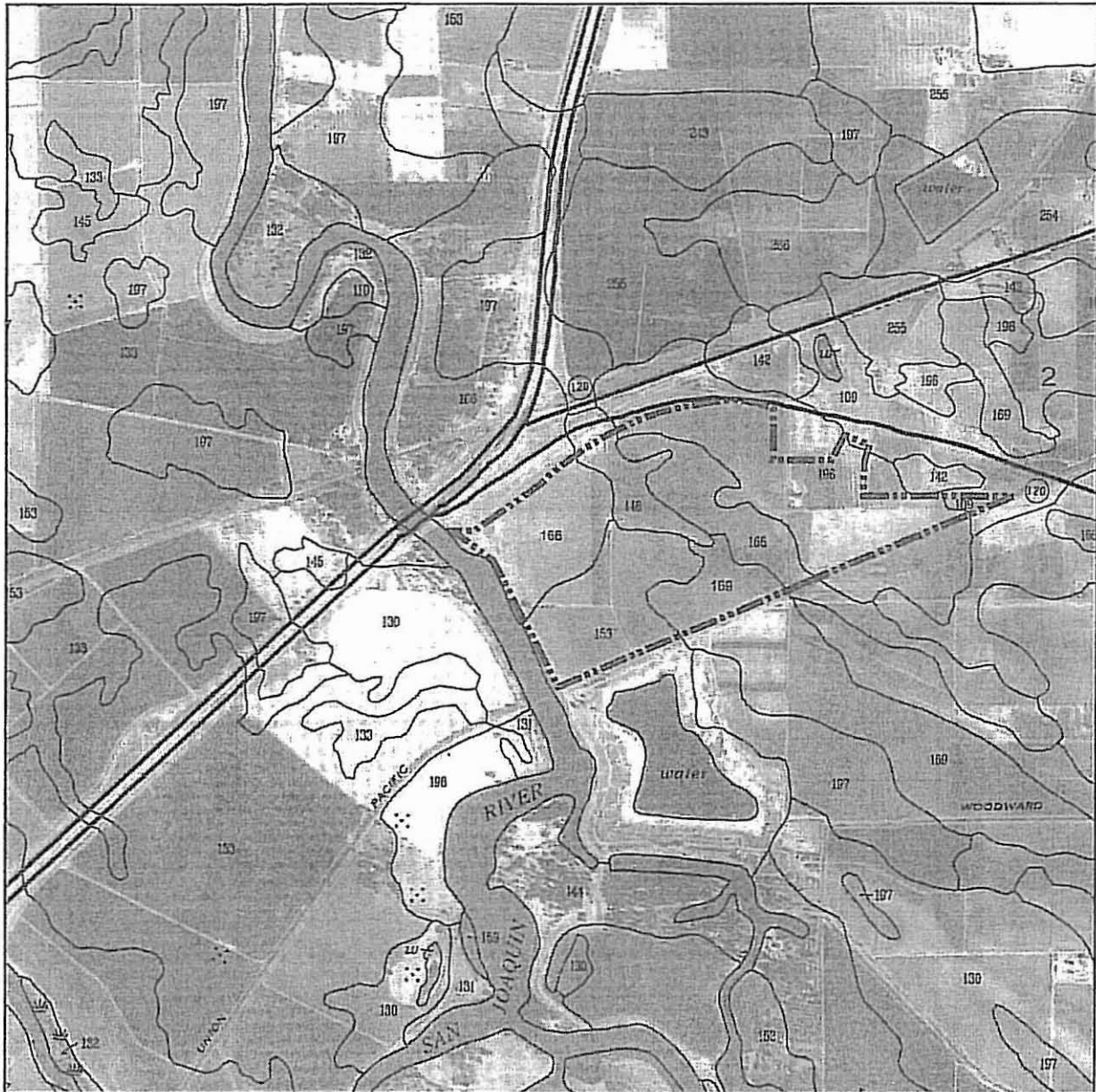
A detention basin is located north of the truck maintenance yard and collects runoff throughout the year. Runoff is coming from storm drains within the parking lot. There is no outflow of water from the detention basin. Water is evaporated out of the detention basin.

Aquatic features on-site include a stock pond, seasonal wetlands, seasonal wetland swales, and a detention basin. These features are further described in the Results section.

According to the *Soil Survey of San Joaquin County, California* (U.S. Department of Agriculture, Soil Conservation Service 1992), six soil units, or types, have been mapped within the project site (Figure 2. *Natural Resource Conservation Service Soil Types*). These are: (109) Bisgani loam coarse sand, partially drained, 0-2% slopes, 148) Dello clay loam, drained, 0-2% slopes, overwashed, (153) Egbert silty clay loam, partially drained, 0-2% slopes, (166) Grangeville fine sandy loam, partially drained, 0-2% slopes, (169) Guard clay loam, drained, 0-2% slopes, and (196) Manteca fine sandy loam, 0-2% slopes. All the soil units contain hydric inclusions. Dello clay loam and Egbert silty clay loam consists of listed hydric components (U.S. Department of Agriculture, Soil Conservation Service 1992).

## **2.0 METHODS**

This wetland delineation was conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987). The waters of the U.S. boundaries were



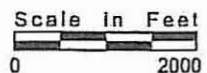
**SOIL KEY**

- 109\* Bisgani loamy coarse sand, partially drained, 0-2% slopes
- 148\* \*\* Dello clay loam, drained, 0-2% slopes, overwashed
- 153\* \*\* Egbert silty clay loam, partially drained, 0-2% slopes
- 166\*\* Grangeville fine sandy loam, partially drained, 0-2% slopes
- 169\*\* Guard clay loam, drained, 0-2% slopes
- 196\*\* Manteca fine sandy loam, 0-2% slopes

\* Soil unit consists of listed hydric components.

\*\* Soil unit contains listed hydric inclusions.

*NRCS Soil Survey, San Joaquin County, California, 1992.*



**FIGURE 2. Natural Resources Conservation Service Soil Types**

delineated through aerial photograph interpretation and standard field methodologies (i.e., paired data set analyses), and all wetland data were recorded on Routine Wetland Determination Forms (Appendix A). A color aerial photograph (1"=300' scale, Airphoto 2002) was used to assist with mapping and ground-truthing. *Munsell Soil Color Charts* (Kollmorgen Instruments Co. 1990) and the *Soil Survey of San Joaquin County, California* (U.S. Department of Agriculture, Soil Conservation Service 1992) were used to aid in identifying hydric soils in the field. *The Jepson Manual* (Hickman, ed. 1993) was used for plant nomenclature and identification.

Field wetland surveys were conducted on December 8, 2004 and August 15, 2005 by ECORP biologist Stacy Roper. Ms. Roper walked the entire 277±-acre project site to determine the location of potentially jurisdictional boundaries within the property. Six paired data point locations and four single point locations were sampled to evaluate whether or not the vegetation, hydrology, and soils data supported a determination of wetland or non-wetland status. At each paired location, one point was located such that it was within the estimated wetland area, and the other point was situated outside the limits of the estimated wetland area. The data collected at each single point location was used to support a non-wetland determination. The total area of the wetlands within the property was recorded in the field using a post-processing capable global positioning system (GPS) unit with sub-meter accuracy (Trimble GeoXT).

## **2.1 Waters Of The United States**

This report describes waters of the United States that may be regulated by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act. Wetlands are "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (Environmental Laboratory 1987). Wetlands can be perennial or intermittent, and isolated or adjacent to other waters.

Other waters are non-tidal, perennial, and intermittent watercourses and tributaries to such watercourses (33 CFR 328.3(a) Corps Regulatory Program Regulations, *Federal Register* 51(219), November 13, 1986). The limit of Corps jurisdiction for non-tidal watercourses (without adjacent wetlands) is defined in 33 CFR 328.3 (e) as the "ordinary high water mark" (OHWM). The



OHWB is defined as the "line on the (watercourse banks) established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter and debris; or other appropriate means that consider the characteristics of the surrounding areas" (33 CFR 328.3 (e)). The bank-to-bank extent of the channel that contains the water-flow during a normal rainfall year generally serves as a good first approximation of the lateral limit of Corps jurisdiction. The upstream limits of other waters are defined as the point where the OHWB is no longer perceptible.

## **2.2 Routine Determinations**

To be determined a wetland; the following three parameters should be present:

- A majority of dominant vegetation species are wetland associated species;
- Hydrologic conditions exist that result in periods of flooding, ponding, or saturation during the growing season; and
- Hydric soils are present.

### *2.2.1 Vegetation*

Hydrophytic vegetation is defined as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanent or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present (Environmental Laboratory 1987). The definition of wetlands includes the phrase "a prevalence of vegetation typically adapted for life in saturated soil conditions." Prevalent vegetation is characterized by the dominant plant species comprising the plant community (Environmental Laboratory 1987). The "50/20 rule" was used to determine the dominant plant species at each data point location. The rule states that for each stratum in the plant community, dominant species are the most abundant plant species (when ranked in descending order of abundance and cumulatively totaled) that immediately exceed 50 percent of the total dominance measure for the stratum, plus any additional species that individually

comprise 20 percent or more of the total dominance measure for the stratum (HQUSACE 1992).

Dominant plant species observed at each data point were then classified according to their indicator status (probability of occurrence in wetlands) (Table 1), in accordance with the U.S. Fish and Wildlife Service's (USFWS) National List of Vascular Plant Species That Occur in Wetlands: California (Region 0) (Reed 1988). If the majority (greater than 50 percent) of the dominant vegetation on a site are classified as obligate (OBL), facultative wetland (FACW), or facultative (FAC) (excluding FAC-), then the site is considered to be dominated by hydrophytic vegetation.

**Table 1. Classification of Wetland-Associated Plant Species<sup>1</sup>**

<b><u>Plant Species Classification</u></b>	<b><u>Abbreviation<sup>2</sup></u></b>	<b><u>Probability of Occurring in Wetland</u></b>
Obligate	OBL	>99%
Facultative Wetland	FACW	66-99%
Facultative	FAC	33-66%
Facultative Upland	FACU	1-33%
Upland	UPL	<1%
No indicator status	NI	Insufficient information to determine status
Plants That Are Not Listed (assumed upland species)	NL	Does not occur in wetlands in any region.

<sup>1</sup> Source: Reed 1988

<sup>2</sup> A '+' or '-' symbol can be added to the classification to indicate greater or lesser probability, respectively, of occurrence in a wetland.

### 2.2.2 Soils

A hydric soil is defined as a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (USDA-NRCS 2003). Indicators that a hydric soil is present include soil color (gleyed soils and soils with bright mottles and/or low matrix chroma), aquic or preaquic moisture regime, reducing soil conditions, sulfidic material (odor), soils listed on hydric soils list, iron and manganese concretions, organic soils (Histosols), histic epipedon, high organic content in surface layer in sandy soils, and organic streaking in sandy soils.

A soil pit was excavated to a depth of 16 inches or refusal at each data point. The soil was then examined for hydric soil indicators. The matrix color and mottle color (if present) of the soil was determined using the *Munsell Soil Color Charts*.

### 2.2.3 Hydrology

Wetlands, by definition, are seasonally inundated or saturated at or near (within 12 inches of) the soil surface. To be classified as a wetland, a site should have at least one primary indicator or two secondary indicators of wetland hydrology. Primary indicators of wetland hydrology may include, but are not limited to: water marks, drift lines, sediment deposition, drainage patterns, visual observation of saturated soils, and visual observation of inundation. In addition to the primary indicators, there are a variety of secondary wetland hydrology indicators. Secondary indicators include, but are not limited to: oxidized root channels in the upper 12 inches, water-stained leaves, and local soil survey data. When no primary indicators of wetland hydrology are observed at a data point, two or more secondary indicators are required to confirm wetland hydrology.

## 3.0 RESULTS

A total of 0.306 acre of potentially jurisdictional waters of the U.S has been mapped for this site (Table 2). The routine wetland determination forms are included in Appendix A, and a list of plant species observed at the data points is included in Appendix B. A discussion of the wetlands and other waters is presented below, and wetland delineation maps are presented in Figure 3 and Appendix C.

**Table 2. Waters of the U.S.**

<u>Wetland Type</u>	<u>Acreage</u>
<i>Wetlands</i>	
Seasonal Wetland	0.175
Seasonal Wetland Swale †	0.010
<i>Other Waters</i>	
Stock Pond	<u>0.121</u>
<b>Total</b>	<b>0.306</b>

