

Appendix C

Biological Resource Reports

- Assessment of “Waters of the U.S.”, Including Wetlands
- Biological Resources Assessment for the Reynolds Ranch Development Project

REYNOLDS RANCH DEVELOPMENT PROJECT
Assessment of "Waters of the U.S.," Including Wetlands

MARCH 17, 2006



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REYNOLDS RANCH DEVELOPMENT PROJECT

Assessment of “Waters of the U.S.,” Including Wetlands

1. INTRODUCTION

North State Resources, Inc. (NSR) has conducted an assessment of “waters of the U.S.,” including wetlands for the 234± acre Reynolds Ranch Development Project study area (study area). The proposed Reynolds Ranch Development Project (proposed project) is an approximately 220± acre mixed-use development. It includes low, medium, and high density residential areas; senior housing; retail commercial; office space; a school; and open space and agricultural greenbelt areas. The proposed project would be located in San Joaquin County, near the southeastern edge of the City of Lodi. This location is adjacent to existing residential development on the north and provides easy access to State Route 99.

2. BACKGROUND

- a) **Location:** The study area is located in San Joaquin County, near the southeast portion of the City of Lodi. This location corresponds to a portion of Section 24, Township 3 North, Range 6 East of the *Lodi South, California*, U.S. Geological Survey (USGS) 7.5-minute quadrangle. The location of the study area is shown on a USGS 7.5-minute topographic map in Figure 1. An aerial photograph of the study area is shown in Figure 2.
- b) **Acres:** The study area encompasses 234± acres.
- c) **Proximity to major highways and streets:** The study area is bounded by State Route 99 to the east, the Union Pacific Railroad to the west, and Harney Lane to the north.
- d) **USGS Hydrologic Unit:** The study area is located within the Lower Cosumnes – Lower Mokelumne USGS Hydrologic Map Unit [Map Unit Number 18040005] (U.S. Environmental Protection Agency 2006).

3. ENVIRONMENTAL SETTING

- a) **Current/Surrounding Land Use:** The study area primarily consists of vineyards. There are also scattered rural residences, a small area of established almond orchard, fallow agricultural land, and a Moose Lodge building and appurtenances. Surrounding land uses are suburban residential, rural residential, and commercial.

50770_Reynolds_Ranch50770_Fig_1_Study_Area.mxd Source: NSR, Inc.; USGS 7.5-minute quadrangle, Lodi South, CA 03-09-06 rjo

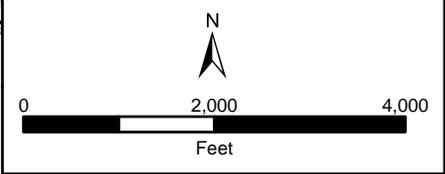
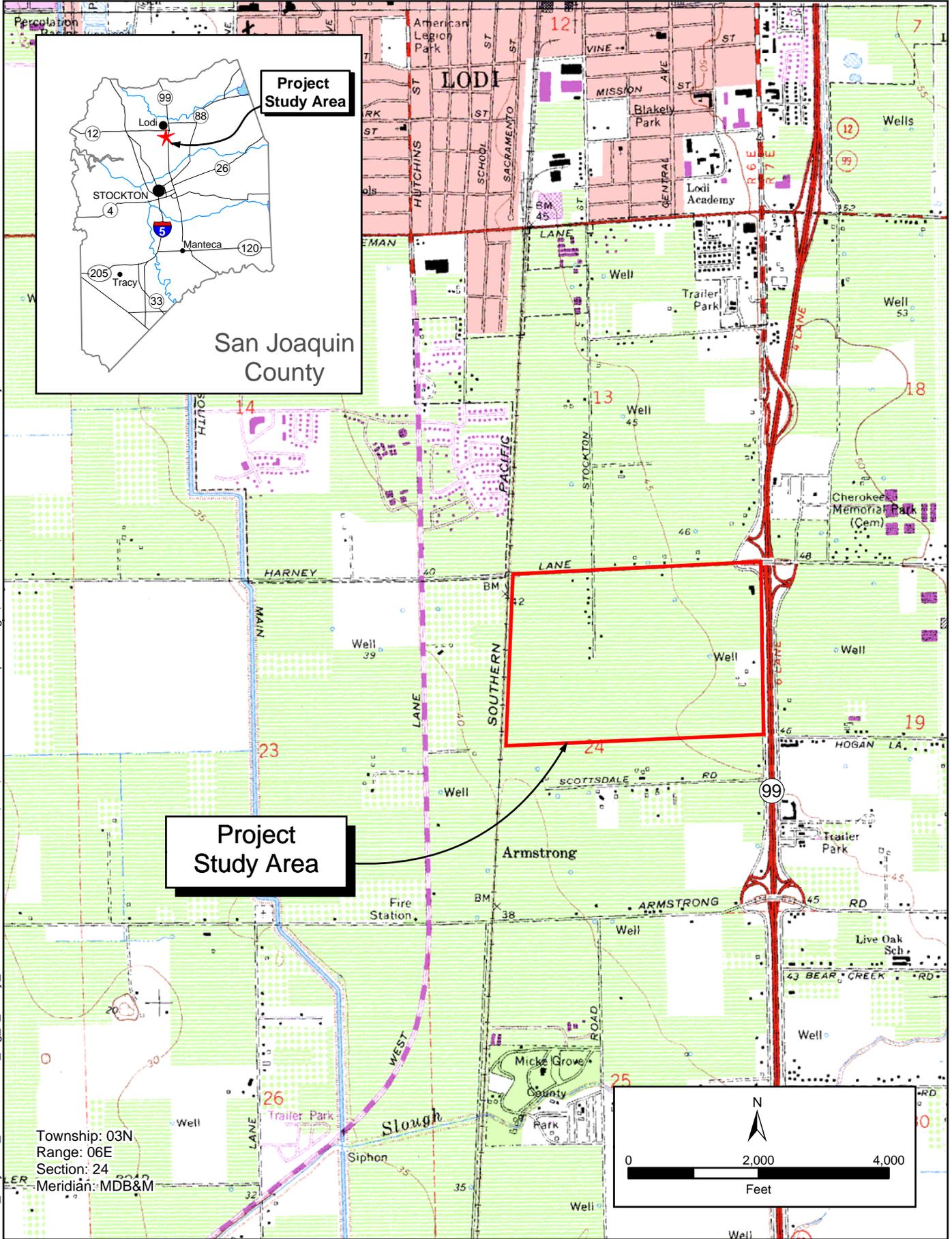
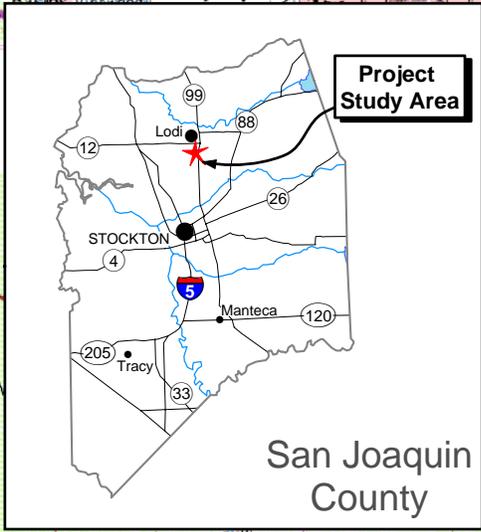


Figure 1
Location of Project Study Area

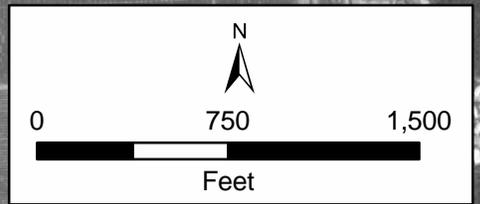
50770_Reynolds_Ranch\50770_Fig_3_Soils.mxd 03-09-06 rjo

Source: NSR, Inc.; USGS DOQQ, Lodi South, CA

Project Study Area (234.90 Acres)



Aerial Photograph Taken September 16, 1998



- b) **Site Elevation:** The approximate elevation at the study area is 40-50 feet above mean sea level.
- c) **Climate:**
- **Type:** Mediterranean with cool, wet winters and hot, dry summers.
 - **Precipitation:** Average annual precipitation is 18 inches, most of which occurs as rain between November 1 and April 30 (Western Regional Climate Center 2005).
 - **Air temperature:** Air temperatures range between an average January high of 54° F and an average of 91° F during July. Daily high temperatures commonly exceed 100° F during the summer. The year-round average high is approximately 74° F (Western Regional Climate Center 2005).
 - **Growing season:** The average length of the 28° F growing season is between 263 and 337 days (U.S. Department of Agriculture 1992).
 - **Site Topography/Landscape:** Topography within the study area is nearly level.
- e) **Hydrology/Hydrologic Features/Hydrologic Connectivity:** There is a single drainage swale in the northeastern corner of the study area. This drainage swale receives water from the north via a culvert beneath Harney Lane and channels it east towards State Route 99. There is also an excavated ditch that parallels a portion of the Union Pacific Railroad on the south, and borders the western edge of the study area. The drainage swale and the excavated ditch do not convey water to or from jurisdictional “waters of the U.S.” outside of the study area.
- f) **Soils:** Soils within the study area are described in the *Soil Survey of San Joaquin County, California* (U.S. Department of Agriculture 1992). A soil survey map of the study area is presented in Appendix A. Four soil map units are recognized within the study area: Acampo sandy loam, 0-2% slopes; Tokay fine sandy loam, 0-2% slopes; Tokay-Urban land complex, 0-2% slopes; and Tujunga loamy sand, 0-2% slopes. These map units are considered non-hydric; however, they may contain hydric inclusions (U.S. Department of Agriculture, Soil Conservation Service 1992). The following provides brief descriptions of these map units:
- **Acampo sandy loam, 0-2% slopes.** This is a moderately well-drained, nearly level soil that occurs on low fan terraces. It is deep to a hardpan, and formed in alluvium derived from granitic rock sources. Permeability is moderately rapid and available water capacity is moderate. This soil map unit is non-hydric, but may contain hydric inclusions of Devries soils in basin rims.
 - **Tokay fine sandy loam, 0-2% slopes.** This is a very deep, well-drained, nearly level soil that occurs on low fan terraces. It formed in alluvium derived from granitic rock sources. Permeability is moderately rapid and available water capacity is high. This soil map unit is non-hydric, but may contain hydric inclusions of Devries soils in basin rims.
 - **Tokay-Urban land complex, 0-2% slopes.** This is a nearly level map unit that occurs on low fan terraces. This unit is 50% Tokay fine sandy loam and 35% Urban land. The Tokay soil is very deep and well-drained. It formed in alluvium derived from granitic rock sources. Permeability is moderately rapid and available water capacity is high. Urban lands consist of areas covered by roads, driveways, sidewalks, etc. The soil material under these impervious services is similar to that of Tokay fine sandy loam. This soil map unit is non-hydric, but

may contain hydric inclusions of Devries soils in basin rims, or Columbia soils in flood plains.

- **Tujunga loamy sand, 0-2% slopes.** This soil is very deep, somewhat excessively drained, and nearly level on flood plains and elongated channel remnants. It formed in alluvium derived from granitic rock sources. Permeability is rapid and available water capacity is low. This soil map unit is non-hydric, but may contain hydric inclusions of Columbia soils in flood plains.

g) **Plant Communities:** Four plant communities occur within the study area: fallow cropland, vineyard, orchard, and urban (Mayer and Laudenslayer 1988). A description of each habitat type is provided below.