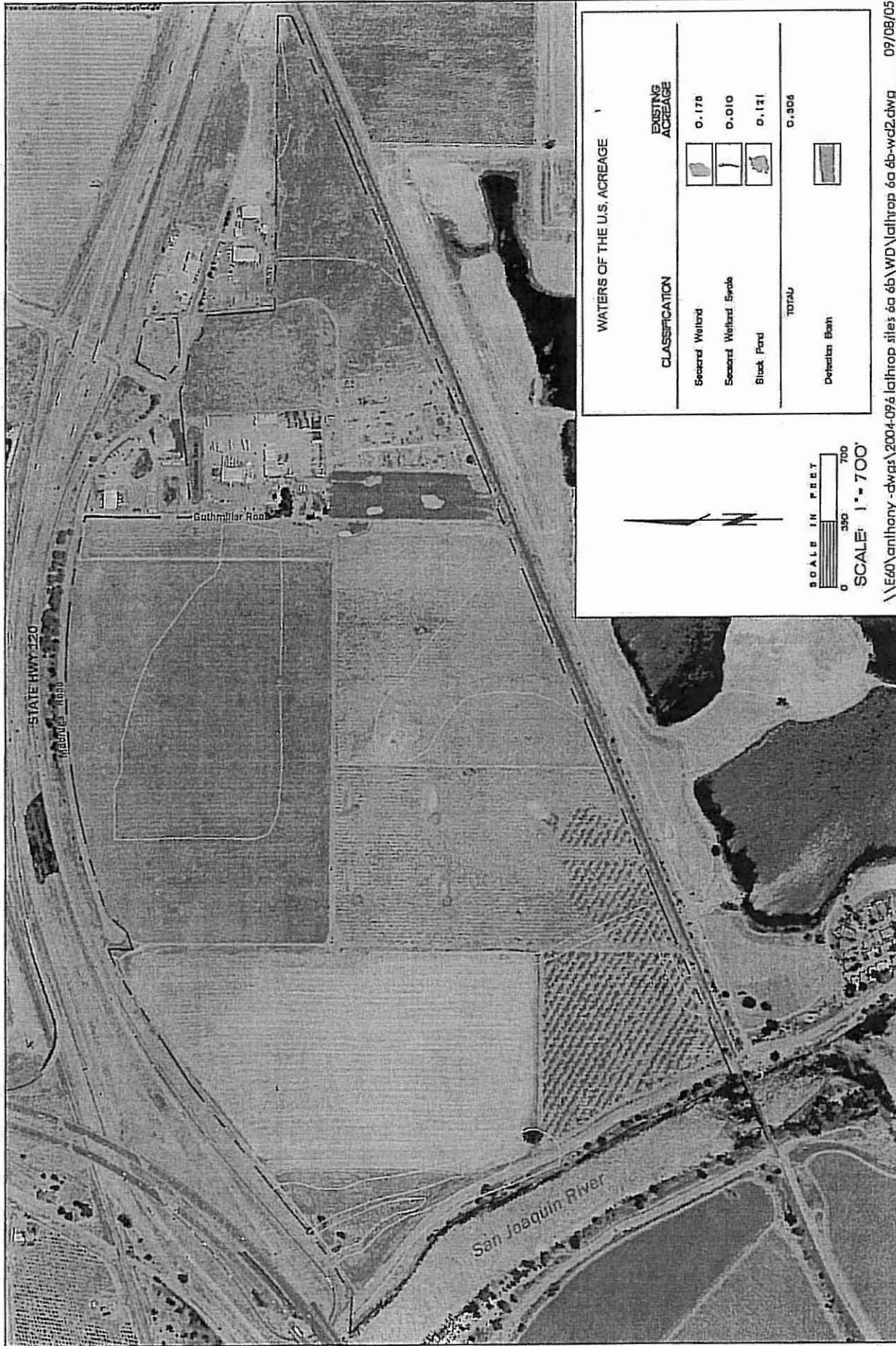


FIGURE 3. Wetland Delineation

### 3.1 Jurisdictional Wetlands

#### 3.1.1 Seasonal Wetland

Seasonal wetlands are ephemerally wet due to accumulation of surface runoff and rainwater within low-lying areas. Inundation periods tend to be relatively short and they are commonly dominated by non-native annual, and sometimes perennial, hydrophytic species. Plant species identified within the seasonal wetland include bentgrass (*Agrostis avenacea*), Bermuda grass, and rose clover (*Trifolium hirtum*).

Wetland hydrology indicators observed within the seasonal wetlands on-site include watermarks. Other hydrologic indicators (i.e., soil saturation and inundation) were not observed due to the time of year that this field survey was conducted. Within seasonal wetland features, these indicators are generally only observable during the wet season and early in the growing season.

The soil matrix color within the seasonal wetland was 10YR4/1 without redoxmorphic (redox) features (i.e., mottles). The soils were determined to be hydric based on the low chroma colors and containing listed hydric inclusions. Soil matrix colors in upland areas adjacent to the seasonal wetlands were of high chroma colors including 10YR3/2 (without redox features).

#### 3.1.2 Seasonal Wetland Swale

These are linear wetland features that do not exhibit an ordinary high water mark. The seasonal wetland swale is located in the southern central portion. Plants species identified within the seasonal wetland swale include barnyard grass (*Echinochloa crusgalli*) and Bermuda grass.

Wetland hydrology indicators observed within the seasonal wetland swales on-site include watermarks. Other hydrologic indicators (i.e., soil saturation and inundation) were not observed due to the time of year that this field survey was conducted.

The soil matrix color within the seasonal wetland swale was 10YR4/1 without redox features. The soils were determined to be hydric based on the low chroma colors and containing listed hydric inclusions. Soil matrix colors in upland areas adjacent to the seasonal wetland swale were of high chroma colors including 10YR3/2 (without redox features).

## **3.2 Other Waters**

### *3.2.1 Stock Pond*

There is a stock pond located in the southern central portion of the irrigated pasture within the project site. Vegetation within the stock pond included predominately water primrose (*Ludwigia peploides* var *peploides*) and an algal bloom.

Wetland hydrology indicators observed within the stock pond on-site include inundation (>12 inches) and soil saturation.

The soil matrix color within the stock pond was 10YR4/1 without redox features. The soils were determined to be hydric based on the low chroma colors and containing listed hydric inclusions. Soil matrix colors in upland areas adjacent to the stock pond were high chroma colors including 10YR4/2 (without redox features).

## **4.0 INTERSTATE COMMERCE**

The San Joaquin River is located along the western side of the project site and is considered navigable waters. The project site is adjacent to the San Joaquin River by a levee. Thus, the seasonal wetlands, seasonal wetland swales, and stock ponds on-site should be considered connected with and/or adjacent to a Waters of a U.S., and would therefore be subject to interstate and/or foreign commerce.

## **5.0 CONCLUSION**

A total of 0.306 acre of potentially jurisdictional waters of the U.S. has been mapped on-site. These acreages represent a calculated estimation of the jurisdictional area within the project site, and are subject to modification following the Corps verification process. Fill within jurisdictional features would require permitting pursuant to Section 404 and 401 of the federal Clean Water Act.

## 6.0 REFERENCES

- AirPhoto USA. -2002. Aerial photograph of the project area.
- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U. S. Army Engineer Waterways Experiment Station. Vicksburg, Mississippi.
- Headquarters, U.S. Army Corps of Engineers (HQUSACE). 1992. Clarification and Interpretation of the 1987 Manual. Memorandum from Major General Arthur E. Williams. Dated: 6 March 1992.
- Hickman, J. C. (ed.). 1993. *The Jepson Manual: Higher Plants of California*. University of California Press. Berkeley, California.
- Kollmorgen Instruments Company. 1990. Munsell Soil Color Charts. Kollmorgen Corporation. Baltimore, Maryland.
- Reed, P.B., Jr. 1988. National List of Plant Species that Occur in Wetlands: California (Region 0). (Biological Report 88[26.10].) U.S. Fish and Wildlife Service, Ft. Collins, Colorado.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2003. National Soil Survey Handbook, title 430-VI. Available Online:  
<http://soils.usda.gov/technical/handbook>.
- U.S. Department of Agriculture, Soil Conservation Service. 1992. Soil Survey of San Joaquin County, California. U.S. Department of Agriculture, Soil Conservation Service. Davis, California.
- U.S. Department of Agriculture, Soil Conservation Service. 1992. Hydric Soils List for San Joaquin County. U.S. Department of Agriculture, Soil Conservation Service, Davis, California.
- U.S. Department of the Army, Corps of Engineers, Sacramento District. November 30, 2001. Minimum Standard for Acceptance of Preliminary Wetland Delineations.
- U.S. Department of the Interior, Geological Survey. 1978. Hydrologic Unit Map, State of California. Geological Survey. Reston, Virginia.
- U.S. Department of the Interior, Geological Survey. 1996. "Lathrop, California" 7.5-minute Quadrangle. Geological Survey. Denver, Colorado.



## **LIST OF APPENDICES**

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Appendix A. Routine Wetland Determination Forms

Appendix B. Plant Species Observed at Data Point Locations

Appendix C. Wetland Delineation

Appendix D. Wetland Delineation Shape File (to be included with Corps submittal only)

Appendix E. Corps-Verified Wetland Map and Verification Letter (to be included in ECORP's master copy only)

**APPENDIX A**

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Routine Wetland Determination Forms

**ECORP Consulting, Inc.**  
 ENVIRONMENTAL CONSULTANTS

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop 6a+6b Date: 08-15-05 Sample Point: 01N  
 Applicant/Owner: Richard Communities Field Investigator(s): S. Roger  
 County: San Joaquin State: CA Plant Community: irrigated pasture  
 Quad(s): Lathrop Section/Township/Range: S 3 T2S R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

**HYDROPHYTIC VEGETATION?** Yes  No

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Trifolium</u>	<u>N/L</u>	<u>H</u>	<u>34.8</u>	5) _____	_____	_____	_____
2) <u>Agropyron</u>	<u>FACW</u>	<u>H</u>	<u>34.8</u>	6) _____	_____	_____	_____
3) _____	_____	_____	_____	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/2 = 50 %

Comments: \_\_\_\_\_

**HYDROLOGY**

**WETLAND HYDROLOGY?** Yes  No

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_  
 Comments: no 1° or 2° indicators

**SOILS**

**HYDRIC SOILS?** Yes  No

Series/Phase: 1b6 Grangeville fine sandy loam, partially drained <sup>0-25 slopes</sup> Drainage Class: partially drained  
 Taxonomy [Subgroup]: thermic Fluvaquentic Haploxerolls Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretion:  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_  
 Inclusions (Series/Phase): Merritt, Columbia, Della, Engbert On Hydric Soils List: Yes  No   

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>4</u>	<u>A</u>	<u>10YR 7/2</u>	<u>-</u>	<u>-</u>	<u>sandy</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

  
 Comments: \_\_\_\_\_

**DECISION**

**WETLAND / WATERS DETERMINATION?** Yes  No

Rationale: Does not meet any of the parameters  
 General comments: \_\_\_\_\_  
 Wetland Type: \_\_\_\_\_

## HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Tri wir	40	34.8
Cyn doc	35	30.4
Agg ave	40	34.8
TOTAL SUM ( $\Sigma$ ) =	115	100%

COVER:

Vegetation	100
Bare Ground	
Rocks	
Other	
TOTAL =	100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Tri wir	34.8	34.8		
Agg ave	34.8	69.6		
TOTAL SUM ( $\Sigma$ ) =	100%			

**ECORP Consulting, Inc.**  
**ENVIRONMENTAL CONSULTANTS**

**ROUTINE WETLAND DELINEATION**

Project/Site: Smith Lathrop 6a-6b Date: 08 15-05 Sample Point: 02  
 Applicant/Owner: Richard Communities Field Investigator(s): S. Roper  
 County: San Joaquin State: CA Plant Community: irrigated pasture  
 Quad(s): Lathrop Section/Township/Range: S 3 T 25 R 6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

**HYDROPHYTIC VEGETATION? Yes  No**

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Lud pep</u>	<u>OBL</u>		<u>100</u>	5) _____			
2) _____				6) _____			
3) _____				7) _____			
4) _____				8) _____			

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/1 = 100 %

Comments: \_\_\_\_\_

**HYDROLOGY**

**WETLAND HYDROLOGY? Yes  No**

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: >12 (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_  
 Comments: \_\_\_\_\_

**SOILS**

**HYDRIC SOILS? Yes  No**

Series/Phase: Grangeville fine sandy loam partially drained Drainage Class: partially drained  
 Taxonomy [Subgroup]: thermic Fluvaquents, Haploxerolls Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretions  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_  
 Inclusions [Series/Phase]: Merritt, Columbia, Della, Egbert On Hydric Soils List: Yes  No   

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>&gt;12</u>	<u>A</u>	<u>10YR 4/1</u>	<u>-</u>	<u>-</u>	<u>sandy</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

 Comments: \_\_\_\_\_

**DECISION**

**WETLAND / WATERS DETERMINATION? Yes  No**

Rationale: Meets all three parameters  
 General comments: \_\_\_\_\_  
 Wetland Type: stock pond

## HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Lid pep	80	100
TOTAL SUM ( $\Sigma$ ) =	80	100%

COVER:

Vegetation	75
Bare Ground	
Rocks	
Other <del>skae bloom</del>	25
TOTAL =	100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Lid pep	100	100		
TOTAL SUM ( $\Sigma$ ) =				

**ECORP Consulting, Inc.**  
**ENVIRONMENTAL CONSULTANTS**

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop 62 " 60 Date: 08-15-05 Sample Point: 03A  
 Applicant/Owner: Richard Communities Field Investigator(s): S. Roper  
 County: San Joaquin State: CA Plant Community: irrigated pasture  
 Quad(s): Lathrop Section/Township/Range: S 3 T2S R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

**HYDROPHYTIC VEGETATION? Yes  No**

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Agave</u>	<u>FACW</u>	<u>H</u>	<u>36.4</u>	5) _____	_____	_____	_____
2) <u>Tri tar</u>	<u>N/L</u>	<u>H</u>	<u>31.8</u>	6) _____	_____	_____	_____
3) <u>Cyn dac</u>	<u>FAC</u>	<u>H</u>	<u>31.8</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/3 = 66%

Comments: \_\_\_\_\_

**HYDROLOGY**

**WETLAND HYDROLOGY? Yes  No**

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_  
 Comments: no 1<sup>o</sup> or 2<sup>o</sup> indicators

**SOILS**

**HYDRIC SOILS? Yes  No**

Series/Phase: 196 Mantles fine sandy loam, 0-2% slopes Drainage Class: well drained  
 Taxonomy [Subgroup]: thermic Haplic Durixerolls Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretion  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_  
 Inclusions [Series/Phase]: trahern On Hydric Soils List: Yes  No   

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
_____	<u>A</u>	<u>10YR 7/2</u>	<u>-</u>	<u>-</u>	<u>Sandy</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Comments: \_\_\_\_\_

**DECISION \***

**WETLAND / WATERS DETERMINATION? Yes  No**

Rationale: Does not meet 2 of the 3 parameters

General comments: \_\_\_\_\_

Wetland Type: \_\_\_\_\_

# HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
Agf ave	40	36.4
Tri hir	35	31.8
Cyn dac	35	31.8
TOTAL SUM ( $\Sigma$ ) =	110	100%

COVER:

Vegetation	100
Bare Ground	
Rocks	
Other	
TOTAL =	100%

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
Agf ave	36.4	36.4		
Tri hir	31.8	68.2		
Cyn dac	31.8	100		
TOTAL SUM ( $\Sigma$ ) =	100%			



**ECORP Consulting, Inc.**  
**ENVIRONMENTAL CONSULTANTS**

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop Irr 666 Date: 08-15-05 Sample Point: 04  
 Applicant/Owner: Richard Communities Field Investigator(s): S. Roper  
 County: San Joaquin State: CA Plant Community: irrigated pasture  
 Quad(s): Lathrop Section/Township/Range: S3 T25 R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

**HYDROPHYTIC VEGETATION? Yes  No**

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Cyperus</u>	<u>FAC</u>	<u>H</u>	<u>71.4</u>	5) _____	_____	_____	_____
2) <u>Ehrh. cr.</u>	<u>FACW</u>	<u>H</u>	<u>28.6</u>	6) _____	_____	_____	_____
3) _____	_____	_____	_____	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 100 = 100 %

Comments: \_\_\_\_\_

**HYDROLOGY**

**WETLAND HYDROLOGY? Yes  No**

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_

Comments: \_\_\_\_\_

**SOILS**

**HYDRIC SOILS? Yes  No**

Series/Phase: 1960 Matted fine sandy loam, 0-2% slopes Drainage Class: well drained  
 Taxonomy (Subgroup): thermic Haplic Durixerolls Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretion  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_

Inclusions (Series/Phase): frabern On Hydric Soils List: Yes  No

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>6</u>	<u>A</u>	<u>10YR 4/1</u>	<u>-</u>	<u>-</u>	<u>sandy</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Comments: \_\_\_\_\_

**DECISION \***

**WETLAND / WATERS DETERMINATION? Yes  No**

Rationale: Meets all 3 criteria

General comments: \_\_\_\_\_

Wetland Type: Seasonal wetland sedge

## HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
<u>Ech cru</u>	<u>10</u>	<u>28.6</u>
<u>Cyn dac</u>	<u>25</u>	<u>71.4</u>
<b>TOTAL SUM (<math>\Sigma</math>) =</b>	<u>35</u>	<u>100%</u>

**COVER:**

Vegetation	<u>35</u>
Bare Ground	<u>65</u>
Rocks	_____
Other	_____
<b>TOTAL =</b>	<b>100%</b>

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
<u>Cyn dac</u>	<u>71.4</u>	<u>71.4</u>	_____	_____
<u>Ech cru</u>	<u>28.6</u>	<u>100</u>	_____	_____
<b>TOTAL SUM (<math>\Sigma</math>) =</b>	<b>100%</b>			

**ECORP Consulting, Inc.**  
**ENVIRONMENTAL CONSULTANTS**

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop 62766 Date: 08-15-05 Sample Point: 05N  
 Applicant/Owner: Richland Communities Field Investigator(s): S. Roper  
 County: San Joaquin State: CA Plant Community: irrigated pasture  
 Quad(s): Lathrop Section/Township/Range: S3 T2S R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

**HYDROPHYTIC VEGETATION? Yes  No**

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Agr. die</u>	<u>FACW</u>	<u>H</u>	<u>36.4</u>	5) _____	_____	_____	_____
2) <u>Cyn. dec</u>	<u>FAC</u>	<u>H</u>	<u>31.8</u>	6) _____	_____	_____	_____
3) <u>Tr. bic</u>	<u>N/L</u>	<u>H</u>	<u>31.8</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/3 = 66%

Comments: \_\_\_\_\_

**HYDROLOGY**

**WETLAND HYDROLOGY? Yes  No**

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_  
 Comments: \_\_\_\_\_

**SOILS**

**HYDRIC SOILS? Yes  No**

Series/Phase: Mantua fine sandy loam, 0-2% slope Drainage Class: well drained  
 Taxonomy [Subgroup]: thermic Haplic Durixerolls Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretion  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_  
 Inclusions [Series/Phase]: trahern On Hydric Soils List: Yes  No   

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>6</u>	<u>A</u>	<u>10YR 3/2</u>	<u>-</u>	<u>-</u>	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

 Comments: \_\_\_\_\_

**DECISION \***

**WETLAND / WATERS DETERMINATION? Yes  No**

Rationale: Does not meet hydrology or soils parameters  
 General comments: \_\_\_\_\_  
 Wetland Type: \_\_\_\_\_

# HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
unk A	40	36.4
Cyn dca	35	31.8
Tri hir	35	31.8
TOTAL SUM ( $\Sigma$ ) =	110	100%

COVER:

Vegetation \_\_\_\_\_

Bare Ground \_\_\_\_\_

Rocks \_\_\_\_\_

Other \_\_\_\_\_

TOTAL = 100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
unk A	36.4	36.4	_____	_____
Cyn dca	31.8	68.2	_____	_____
Tri hir	31.8	100	_____	_____
TOTAL SUM ( $\Sigma$ ) =				

**ECORP Consulting, Inc.**  
**ENVIRONMENTAL CONSULTANTS**

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop 62 r 6b Date: 08-15-05 Sample Point: 06  
 Applicant/Owner: Richland Communities Field Investigator(s): S. Roper  
 County: San Joaquin State: CA Plant Community: irrigated pasture  
 Quad(s): Lathrop Section/Township/Range: 33 T2S R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

**HYDROPHYTIC VEGETATION? Yes  No**

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Cyn dac</u>	<u>FACW</u>	<u>H</u>	<u>58.8</u>	5) _____	_____	_____	_____
2) <u>Tri wir</u>	<u>N/L</u>	<u>H</u>	<u>23.5</u>	6) _____	_____	_____	_____
3) <u>Agc are</u>	<u>FACW</u>	<u>H</u>	<u>17.6</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/3 = 66 %

Comments: \_\_\_\_\_

**HYDROLOGY**

**WETLAND HYDROLOGY? Yes  No**

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_  
 Comments: \_\_\_\_\_

**SOILS**

**HYDRIC SOILS? Yes  No**

Series/Phase: <sup>1a6</sup> Mantua fine sandy loam, 0-2% slope Drainage Class: well drained  
 Taxonomy [Subgroup]: thermic Haplic Durixerolls Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretion  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_  
 Inclusions [Series/Phase]: trahern On Hydric Soils List: Yes  No   

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>6</u>	<u>A</u>	<u>10YR 4/1</u>	<u>-</u>	<u>-</u>	<u>sandy</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

  
 Comments: \_\_\_\_\_

**DECISION \***

**WETLAND / WATERS DETERMINATION? Yes  No**

Rationale: Meets all 3 parameters

General comments: \_\_\_\_\_

Wetland Type: Seasonal wetland



**ECORP Consulting, Inc.**  
 ENVIRONMENTAL CONSULTANTS

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop 6a + 6b Date: 08-15-05 Sample Point: 07N  
 Applicant/Owner: Richland Communities Field Investigator(s): S. Roper  
 County: San Joaquin State: CA Plant Community: irrigated pasture  
 Quad(s): Lathrop Section/Township/Range: S3 T2S R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

HYDROPHYTIC VEGETATION? Yes  No

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Agropyron</u>	<u>FACW</u>	<u>H</u>	<u>33.3</u>	5) _____	_____	_____	_____
2) <u>Cyn dact</u>	<u>FAC</u>	<u>H</u>	<u>33.3</u>	6) _____	_____	_____	_____
3) <u>Tri tar</u>	<u>N/L</u>	<u>H</u>	<u>33.3</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/3 = 66 %

Comments: \_\_\_\_\_

**HYDROLOGY**

WETLAND HYDROLOGY? Yes  No

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_

Comments: no 1<sup>o</sup> or 2<sup>o</sup> indicators

**SOILS**

HYDRIC SOILS? Yes  No

Series/Phase: A<sup>1b</sup> Manteca fine sandy loam, 0-2% slope Drainage Class: well drained  
 Taxonomy [Subgroup]: thermic Haplic Durixerolls Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretions  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_

Inclusions [Series/Phase]: trahern On Hydric Soils List: Yes  No

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>6</u>	<u>A</u>	<u>10YR 3/2</u>	<u>-</u>	<u>-</u>	<u>Sandy</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Comments: \_\_\_\_\_

**DECISION**

WETLAND / WATERS DETERMINATION? Yes  No

Rationale: Does not meet all of the parameters

General comments: \_\_\_\_\_

Wetland Type: \_\_\_\_\_

## HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
Agr sue	35	33.3
cyn dac	35	33.3
Tri hir	35	33.3
TOTAL SUM ( $\Sigma$ ) =	105	100%

COVER:

Vegetation	100
Bare Ground	_____
Rocks	_____
Other	_____
TOTAL =	100%

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
Agr sue	33.3	33.3	_____	_____
cyn dac	33.3	66.6	_____	_____
Tri hir	33.3	99.9	_____	_____
TOTAL SUM ( $\Sigma$ ) =	100%			



**ECORP Consulting, Inc.**  
 ENVIRONMENTAL CONSULTANTS

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop 62 + 66 Date: 08-15-05 Sample Point: 08N  
 Applicant/Owner: Richland Communities Field Investigator(s): S. Roper  
 County: San Joaquin State: CA Plant Community: grassland  
 Quad(s): Lathrop Section/Township/Range: S3 T23 R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

HYDROPHYTIC VEGETATION? Yes  No

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Pop fre</u>	<u>FAC+*</u>	<u>T</u>	<u>56.25</u>	5) _____	_____	_____	_____
2) <u>Cyn dac</u>	<u>FAC</u>	<u>H</u>	<u>18.75</u>	6) _____	_____	_____	_____
3) <u>Pro hor</u>	<u>FACU</u>	<u>H</u>	<u>12.5</u>	7) _____	_____	_____	_____
4) <u>Ad vic</u>	<u>N/L</u>	<u>H</u>	<u>12.5</u>	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/4 = 50 %

Comments: \_\_\_\_\_

**HYDROLOGY**

WETLAND HYDROLOGY? Yes  No

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_  
 Comments: no 1<sup>o</sup> or 2<sup>o</sup> indicators

**SOILS**

HYDRIC SOILS? Yes  No

Series/Phase: 160 Grangeville fine sandy loam, partially drained or 20 slope Drainage Class: partially drained  
 Taxonomy [Subgroup]: thermic Euvraquentic Haploxerolls Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretions  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_  
 Inclusions [Series/Phase]: merritt, Columbia, Dello, Egbert On Hydric Soils List: Yes  No

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>8</u>	<u>A</u>	<u>10YR 3/3</u>	<u>-</u>	<u>-</u>	<u>sandy</u>

Comments: \_\_\_\_\_

**DECISION**

WETLAND / WATERS DETERMINATION? Yes  No

Rationale: Does not meet any of the parameters  
 General comments: \_\_\_\_\_  
 Wetland Type: \_\_\_\_\_

## HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Bro hor	10	12.5
Pop fre	45	56.25
Hol vic	10	12.5
Cyn dac	15	18.75
TOTAL SUM ( $\Sigma$ ) =	<u>80</u>	100%

COVER:

Vegetation	<u>80</u>
Bare Ground	<u>20</u>
Rocks	<u> </u>
Other	<u> </u>
TOTAL =	100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Pop fre	56.25	56.25	<u> </u>	<u> </u>
Cyn dac	18.75	75	<u> </u>	<u> </u>
Bro hor	12.5	87.5	<u> </u>	<u> </u>
Hol vic	12.5	100	<u> </u>	<u> </u>
TOTAL SUM ( $\Sigma$ ) =	100%			

**ECORP Consulting, Inc.**  
 ENVIRONMENTAL CONSULTANTS

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop 6a r6b Date: 12-8-05 Sample Point: 9N  
 Applicant/Owner: Richland Communities Field Investigator(s): S. Stoker  
 County: San Joaquin State: CA Plant Community: \_\_\_\_\_  
 Quad(s): Lathrop Section/Township/Range: S3 T2S R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

HYDROPHYTIC VEGETATION? Yes  No

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Con ar v</u>	<u>N/L</u>	<u>H</u>	<u>50</u>	5) _____	_____	_____	_____
2) <u>Cyn dac</u>	<u>FAC</u>	<u>H</u>	<u>30</u>	6) _____	_____	_____	_____
3) _____	_____	_____	_____	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/2 = 50 %

Comments: \_\_\_\_\_

**HYDROLOGY**

WETLAND HYDROLOGY? Yes  No

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: \_\_\_\_\_ (in.) Depth to free water in pit: \_\_\_\_\_ (in.) Depth to saturated soil: \_\_\_\_\_ (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_  
 Comments: no 1<sup>o</sup> or 2<sup>o</sup> indicators

**SOILS**

HYDRIC SOILS? Yes  No

Series/Phase: Dello clay loam drained 0-2% slope overwashed Drainage Class: poorly drained  
 Taxonomy [Subgroup]: thermic Typic Psammaquents Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretion  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_  
 Inclusions [Series/Phase]: Columbia merritt ebert On Hydric Soils List: Yes  No   

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>10</u>	<u>A</u>	<u>7.5YR 3/2</u>	<u>-</u>	<u>-</u>	<u>-</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

  
 Comments: \_\_\_\_\_

**DECISION**

WETLAND / WATERS DETERMINATION? Yes  No

Rationale: Does not meet any of the criteria  
 General comments: \_\_\_\_\_  
 Wetland Type: \_\_\_\_\_

## HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Con arv	25	50
Car spe	10	20
Cyn dar	15	30
TOTAL SUM ( $\Sigma$ ) =	50	100%

COVER:

Vegetation	50
Bare Ground	50
Rocks	
Other	
TOTAL =	100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Con arv	50	50		
Cyn dar	30	80		
TOTAL SUM ( $\Sigma$ ) =				

**ECORP Consulting, Inc.**  
**ENVIRONMENTAL CONSULTANTS**

**ROUTINE WETLAND DELINEATION**

Project/Site: South Lathrop to 560 Date: 12-8-05 Sample Point: 10N  
 Applicant/Owner: Richland Communities Field Investigator(s): S. Storker  
 County: San Joaquin State: CA Plant Community: \_\_\_\_\_  
 Quad(s): Lathrop Section/Township/Range: S3 T2S R6E  
 Do normal environmental conditions exist site? Yes  No  If no, explain: \_\_\_\_\_  
 Atypical Situation? Yes  No  Explain: \_\_\_\_\_  
 Is this a potential Problem Area? Yes  No  Explain: \_\_\_\_\_

**VEGETATION**

HYDROPHYTIC VEGETATION? Yes  No

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Cyn dac</u>	<u>FAC</u>	<u>H</u>	<u>50</u>	5) _____	_____	_____	_____
2) <u>Conarv</u>	<u>W/L</u>	<u>H</u>	<u>25</u>	6) _____	_____	_____	_____
3) <u>Cir spe</u>	<u>-</u>	<u>H</u>	<u>25</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/3 = 33 %

Comments: \_\_\_\_\_

**HYDROLOGY**

WETLAND HYDROLOGY? Yes  No

Recorded Data: Yes  No  If yes, \_\_\_\_\_  
 Depth of surface water: - (in.) Depth to free water in pit: - (in.) Depth to saturated soil: - (in.)  
 Primary Indicators:  Inundated  Saturated in Upper 12 in.  Water Marks  Drift Lines  Sediment Deposits  Drainage Patterns in Wetland  
 Secondary Indicators (2 or more required):  
 Oxidized Root Channels in Upper 12 in.  Water-stained Leaves  Local Soil Survey Data  FAC-Neutral Test  Other \_\_\_\_\_  
 Comments: no 1° or 2° indicators