- **Fallow cropland.** The fallow cropland is highly disturbed and dominated by annual non-native forbs. The dominant plant species in these areas are miner's lettuce (*Claytonia perfoliata* - FAC) and common chickweed (*Stellaria media* - FACU). Associated species include soft brome (*Bromus hordeaceus* - FAC), fiddleneck (*Amsinckia* spp. - NL), filaree (*Erodium* spp. - NL), henbit (*Lamium amplexicaule* - NL), red maids (*Calandrinia ciliata* - FACU), milk thistle (*Silybum marianum* - NL), cocklebur (*Xanthium strumarium* - FAC+), wild radish (*Raphanus raphanistrum* - NL), pineapple weed (*Chamomilla suaveolens* - FACU), and yellow star-thistle (*Centaurea solstitialis* - NL).
- **Vineyard.** Vineyards within the study area contain both well-established and newly planted grapevines (*Vitis* sp.). The vineyards are generally well-groomed and lack other plant species. However, in some areas other species are present including shepherd's purse (*Capsella bursa-pastoris* - FAC-), common chickweed, filaree, red maids, soft brome, annual bluegrass (*Poa annua* - FACW-), miner's lettuce, fireweed (*Epilobium* sp.), Bermuda grass (*Cynodon dactylon* - FAC), dandelion (*Taraxacum officinale* - FACU), and nightshade (*Solanum* sp.). Adjacent to the vineyards and bordering the study area on the west is a drainage ditch that runs parallel to the Union Pacific Railroad. Plant species associated with this ditch include black mustard (*Brassica nigra* - NL), yellow star-thistle, foxtail barley (*Hordeum jubatum* - FAC+), common chickweed, giant reed (*Arundo donax* - FACW), and fruit trees (*Prunus* sp. - NL).
- **Orchard.** Orchard within the study area contains well-established almond trees (*Prunus dulcis*). The orchard appears to be well-groomed and supports only scattered annuals in the understory.
- **Urban.** Urban areas within the study area include roadsides, a ball field, rural residences, and a Moose Lodge. These areas are dominated by lawns, horticultural plant species, and weedy annuals. Tree species observed within urban portions of the study area include California walnut (*Juglans californica*), fruit tree (*Prunus* spp.), birch (*Betula* spp.), deodar cedar (*Cedrus deodara*), coast redwood (*Sequoia sempervirens*), Lombardy poplar (*Populus nigra*), orange (*Citrus sinensis*), and olive (*Olea europaea*). Common shrubs and herbaceous species within urban portions of the study area include pampas grass (*Cortaderia selloana*), rose (*Rosa* spp.), narcissus (*Narcissus* spp.), camellia (*Camellia* spp.), alyssum (*Lobularia maritima*), calendula (*Calendula officinalis*), iris (*Iris* sp.), and tulip (*Tulipa* sp.). Species found within the ball field, located behind the Moose Lodge include lanceleaf plantain

(*Plantago lanceolata*), speedwell (*Veronica persica*), vetch (*Vicia* spp.), fireweed (*Epilobium* spp.), blue gum (*Eucalyptus globulus* and *E. spp.*), and golden raintree (*Koelreuteria paniculata*).

4. METHODOLOGY

A field assessment of the study area for the presence/absence of “waters of the U.S.,” including wetlands, was performed on March 1, 2006, by NSR biologists Mark Wuestehube and Deborah Stout. The assessment was conducted on foot and all areas were viewed to the degree necessary to determine the presence/absence of jurisdictional features.

The determination of the presence/absence of wetlands was based on field observations of indicators for wetland vegetation, hydrology, and soils. The indicator status for vegetation was determined using the *National List of Plant Species That Occur in Wetlands: California (Region 0)*, (Reed 1988). Indicators for wetland hydrology and soils were determined using the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987).

The determination of the presence/absence of “other waters” (e.g., streams, jurisdictional drainages), was based on investigating drainage features for the presence/absence of an ordinary high water mark and status as tributaries to navigable “waters of the U.S.” or streams tributary to navigable “waters of the U.S.” The determination of presence/absence of an ordinary high water mark was made according to definitions provided in U.S. Army Corps of Engineers (ACOE) regulations (33 CFR 328.3 and 33 CFR 328.4).

5. RESULTS

“Waters of the U.S.,” including wetlands, do not occur within the study area. No jurisdictional “other waters” or wetland features were identified within the study area, as indicators for tributary status, wetland vegetation, hydrology, and soils were not observed.

The drainage swale in the northeastern corner of the study area was suspect due to the presence of facultative vegetation (i.e., equally likely to occur in wetlands and nonwetlands). Soils were sampled and no hydric soil indicators were observed. The swale does not qualify as “other waters” because it is not tributary to “waters of the U.S.,” it does not qualify as a wetland because hydric soils indicators and hydrology indicators (primary and secondary) are absent. The location of the swale is shown in Appendix B; the completed data form is in Appendix C.

The excavated ditch near the western boundary was dominated by upland plant species. For this reason this feature was not delineated. At the time of the field investigation, neither feature showed evidence of saturation or ponding, although significant rainstorms had passed through the area less than 48 hours previously.

NSR recommends that this report be submitted to the ACOE with a request for a letter stating that no Department of the Army permit would be required for activities occurring within the study area.

6. REFERENCES

- Environmental Laboratory. 1987. *U.S. Army Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. U.S. Army Engineers Waterways Experiment Station. Vicksburg, Mississippi.
- Mayer, K. E., and W. F. Laudenslayer, Jr. (Eds.). 1988. *A Guide to Wildlife Habitats of California*. California Department of Forestry and Fire Protection. Sacramento, California.
- Reed, P. B., Jr. 1988. *National List of Plant Species That Occur in Wetlands: California (Region 0)*. U.S. Fish and Wildlife Service Biological Report 88(26.10). U.S. Fish and Wildlife Service.
- U.S. Department of Agriculture. 1992. *Soil Survey of San Joaquin County, California*. U.S. Department of Agriculture Soil Conservation Service and Forest Service.
- U.S. Department of Agriculture. 2002. *Field Indicators of Hydric Soils in the United States, Version 5.0*. Hurt, G.W., P.M. Whited, and R.F. Pringle (Eds.). USDA, Natural Resources Conservation Service in cooperation with the National Technical Committee for Hydric Soils. Fort Worth, Texas.
- U.S. Department of Agriculture, Soil Conservation Service. 1992. *Field Office Official List of Hydric Soil Map Units for San Joaquin County, California*. Davis, California.
- U.S. Geological Survey. 1968 (Photo revised in 1976). *Lodi South, California, 7.5-minute quadrangle sheet*.
- U.S. Environmental Protection Agency. 2006. *Lower Cosumnes – Lower Mokelumne Watershed Profile* located at website: http://cfpub.epa.gov/surf/huc.cfm?huc_code=18040005.
- Western Regional Climate Center. 2005. *Lodi, California (045032) Period of Record Monthly Climate Summary*. Available at: <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?calodi+nca>

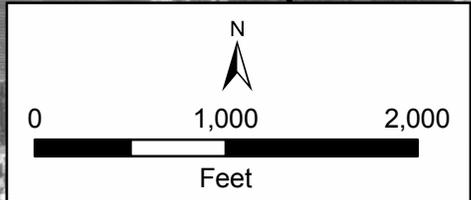
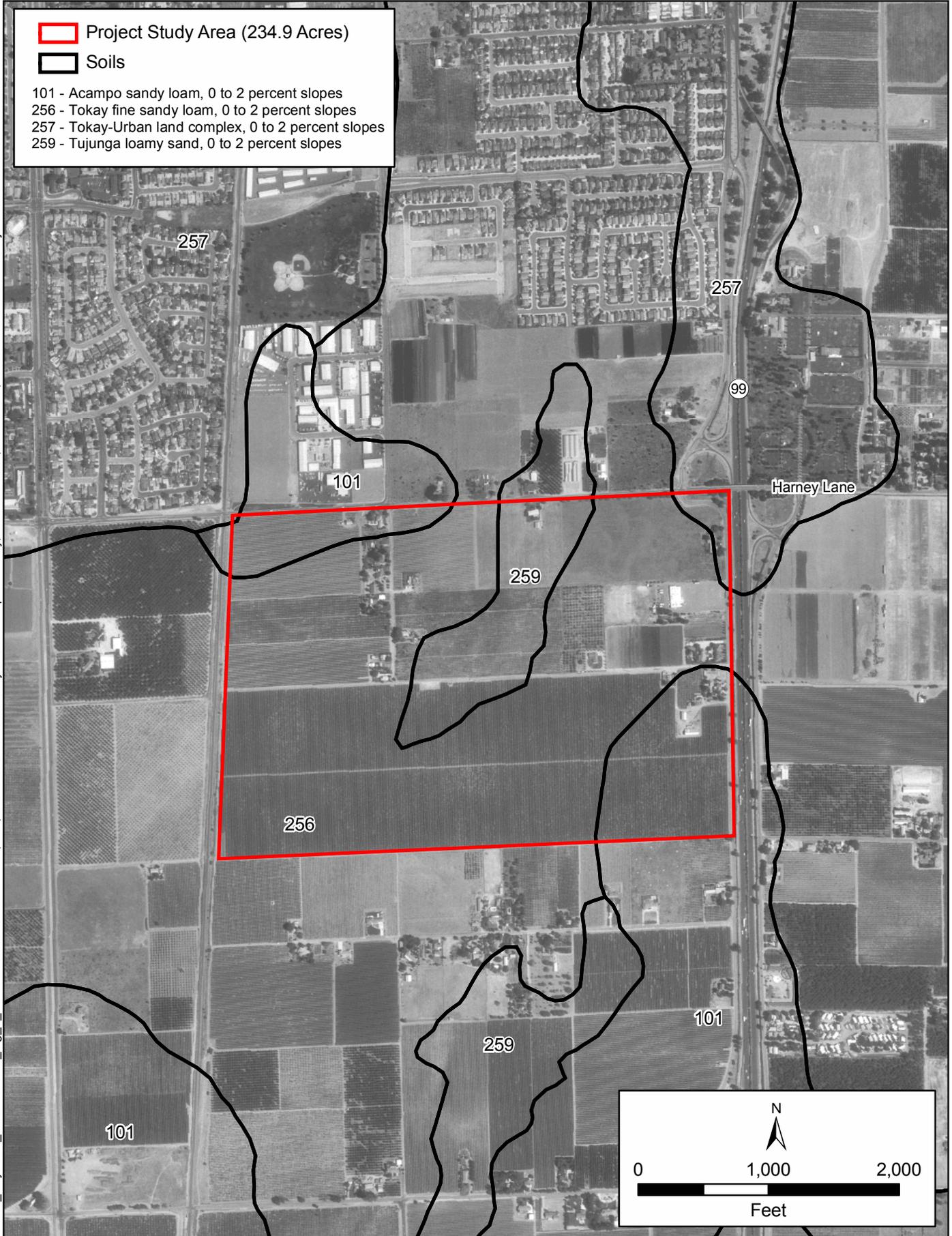
APPENDIX A
Soil Units Map