**SOILS**

HYDRIC SOILS? Yes  No

Series/Phase: <sup>148</sup> Dello clay loam, drained, 0-2% slope overwashed Drainage Class: moderately drained  
 Taxonomy [Subgroup]: thermic Typic Psammaquents Confirm Map Type: Yes  No   
 Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed/Low Chroma Colors  Concretion  
 High Organic Content in Surface Layer in Sandy Soils  Organic Streaking in Sandy Soils  Listed on Hydric Soils List  Other \_\_\_\_\_  
 Inclusions [Series/Phase]: Columbia, merritt, eghert On Hydric Soils List: Yes  No   

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>10</u>	<u>A</u>	<u>7.5YR 3/2</u>	<u>-</u>	<u>-</u>	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

  
 Comments: \_\_\_\_\_

**DECISION**

WETLAND / WATERS DETERMINATION? Yes  No

Rationale: Does not meet any of the parameters  
 General comments: \_\_\_\_\_  
 Wetland Type: \_\_\_\_\_

## HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
<u>Cyn dac</u>	<u>40</u>	<u>50</u>
<u>Can arv</u>	<u>20</u>	<u>25</u>
<u>Cir spe</u>	<u>20</u>	<u>25</u>
<b>TOTAL SUM (<math>\Sigma</math>) =</b>	<u>80</u>	<b>100%</b>

**COVER:**

Vegetation	<u>80</u>
Bare Ground	<u>20</u>
Rocks	_____
Other	_____
<b>TOTAL =</b>	<b>100%</b>

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
<u>Cyn dac</u>	<u>50</u>	<u>50</u>	_____	_____
<u>Can arv</u>	<u>25</u>	<u>75</u>	_____	_____
<u>Cir spe</u>	<u>25</u>	<u>100</u>	_____	_____
<b>TOTAL SUM (<math>\Sigma</math>) =</b>	<b>100%</b>			

**APPENDIX B**

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Plant Species Observed at Data Point Locations

**Attachment B – Dominant Plant Species at the Lathrop 6a and 6b Project Area  
December, 2004 and August 2005.**

<b>Abbr.</b>	<b>Scientific Name</b>	<b>Common Name</b>	<b>Indicator Status</b>
AGR AVE	<i>Agrostis avenacea</i>	Bentgrass	FACW
BRA spe.	<i>Brassica species</i>	Mustard	N/L
BRO HOR	<i>Bromus hordeaceus</i>	Soft brome	FACU-
CEN SOL	<i>Centaurea solstitialis</i>	Yellow star-thistle	N/L
CIR VUL	<i>Cirsium vulgare</i>	Bull thistle	FAC
CON ARV	<i>Convolvulus arvensis</i>	Morning glory	N/L
CYN DAC	<i>Cynodon dactylon</i>	Bermuda grass	FAC
ECH CRU	<i>Echinochloa crusgalli</i>	Barnyard grass	FACW
HEM PUN	<i>Hemizonia pungens</i>	Common tarweed	FAC
HOL VIR	<i>Holcarpha virgata</i>	Sticky tarweed	N/L
LUD PEP	<i>Ludwigia peploides var peploides</i>	Water primrose	OBL
LUP spe.	<i>Lupinus species</i>	Lupine	N/L
PIC ECH	<i>Picris echioides</i>	Bristly oxtongue	FAC
POP FRE	<i>Populus fremontii</i>	Fremont's cottonwood	FAC+*
QUE LOB	<i>Quercus lobata</i>	Valley oak	FACU
TRI HIR	<i>Trifolium hirtum</i>	Rose clover	N/L
TRI spe.	<i>Trifolium species</i>	Clover	N/L

**Indicator Status Codes**

**OBL** = Obligate Wetland; occur almost always (estimated probability >99%) under natural conditions in wetlands.  
**FACW** = Facultative Wetland; usually occur in wetlands (estimated probability 67%-99%) under natural conditions in wetlands.  
**FAC** = Facultative; equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%).  
**FACU** = Facultative Upland; usually occur in non-wetlands (estimated probability 67%-99%).  
**UPL** = Obligate Upland; occur almost always (estimated probability >99%) in non-wetlands in the region specified.  
**N/L** = Not Listed.  
**NI** = No indicator was recorded for those species for which insufficient information was available to determine a status.  
**--** = May or may not occur in wetlands depending upon species.  
A positive (+) sign indicates a frequency toward the higher (more frequently found in wetlands) end of the facultative categories.  
A negative (-) sign indicates a frequency toward the lower (less frequently found in wetlands) end of the facultative categories.  
An asterisk (\*) indicates a tentative assignment based upon limited information or conflicting review.



**APPENDIX C**

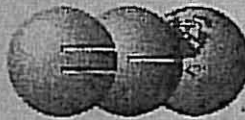
Wetland Delineation

# SOUTH LATHROP 6A & 6B

## WETLAND DELINEATION

Subject to U.S. Army Corp of Engineer's verification

DATE: 08 SEPTEMBER 2005	REVISION:	PROJECT NO: 2004-096
DRAWN BY: CN/ET	SCALE: 1"=300'	FILE NAME Lathrop 6a 6b-wd2.dwg
CHECKED BY:		LAYOUT: 30X25
WETLAND VERIFICATION LETTER DATE:		



**ECORP Consulting, Inc.**  
ENVIRONMENTAL CONSULTANTS

**Headquarters**  
2250 Douglas Blvd., Suite 160  
Roseville, Ca 95661  
Ph: (916) 782-9100

**Roseville Annex**  
1376 Lead Hill Blvd. Suite 130  
Roseville, CA 95661  
Ph: (916) 782-9100

**Oakland Office**  
2100 Embarcadero, Suite 201  
Oakland, CA 94606  
Ph: (510) 434-0150

**Redlands Office**  
412 East State St.  
Redlands, CA. 92373  
Ph: (909) 307-0046

**APPENDIX D**

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Wetland Delineation Shape File (to be include with Corps submittal only)

**APPENDIX E**

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Corps-Verified Wetland Map and Verification Letter (to be included in ECORP's master copy only)

## **ATTACHMENT C**

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Nationwide Permits (NWPs) No. 7 and No. 39

**PENDING**

**ATTACHMENT D**

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Water Quality Certification Request

**PENDING**



## **ATTACHMENT E**

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SJMSCP Information Packet

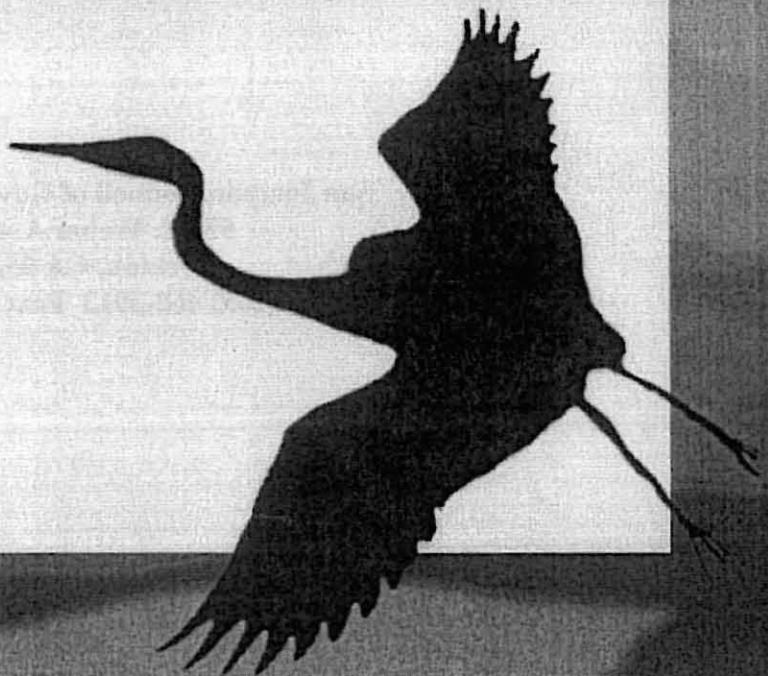
# INFORMATION PACKET

## SAN JOAQUIN COUNTY MULTI-SPECIES HABITAT CONSERVATION AND OPEN-SPACE PLAN



DISTRIBUTED JUNE 2005 BY:  
SJCOG, INC.  
555 E. WEBER AVENUE  
STOCKTON, CA 95202  
(209) 468-3913  
(209) 468-1084 FAX

GIVEN TO EACH APPLICANT  
PARTICIPATING IN THE SJMSCP



# Check List

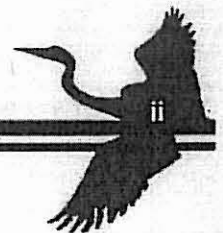
- Submit Project Application to Lead Agency (City/County)
- Fill out Land Development form E or Request for coverage form C and turn into SJCOG, Inc. at 555 E. Weber Avenue, Stockton, CA 95202
- Prior to ground disturbance**, arrange with SJCOG, Inc. for biologist to conduct a pre-construction survey on the property regarding Incidental Take Minimization Measures (at SJCOG, Inc. expense) and habitat.
- Look over, understand, and sign applicable Incidental Take Minimization Measures document
- Pay applicable SJMSCP Fee or choose another participation option in the plan
- Receive Certificate of Payment releasing building permit to applicant.

San Joaquin Council of Governments, Inc.  
555 E. Weber Avenue  
Stockton, CA 95202  
Phone: (209) 468-3913 Fax: (209) 468-1083



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## Frequently Asked Questions



## Frequently Asked Questions

### **How does the SJMSCP apply to Project Applicants within San Joaquin County?**

The Plan allows SJMSCP Permittees (SJCOG, Inc., San Joaquin County and the cities of Escalon, Lathrop, Lodi, Manteca, Ripon, Stockton and Tracy) to issue Incidental Take Permits or allows project applicants to mitigate for impacts to SJMSCP Covered Species resulting from Open Space land conversion resulting from covered projects. Once an Incidental Take Permit is issued it allows the project applicant to unintentionally "Take" a threatened or endangered species listed under the Federal and California Endangered Species Act.

### **What are the Covered Projects?**

The SJMSCP covers the following activities within San Joaquin County: urban development, mining, expansion of existing urban boundaries, non-agricultural activities occurring on agriculturally-zoned properties, projects which could affect fisheries or wetlands indirectly which are located within non-jurisdictional waters, transportation projects, school expansions, non-federal flood control projects, new parks and trails, utility installation, maintenance activities, managing preserves, and similar public agency projects.

These activities can be undertaken by both public and private individuals operating in San Joaquin County.

### **What are the benefits of Participation?**

- Fulfills ESA, CESA, NEPA, CEQA requirement
- Provides consistent and predictable mitigation measures
- Guarantees no further mitigation, except for Incidental Take Minimization Measures required in limited cases
- Provides a streamlined permitting process saving time and planning costs
- Eliminates costs of both biological surveys and pre-construction surveys for Project Proponents
- Allows for off-site mitigation, thereby allowing greater use of project land
- Benefits covered species such as San Joaquin kit fox, Swainson's hawk and California tiger salamander

### **How Does Coverage Work?**

Project applicants have four options to receive Coverage, with approval by SJCOG, Inc.:

1. Pay the appropriate fee. A fee is assessed depending on which of the four habitats the project lies within.
2. Dedicate habitat lands as conservation easement or fee title.
3. Purchase mitigation bank credits from a mitigation bank approved by SJMSCP.
4. Propose an alternative mitigation plan, consistent with the goals of the SJMSCP and equivalent in biological value.



### **Are There Areas Where Covered Activities Require Prior Approval to Participate?**

Yes. Certain covered activities within San Joaquin County occur over a wide area and their exact locations cannot be precisely known, therefore the biological impacts cannot be assessed until submittal of a land development application to the San Joaquin County Community Development Department. Coverage for unmapped land uses shall be subject to a case-by-case review by the Habitat Technical Advisory Committee (HTAC) to ensure biological impacts fall within established parameters.

### **Am I Required to Participate in the SJMSCP?**

Participation in the SJMSCP is voluntary for project applicants except when conditioned to participate by a Permittee. Project applicants within a Permittee's jurisdiction who opt out of the SJMSCP shall satisfy applicable ESA, CESA, NEPA, CEQA, and other applicable local, state and federal laws and regulations provisions through consultations with the Permitting Agencies and local planning agencies.

### **Is Access to My Property Required?**

Yes. A biologist on-call with SJCOG, Inc. will be dispatched to the project site to conduct a pre-construction biological survey prior to ground disturbance. The biologist collects information only relating to the project site such as habitat type and presence of covered species. The information collected is used to create Incidental Take Minimization Measures which is provided to the project applicant if a covered species is found.

### **What if a Covered Species is found within the Project Site?**

If a covered species is found within the project site and cannot be avoided through the measures provided, then it may be relocated to an appropriate site by CDFG, USFWS (for federally-listed species) or a qualified biologist approved by permitting agencies at the project applicant's expense.



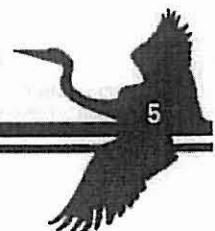


### **What Activities are not covered?**

- Any agricultural activities located on agriculturally zoned land. Project applicants shall negotiate directly with state and federal agencies if mitigation is required.
- Dredging activities are not covered except for dredging activities of limited size already permitted pursuant to Nationwide Permits #19 and #35 and Regional Permit #34.
- Activities which require a Streambed Alteration Agreement from the CA Dept. of Fish and Game. The SJMSCP may be amended in the future to include Streambed Alteration Agreements.
- Water Diversion and Conveyance.
- Activities currently receiving Take authorization under an existing biological opinion.
- The use of any pesticide is not a covered activity under the SJMSCP and remains subject to the Federal Endangered Species Act, California Endangered Species Act, Federal Clean Water Act and other state and federal regulations. Property owners are encouraged to contact state and federal agencies to determine requirements pertaining to their projects.
- Activities involving tidally influenced wetlands, jurisdictional wetlands or other waters of the United States

### **If My Activities are not Covered, Can I Request Coverage from SJCOG, Inc. or Use the SJMSCP for Mitigation?**

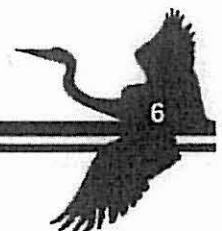
Yes. An applicant with a non-covered activity can submit a request of coverage using one of the four options to receive coverage or propose equivalent compensation to SJCOG, Inc. Activities not receiving coverage under the SJMSCP may still be eligible to purchase mitigation credits from mitigation banks.



**What are the Steps Involved for an Applicant with a Non-covered Activity Requesting Coverage?**

Prior to any groundbreaking work the project applicant submits to SJCOG, Inc. a “Request for Project Coverage Form” which will be reviewed by the Habitat Technical Advisory Committee. If the applicant agrees with the decision, then the applicant chooses one of the four options (see “How Does Coverage Work?”). If the applicant disagrees with the decision, they may appeal to the SJCOG, Inc. Board.

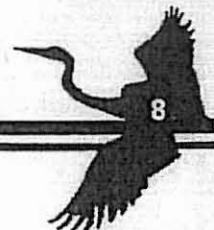
An applicant choosing option 4 must submit a SJMSCP Equivalent Proposal Form with a proposal. The form will be forwarded to the California Department of Fish and Game (CDFG) and the U.S. Fish and Wildlife Service (USFWS) for comments.



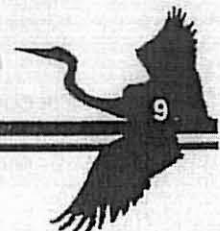
## Covered Species List



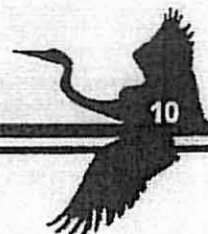
Federally Listed Species	Limitations to Take Coverage
Large-flowered fiddleneck ( <i>Amsinckia grandiflora</i> )	NK/j/, NCO/j/
Succulent owl's clover aka fleshy owl's clover ( <i>Castilleja campestris</i> ssp. <i>succulenta</i> fmr <i>Orthocarpus succulentus</i> )	NK/j/, NCO/j/
Orcutt grass/Greene's tuctoria ( <i>Tuctoria greenei</i> )	NK/j/, NCO/j/
Conservancy fairy shrimp ( <i>Branchinecta conservatio</i> )	NK/i/, NCO
Longhorn fairy shrimp ( <i>Branchinecta longiantenna</i> )	NK/i/, NCO
Vernal pool fairy shrimp ( <i>Branchinecta lynchi</i> )	
Valley elderberry longhorn beetle ( <i>Desmocerus californicus dimorphus</i> )	
Vernal pool tadpole shrimp ( <i>Lepidurus packardii</i> )	
Delta smelt ( <i>Hypomesus transpacificus</i> )	LCA
Sacramento splittail ( <i>Pogonichthys macrolepidotus</i> )	LCA
California red-legged frog ( <i>Rana aurora draytonii</i> )	
Giant garter snake ( <i>Thamnophis gigas</i> )	NK, NCO
Aleutian Canada goose ( <i>Branta canadensis leucopareia</i> )	
Mountain plover ( <i>Charadrius montanus</i> )	
Riparian woodrat ( <i>Neotoma fucipes riparia</i> )	NK, NCO
Riparian brush rabbit ( <i>Sylvilagus bachmani riparius</i> )	NK, NCO
San Joaquin kit fox ( <i>Vulpes macrotis mutica</i> )	
<b>State-listed Species that are not Federally-Listed</b>	
Delta button-celery/Delta coyote thistle ( <i>Eryngium racemosum</i> )	NK/j/, NCO/j/
Boggs Lake hedge-hyssop ( <i>Gnaphalium heterosepala</i> )	
Mason's lilaeopsis ( <i>Lilaeopsis masonii</i> )	
Swainson's hawk ( <i>Buteo swainsoni</i> )	
Western yellow-billed cuckoo ( <i>Coccyzus americanus occidentalis</i> )	
Greater sandhill crane ( <i>Grus canadensis tabida</i> )	NK/f/
California black rail ( <i>Laterallus jamaicensis coturniculus</i> )	
Bank swallow ( <i>Riparia riparia</i> )	
<b>Other SJMSCP Covered Species</b>	
Suisun marsh aster ( <i>Aster lentus</i> )	
Alkali milk-vetch ( <i>Astragalus tener</i> var. <i>tener</i> )	
Heartscale ( <i>Atriplex cordulata</i> )	
Brittlescale ( <i>Atriplex depressa</i> )	
Hoover's calycadenia ( <i>Calycadenia hooveri</i> )	
Bristly sedge ( <i>Carex comosa</i> )	
Slough thistle ( <i>Cirsium crassicaule</i> )	NK/j/, NCO/j/
Mt. Hamilton coreopsis ( <i>Coreopsis hamiltonii</i> )	
Hospital Canyon larkspur ( <i>Delphinium californicum</i> ssp. <i>interius</i> )	NK/j/, NCO/j/
Recurved larkspur ( <i>Delphinium recurvatum</i> )	
Diamond-petaled poppy/diamond-petaled California poppy ( <i>Escholzia rhombipetala</i> )	NK/j/, NCO/j/
California hibiscus/rose mallow ( <i>Hibiscus lasiocarpus</i> )	
Red Bluff dwarf rush ( <i>Juncus leiospermus</i> var. <i>leiospermus</i> )	
Delta tule pea ( <i>Lathyrus jepsonii</i> var. <i>jepsonii</i> )	
Legenere ( <i>Legenere limosa</i> )	NK/j/, NCO/j/
Delta mudwort ( <i>Limosella subulata</i> )	
Showy madia ( <i>Madia radiata</i> )	NK/j/, NCO/j/
Sanford's arrowhead/Sanford's sagittaria ( <i>Sagittaria sanfordii</i> )	NK/j/, NCO/j/
Mad-dog skullcap ( <i>Scutellaria lateriflora</i> )	
Wright's trichocoronis ( <i>Trichocoronis wrightii</i> var. <i>wrightii</i> )	



Other SJMSCP Covered Species	Limitations to Take Coverage
Caper-fruited tropidocarpum ( <i>Tropidocarpum capparideum</i> )	
Ciervo aegialian scarab beetle ( <i>Aegialia concinna</i> )	
Mid-valley fairy shrimp ( <i>Branchinecta sp. nova</i> )	
Curved-foot diving beetle ( <i>Hygrotis curvipes</i> )	
Moestan blister beetle ( <i>Lytta moesta</i> )	
Molestan blister beetle ( <i>Lytta molesta</i> )	
Green sturgeon ( <i>Acipenser medirostris</i> )	
Longfin smelt ( <i>Spirinchus thaleichthys</i> )	
California tiger salamander ( <i>Ambystoma californiense</i> )	
Foothill yellow-legged frog ( <i>Rana boylei</i> )	
Western spadefoot toad ( <i>Scaphiopus hammondi</i> )	
Western pond turtle ( <i>Clemmys marmorata</i> )/b/	
San Joaquin whipsnake ( <i>Masticophis flagellum ruddocki</i> )	
California horned lizard ( <i>Phrynosoma coronatum frontale</i> )	
Cooper's hawk ( <i>Accipter cooperi</i> )	
Sharp-shinned hawk ( <i>Accipter striatus</i> )	
Western grebe ( <i>Aechmophorus occidentalis</i> )	
Tricolored blackbird ( <i>Agelaius tricolor</i> )	
Bell's sage sparrow ( <i>Amphispiza belli belli</i> )	
Golden eagle ( <i>Aquila chrysaetos</i> )	
Great egret ( <i>Ardea albus</i> formerly <i>Casmerodius albus</i> )	
Great blue heron ( <i>Ardea herodias</i> )	
Short-eared owl ( <i>Asio flammens</i> )	
Ferruginous hawk ( <i>Buteo regalis</i> )	
Northern harrier ( <i>Circus cyaneus</i> )	
Yellow warbler ( <i>Dendroica petechia brewsteri</i> )	
Snowy egret ( <i>Egretta thula</i> )	
White-tailed kite ( <i>Elanus leucurus</i> - formerly <i>Elanus caeruleus</i> )	
California horned lark ( <i>Eremophila alpestris actia</i> )	
Merlin ( <i>Falco columbarius</i> )	
Prairie falcon ( <i>Falco mexicanus</i> )	
Yellow-breasted chat ( <i>Icteria virens</i> )	
Loggerhead shrike ( <i>Lanius ludovicianus</i> )	
Long-billed curlew ( <i>Numenius americanus</i> )	
Black-crowned night heron ( <i>Nycticorax nycticorax</i> )	
Osprey ( <i>Pandion haliaetus</i> )	
American white pelican ( <i>Pelecanus erythrorhynchos</i> )	
Double-crested cormorant ( <i>Phalacrocorax auritus</i> )	
White-faced ibis ( <i>Plegadis chichi</i> )	
Burrowing owl ( <i>Speotyto cunicularia</i> )	
Ringtail/ringtail cat ( <i>Bassaricus astutus</i> )	NK/f/
Berkeley kangaroo rat ( <i>Dipodomys heermanni berkeleyensis</i> )	
Greater western mastiff bat aka California mastiff bat ( <i>Eumops perotis californicus</i> )	
( <i>Eumops perotis californicus</i> )	
Red Bat ( <i>Lasiurus blossevilli</i> )	
Small-footed myotis/bat ( <i>Myotis ciliolabrum</i> )	
Long-eared myotis/bat ( <i>Myotis evotis</i> )	
Fringed myotis/bat ( <i>Myotis thysanodes</i> )	
Long-legged myotis/bat ( <i>Myotis volans</i> )	
Yuma myotis/bat ( <i>Myotis yumanensis</i> )	



Other SJMSCP Covered Species	Limitations to Take Coverage
San Joaquin pocket mouse ( <i>Perognathus inornatus inornatus</i> )	
Pale big-eared bat ( <i>Plecotus townsendii pallescens</i> aka <i>Corynorhinus townsendii pallescens</i> ) aka	
Pacific western big-eared bat ( <i>Plecotus townsendii townsendii</i> aka <i>Corynorhinus townsendii townsendii</i> )	
American badger ( <i>Taxidea taxus</i> )	
LEGEND	
NK = No killing of individuals of the species	
NCO= No Conversion of habitat known to be occupied by the species	
LCA=Species is covered for limited SJMSCP Covered Activities	
<p>/h/ Pursuant to Fish and Game Code Sections 3511, 4700, 5050, and 5515 these are fully protected species. Fully protected species may not be "taken" or possessed at any time. "Take," for the purposes of these Fish and Game Code Sections, means kill of individuals of the species. Incidental Take Permits for these species are included in the SJMSCP, to allow for the Conversion of habitat for these species with appropriate creation of compensatory habitat for these species and the implementation of appropriate minimization measures. Therefore, to fulfill the requirements of the Fish and Game Code regarding fully protected species, Incidental Take Minimization Measures have been designed to avoid any kill of individuals of these species, while allowing Conversion of habitats, pursuant to Sections 5.2.4.12, 5.2.4.19, 5.2.4.21 and 5.2.4.26.</p>	
<p>// Limited kill of individuals permitted within Preserves for monitoring activities and during pre-construction surveys to allow net sampling to determine presence of the species.</p>	
<p>// Limited Conversion of habitats or kill of individuals may be allowed upon consultation with the Permitting Agencies pursuant to the provisions specified in Sections 55.2.</p>	



## Land Development Application Form E

For all applicants whose development falls within the cities SJMSCP Land Use Map pay zones.

***\*\*\*Please print out the PDF version of Form E  
for your specific jurisdiction to include in the  
SJMSCP Informational Packet  
(PDF Files can be found on the SJMSCP Informational Packet CD)***



## **Request for Coverage Form C**

**For County Outlying Areas or Unmapped Areas of City Land Use Maps**





**SJMSCP Request for Project Coverage Form  
Form C**

**Applicant Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone/Fax:** \_\_\_\_\_

**Local Agency/Permittee (check one):**

- |                                  |                                             |                                       |
|----------------------------------|---------------------------------------------|---------------------------------------|
| <input type="checkbox"/> Escalon | <input type="checkbox"/> Stockton           | <input type="checkbox"/> SJAFCFA      |
| <input type="checkbox"/> Lathrop | <input type="checkbox"/> Tracy              | <input type="checkbox"/> SSJD         |
| <input type="checkbox"/> Lodi    | <input type="checkbox"/> San Joaquin County | <input type="checkbox"/> SEWD         |
| <input type="checkbox"/> Manteca | <input type="checkbox"/> SJCOG              | <input type="checkbox"/> EBMUD        |
| <input type="checkbox"/> Ripon   | <input type="checkbox"/> Caltrans           | <input type="checkbox"/> Other: _____ |

**Project Title:** \_\_\_\_\_  
(Per advisory agency notice)

**Project Description:** [attach map(s) and advisory agency notice]  
\_\_\_\_\_  
\_\_\_\_\_

**Project Location:**

T \_\_\_\_\_ R \_\_\_\_\_ Section(s) \_\_\_\_\_ Total Acres: \_\_\_\_\_

Assessor Parcel #s: \_\_\_\_\_

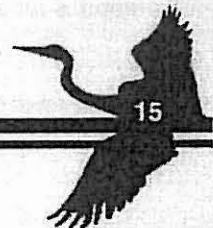
**I, we, request coverage pursuant to the SJMSCP. I, we, understand that this project is subject to Habitat Technical Advisory Committee review and approval to gain coverage pursuant to the SJMSCP.**

\_\_\_\_\_  
*Applicant Signature*

\_\_\_\_\_  
*Date*



## **Timing of Payments, In Lieu Dedications or Mitigation Banking and Descriptions**



**METHODS BY WHICH INDIVIDUALS PROVIDE MITIGATION  
PURSUANT TO THE SJMSCP**

Individuals seeking coverage under the SJMSCP may undertake one or a combination of two or more of the following three options to provide compensation pursuant to the SJMSCP:

- A. Pay the appropriate fee as indicated in Section 7.4.1; or
- B. Dedicate, as conservation easements or fee title, or in-lieu dedications (as specified in Sections 5.3.2.2 and 5.3.2.3, herein); or
- C. Purchase approved mitigation bank credits as specified in Section 5.3.2.4.
- D. Propose an alternative mitigation plan, consistent with the goals of the SJMSCP and equivalent in biological value to options A, B or C, above, subject to approval by the JPA with the concurrence of the Permitting Agencies' representatives on the TAC.