50770_Reynolds_Ranch\50770_Fig_3_Soils.mxd Source: NSR, Inc.; USDA NRCS Soil Survey of San Joaquin County; USGS DOQQ, Lodi South, CA 03-09-06 rjo

 Project Study Area (234.9 Acres)

 Soils

- 101 - Acampo sandy loam, 0 to 2 percent slopes
- 256 - Tokay fine sandy loam, 0 to 2 percent slopes
- 257 - Tokay-Urban land complex, 0 to 2 percent slopes
- 259 - Tujunga loamy sand, 0 to 2 percent slopes

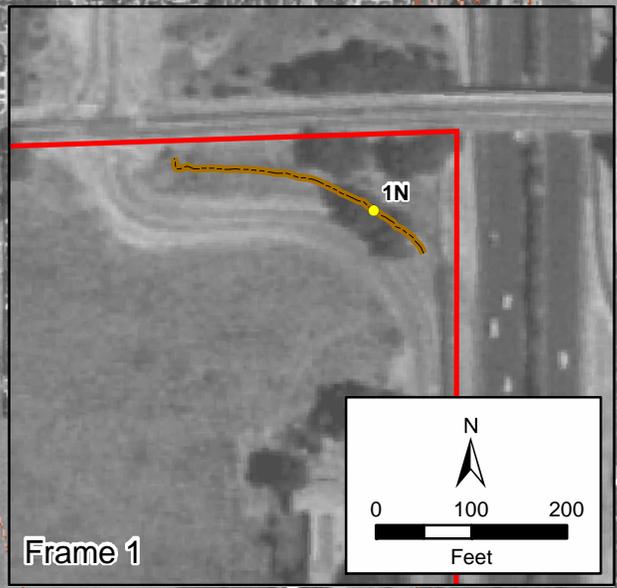


APPENDIX B

Delineated Feature

50770_Reynolds_Ranch\50770_Fig_4_WUS.mxd Source: NSR, Inc.; USGS DOQQ, Lodi South, CA 03-09-06 rjo

- Project Study Area (234.90 Acres)
- 3 - Parameter Data Point (Upland)
- Ditch (300 ft in length)



APPENDIX C

Wetland Data Form

DATA FORM: ROUTINE WETLAND DETERMINATION

Comm. ID: Upland Data Point: 1

Project/Site: Reynold's Ranch
 Applicant/Owner: _____
 Investigator: Wuesthuber / Stout

Date: 3/11/06
 County: San Joaquin
 State: California

Do normal circumstances exist on the site? Y or N
 Is the site significantly disturbed (atypical situation)? Y or N
 Is the area a potential problem area. Y or N Explain: _____

VEGETATION				HYDROLOGY					
Dominant Plant Species	Cover	Stratum	Indicator						
1. <u>Bromus hordeaceus</u>	<u>70</u>	<u>h</u>	<u>FAC</u>	<input type="checkbox"/> Recorded Data (Describe in Remarks) <input type="checkbox"/> stream, lake, or tide gauge <input type="checkbox"/> aerial photographs <input type="checkbox"/> other <input checked="" type="checkbox"/> No Recorded data available Field Observation: Depth of Surface Water: <u>N/A</u> (in.) Depth of Free Water in Pit: <u>N/A</u> (in.) Depth of Saturated Soil: <u>N/A</u> (in.)					
2. <u>Hordeum jubatum</u>	<u>30</u>	<u>h</u>	<u>FAC</u>						
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									
Percent of dominant species that are OBL, FACW or FAC _____				Wetland Hydrology Indicators <table border="1"> <thead> <tr> <th>Primary Indicators</th> <th>Secondary Indicators</th> </tr> </thead> <tbody> <tr> <td> <input type="checkbox"/> inundated <input type="checkbox"/> saturated in upper 12" <input type="checkbox"/> water marks <input type="checkbox"/> drift lines <input type="checkbox"/> sediment deposits <input type="checkbox"/> drainage patterns in wetlands </td> <td> <input type="checkbox"/> oxidized root channels in upper 12" <input type="checkbox"/> water-stained leaves <input type="checkbox"/> local soil survey data <input type="checkbox"/> FAC-neutral test <input type="checkbox"/> other (explain in remarks) </td> </tr> </tbody> </table>		Primary Indicators	Secondary Indicators	<input type="checkbox"/> inundated <input type="checkbox"/> saturated in upper 12" <input type="checkbox"/> water marks <input type="checkbox"/> drift lines <input type="checkbox"/> sediment deposits <input type="checkbox"/> drainage patterns in wetlands	<input type="checkbox"/> oxidized root channels in upper 12" <input type="checkbox"/> water-stained leaves <input type="checkbox"/> local soil survey data <input type="checkbox"/> FAC-neutral test <input type="checkbox"/> other (explain in remarks)
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Remarks: <u>Other species: Lactuca scariola, Galium sp., Claytonia perfoliata</u>				Remarks: <u>Lacks wetland hydrology. Feature is low-lying linear swale, but no 1^o or 2^o indicators.</u>					

SOILS

Map Unit Name (Series and Phase): Tokey-Urban land complex, 0-29° slopes
 Taxonomy (Subgroup): _____
 Hydric Status on SCS Field Office List: Non-hydric w/ hydric inclusions

Drainage Class: WD
 Field Observations Confirm Mapped Type? Y or N

Depth	Horizon	Matrix Color	Mottle Colors	Mottle Abundance/contrast	Texture, Concretions, Structure, Etc.	Remarks:
<u>12</u>	<u>B</u>	<u>7.5YR 3/4</u>	<u>Ø</u>	<u>Ø</u>	<u>sandy silt loam</u>	<u>high chrome</u> <u>Ø mottling</u> <u>no vertical streaking or organic pan</u> <u>Ø high or-matter content in surface</u>

- Hydric Soil Indicators:
- | | |
|--|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Positive alpha-alpha dipyrindyl test |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Sulfidic odor | <input type="checkbox"/> High organic content in surface layer in sandy soil |
| <input type="checkbox"/> Aquic moisture regime | <input type="checkbox"/> Organic streaking in sandy soils |
| <input type="checkbox"/> Reducing conditions | <input type="checkbox"/> Listed on local hydric soils list |
| <input type="checkbox"/> Gleyed or low-chroma colors | <input type="checkbox"/> Listed on national hydric soils list |
| | <input type="checkbox"/> Other _____ |

WETLAND DETERMINATION

Hydrophytic vegetation present? Y or N Wetland Hydrology Present? Y or N Hydric Soils Present? Y or N
 Is this sampling Point within a wetland? Y or N

Remarks: Feature is low-lying, linear swale. Does not exhibit wetland hydrology or evidence of wetland soil. Does not meet wetland criteria. Large storm ≤ 48 hours previous to sampling.

April 3, 2006

WILLDAN

Attn: Mr. Robert Sun, Senior Planner
13191 Crossroads Parkway North, Ste. 405
Industry, California 91746-3497

Subject: Biological Resources Assessment for the Reynolds Ranch Development Project.

Mr. Sun,

North State Resources, Inc. (NSR) has conducted a biological resource assessment to support the planning and design of the proposed 220± acre Reynolds Ranch Development Project (study area). The study area is located in San Joaquin County, California, near the southeastern edge of the City of Lodi. The study area is bounded by State Route 99 to the east, the Union Pacific Railroad to the west, and Harney Lane to the north. The study area location corresponds to Section 24 of Township 03 North and Range 06 East of the *Lodi South, California*, U.S. Geological Survey (USGS) 7.5-minute quadrangle (Figure 1).

Project Description

The proposed Reynolds Ranch is a 220± acre mixed-use development. It includes low, medium, and high density residential areas; senior housing; retail commercial; office space; a school; and open space and agricultural greenbelt areas. Reynolds Ranch would be located at the southeastern edge of the City of Lodi, adjacent to existing residential development on the north with easy access to State Route 99.

Purpose of Assessment

The purpose of this biological resources assessment is to:

- Generally characterize the habitat types present within the study area;
- Determine the presence/absence of suitable habitat for special-status species within the study area; and
- Determine the presence/absence of “waters of the U.S.” and wetland habitats within the study area.

Environmental Setting

The study area is located in the southern Sacramento Valley. The topography of this region is flat. Elevations range from approximately 40 to 50 feet above mean sea level. The climate in the general area is characterized as Mediterranean with cool, wet winters and hot, dry summers. Precipitation is on average 18 inches annually, most of which occurs as rain between November 1 and April 30 (Western Regional Climate Center 2005). Air temperatures range between an average January low of 37° F and an average high of 91° F during July. Daily high temperatures commonly exceed 100° F during the summer. The year-round average high is approximately 74° F and the year-round average annual low is 43° F (Western Regional Climate Center 2005). The *Soil Survey of San Joaquin County, California* (U.S. Department of Agriculture 1992) identifies four mapping units within the study area: Acampo sandy loam, 0 to 2% slopes; Tokay fine sandy loam, 0-2% slopes; Tokay-Urban land complex, 0-2% slopes; and Tujunga loamy sand, 0-2% slopes.

The study area is located just west of State Route 99 at the southeastern edge of the City of Lodi. A majority of the study includes planted vineyards, some of which are well established although several areas have been planted recently. The remainder of the study area contains scattered rural residences; a small, established walnut orchard; and some areas of unused cropland. Trees within the study area occur primarily in association with rural residences.

Methodology

Prior to conducting the field assessment, the following information sources were reviewed:

- *Lodi South, California* USGS quadrangle;
- Black and white aerial photography of the study area and vicinity dated September 16, 1998;
- California Department of Fish and Game California Natural Diversity Data Base (CNDDDB) records for the *Lodi South, California* USGS quadrangle and the surrounding eight quadrangles (CDFG 2006) (Appendix A);
- U.S. Fish and Wildlife Service (USFWS) list of endangered and threatened species that may occur in or be affected by projects in the *Lodi South, California* USGS quadrangle (Appendix B);
- Pertinent literature, including: *Inventory of Rare and Endangered Vascular Plants of California* (California Native Plant Society 2001); *The Jepson Manual, Higher Plants of California* (Hickman 1993); *Amphibian and Reptile Species of Special Concern in California* (Jennings and Hayes 1994); *California Birds: Their Status and Distribution* (Small 1994); *Bird Species of Special Concern in California* (Remsen 1978); and *Mammalian Species of Special Concern in California* (Williams 1986).

Field assessments of the study area were conducted by NSR biologists Mark Wuestehube and Deborah Stout on March 1 and by Deborah Stout on March 17, 2006. The study area was surveyed by walking the area to assess habitat types, evaluate the potential for the occurrence of special-status species, determine presence or absence of protected tree species, and determine the presence or absence of “waters of the U.S.,” wetland habitats, and other sensitive biological resources.

Results

Vegetation Communities

Four vegetation communities occur within the study area: unused cropland, vineyard, orchard, and urban (Figure 2). The unused cropland is highly disturbed and dominated by annual non-native forbs. The dominant plant species in these areas are miner’s lettuce (*Claytonia perfoliata*) and common chickweed (*Stellaria media*). Associated species include soft brome (*Bromus hordeaceus*), fiddleneck (*Amsinckia* spp.), filaree (*Erodium* spp.), henbit (*Lamium amplexicaule*), red maids (*Calandrinia ciliate*), milk thistle (*Silybum marianum*), cocklebur (*Xanthium strumarium*), wild radish (*Raphanus raphanistrum*), pineappleweed (*Matricaria matricarioides*), and yellow star-thistle (*Centaurea solstitialis*).

Vineyards within the study area contain both well-established and newly planted grapevines (*Vitis* sp.). The orchard within the study area contains well-established almond trees (*Prunus dulcis*). There are no understory plants associated with the orchard or with many of the vineyards. However, some of the vineyards support an understory of shephard’s purse (*Capsella bursa-pastoris*), common chickweed, filaree, red maids, soft brome, annual bluegrass (*Poa annua*), miner’s lettuce, fireweed, Bermuda grass (*Cynodon dactylon*), dandelion (*Taraxacum officinale*), and nightshade

(*Solanum* sp.). Adjacent to the vineyards and bordering the study area on the west is a drainage ditch that runs parallel to the Union Pacific Railroad. Plant species associated with this ditch include black mustard (*Brassica nigra*), yellow star-thistle, foxtail barley (*Hordeum jubatum*), common chickweed, giant reed (*Arundo donax*), and fruit trees (*Prunus* sp.).

Urban portions of the study area include roadsides, a ball field, and rural residences. These areas are dominated by lawns, horticultural plant species, and weedy annuals. Tree species observed within the study area include California walnut (*Juglans californica*), fruit trees (*Prunus* spp.), birch (*Betula* spp.), deodar cedar (*Cedrus deodara*), coast redwood (*Sequoia sempervirens*), Lombardy poplar (*Populus nigra*), orange (*Citrus sinensis*), and olive (*Olea europaea*). Common shrubs and herbaceous species within urban portions of the study area include pampas grass (*Cortaderia selloana*), rose (*Rosa* spp.), narcissus (*Narcissus* spp.), camellia (*Camellia* spp.), alyssum (*Lobularia maritima*), calendula (*Calendula officinalis*), iris (*Iris* sp.), and tulip (*Tulipa* sp.). Species found within the ball field, located behind the Elks Lodge include lanceleaf plantain (*Plantago lanceolata*), speedwell (*Veronica persica*), vetch (*Vicia* spp.), fireweed (*Epilobium* spp.), blue gum (*Eucalyptus globulus* and *E. spp.*), and golden raintree (*Koelreuteria paniculata*).

In addition to these vegetation communities, a single, large valley oak (*Quercus lobata*) was observed in the extreme southeastern corner of the study area (Figure 2). The tree was measured to be 38.2 inches diameter at breast height.

CNDDDB Query Results

According to CNDDDB query results, there are reported occurrences of seven (7) special-status plant and wildlife species within five miles of the study area: burrowing owl (*Athene cunicularia*), midvalley fairy shrimp (*Branchinecta mesovallensis*), Swainson's hawk (*Buteo swainsoni*), vernal pool tadpole shrimp (*Lepidurus packardii*), Sacramento splittail (*Pogonichthys macrolepidotus*), Sanford's arrowhead (*Sagittaria sanfordii*), and giant garter snake (*Thamnophis gigas*) (Figure 3).

Special-Status Species

For the purposes of this assessment, "special-status" is defined to include those species that are:

- Listed as endangered or threatened under the federal Endangered Species Act (or formally proposed, or candidates, for listing);
- Listed as endangered or threatened under the California Endangered Species Act (or proposed for listing);
- Designated as endangered or rare, pursuant to California Fish and Game Code (§1901);
- Designated as fully protected, pursuant to California Fish and Game Code (§3511, §4700, or §5050);
- Designated as species of concern or species of local concern by USFWS, or as species of special concern by CDFG;
- Plants or animals that meet the definitions of rare or endangered under the California Environmental Quality Act (CEQA);
- Plants listed as rare under the California Native Plant Protection Act; or
- Plants considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California" (Lists 1B and 2).

A list of regionally occurring special-status plant and wildlife species was compiled based on a review of pertinent literature, the results of the field assessments, a species list obtained from the USFWS (Appendix B), and the results of a CNDDDB query of all reported occurrences of special-status species within the *Lodi South, California* USGS quadrangle

and the surrounding eight quadrangles (Appendix A). Additionally, the following documents were reviewed for reference information: the list of *State- and Federally-listed Endangered, Threatened, and Rare Plants of California* (CDFG 2006a); the *California Department of Fish and Game Special Vascular Plants, Bryophytes, and Lichens List* (CDFG 2006b); the *State of California Special Animals List* (CDFG 2006c); and the *List of State- and Federally-listed Endangered and Threatened Animals of California* (CDFG 2006c). Habitat requirements for each special-status species were assessed and compared to the habitats occurring within the study area (Appendix C).

Based upon the review of habitat requirements and the results of the field assessments, the study area provides suitable habitat for eight (8) special-status wildlife species. These species include burrowing owl (*Athene cunicularia hypugaea*), Swainson's hawk (*Buteo swainsoni*), white-tailed kite (*Elanus leucurus*), California horned lark (*Eremophila alpestris actia*), loggerhead shrike (*Lanius ludovicianus*), rufous hummingbird (*Selasphorus rufus*), pallid bat (*Antrozous pallidus*), and western mastiff bat (*Eumops perotis*).

Burrowing owl

The western burrowing owl inhabits open, dry grasslands and deserts, as well as open stages of pinyon-juniper and ponderosa pine. The nesting season is between February 1 and August 31. Western burrowing owls typically nest in abandoned rodent burrows, particularly those of California ground squirrels, which they modify each year. Burrowing owls forage in open grassland areas adjacent to nest sites. The species has also been documented in open areas near human habitation, especially airports and golf courses. The Central Valley and surrounding foothill regions of California provide year-round habitat for the western burrowing owl.

Swainson's hawk

Swainson's hawk requires large areas of foraging habitat, preferably grassland or pasture habitats. Preferred prey items are voles (*Microtus* sp), gophers, birds, and insects such as grasshoppers. They have also adapted to some croplands, particularly alfalfa, but also hay, grain, tomatoes, beets and other row crops. Crops such as cotton, corn, rice, orchards, and vineyards are not suitable since they either lack suitable prey or the prey is unavailable to the Swainson's hawk due to the crops structure. In the Central Valley, Swainson's hawk is generally tied to riparian habitat for nesting sites.

White-tailed kite

The white-tailed kite can be found in association with the herbaceous and open stages of a variety of habitat types, including open grasslands, meadows, emergent wetlands, and agricultural lands. Nests are constructed near the top of dense oaks, willows, or other tree stands located adjacent to foraging areas. The species forages in undisturbed, open grasslands, meadows, farmlands and emergent wetlands. White-tailed kite are seldom observed more than 0.5 mi (0.8 km) from an active nest during the breeding season. The white-tailed kite is found year-round in both the coastal zones and lowlands of the Central Valley in California.

California horned lark

California horned larks occur in a variety of open habitats with low, sparse vegetation. They breed in the open in small depressions in the ground. California horned larks are primarily seed eaters but also feed insects to their young. This subspecies is resident in the coastal range and San Joaquin Valley to northern Baja California

Loggerhead shrike

The loggerhead shrike prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches located in open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua tree habitats. Loggerhead shrikes skewer their prey to thorns or barbs on

barbed-wire fences. The purpose of this trait may be to help kill the prey or to cache the food for latter consumption. Loggerhead shrikes are found in lowlands and foothills throughout California.

Rufous hummingbird

Rufous hummingbird is a common migrant and uncommon summer resident of California. This species utilizes a wide variety of habitats that provide nectar-producing flowers, including valley foothill hardwood, valley foothill hardwood conifer, riparian, and various chaparral habitats in both northward and southward migration; montane riparian, aspen, and high mountain meadows used in southward migration. This species can be found wherever rich nectar sources are located including gardens and orchards.

Pallid bat

The pallid bat is a medium-sized bat that prefers foraging on terrestrial arthropods in dry open grasslands near water and rocky outcroppings or old structures. It may also occur in oak woodlands and at the edge of redwood forests along the coast. Roosting typically occurs in groups. Roosts often occur in caves and mine tunnels, but buildings and trees may be used for day roosts. More open, sites such as buildings, porches, garages, highway bridges, and mines may be used for night roosts. Pallid bats are sensitive to human disturbances at roost sites. The pallid bat occurs throughout much of California.

Greater western mastiff bat

The western mastiff bat, California's largest bat species, is an uncommon resident throughout its range in California. It occurs in the southeastern San Joaquin Valley and Coastal Ranges from Monterey County southward through southern California and from the coast eastward to the Colorado Desert. It is found in large open habitats where suitable roost sites are abundant. Roosting habitat primarily occurs in cliffs and rock outcrops, but can also be found in buildings with similar crevices. It feeds primarily on moths and crickets.

Raptor species (birds of prey) and migratory birds, other than those listed as special-status, may potentially nest within the study area. All raptor species, including relatively common species and their nests are protected from take under California Fish and Game Code. Migratory birds and their nests are protected under the Migratory Bird Treaty Act.

No special-status wildlife species were observed within the study area. Incidental observations of wildlife species made during the field assessment are included in Appendix D.

Waters of the U.S. and Wetland Habitats

A formal delineation of waters of the U.S., including wetlands, was conducted concurrently with the field assessment. The delineation found no jurisdictional wetlands or other waters of the U.S. within the study area. Please see *Reynolds Ranch Development Project Assessment of "Waters of the U.S.," Including Wetlands* for additional detail (North State Resources 2006a).

Regulatory Framework

This section lists specific environmental review and consultation requirements and identifies permits and approvals that may be necessary from local, state, and federal agencies prior to construction of the proposed project.

Federal

U.S. Fish and Wildlife Service

Migratory Bird Treaty Act

Migratory birds are protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Most of the birds that may occur within the study area are protected under the MBTA. Therefore, project construction has the potential to directly take the nests, eggs, young, or individuals of protected species. Further, construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to the abandonment of nests, a violation of the MBTA.

State

California Department of Fish and Game

Birds of Prey

Under Section 3503.5 of the California Fish and Game Code it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto. This Code protects raptors that may utilize the study area for foraging.

San Joaquin County

San Joaquin County Multi-Species Habitat Conservation and Open Space Plan

San Joaquin County has developed and implemented a Multi-species Habitat Conservation and Open Space Plan (SJMSCP). In accordance with ESA Section 10(a)(1)(B) and CESA Section 2081(b) Incidental Take Permits, the SJMSCP provides compensation for the Conversion of Open Space to non-Open Space uses which affect the plant, fish and wildlife species covered by the Plan. Pertinent to the Reynolds Ranch Development Project, Permittees of the SJMSCP include San Joaquin County and the City of Lodi. Covered activities include the conversion of Open Space to urban development. Six of the eight special-status species with potential to occur in the study area are covered under the SJMSCP, including burrowing owl, Swainson's hawk, white-tailed kite, loggerhead shrike, California horned lark, greater western mastiff bat. As such, compensation for any project-related impacts to these species may be undertaken by one or a combination of the three mitigation options provided for each covered species, pursuant to the SJMSCP. Rufous hummingbird and pallid bat are not covered under the SJMSCP.

Tree Protection Ordinance

San Joaquin County has a tree ordinance for the purpose of preserving the County's tree resources (San Joaquin County 1995). The ordinance is found in Division 15, Natural Resources Regulations; Chapter 9-1505, Trees. According to Section 9-1505.2, the provisions of the chapter apply to all development projects requiring discretionary approval that have Native Oak Trees, Heritage Oak Trees, or Historical Trees on the property. Division 1 Chapter 9-110, of the San Joaquin County Ordinances defines these as follows:

- ***Heritage Oak Tree.*** "Heritage oak tree" means a native oak tree that has a single trunk diameter of 32 inches or greater measured at four and one-half feet above the average ground elevation of the tree.