**Fees**

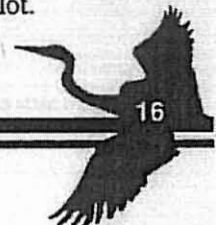
As described in Section 7.4.1, individuals opting for coverage under the SJMSCP may pay a fee. The fee structure will be sent to each of the permitting agencies at the start of every year for application.

**In-Lieu Land Dedications**

Private individuals receiving Incidental Take coverage pursuant to the SJMSCP may, in-lieu of fee payments, offer suitable land for dedication. Dedications shall be approved by the JPA with the concurrence of the Permitting Agencies' representatives on the TAC. In-lieu lands shall meet minimum parcel sizes designated in the SJMSCP Preserve design descriptions or, if smaller, should be adjacent to an existing Preserve which, in combination with in-lieu lands, meets Preserve size minimums. In-lieu lands shall include an endowment payment (equal to the management endowment and administration costs of land acquisitions as prescribed in Sections 7.2.3 and 7.2.4) to ensure the management of the dedicated land in perpetuity. Dedicated land may be lands on-site or off-site from the project location owned by the Project Proponent. Conservation easements (or fee title) for owner-dedicated lands, referencing the JPA or another suitable agency or organization as easement or fee title holder, shall be recorded with the office of the County Recorder. Easements shall be consistent with the requirements of California Civil Code Section 815.3 which specifies those who are qualified to hold conservation easements.

**Timing of Fee Payments, In-Lieu Dedications or Mitigation Banking**

Under the normal permitting process implemented by local government jurisdictions in San Joaquin County, ground disturbance (including grading) may occur prior to the local government jurisdiction's issuance of a Building Permit. For example, once a *tentative* subdivision map to create new residential lots is approved by a local government agency (e.g., the City of Tracy's City Council or the San Joaquin County Board of Supervisors) with conditions, the Project Proponent must fulfill many of the project conditions (e.g., constructing new roads or installing water or sewer lines) before gaining approval of a *final* subdivision map. Once the final subdivision map is completed, new residential lots may be sold to the general public. Once a newly created subdivision lot is purchased, the new owner of the lot normally applies for a Building Permit to construct a new home on the newly created subdivision lot.



However, different development projects may undergo variations in this permitting process (e.g., Project Proponents may receive only Building Permits for small projects which address both building and grading activities, but Project Proponents are not required to secure Grading Permits due to the relatively small amounts of dirt being moved by the project). The majority of development projects in San Joaquin County require Building Permits during at least one phase of the development process. Many of San Joaquin County's largest projects also require Grading Permits. Therefore, given this variation in the types of permits which may be issued at varying times during the development process, the following provisions shall be implemented 1) to address the variations in the types of permits required, and timing of the acquisition of those permits, for the various development projects in San Joaquin County, 2) to provide a uniform approach amongst the local government agencies for timing the collection of fees or requiring purchases of mitigation banking credits, 3) to provide maximum flexibility for developers to finance their projects without creating adverse impacts to SJMSCP Covered Species, and 4) to ensure that compensation will occur pursuant to the SJMSCP by using familiar permitting procedures already used by local government agencies:

For so long as the 350-acre jump-start (Section 8.6) remains in place, the timing of compensation pursuant to the SJMSCP shall be as follows:

- A. Collection of Fees/Purchase of Mitigation Banking Credits for Projects Less Than or Equal to 350 Acres in Size (projects equivalent in size or smaller than the jump-start): collection of fees or purchase of banking credits will occur prior to or at the time of issuance of Building Permits so long as Site Disturbance without compensation (i.e., grading or vegetation removal has occurred with or without permits, but Building Permits have not yet been issued) does not exceed 500 acres total at any time during the term of the SJMSCP for SJMSCP Permitted Activities undertaken by project proponents opting for coverage pursuant to the SJMSCP. When Site Disturbances without compensation pursuant to this provision reaches 500 acres total, then the JPA and Permittees shall require the fee collections or purchase of banking credits for projects less than or equal to 350 acres in size to occur pursuant to the same schedule as required for projects exceeding 350 acres as described in paragraph B.
- B. Collection of Fees/Purchase of Mitigation Banking Credits for Projects exceeding 350 Acres: collection of fees for land acquisition or purchase of banking credits will occur either:
  1. Prior to issuance of a Grading Permit (or prior to Ground Disturbance if no Grading Permit is required) ; or,
  2. The Project Proponent may bond for payment of the applicable SJMSCP fees prior to the issuance of a Grading Permit (or prior to the commencement of Ground Disturbance if no Grading Permit is required). Bonds posted pursuant to this provision shall be released, to the extent possible, after full project buildout



and after all appropriate fees have been paid with respect to each building permit associated with the project. Provisions for releasing portions of the bond as buildout progresses may be established on a case-by-case basis upon request of the Project

Proponent only bonds issued by a bond surety admitted in California by the California Department of Insurance will be accepted unless otherwise approved by the JPA with the concurrence of the Permitting Agencies.

- a. Collection of Fees/Purchase of Mitigation Banking Credits for Conversion of Vernal Pool Grasslands to Orchards and Vineyards shall occur prior to ground disturbance.
- D. Land Dedications in Lieu of Fee Payments or in Lieu of Mitigation Banking Regardless of Project Size: Shall occur prior to ground disturbing activities (i.e., prior to the issuance of a Grading or Building Permit, whichever occurs first) unless an extension is requested, in writing to the JPA, by the Project Proponent and granted to a date certain by the TAC, with the concurrence of the Permitting Agencies' TAC representative, based upon the following findings:

- 1) The time extension will not jeopardize the proper functioning of SJMSCP, and
- 2) The time extension will not adversely affect any SJMSCP Covered Species.

The TAC, with the concurrence of the Permitting Agencies' TAC representative, may impose conditions on the time extension as necessary to provide assurances to the JPA that the Project Proponent shall provide compensation pursuant to the SJMSCP consistent with the requirements of the SJMSCP.

If the 350-acre jump-start ceases to exist, then the provisions of paragraph B shall apply for all SJMSCP Permitted Activities, regardless of size and regardless of the compensation method selected (i.e., fees, land dedications in-lieu of fee payments, or purchase of mitigation banking credits).

### Mitigation Banking

The SJMSCP anticipates using two categories of mitigation banks:

- A. **SJMSCP Mitigation Banks.** The SJMSCP anticipates enhancing and/or restoring vernal pool lands in excess of those required for compensation under the SJMSCP. This excess may be sold as mitigation or compensation "credits" to individuals not covered by the SJMSCP and in need of vernal pool mitigation lands. The SJMSCP may consider establishing other types of mitigation banks during the life of the Plan, as deemed necessary.



B. **Private Mitigation Banks.** A private property owner may establish a mitigation bank on all or a portion of his or her property for one or more SJMSCP Covered Species. A Project Proponent needing that particular habitat type for mitigation for a project elsewhere may then pay the property owner or "bank operator" to permanently manage the enhanced property for SJMSCP Covered Species. Private mitigation banks shall be consistent with the SJMSCP Preserve selection criteria (Section 5.4.4) and shall be

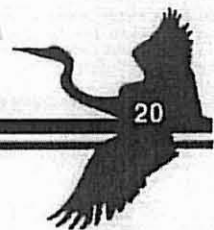
approved by appropriate state and federal agencies pursuant to applicable state and federal guidelines for mitigation banks and other applicable policies, laws and regulations.

Credits purchased from private mitigation banks must be for habitats which already are existing as protected lands within the mitigation bank Preserves prior to the purchase of credits (i.e. shall not be purchased from mitigation banks which intend to create protected lands in the future).

Land banks used to offset impacts to wetlands must comply with Federal Register Notice: November 28, 1995, Vol. 60, No. 228, Federal Guidance for the Establishment, Use and Operation of Mitigation Banks, and other applicable policies, laws, and regulations. All mitigation banks, whether SJMSCP banks or private mitigation banks, shall be reviewed and approved by the Permitting Agencies prior to use. Aerial photographs indicating the condition of habitat lands, prior to undertaking habitat enhancements for banking, shall be used when establishing baseline conditions for mitigation banks unless otherwise approved by the Permitting Agencies.



## Incidental Take Minimization Measures



INCIDENTAL TAKE MINIMIZATION MEASURES FOR SJMSCP COVERED SPECIES  
RECEIVING INCIDENTAL TAKE COVERAGE PURSUANT TO ESA AND CESA  
AND MITIGATION MEASURES FOR SJMSCP COVERED SPECIES RECEIVING CEQA  
COVERAGE

Valley Elderberry Longhorn Beetle (VELB)

In areas with elderberry bushes, as indicated by the *SJMSCP Vegetation Maps* or per preconstruction survey identification or other sources indicated in Section 5.2.2.3, the following shall occur:

- A. If elderberry shrubs are present on the project site, a setback of 20 feet from the drip line of each elderberry bush shall be established.
- B. Brightly colored flags or fencing shall be placed surrounding elderberry shrubs throughout the construction process.
- C. For all shrubs without evidence of VELB exit holes which cannot be retained on the project site as described in A and B, above, the JPA shall, during preconstruction surveys, count all stems of 1" or greater in diameter at ground level. Compensation for removal of these stems shall be provided by the JPA within SJMSCP Preserves as provided in *SJMSCP Section 5.5.4(B)*.
- D. For all shrubs with evidence of VELB exit holes, the JPA shall undertake transplanting of elderberry shrubs displaying evidence of VELB occupation to VELB mitigation sites during the dormant period for elderberry shrubs (November 1 - February 15). For elderberry shrubs displaying evidence of VELB occupation which cannot be transplanted, compensation for removal of shrubs shall be as provided in *SJMSCP Section 5.5.4 (C)*.

Moestan and Molestan Blister Beetle

The biology of these species is poorly known, but the species are presumed to be extant and may be discovered in annual grasslands, foothill woodlands or saltbush (*Atriplex*) scrub which remain in patches within the historical occupation site of these species. Therefore, if discovered on a project site and prior to ground disturbance, Incidental Take Minimization Measures shall be formulated by the TAC and approved by the JPA with the concurrence of the Permitting Agencies' representatives on the TAC in accordance with the SJMSCP's Adaptive Management Plan (Section 5.9.4).

Ciervo Aegialian Scarab Beetle

This species is presumed to be extirpated, because its habitat, sand dunes, have been destroyed in the County. However, if rediscovered on a project site and prior to ground disturbance, Incidental Take Minimization Measures shall be formulated by the TAC and approved by the JPA with the concurrence of the Permitting Agencies' representatives on the TAC in accordance with the SJMSCP's Adaptive Management Plan (Section 5.9.4).





### Vernal Pool Plants and Vernal Pool Invertebrates

Full avoidance of succulent owl's clover, legenera, Greene's tuctoria, longhorn fairy shrimp and Conservancy fairy shrimp is required by the SJMSCP in accordance with the full avoidance measures in Section 5.5.9. For all other vernal pool plants and vernal pool invertebrates:

- A. Filling vernal pools shall be delayed until pools are dry and samples from the top layer of vernal pools soils are collected. Soil collections shall be sufficient to include a representative sample of plant and animal life present in the pools by incorporating seeds, cysts, eggs, spores and similar inoculum.
- B. Collected soils shall be dried and stored in pillow cases labeled with the date and location of soils collected. Soils will be deposited with the JPA. The JPA shall retain the soils in a cool, dry area and shall be responsible for providing soils to vernal pool construction managers for inoculating newly created vernal pools on Preserve lands.
- C. Preconstruction surveys, conducted in compliance with U.S. Fish and Wildlife Service protocols [as required in Section 5.2.2.5(E)] approved and in place at the time the surveys are conducted, shall be conducted to determine the presence or absence of Conservancy and/or longhorn fairy shrimp within vernal pools or other wetlands located southwest of I-580 in the *Southwest Zone* unless avoidance of vernal pools and/or wetlands is achieved in compliance with SJMSCP Section 5.5.9.

### California Tiger Salamander and Western Spadefoot Toad in Association with Projects that Require a Permit Pursuant to Section 404 of the Federal Clean Water Act

Incidental Take Minimization Measures apply to known California tiger salamander occurrences. All required minimization measures will be prescribed through technical assistance provided to the U.S. Army Corps of Engineers by the U.S. Fish and Wildlife Service of Nationwide and standard permitting within the SJMSCP Permit Area, concurrent with formal consultations conducted for listed vernal pool species, or through the JPA with the concurrence of the Permitting Agencies' representatives on the TAC. The approach to impact minimization measures outlined in this section of the SJMSCP for California tiger salamander will provide the framework for Corps 404 permit streamlining described further in SJMSCP Section 5.6.1. Specific measures for impact minimization will be based on the framework provided in the SJMSCP. The JPA intends that the SJMSCP will provide an option for project applicants to meet some or all of the compensation requirements assessed as part of the 404 regulatory processes for California tiger salamander, should this species become federally listed.

The measures will be based on the need to avoid and minimize impacts to breeding, feeding, and sheltering behaviors of California tiger salamander (See SJMSCP Chapter 2), and will include, but not be limited to, consideration of the following: a) effects to aquatic habitat, including retaining pools and maintaining appropriate pool hydrology to enable successful metamorphosis of larvae to occur, but which does not foster non-native aquatic predators; b) retention of small mammal burrows and other suitable estivation habitat (e.g., underground holes, cracks, or niches) in adjacent uplands; c) maintenance of open habitat between breeding ponds and estivation sites (e.g., roads and other linear barriers) can increase mortality or even prevent migrations and dispersal significantly increasing harm to and mortality of salamanders); d) siting replacement wetland habitat, whenever possible, within approximately 1.5 miles of other known breeding sites.

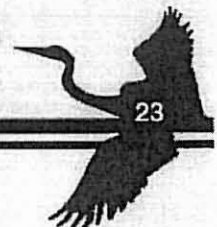


In potential California tiger salamander habitat, projects shall survey according to the current protocol approved by the TAC and the Permitting Agencies. If salamanders are detected, Incidental Take Minimization Measures shall be applied.