- **Historical Tree.** “Historical tree” means any tree or groups of trees given special recognition because of the size, age, location, or history. Designation of historical trees shall be made by the Planning Commission following a Public Hearing.
- **Native Oak Tree.** “Native oak tree” means a valley oak (*Quercus lobata*) with a trunk diameter of six (6) inches to less than thirty-two (32) inches for a single trunk tree...measured four and one-half feet above the average ground elevation of the tree...

According to these definitions, the valley oak tree at the southeastern corner of the study area is a Heritage Oak Tree; diameter at breast height is 38.2 inches. Any planned removal of this tree would be subject to Section 9-1505.3 (Removal Requirements), which requires an approved Improvement Plan application. In addition, removal is allowed only if the Review Authority finds that one of more of the following situations exists: 1) removal is in the public interest; 2) the tree interferes with an existing structure, utility service, or road, and no reasonable alternative exists to correct the interference other than removal; 3) removal is necessitated because the tree is endangering another plant with infection or infestation, and/or 4) the tree interferes with the maintenance of flood control facilities.

According to Section 9-1505.4 (Replacement), removal of any Heritage Oak Tree would require replacement at a ratio of five (5) trees or acorns per Heritage Oak Tree. Replacement stock will be planted and maintained in such a manner as to ensure survival of replacements after three year from date of planting.

If the Heritage Oak Tree is to be retained on site, it must be protected from construction-related damage as described in Section 9-1505.5 (Development Constraints). These constraints include limitations on grade changes, trenching, construction of retaining walls, and paving; and the installation of protective fencing. In addition, any post-construction landscaping that is installed in the study area must be installed in a manner that does not compromise the health of retained Heritage Oak Trees. Landscaping guidelines are described in Section 9-1505.6 (Landscaping) of the Tree Protection Ordinance and include limitations on non-plant landscaping materials, a description of plants permitted, limitations on planting areas, and limitations on irrigation systems (San Joaquin County 1995).

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Mr. Robert Sun
April 3, 2006
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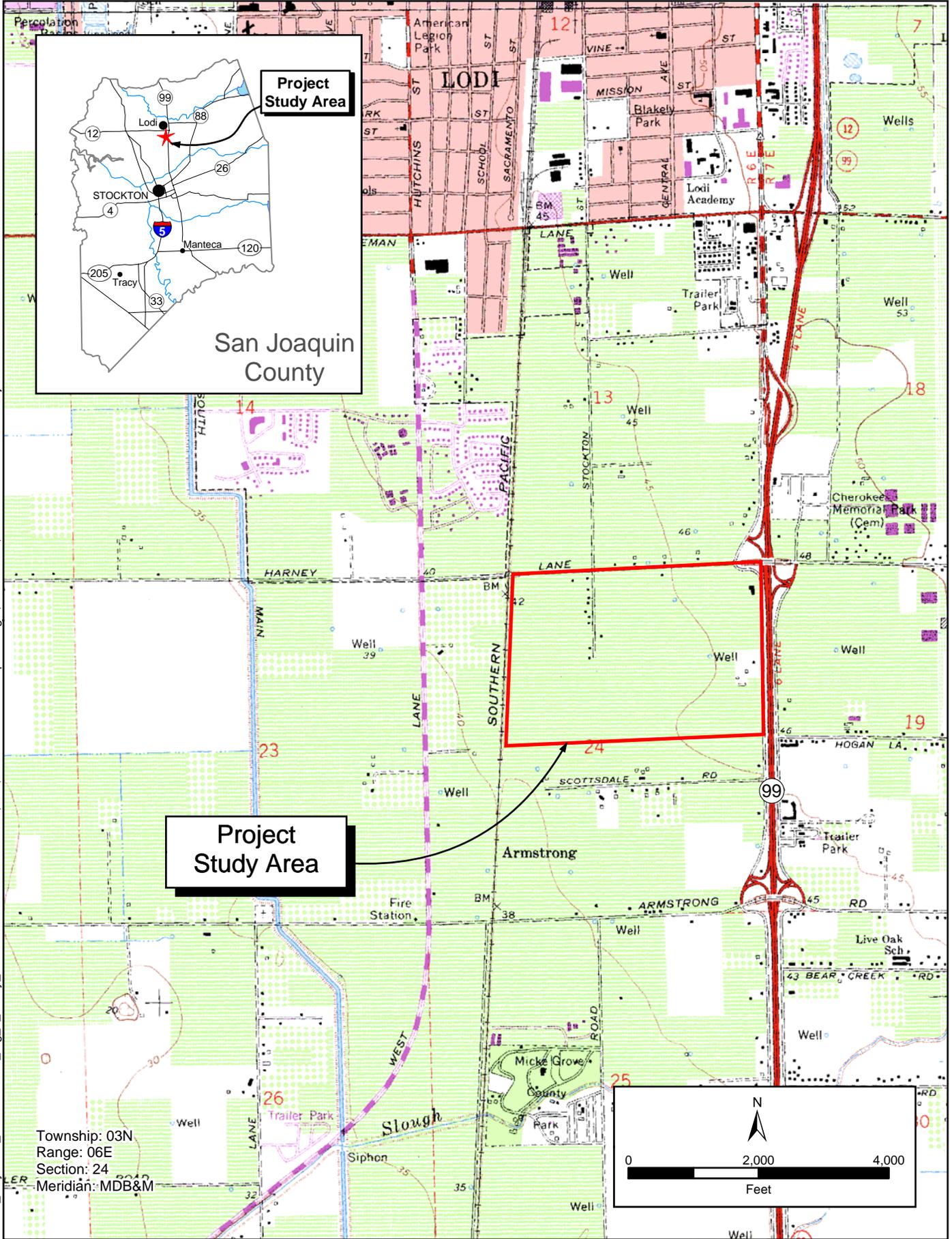
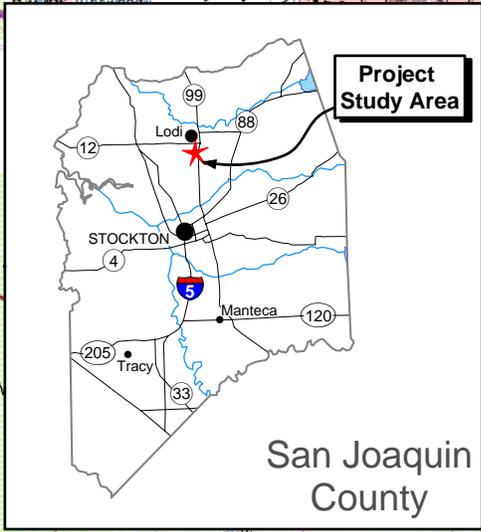
Thank you for this opportunity to assist with your project needs. Please contact me if you have any questions or require additional information. I can be reached by phone at (916) 446-2566 ext. 209 or by e-mail at stout@nsrnet.com.

Sincerely,
North State Resources, Inc.



Deborah Stout
Botanist / Environmental Analyst

50770_Reynolds_Ranch50770_Fig_1_Study_Area.mxd Source: NSR, Inc.; USGS 7.5-minute quadrangle, Lodi South, CA 03-09-06 rjo



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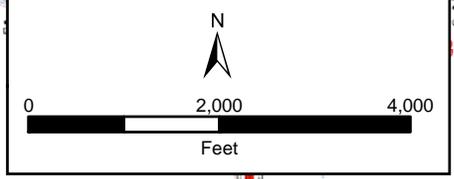
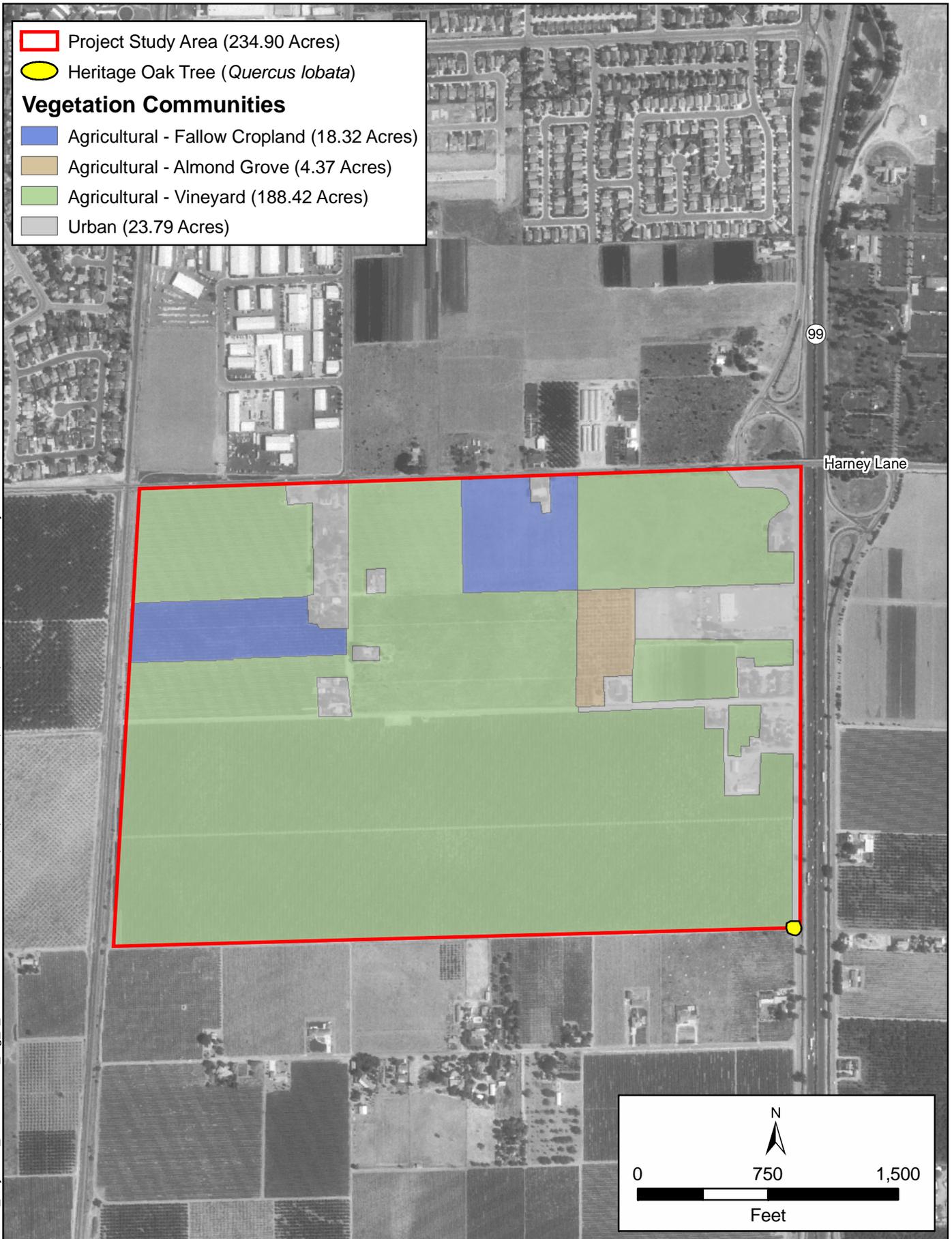