California Tiger Salamander, Western Spadefoot Toad - in Association with Projects that Do Not Require a Federal Clean Water Act Section 404 Permit

To minimize impacts and Take of California tiger salamander, the following measures should be implemented for SJMSCP Covered Activities not requiring a Federal Clean Water Act Section 404 Permit:

- a. Retain known breeding sites.
- b. In potential California tiger salamander habitat, projects shall survey according to the current protocol approved by the TAC and the Permitting Agencies' representatives on the TAC. If salamanders are detected, Incidental Take Minimization Measures shall be applied.
- c. If a proposed project intends to eliminate aquatic habitat (including wetlands, ponds, springs and other standing water sources), and create a new, on-site habitat, then the newly created habitat shall be created and filled with water prior to dewatering and destroying the pre-existing habitat. Dewatering and relocation of aquatic habitats on-site should occur when the water source is dry under natural conditions, or otherwise outside of the full breeding season for tiger salamanders (December to June) to allow larvae to metamorphose and migrate to upland habitat.
- d. If a proposed project intends to eliminate aquatic habitat including wetlands, ponds, springs and other standing water sources, and will not create a new, on-site habitat, then dewatering should occur prior to commencement of construction and other Site Disturbing Activities. Dewatering and relocation of aquatic habitats should occur outside of the time period when adult salamanders are breeding (approximately December to February).
- e. Apply those other measures that are utilized to minimize impacts and Take of the California tiger salamander that are developed as described in 5.2.4.5 above. Those other measures will address: a) effects to aquatic habitat, including retaining pools and maintaining appropriate pool hydrology to enable successful metamorphosis of larvae to occur, but which does not foster non-native aquatic predators; b) retention of small mammal burrows and other suitable estivation habitat (e.g., underground holes, cracks, or niches) in adjacent uplands; c) maintenance of open habitat between breeding ponds and estivation sites (e.g., roads and other linear barriers can increase mortality or even prevent migrations and dispersal significantly increasing harm to and mortality of salamanders); d) siting replacement wetland habitat, whenever possible, within approximately 1.5 miles of other known breeding sites.



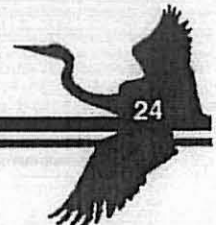
## Red-Legged Frogs and Foothill Yellow-Legged Frogs

Red-legged frogs and foothill yellow-legged frogs occur in the creeks and wetlands in foothill areas. Red-legged frogs and foothill yellow-legged frogs do not occur on the valley floor. Therefore, the following Incidental Take Minimization Measures apply to the eastern foothills (primarily in the *Vernal Pool Zone*) and the *Southwest Zone* only where new development is proposed on parcels with creeks, rivers or wetlands, especially ponds:

- A. A 300 foot setback, incorporating both riparian vegetation and uplands, shall be provided on both sides of creeks and on all sides of wetlands (for a total of 600 feet in setbacks) occupied by red-legged frogs or yellow-legged frogs identified through pre-construction surveys conducted by the JPA or documented in the *SJMSCP GIS Database*. These 300' setbacks shall be measured horizontally from the top of the bank and shall extend the entire length of the stream (or other linear wetlands) within the boundaries of the project site. These setbacks may be reduced by the TAC with the concurrence of the Permitting Agencies' representative on the TAC if the reduction: 1) does not affect habitat (e.g., the stream becomes piped and travels underground) or 2) the reduction will not result in an adverse impact to the species or reduction in the biological values of the habitat. Setbacks shall maintain existing vegetation free of disturbance and be free of new construction, new wells, storage or parking of equipment or materials, and other activities which compact or disturb soils or vegetation or which could introduce contaminants into the aquatic habitat. Setbacks shall be delineated by flagging or brightly colored temporary fencing during the construction process. Setbacks shall be indicated on final maps and include a map note referencing prohibitions within the setbacks. For entitlements which do not include a

map, the condition shall be enforced through the recordation of an easement referencing prohibitions within the setback. The JPA may approve alternative methods of enforcing the provisions of the setback with the concurrence of the Permitting Agency representatives on the TAC.

- B. Water quality within creeks and wetlands inhabited by red-legged frogs or foothill yellow-legged frogs shall be maintained through implementation of appropriate erosion control measures to reduce siltation and contaminated runoff from project sites (e.g., by maintaining vegetation within buffers and/or through the use of hay bales, filter fences, vegetative buffer strips, or other accepted equivalents).
- C. Construction and other ground disturbances shall be prohibited within established setbacks. The use of insecticides, herbicides, rodenticides and pesticides within established setbacks shall occur in accordance with U.S. Environmental Protection Agency guidelines (Appendix A) addressing the use of these materials in occupied California red-legged frog habitat and, if applicable, any additional requirements as established by the San Joaquin County Agricultural Commissioner.
- D. All on-site construction personnel shall be given instruction regarding the presence of listed species and the importance of avoiding impacts to these species and their habitats.



- E. Setbacks shall be marked by brightly colored fencing or flagging throughout the construction process.
- F. Setbacks shall be permanently preserved as recorded easements. Easements shall be indicated on recorded maps, whenever projects involve parcel or subdivision maps.

Proposals by Project Proponents to implement either of the following Incidental Take Minimization Measures requires the review and approval of the JPA with the concurrence of the Permitting Agencies' representatives on the TAC:

- G. If a proposed project intends to eliminate aquatic habitat including wetlands, ponds, springs and other standing water sources, and create a new, on-site habitat, then the newly created habitat shall be created and filled with water prior to dewatering and destroying the pre-existing habitat. Dewatering and relocation of aquatic habitats should occur outside of the breeding season for red-legged frogs (approximately January through May) and foothill yellow-legged frogs (approximately March through May) when this schedule can be accommodated without resulting in project delays.
- H. If a proposed project intends to eliminate aquatic habitat including wetlands, ponds, springs and other standing water sources, and will not create a new, on-site habitat, then dewatering should occur prior to commencement of construction and other Site Disturbing Activities. Dewatering and relocation of aquatic habitats should occur outside of the breeding season for red-legged frogs (approximately January through May) and foothill yellow-legged frogs (approximately March through May) when this schedule can be accommodated without resulting in project delays.

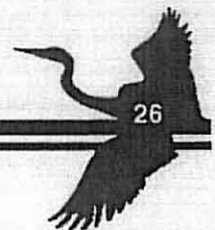
Pursuant to Section 5.5.5, SJMSCP Preserve lands acquired to offset impacts to the red-legged frog or yellow-legged frog must have occupied habitat for the red-legged frog or yellow-legged frog of at least equal habitat value as determined by the JPA with the concurrence of the Permitting Agencies' representatives on the TAC.

#### Giant Garter Snake

- A. Full avoidance of giant garter snake known occupied habitat is required in compliance with Section 5.5.9 (C) for the following SJMSCP Covered Activities with the potential to adversely affect the GGS and which have not been mapped: golf courses; religious assembly; communications services; funeral; internment services; public services - police, fire and similar; projects impacting channel or tule island habitat; major impact projects including landfills, hazardous waste facilities, correctional institutions and similar major impact projects; recreational trails and campgrounds, recreational outdoors sports clubs; utility services, museums and similar facilities. Known occupied habitat for the giant garter snake is that area west of I-5 on Terminous Tract, Shin Kee Tract, White Slough Wildlife Area, and Rio Blanco Tract. New sites identified during the life of the SJMSCP as confirmed habitat sites for the giant garter snake shall be considered known occupied sites for the purposes of this section.



- B. For areas with potential giant garter snake habitat, the following is required. Potential GGS habitat elements are described in SJMSCP Section 2.2.2.2 and exist in the *Primary Zone of the Delta* and the Central Zone contiguous with known occupied habitat in the White Slough area north to the San Joaquin/Sacramento County line and south to Paradise Cut; in the Central Zone east of Stockton in Duck Creek, Mormon Slough, Stockton Diverting Canal, Little John's Creek, Lone Tree Creek, and French Camp Slough (wherever habitat elements are present); and the Southern Central Zone and Southwest/ Central Transition Zone including the area east of J4 from the Alameda-San Joaquin County Line to Tracy and area south of Tracy and east of Interstate 580 to the east edge of Agricultural Habitat Lands east of the San Joaquin River.
1. Construction shall occur during the active period for the snake, between May 1 and October 1. Between October 2nd and April 30th, the JPA, with the concurrence of the Permitting Agencies' representatives on the TAC, shall determine if additional measures are necessary to minimize and avoid take.
  2. Limit vegetation clearing within 200 feet of the banks of potential giant garter snake aquatic habitat to the minimal area necessary.
  3. Confine the movement of heavy equipment within 200 feet of the banks of potential giant garter snake aquatic habitat to existing roadways to minimize habitat disturbance.
  4. Prior to ground disturbance, all on-site construction personnel shall be given instruction regarding the presence of SJMSCP Covered Species and the importance of avoiding impacts to these species and their habitats.
  5. In areas where wetlands, irrigation ditches, marsh areas or other potential giant garter snake habitats are being retained on the site:
    - a. Install temporary fencing at the edge of the construction area and the adjacent wetland, marsh, or ditch;
    - b. Restrict working areas, spoils and equipment storage and other project activities to areas outside of marshes, wetlands and ditches; and
    - c. Maintain water quality and limit construction runoff into wetland areas through the use of hay bales, filter fences, vegetative buffer strips, or other accepted equivalents.
  6. If on-site wetlands, irrigation ditches, marshes, etc. are being relocated in the vicinity: the newly created aquatic habitat shall be created and filled with water prior to dewatering and destroying the pre-existing aquatic habitat. In addition, non-predatory fish species that exist in the aquatic habitat and which are to be relocated shall be seined and transported to the new aquatic habitat as the old site is dewatered.



7. If wetlands, irrigation ditches, marshes, etc. will not be relocated in the vicinity, then the aquatic habitat shall be dewatered at least two weeks prior to commencing construction.
8. Pre-construction surveys for the giant garter snake (conducted after completion of environmental reviews and prior to ground disturbance) shall occur within 24 hours of ground disturbance.
9. Other provisions of the *USFWS Standard Avoidance and Minimization Measures during Construction Activities in Giant Garter Snake Habitat* shall be implemented (excluding programmatic mitigation ratios which are superseded by the SJMSCP's mitigation ratios).

#### San Joaquin Whipsnake, California Horned Lizard

These species are of very limited distribution within the County, primarily isolated locations outside of anticipated development areas within the *Southwest Zone*. Therefore, if discovered on a project site and prior to ground disturbance, Incidental Take Minimization Measures shall be formulated by the TAC and approved by the JPA with the concurrence of the Permitting Agencies' representatives on the TAC in accordance with the SJMSCP's Adaptive Management Plan (Section 5.9.4).

#### Pond Turtles

When nesting areas for pond turtles are identified on a project site, a buffer area of 300 feet shall be established between the nesting site (which may be immediately adjacent to wetlands or extend up to 400 feet away from wetland areas in uplands) and the wetland located near the nesting site. These buffers shall be indicated by temporary fencing if construction has or will begin before nesting periods are ended (the period from egg laying to emergence of hatchlings is normally April to November).

#### Swainson's Hawk

The Project Proponent has the option of retaining known or potential Swainson's hawk nest trees (i.e., trees that hawks are known to have nested in within the past three years or trees, such as large oaks, which the hawks prefer for nesting) or removing the nest trees.

If the Project Proponent elects to retain a nest tree, and in order to encourage tree retention, the following Incidental Take Minimization Measure shall be implemented during construction activities:

If a nest tree becomes occupied during construction activities, then all construction activities shall remain a distance of two times the dripline of the tree, measured from the nest.

If the Project Proponent elects to remove a nest tree, then nest trees may be removed between September 1 and February 15, when the nests are unoccupied.

These Incidental Take Minimization Measures are consistent with the provisions of the Migratory Bird Treaty Act as described in Section 5.2.3.1(G).



### California Black Rail

- A. Prohibit construction or similar activities on channel or tule islands (I,I2), fresh emergent wetlands (W7), and arroyo willow thickets (R4), within the Primary Zone of the Delta until a preconstruction survey determines that the island is unoccupied by the California black rail.
- B. In cases where project approvals may result in an increase in boating or jet skiing near known breeding sites for this species during the breeding season (e.g., proposals including new marinas), a condition of project approval shall be attached to require the location of the new marinas no closer than 200 feet from known breeding site when such sites are or have been occupied by breeding California black rails within the past three years. In addition, approaches into and out of new marinas shall be posted by the Project Proponent (as a condition of project approval) or, if otherwise designated by law, by a local, state or federal agency (e.g., the Division of Boating and Waterways) "no wake speed" within 300 feet of occupied breeding sites for the California black rail during breeding season. Information related to the breeding season for California black rails is sparse, but the breeding season for the California black rail is believed to extend from February 1st through August 30th. Therefore, requirement for "no wake speed" into and out of new marinas due to the presence of breeding California black rails is not required from September 1 through January 30th.

These Incidental Take Minimization Measures are consistent with the provisions of the Migratory Bird Treaty Act as described in Section 5.2.3.1(G).

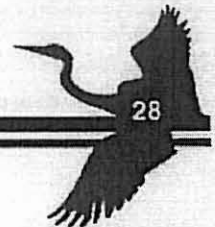
### Bank Swallow and Yellow-Billed Cuckoo

If the JPA discovers nesting bank swallows or nesting yellow-billed cuckoos during preconstruction surveys or from other sources, construction avoidance areas shall be enforced for a distance of 300 feet from the nest sites until young bank swallows or yellow-billed cuckoos have fledged and left the nesting site.

These Incidental Take n Measures are consistent with the provisions of the Migratory Bird Treaty Act as described in Section 5.2.3.1(G).

### Aleutian Canada Goose and Greater Sandhill Crane

Under normal conditions, the Aleutian Canada goose and greater sandhill crane are found foraging in fields that are flooded, newly disced, cut, or irrigated during the fall migration of waterfowl along the Pacific Flyway. These two species are highly mobile while they forage and can easily relocate to nearby foraging sites in the event of a disturbance to the foraging field. The risk of actually killing or harming (Taking) one of these species during SJMSCP Permitted Activities is therefore nearly non-existent. The threat to these species is more closely associated with removing habitat in sufficient quantities to create adverse impacts to populations of these species—an impact addressed by the SJMSCP through acquisition and enhancements of habitat (see Sections 5.4.4 and 5.4.6). Therefore, Incidental Take Minimization Measures for the Aleutian Canada goose and the greater sandhill crane are not included in the SJMSCP and this is considered to be consistent with the provisions of the Migratory Bird Treaty Act.