Figure 1
 Location of Project Study Area

50770_Reynolds_Ranch\50770_Fig_3_Soils.mxd Source: NSR, Inc.; USGS DOQQ, Lodi South, CA 03-20-06 rjp



APPENDIX A

U.S. Fish and Wildlife Service Special-status Species List

<- Revise Selection

Make Official Letter ->

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

Document Number: 060228124020

Database Last Updated: February 14, 2006

Quad Lists

LODI SOUTH (479D)

Listed Species

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 - Critical habitat, delta smelt (X)

Hypomesus transpacificus - delta smelt (T)

Oncorhynchus mykiss - Central Valley steelhead (T)

Oncorhynchus mykiss - Critical habitat, Central Valley steelhead (X)

Oncorhynchus tshawytscha - Central Valley spring-run chinook salmon (T)

Oncorhynchus tshawytscha - winter-run chinook salmon, Sacramento River (E)

Amphibians

Ambystoma californiense - California tiger salamander, central population (T)

Rana aurora draytonii - California red-legged frog (T)

Reptiles

Thamnophis gigas - giant garter snake (T)

Birds

Haliaeetus leucocephalus - bald eagle (T)

Plants

Castilleja campestris ssp. *succulenta* - succulent (=fleshy) owl's-clover (T)

Proposed Species**Fish**

Acipenser medirostris - green sturgeon (P)

Candidate Species**Fish**

Oncorhynchus tshawytscha - Central Valley fall/late fall-run chinook salmon (C)

Species of Concern**Invertebrates**

Anthicus antiochensis - Antioch Dunes anthicid beetle (SC)

Anthicus sacramento - Sacramento anthicid beetle (SC)

Branchinecta mesovallensis - Midvalley fairy shrimp (SC)

Linderiella occidentalis - California linderiella fairy shrimp (SC)

Fish

Lampetra ayresi - river lamprey (SC)

Lampetra hubbsi - Kern brook lamprey (SC)

Lampetra tridentata - Pacific lamprey (SC)

Pogonichthys macrolepidotus - Sacramento splittail (SC)

Spirinchus thaleichthys - longfin smelt (SC)

Amphibians

Spea hammondi (was Scaphiopus h.) - western spadefoot toad (SC)

Reptiles

Anniella pulchra pulchra - silvery legless lizard (SC)

Clemmys marmorata marmorata - northwestern pond turtle (SC)

Clemmys marmorata pallida - southwestern pond turtle (SC)

Phrynosoma coronatum frontale - California horned lizard (SC)

Birds

Agelaius tricolor - tricolored blackbird (SC)

Athene cunicularia hypugaea - western burrowing owl (SC)

Branta canadensis leucopareia - Aleutian Canada goose (D)

Buteo regalis - ferruginous hawk (SC)

Buteo Swainsoni - Swainson's hawk (CA)

Carduelis lawrencei - Lawrence's goldfinch (SC)

Chaetura vauxi - Vaux's swift (SC)

Charadrius montanus - mountain plover (SC)

Elanus leucurus - white-tailed (=black shouldered) kite (SC)

Empidonax traillii brewsteri - little willow flycatcher (CA)

Falco peregrinus anatum - American peregrine falcon (D)

Grus canadensis tabida - greater sandhill crane (CA)

Lanius ludovicianus - loggerhead shrike (SC)

Melanerpes lewis - Lewis' woodpecker (SC)

Numenius americanus - long-billed curlew (SC)

Picoides nuttallii - Nuttall's woodpecker (SLC)

Plegadis chihi - white-faced ibis (SC)

Selasphorus rufus - rufous hummingbird (SC)

Mammals

Corynorhinus (=Plecotus) townsendii townsendii - Pacific western big-eared bat (SC)

Eumops perotis californicus - greater western mastiff-bat (SC)

Myotis ciliolabrum - small-footed myotis bat (SC)

Myotis volans - long-legged myotis bat (SC)

Myotis yumanensis - Yuma myotis bat (SC)

Perognathus inornatus - San Joaquin pocket mouse (SC)

Plants

Lilaeopsis masonii - Mason's lilaeopsis (SC)

County Lists

No county species lists requested.

Key:

- (E) Endangered - Listed (in the Federal Register) as being in danger of extinction.

- (T) Threatened - Listed as likely to become endangered within the foreseeable future.
 - (P) Proposed - Officially proposed (in the Federal Register) for listing as endangered or threatened.
 - (NMFS) Species under the Jurisdiction of the [National Marine Fisheries Service](#). Consult with them directly about these species.
 - Critical Habitat - Area essential to the conservation of a species.
 - (PX) Proposed Critical Habitat - The species is already listed. Critical habitat is being proposed for it.
 - (C) Candidate - Candidate to become a proposed species.
 - (CA) Listed by the State of California but not by the Fish & Wildlife Service.
 - (D) Delisted - Species will be monitored for 5 years.
 - (SC) Species of Concern/(SLC) Species of Local Concern - Other species of concern to the Sacramento Fish & Wildlife Office.
 - (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
 - (X) Critical Habitat designated for this species
-

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey [7½ minute quads](#). The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, or may be affected by projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the quad or quads covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the nine surrounding quads through the California Native Plant Society's online [Inventory of Rare and Endangered Plants](#).

Surveying

Some of the species on your list may not be affected by your project. A trained biologist or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list.

For plant surveys, we recommend using the [Guidelines for Conducting and Reporting Botanical Inventories](#). The results of your surveys should be published in any environmental documents prepared for your project.

State-Listed Species

If a species has been listed as threatened or endangered by the State of California, but not by us nor by the National Marine Fisheries Service, it will appear on your list as a Species of Concern. However you should contact the California Department of Fish and Game [Wildlife and Habitat Data Analysis Branch](#) for official information about these species.

Your Responsibilities Under the Endangered Species Act

All plants and animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR Â§17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal [consultation](#) with the Service.

During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

[Critical Habitat](#)

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or

protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

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

Candidate Species

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

Species of Concern

Your list may contain a section called Species of Concern. This is an informal term that refers to those species that the Sacramento Fish and Wildlife Office believes might be in need of concentrated conservation actions. Such conservation actions vary depending on the health of the populations and degree and types of threats. At one extreme, there may only need to be periodic monitoring of populations and threats to the species and its habitat. At the other extreme, a species may need to be listed as a Federal threatened or endangered species. Species of concern receive no legal protection and the use of the term does not necessarily mean that the species will eventually be proposed for listing as a threatened or endangered species.

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6580.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed, candidate and special concern species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be May 29, 2006.

APPENDIX B

California Natural Diversity Database Query Results

California Department of Fish and Game

Natural Diversity Database

Selected Elements by Scientific Name - Portrait

Reynold's Ranch - Lodi South, Lodi North, Lockeford, Waterloo, Stockton East, Stockton West, Holt, Terminous, and Thornton 7.5-minute Topographic Quadrangles.

Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
1 Agelaius tricolor tricolored blackbird	ABPBXB0020			G2G3	S2	SC
2 Ambystoma californiense California tiger salamander	AAAAA01180	Threatened		G2G3	S2S3	SC
3 Aster lentus Suisun Marsh aster	PDAST0T540			G2	S2.2	1B/2-2-3
4 Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1			G1T1	S1.1	1B/3-2-3
5 Athene cunicularia burrowing owl	ABNSB10010			G4	S2	SC
6 Atriplex joaquiniana San Joaquin spearscale	PDCHE041F3			G2	S2.1	1B/2-2-3
7 Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened		G3	S2S3	
8 Branchinecta mesovallensis midvalley fairy shrimp	ICBRA03150			G2	S2	
9 Buteo swainsoni Swainson's hawk	ABNKC19070		Threatened	G5	S2	
10 Carex comosa bristly sedge	PMCYP032Y0			G5	S2?	2/3-3-1
11 Castilleja campestris ssp. succulenta succulent owl's-clover	PDSCR0D3Z1	Threatened	Endangered	G4?T2	S2.2	1B/2-2-3
12 Coastal and Valley Freshwater Marsh	CTT52410CA			G3	S2.1	
13 Cordylanthus palmatus palmate-bracted bird's-beak	PDSCR0J0J0	Endangered	Endangered	G1	S1.1	1B/3-3-3
14 Delphinium recurvatum recurved larkspur	PDRAN0B1J0			G2	S2.2	1B/2-2-3
15 Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened		G3T2	S2	
16 Emys (=Clemmys) marmorata western pond turtle	ARAAD02030			G3G4	S3	SC
17 Emys (=Clemmys) marmorata marmorata northwestern pond turtle	ARAAD02031			G3G4T3	S3	SC
18 Erodium macrophyllum round-leaved filaree	PDGER01070			G4	S2.1	2/2-3-1
19 Great Valley Valley Oak Riparian Forest	CTT61430CA			G1	S1.1	
20 Hibiscus lasiocarpus rose-mallow	PDMAL0H0Q0			G4	S2.2	2/2-2-1
21 Laterallus jamaicensis coturniculus California black rail	ABNME03041		Threatened	G4T1	S1	
22 Lathyrus jepsonii var. jepsonii Delta tule pea	PDFAB250D2			G5T2	S2.2	1B/2-2-3
23 Legenere limosa legenere	PDCAM0C010			G2	S2.2	1B/2-3-3

California Department of Fish and Game

Natural Diversity Database

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Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
24 <i>Lepidurus packardii</i> vernal pool tadpole shrimp	ICBRA10010	Endangered		G3	S2S3	
25 <i>Lilaeopsis masonii</i> Mason's lilaeopsis	PDAPI19030		Rare	G3	S3.1	1B/2-3-3
26 <i>Limosella subulata</i> Delta mudwort	PDSCR10050			G4?Q	S2.1	2/2-3-1
27 Northern Hardpan Vernal Pool	CTT44110CA			G3	S3.1	
28 <i>Pogonichthys macrolepidotus</i> Sacramento splittail	AFCJB34020			G2	S2	SC
29 <i>Rana boylei</i> foothill yellow-legged frog	AAABH01050			G3	S2S3	SC
30 <i>Sagittaria sanfordii</i> Sanford's arrowhead	PMALI040Q0			G3	S3.2	1B/2-2-3
31 <i>Scutellaria lateriflora</i> blue skullcap	PDLAM1U0Q0			G5	S1.2	2/3-2-1
32 <i>Thamnophis gigas</i> giant garter snake	ARADB36150	Threatened	Threatened	G2G3	S2S3	
33 Valley Oak Woodland	CTT71130CA			G3	S2.1	

APPENDIX C

Regionally Occurring Special-status Plant and Wildlife Species

Summary of Special-status Species Review
Reynolds Ranch Development Project: San Joaquin County, California

Scientific Name	Status ¹ (Fed/State/ CNPS)	General Habitat Description	Suitable Habitat (Present/ Absent)	Rationale
Federal or State Listed Species				
Plants				
<i>Castilleja campestris</i> ssp. <i>succulenta</i> Succulent owl's-clover	T/E/1B	Vernal pools, often in acidic soils. 164-2,460 feet in elevation. Blooms April-May.	A	Vernal pool habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Cordylanthus palmatus</i> Palmate-bracted bird's-beak	E/E/1B	Chenopod scrub, cismontane woodland, and valley and foothill grassland; in alkaline soils. 16-508 feet in elevation. Blooms May-October.	A	Alkaline soils are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
Invertebrates				
<i>Branchinecta lynchi</i> Vernal pool fairy shrimp	T/--	Vernal pool crustaceans live in vernal pools, swales, and ephemeral freshwater habitats. None are known to occur in riverine waters or marine waters.	A	Vernal pools do not occur in study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Desmocerus californicus dimorphus</i> Valley elderberry longhorn beetle	T/--	Elderberry shrubs associated with riparian forests that occur along rivers and streams.	A	Elderberry shrubs were not observed in the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	E/--	Vernal pool crustaceans live in vernal pools, swales, and ephemeral freshwater habitats. None are known to occur in riverine waters or marine waters.	A	Vernal pools do not occur in study area. There is a 1990 CNDDDB recorded occurrence of this species in the Lodi area (CDFG 2006).
Fish				
<i>Acipenser medirostris</i> Green sturgeon	P/SC	Spawn in the Sacramento River when temperatures range between 8-14°C. Preferred spawning substrate is large cobble, but can range from clean sand to bedrock.	A	Aquatic habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).