## Burrowing Owls

The presence of ground squirrels and squirrel burrows are attractive to burrowing owls. Burrowing owls may therefore be discouraged from entering or occupying construction areas by discouraging the presence of ground squirrels. To accomplish this, the Project Proponent should prevent ground squirrels from occupying the project site early in the planning process by employing one of the following practices:

- A. The Project Proponent may plant new vegetation or retain existing vegetation entirely covering the site at a height of approximately 36" above the ground. Vegetation should be retained until construction begins. Vegetation will discourage both ground squirrel and owl use of the site.
- B. Alternatively, if burrowing owls are not known or suspected on a project site and the area is an unlikely occupation site for red-legged frogs, San Joaquin kit fox, or tiger salamanders:

The Project Proponent may disc or plow the entire project site to destroy any ground squirrel burrows. At the same time burrows are destroyed, ground squirrels should be removed through one of the following approved methods to prevent reoccupation of the project site. Detailed descriptions of these methods are included in Appendix A, *Protecting Endangered Species, Interim Measures for Use of Pesticides in San Joaquin County*, dated March, 2000:

1. **Anticoagulants.** Establish bait stations using the approved rodenticide anticoagulants Chlorophacinone or Diphacinone. Rodenticides shall be used in compliance with U.S. Environmental Protection Agency label standards and as directed by the San Joaquin County Agricultural Commissioner.
2. **Zinc Phosphide.** Establish bait stations with non-treated grain 5-7 calendar days in advance of rodenticide application, then apply Zinc Phosphide to bait stations. Rodenticides shall be used in compliance with U.S. Environmental Protection Agency label standards and as directed by the San Joaquin County Agricultural Commissioner.
3. **Fumigants.** Use below-ground gas cartridges or pellets and seal burrows. Approved fumigants include Aluminum Phosphide (Fumitoxin, Phostoxin) and gas cartridges sold by the local Agricultural Commissioner's office. NOTE: Crumpled newspaper covered with soil is often an effective seal for burrows when fumigants are used. Fumigants shall be used in compliance with U.S. Environmental Protection Agency label standards and as directed by the San Joaquin County Agricultural Commissioner.
4. **Traps.** For areas with minimal rodent populations, traps may be effective for eliminating rodents. If trapping activities are required, the use of , shall be consistent with all applicable laws and regulations.





If the measures described above were not attempted or were attempted but failed, and burrowing owls are known to occupy the project site, then the following measures shall be implemented:

- C. During the non-breeding season (September 1 through January 31) burrowing owls occupying the project site should be evicted from the project site by passive relocation as described in the California Department of Fish and Game's Staff Report on Burrowing Owls (Oct., 1995)
- D. During the breeding season (February 1 through August 31) occupied burrows shall not be disturbed and shall be provided with a 75 meter protective buffer until and unless the TAC, with the concurrence of the Permitting Agencies' representatives on the TAC; or unless a qualified biologist approved by the Permitting Agencies verifies through non-invasive means that either: 1) the birds have not begun egg laying, or 2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. Once the fledglings are capable of independent survival, the burrow can be destroyed.

These Incidental Take Minimization Measures are consistent with the provisions of the Migratory Bird Treaty Act as described in Section 5.2.3.1(G).

Colonial Nesting Birds (Tricolored Blackbird, Black-Crowned Night Heron, Great Blue Heron)

Acquisition of colonial nesting sites for these species is a high priority of the SJMSCP. Project Proponents shall be informed of avoidance measures which eliminate compensation requirements for disturbance of colonial nesting areas in project design, as described in Section 5.5.9. If the Project Proponent rejects acquisition and avoidance, pursuant to Section 5.5.9, then the following Incidental Take Minimization Measure shall apply:

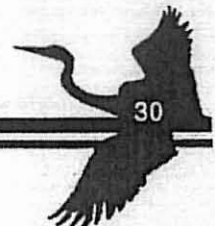
A setback of 500 feet from colonial nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests which are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.

These Incidental Take Minimization Measures are consistent with the provisions of the Migratory Bird Treaty Act as described in Section 5.2.3.1(G).

Ground Nesting or Streamside/Lakeside Nesting Birds (Northern Harrier, Horned Lark, Western Grebe, Short-Eared Owl)

A setback of 500 feet from nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests which are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.

These Incidental Take Minimization Measures are consistent with the provisions of the Migratory Bird Treaty Act as described in Section 5.2.3.1(G).



Birds Nesting in Isolated Trees or Shrubs Outside of Riparian Areas (Sharp-Shinned Hawk, Yellow Warbler, Loggerhead Shrike)

A setback of 100 feet from nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests which are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.

These Incidental Take Minimization Measures are consistent with the provisions of the Migratory Bird Treaty Act as described in Section 5.2.3.1(G).

Birds Nesting Along Riparian Corridors (Cooper's Hawk, Yellow-Breasted Chat, Osprey, White-Tailed Kite)

- A. For white-tailed kites, preconstruction surveys shall investigate all potential nesting trees on the project site (e.g., especially tree tops 15-59 feet above the ground in oak, willow, eucalyptus, cottonwood, or other deciduous trees), during the nesting season (February 15 to September 15) whenever white-tailed kites are noted on site or within the vicinity of the project site during the nesting season.
- B. For the Cooper's hawk, yellow-breasted chat, osprey and white-tailed kite, a setback of 100 feet from nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests which are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.

These Incidental Take Minimization Measures are consistent with the provisions of the Migratory Bird Treaty Act as described in Section 5.2.3.1(G).

Bell's Sage Sparrow, Snowy Egret, Prairie Falcon, American White Pelican, Double-Crested Cormorant, White-Faced Ibis, Long-billed Curlew

These species either establish nests outside of anticipated development areas or are currently unknown to nest within the County. However, if a nest for one of these species is discovered on a project site, Incidental Take Minimization Measures shall be formulated prior to ground disturbance by the TAC and approved by the JPA with the concurrence of the Permitting Agencies' representatives on the TAC in accordance with the SJMSCP's Adaptive Management Plan (Section 5.9.4).

These Incidental Take Minimization Measures are consistent with the provisions of the Migratory Bird Treaty Act as described in Section 5.2.3.1(G).



### Golden Eagle

When a site inspection indicates the presence of a nesting golden eagle, a setback of 500 feet from the nesting area shall be established and maintained during the nesting season (normally approximately February 1 - June 30) for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests which are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.

These Incidental Take Minimization Measures are consistent with the provisions of the Migratory Bird Treaty Act as described in Section 5.2.3.1(G) and are consistent with the provisions of the Bald and Golden Eagle protection act as described in Section 5.2.3.1(H).

### Ferruginous Hawk, Mountain Plover, Merlin, Long-Billed Curlew

These species currently do not nest in the County and are not expected to nest in the County over the life of the Plan. Therefore, in the highly unlikely event that one of these species is found nesting on a project site, Incidental Take Minimization Measures shall be formulated prior to ground disturbance by the TAC and approved by the JPA with the concurrence of the Permitting Agencies' representatives on the TAC in accordance with the SJMSCP's Adaptive Management Plan (Section 5.9.4).

Incidental Take Minimization Measures adopted pursuant to Section 5.9.4 shall be consistent with the provisions of the Migratory Bird Treaty Act as described in Section 5.2.3.1(G)

### Riparian Brush Rabbit

- A. Occupied Habitat. Kill of individual riparian brush rabbits and Conversion of occupied habitat for the riparian brush rabbit is prohibited by the SJMSCP unless the provisions of SJMSCP Section 5.5.2.7 have been met. Full avoidance of the riparian brush rabbit is required in areas of known occupied riparian brush rabbit habitat in accordance with Section 5.5.9(I). Known occupied habitat for the riparian brush rabbit is: the vegetation types R, R2, R3, R4, R5, S, SG, D, W, W2, W3, W4, W5 and W9 (unlined) located within Caswell State Park and along the adjoining Stanislaus River; and surrounding Stewart Tract including Paradise Cut and the adjacent Union Pacific Railroad Company right-of-way on Stewart Tract, Old River adjacent to Stewart Tract, and the San Joaquin River as it bounds Stewart Tract. Additional populations of the riparian brush rabbit identified after the Effective Date of the SJMSCP Permits by the JPA or the Permitting Agencies shall become known occupied riparian brush rabbit habitat.
- B. Potential Habitat. Conversion of Potential habitat for the riparian brush rabbit is prohibited by the SJMSCP unless: 1) the provisions of Paragraph C (below) apply; 2) the provisions of SJMSCP Section 5.5.2.7 have been met; or 3) a survey, conducted pursuant to the protocol established in *Survey Methods for Riparian Brush Rabbits* (by D.F. Williams and P.A. Kelly - San Joaquin Valley Endangered Species Recovery Planning Program) is undertaken and proves absence for this species. If absence is established by the survey, then the incidental take minimization measures for riparian habitat, established in SJMSCP Section 5.2.4.31 shall apply.



Potential riparian brush rabbit habitat is: the vegetation types R, R2, R3, R4, R5, S, SG, D, W, W2, W3, W4, W5 and W9 (unlined) located along the Stanislaus River downstream of Highway 99 to the junction with the San Joaquin River and riparian habitat along the San Joaquin River downstream of the mouth of the Stanislaus River north to and including Tom Paine Slough and Paradise Cut to the Southern Pacific railroad right-of-way.

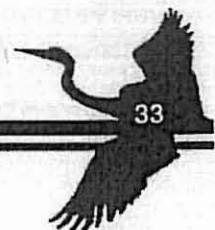
- C. Limited Take. Incidental Take of up to three acres of potential riparian brush rabbit habitat may occur pursuant to the SJMSCP for projects which meet all of the following criteria:
- A. SJMSCP Covered Activities excluding residential, commercial or industrial development and aggregate mining.
  - B. Impact less than .25 acres of habitat on a per-project basis; and
  - C. Result in no harm, injury, or harassment of individual brush rabbits

#### Riparian Woodrat

- A. Occupied Habitat. Kill of individual riparian woodrats and Conversion of occupied habitat for the riparian woodrat is prohibited by the SJMSCP unless the provisions of SJMSCP Section 5.5.2.7 have been met. Full avoidance of the riparian woodrat is required in areas of known occupied riparian brush rabbit habitat in accordance with Section 5.5.9(I). Occupied habitat for the riparian woodrat includes the vegetation types R, R2, R3, R4, R5, S, SG, D, W, W2, W3, W4, W5 and W9 (unlined) surrounding Caswell Park along the Stanislaus River and extending along the Stanislaus River west from Caswell Park to the confluence of the Stanislaus River with the San Joaquin River in San Joaquin County. Additional populations of the riparian woodrat identified after the Effective Date of the SJMSCP Permits by the JPA or the Permitting Agencies shall become known occupied riparian woodrat habitat.
- B. Potential Habitat. Conversion of Potential habitat for the riparian woodrat is prohibited by the SJMSCP unless: 1) the provisions of Paragraph C (below) apply; 2) the provisions of SJMSCP Section 5.5.2.7 have been met; or 3) a survey, conducted pursuant to the protocol established in *Survey Methods for Riparian Brush Rabbits* (by D.F. Williams and P.A. Kelly - San Joaquin Valley Endangered Species Recovery Planning Program) is undertaken and proves absence for this species. If absence is established by the survey, then the incidental take minimization measures for riparian habitat, established in SJMSCP Section 5.2.4.31 shall apply.

Potential habitat for the riparian woodrat is the same as that for the riparian brush rabbit.

- C. Limited Take. Incidental Take of up to three acres of potential riparian woodrat habitat may occur pursuant to the SJMSCP for projects which meet all of the following criteria:
- A. SJMSCP Covered Activities excluding residential, commercial or industrial development and aggregate mining.
  - B. Impact less than .25 acres of habitat on a per-project basis; and
  - C. Result in no harm, injury or harassment of individual riparian woodrats



### San Joaquin Kit Fox

Preconstruction surveys shall be conducted two calendar weeks to thirty calendar days prior to commencement of ground disturbance for projects located within the *Southwest Zone* or *Southwest/Central Transition Zone*. Surveys shall be conducted by qualified biologists. When surveys identify potential dens (potential dens are defined as burrows at least four inches in diameter which open up within two feet), potential den entrances shall be dusted for three calendar days to register track of any San Joaquin kit fox present. If no San Joaquin kit fox activity is identified, potential dens may be destroyed. If San Joaquin kit fox activity is identified, then dens shall be monitored to determine if occupation is by an adult fox only or is a natal den (natal dens usually have multiple openings). If the den is occupied by an adult only, the den may be destroyed when the adult fox has moved or is temporarily absent. If the den is a natal den, a buffer zone of 250 feet shall be maintained around the den until the biologist determines that the den has been vacated. Where San Joaquin kit fox are identified, the provisions of the U.S. Fish and Wildlife Service's published *Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance* shall apply (except that preconstruction survey protocols shall remain as established in this paragraph). These standards include provisions for educating construction workers regarding the kit fox, keeping heavy equipment operating at safe speeds, checking construction pipes for kit fox occupation during construction and similar low or no-cost activities.

It is possible that the Permitting Agencies could discover the San Joaquin kit fox within the eastern foothills of San Joaquin County, (this potential range in the eastern foothills would most likely coincide approximately with the boundaries of the *Vernal Pool Zone*, excluding that area of the *Vernal Pool Zone* located in the northern portion of San Joaquin County). San Joaquin kit fox also may move within the *Primary Zone of the Delta* west of Old River. The TAC shall work with the USFWS to prepare an abbreviated survey protocol for these areas in the *Vernal Pool Zone* and *Primary Zone of the Delta* within one year of issuance of SJMSCP Permits pursuant to SJMSCP Sections 5.2.2.1 through 5.2.2.4.

Protocols for conducting pre-construction surveys for the San Joaquin kit fox shall be updated in accordance with the SJMSCP Adaptive Management Plan to reflect changes to the *Standardized Recommendations for Protection of the San Joaquin kit fox Prior to or During Ground Disturbance*.

### American Badger, Ringtail Cat

If occupied dens are located on a project site for either of these species, then dens shall be monitored to determine if occupation is by an adult badger or ringtail only or is a natal den. If the den is occupied by an adult only the den may be destroyed when the adult has moved or is temporarily absent. If the den is a natal den, a buffer zone of 200 feet shall be maintained around the den until the JPA biologist determines that den has been vacated.

### Berkeley Kangaroo Rat, San Joaquin pocket mouse

These species are located primarily in the Southwest Zone outside of anticipated development areas. However, if these species are discovered on a project site, Incidental Take Minimization Measures shall be formulated by prior to ground disturbance the TAC and approved by the JPA with the concurrence of the Permitting Agencies' representatives on the TAC in accordance with the SJMSCP's Adaptive Management Plan (Section 5.9.4).