Summary of Special-status Species Review
Reynolds Ranch Development Project: San Joaquin County, California

Scientific Name	Status ¹ (Fed/State/ CNPS)	General Habitat Description	Suitable Habitat (Present/ Absent)	Rationale
<i>Hypomesus transpacificus</i> Delta smelt	T/T	Estuarine systems in the Sacramento-San Joaquin Delta.	A	Aquatic habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Oncorhynchus mykiss irideus</i> Central Valley steelhead	T/--	Spawn and rear in Sacramento River and its tributaries. Require cool, swift shallow water; clean, loose gravel for spawning; and runs and suitable large pools in which to rear and over-summer.	A	Aquatic habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Oncorhynchus tshawytscha</i> Central Valley spring-run chinook salmon ESU	T/T	Spawn and rear in main-stem Sacramento River and suitable perennial tributaries. Require cool year-round water temperatures and deep pools for over-summering habitat. Spawn in riffles with gravel and cobble substrate.	A	Aquatic habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Oncorhynchus tshawytscha</i> Winter-run chinook salmon ESU	E/E	Spawn and rear in main-stem Sacramento River. Require cool year-round water temperatures, since spawning occurs during the summer. Require deep pools and riffles, and clean gravel and cobble substrate to spawn.	A	Aquatic habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
Amphibians				
<i>Abystoma californiense</i> California tiger salamander	T/SC	Most commonly found in grassland habitats. Adults spend most of the year in subterranean refugia. Migrate up to 3,000 feet to breed in temporary ponds.	A	Suitable breeding habitat does not occur in the vicinity of the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Rana aurora draytonii</i> California red-legged frog	T/SC	Require aquatic habitat for breeding, also uses a variety of other habitat types including riparian and upland areas. Adults utilize dense, shrubby or emergent vegetation associated with deep-water pools with fringes of cattails and dense stands of overhanging vegetation.	A	Aquatic habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).

Summary of Special-status Species Review
Reynolds Ranch Development Project: San Joaquin County, California

Scientific Name	Status ¹ (Fed/State/ CNPS)	General Habitat Description	Suitable Habitat (Present/ Absent)	Rationale
Reptiles				
<i>Thamnophis gigas</i> Giant garter snake	T/T	Require aquatic habitat with shrubby or emergent vegetation.	A	Aquatic habitats with emergent vegetation are not present within the study area. There is a 1976 CNDDDB recorded occurrence of this species within five miles of the project area (CDFG 2006).
Birds				
<i>Buteo swainsoni</i> Swainson's hawk	--/T	Require large, open grasslands with abundant prey in association with suitable nest trees. Nest in Central Valley riparian habitat (e.g., valley oak, Fremont cottonwood, walnut, and large willow), and lone trees or groves of trees in agricultural fields.	P	There is marginal foraging habitat and breeding habitat within the study area. However, no large stick nests were observed on the site. There are 18 CNDDDB recorded occurrences of this species within five miles of the project area; two of these are within two miles of the study area (CDFG 2006).
<i>Empidonax traillii</i> Willow flycatcher	--/E	Rare summer resident in wet meadow and montane riparian habitats at 2,000 to 8,000 feet elevation. No longer known to nest in Sacramento Valley but migrate through the north state region in spring and fall.	A	No longer nests in the Sacramento Valley. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Falco peregrinus anatum</i> American peregrine falcon	D/E, FP	Forage in many habitats; require cliffs for nesting.	A	Cliffs required for nesting are not present within or in the vicinity of the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Grus canadensis tabida</i> Greater sandhill crane	--/T, FP	Shallow wetlands required for breeding; forage in nearby pastures, fields, meadows.	A	Suitable breeding and foraging habitat is not present. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Haliaeetus leucocephalus</i> Bald eagle	T/E	Forage on live and dead fish and nest in large trees or snags. Require large bodies of water, including ocean shorelines, lake margins, and large, open river courses for foraging, nesting, and wintering habitat.	A	Riparian habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).

Summary of Special-status Species Review
Reynolds Ranch Development Project: San Joaquin County, California

Scientific Name	Status ¹ (Fed/State/ CNPS)	General Habitat Description	Suitable Habitat (Present/ Absent)	Rationale
<i>Laterallus jamaicensis coturniculus</i> California black rail	--/T	Occurs most commonly in tidal emergent wetlands dominated by pickleweed, or in brackish marshes supporting bulrushes in association with pickleweed. In freshwater, usually found in bulrushes, cattails, and saltgrass.	A	Tidal emergent wetlands, or brackish or freshwater marshes are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Riparia riparia</i> Bank swallow	--/T	Colonial nester on vertical banks or cliffs with fine-textured soils near water.	A	Vertical banks and cliffs are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
Mammals				
California wolverine <i>Gulo gulo luteus</i>	--/T/ FP	A variety of habitats between elevations of 1,600 and 14,200 ft. Most commonly inhabit open terrain above timberline.	A	Study area is below the required elevation for suitable habitat. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
Sierra Nevada red fox <i>Vulpes vulpes nector</i>	--/T	Red fir and lodgepole pine forests in the sub-alpine zone and alpine fell-fields of the Sierra Nevada.	A	Study area is below the required elevation for suitable habitat. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
Pacific fisher <i>Martes pennanti pacifica</i>	C/SC	Den and forage in intermediate to large stands of old-growth forests or mixed stands of old-growth and mature trees with greater than 50% canopy closure. May use riparian corridors for movement.	A	Mixed hardwood conifer stands are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
Other Special-Status Species				
Plants				
<i>Aster lentus</i> Suisun marsh aster	SC/--/1B	Marshes and swamps. 1-10 feet in elevation. Blooms May-November.	A	Marshes or swamps are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).

Summary of Special-status Species Review
Reynolds Ranch Development Project: San Joaquin County, California

Scientific Name	Status ¹ (Fed/State/ CNPS)	General Habitat Description	Suitable Habitat (Present/ Absent)	Rationale
<i>Astragalus tener</i> var. <i>tener</i> Alkali milk-vetch	SC/--/1B	Playas, valley and foothill grassland in adobe clay, and vernal pools in alkaline soils. 3-197 feet in elevation. Blooms March-June.	A	Adobe clay soils and alkaline soils are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Atriplex joaquiniana</i> San Joaquin spearscale	SC/--/1B	Chenopod scrub, meadows and seeps, playas, and valley and foothill grassland in alkaline soils. 3-2,740 feet in elevation. Blooms April-October.	A	Chenopod scrub, meadows and seeps, playas, and alkaline soils are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Carex comosa</i> Bristly sedge	--/--/2	Coastal prairie, marshes and swamps, and valley and foothill grasslands in mesic sites. 1-2,051 feet in elevation. Blooms May-September.	A	Coastal prairie, marshes and swamps, or mesic sites are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Delphinium recurvatum</i> Recurved larkspur	SC/--/1B	Chenopod scrub, cismontane woodland, and valley and foothill grassland in alkaline soils. 9-2,461 feet in elevation. Blooms March-May.	A	Chenopod scrub, cismontane woodland, or alkaline soils are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Erodium macrophyllum</i> Round-leaved filaree	--/--/2	Cismontane woodland and valley and foothill grassland in clay soils. 49-3,937 feet in elevation. Blooms March-May.	A	Clay soils are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Hibiscus lasiocarpus</i> Rose-mallow	--/--/2	Freshwater marshes and swamps. 0-394 feet in elevation. Blooms June-September.	A	Freshwater marshes or swamps are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Lathyrus jepsonii</i> var. <i>jepsonii</i> Delta tule pea	SC/--/1B	Freshwater and brackish marshes and swamps. 1-13 feet in elevation. Blooms May-September.	A	Freshwater or brackish marshes or swamps are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).

Summary of Special-status Species Review
Reynolds Ranch Development Project: San Joaquin County, California

Scientific Name	Status ¹ (Fed/State/ CNPS)	General Habitat Description	Suitable Habitat (Present/ Absent)	Rationale
<i>Legenere limosa</i> Legenere	SC/--/1B	Vernal pools, 0-3,000 feet in elevation. Blooms April-June.	A	Vernal pools are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Lilaeopsis masonii</i> Mason's lilaeopsis	SC/R/1B	Brackish or freshwater marshes and swamps and riparian scrub. 0-33 feet in elevation. Blooms April-November.	A	Brackish or freshwater marshes and swamps or riparian scrub are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Limosella subulata</i> Delta mudwort	--/--/2	Marshes and swamps. 0-10 feet in elevation. Blooms May-August.	A	Marshes or swamps are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Sagittaria sanfordii</i> Sanford's arrowhead	SC/--/1B	Marshes and swamps, assorted shallow freshwater habitats. 0-2,001 feet in elevation. Blooms May-October.	A	Shallow freshwater habitats are not present within the study area. There is a 1940 CNDDDB recorded occurrence of this species approximately four miles east of the project area; the species was not observed during a 1980 survey (CDFG 2006).
<i>Scutellaria lateriflora</i> Blue skullcap	--/--/2	Meadows and seeps, marshes and swamps. 0-1,640 feet in elevation. Blooms July-September.	A	Meadows, seeps, marshes, or swamps are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
Invertebrates				
<i>Anthicus antiochensis</i> Antioch Dunes anthicid beetle	SC/--	Known only from the Antioch Dunes.	A	Study area is outside of the known distribution of this species. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Anthicus sacramento</i> Sacramento anthicid beetle	SC/--	Sand slipfaces among bamboo and willow. Restricted to sand dunes in Sacramento – San Joaquin Delta.	A	Sand dunes are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).

Summary of Special-status Species Review
Reynolds Ranch Development Project: San Joaquin County, California

Scientific Name	Status ¹ (Fed/State/ CNPS)	General Habitat Description	Suitable Habitat (Present/ Absent)	Rationale
<i>Branchinecta mesovallensis</i> Midvalley fairy shrimp	SC/--	Vernal pools.	A	Vernal pools are not present within the study area. There are four CNDDDB recorded occurrences of this species within five miles and one occurrence within two miles of the project area (CDFG 2006).
<i>Linderiella occidentalis</i> California linderiella fairy shrimp	SC/--	Vernal pools, wet swales, intermittent pools, and seasonal wetlands.	A	Vernal pools or other seasonal wetlands are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
Fish				
<i>Lampetra ayresi</i> River lamprey	SC/SC	An anadromous fish found in rivers from San Francisco Bay watershed north to Alaska	A	Aquatic habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Lampetra hubbsi</i> Kern brook lamprey	SC/SC	The Kern brook lamprey is endemic to the east side of the San Joaquin Valley and is found only in the San Joaquin River drainage in California	A	Aquatic habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Spirinchus thaleichthys</i> Longfin smelt	SC/SC	Sloughs of Suisun Bay and Delta.	A	Aquatic habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Oncorhynchus tshawytscha</i> Central Valley fall/late fall-run chinook salmon ESU	SC/SC	Spawn and rear in main-stem Sacramento River and suitable perennial tributaries. Require cool year-round water temperatures and deep pools for over-summering habitat. Spawn in riffles with gravel and cobble.	A	Aquatic habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).

Summary of Special-status Species Review
Reynolds Ranch Development Project: San Joaquin County, California

Scientific Name	Status ¹ (Fed/State/ CNPS)	General Habitat Description	Suitable Habitat (Present/ Absent)	Rationale
<i>Pogonichthys macrolepidotus</i> Sacramento splittail	SC/SC	Shallow, dead-end sloughs with submerged vegetation.	A	Aquatic habitats are not present within the study area. There is a 2003 CNDDDB recorded occurrence of this species four miles northwest of the project area (CDFG 2006).
Amphibians				
<i>Rana boylei</i> Foothill yellow-legged frog	--/SC	Rocky streams in a variety of habitats. Found in coast ranges.	A	Aquatic habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Spea hammondi</i> Western spadefoot toad	SC/SC	Grasslands with temporary pools.	A	Grasslands with temporary pools are not present within the study area. Study area was surveyed approximately 48 hours after heavy rains and no ponding was observed. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
Reptiles				
<i>Anniella pulchra pulchra</i> Silvery legless lizard	SC/SC	Common in several habitats but especially in coastal dune, valley-foothill, chaparral, and coastal scrub types. Require sandy or loose organic soils or where there is plenty of leaf litter.	A	Coastal dune, valley-foothill, chaparral, coastal scrub, or other habitats with suitable leaf litter are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Clemmys marmorata marmorata</i> Northwestern pond turtle	SC/SC	Slow water aquatic habitat with available basking sites. Hatchlings require shallow water with dense submergent or short emergent vegetation. Require an upland oviposition site in the vicinity of the aquatic site	A	Aquatic habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Clemmys marmorata pallida</i> Southwestern pond turtle	SC/SC	Western pond turtles require some slack- or slow-water aquatic habitat, preferably with aerial and aquatic basking sites.	A	Aquatic habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).

Summary of Special-status Species Review
Reynolds Ranch Development Project: San Joaquin County, California

Scientific Name	Status ¹ (Fed/State/ CNPS)	General Habitat Description	Suitable Habitat (Present/ Absent)	Rationale
<i>Masticophis flagellum ruddocki</i> San Joaquin coachwhip	SC/--	Occur below 6,000 feet in elevation in open terrain and are most abundant in grass, desert, scrub, chaparral, and pasture habitats.	A	Suitably large open terrain is not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Phrynosoma coronatum frontale</i> California horned lizard	SC/SC	Found in a variety of habitats below 4,000 feet in elevation. Require open country, especially sandy areas, washes, flood plains.	A	Suitable habitat for this species (e.g. open rocky, sandy areas) does not occur within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
Birds				
<i>Accipiter cooperii</i> Cooper's hawk	--/SC	Forage in broken woodlands and habitat edges. Dense tree stands with moderate crown depth used for nesting.	A	Woodlands or dense tree stands are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Accipiter striatus</i> Sharp-shinned hawk	--/SC	Typically nest in dense conifer stands near water, winter in woodlands. Forage in many habitats in winter and migration.	A	Woodlands or conifer stands are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Agelaius tricolor</i> Tricolored blackbird	SC/SC	Breed near fresh water in dense emergent vegetation.	A	Emergent vegetation is not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Aquila chrysaetos</i> Golden eagle	--/SC, FP	Breed on cliffs or in large trees or electrical towers, forage in open areas.	A	Open habitats and cliffs do not occur in the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).

Summary of Special-status Species Review
Reynolds Ranch Development Project: San Joaquin County, California

Scientific Name	Status ¹ (Fed/State/ CNPS)	General Habitat Description	Suitable Habitat (Present/ Absent)	Rationale
<i>Asio flammeus</i> Short-eared owl	--/SC	Found in open, treeless areas with elevated sites for perches, and dense vegetation for roosting and nesting	A	Dense vegetation and open, treeless areas are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Asio otus</i> Long-eared owl	--/SC	Dense riparian and live oak thickets near meadow edges, and nearby woodland and forest habitats; also found in dense conifer stands at higher elevations.	A	Dense vegetation and meadows do not occur within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Athene cunicularia hypugaea</i> Western burrowing owl	SC/SC	Open habitats, dry grasslands and ruderal habitats with ground squirrel burrows.	P	Open habitats are present within the study area, and ground squirrel burrows were observed during the field survey. Therefore, suitable habitat is present within the study area. There is a 1999 CNDDDB recorded occurrence of this species five miles south of the project area (CDFG 2006).
<i>Branta canadensis leucopareia</i> Aleutian Canada goose	D/	Lacustrine, fresh emergent wetlands, grasslands, croplands, pastures, and meadows.	A	Suitably large open fields for foraging are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Buteo regalis</i> Ferruginous hawk	SC/SC	Forage in grasslands and occasionally in other open habitats during migration and winter.	A	Suitably large open fields for foraging are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Carduelis lawrencei</i> Lawrence's goldfinch	SC/	Nest in open oak or other arid woodland near water.	A	Cliffs, deep canyons not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).

Summary of Special-status Species Review
Reynolds Ranch Development Project: San Joaquin County, California

Scientific Name	Status ¹ (Fed/State/ CNPS)	General Habitat Description	Suitable Habitat (Present/ Absent)	Rationale
<i>Chaetura vauxi</i> Vaux's swift	SC/SC	Prefer redwood and Douglas-fir habitats, nest in hollow trees and snags or, occasionally, in chimneys; forage aerially.	A	Redwood or Douglas-fir habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Charadrius montanus</i> Mountain plover	SC/SC	Found on short grasslands and plowed fields of the Central Valley from Sutter and Yuba counties southward. Do not nest in California.	A	Short grasslands or plowed fields are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Circus cyaneus</i> Northern harrier	--/SC	Forage in marshes, grasslands, and ruderal habitats; nest in extensive marshes and wet fields or grasslands.	A	Suitably large open fields for foraging are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Dendroica petechia brewsteri</i> California yellow warbler	--/SC	Breed in riparian woodlands, particularly those dominated by willows and cottonwoods.	A	Riparian habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Elanus leucurus</i> White-tailed kite	SC/FP	Nest in lowland grasslands, agricultural areas, wetlands, oak-woodland and savannah habitats, and riparian areas associated with open areas; forage over grassland, meadows, cropland and marshes.	P	Large trees suitable for nesting are present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Eremophila alpestris actia</i> California horned lark	--/SC	Various open habitats, usually where trees and large shrubs are absent. Nest on the ground.	P	Fallow cropland and recently planted vineyard provide suitable foraging and nesting habitat. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Falco columbarius</i> Merlin	--/SC	Favor low elevation habitats with water and tree stands.	A	Tree stands are not present within the study area, and study area is not in proximity to water. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).

Summary of Special-status Species Review
Reynolds Ranch Development Project: San Joaquin County, California

Scientific Name	Status ¹ (Fed/State/ CNPS)	General Habitat Description	Suitable Habitat (Present/ Absent)	Rationale
<i>Falco mexicanus</i> Prairie falcon	D, SC/FP	Occur in open habitats such as grasslands, desert scrub, rangelands and croplands.	A	Suitably large open habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Lanius ludovicianus</i> Loggerhead shrike	SC/SC	Forage in open grassland habitats throughout the Central Valley of California. Nest in shrubs and trees.	P	Foraging and nesting habitats for this species are present within the study area. Landscape trees and shrubs associated with rural residences are suitable for nesting. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Melanerpes lewis</i> Lewis' woodpecker	SC/--	Open oak savannahs, broken deciduous and coniferous habitats. Require open habitats with scattered trees and snags with cavities.	A	Oak savannah, deciduous, or conifer habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Numenius americanus</i> Long-billed curlew	SC/--	Large coastal estuaries, upland herbaceous areas, and croplands. Breed in wet meadow habitat.	A	Coastal estuaries, uplands, croplands, or wet meadows are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Pandion haliaetus</i> Osprey	--/SC	Ocean shorelines, lake margins and large, open river courses for both nesting and wintering habitat.	A	Aquatic habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Picoides nutallii</i> Nuttall's woodpecker	SC/--	Nest and forage in woodland and riparian habitats.	A	Woodland or riparian habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).

Summary of Special-status Species Review
Reynolds Ranch Development Project: San Joaquin County, California

Scientific Name	Status ¹ (Fed/State/ CNPS)	General Habitat Description	Suitable Habitat (Present/ Absent)	Rationale
<i>Plegadis chihi</i> White-faced ibis	SC/--	A rare visitor to the Central Valley, nest and forage in freshwater marshes.	A	Freshwater marshes are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Progne subis</i> Purple martin	--/SC	Breeding habitat includes old-growth, multi-layered, open forest and woodland with snags; forage over riparian areas, forest, and woodlands.	A	Woodlands or forests are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Selasphorus rufus</i> Rufous hummingbird	SC/--	Breed in Transition Life Zone of northwest coastal area from Oregon Border to southern Sonoma County.	P	Urban habitats provide foraging habitat for this species. However, this species does not breed in the San Joaquin Valley. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Toxostoma redivivum</i> California thrasher	SC/--	Chaparral or riparian habitat with dense canopy and openings near the ground.	A	Chaparral or riparian habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
Mammals				
<i>Antrozous pallidus</i> Pallid bat	--/SC	Forage over many habitats; roost in buildings, large oaks or redwoods, rocky outcrops and rocky crevices in mines and caves, and under bridges.	P	Buildings may provide suitable roosting habitat for this species. However, suitable hibernacula and maternity sites are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Corynorhinus townsendii</i> Townsend's western big-eared bat	--/SC	Roost in colonies in caves, mines, tunnels, or buildings in mesic habitats. Forage along habitat edges, gleaning insects from bushes and trees. Habitat must include appropriate roosting, maternity and hibernacula sites free from disturbance by humans.	A	Mesic habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).

Summary of Special-status Species Review
Reynolds Ranch Development Project: San Joaquin County, California

Scientific Name	Status ¹ (Fed/State/ CNPS)	General Habitat Description	Suitable Habitat (Present/ Absent)	Rationale
<i>Eumops perotis californicus</i> Greater western mastiff bat	--/SC	Roost in rock outcrops, buildings and trees. Forage in open habitats	P	Buildings and trees provide suitable roosting habitat within the study area. However, suitable hibernacula and maternity sites are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Myotis ciliolabrum</i> Small-footed myotis bat	FSC/--	Common bat of arid uplands preferring open stands, brushy, and woodland habitats. Use caves, mines, buildings, bark, and crevices to roost.	A	Arid uplands are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Myotis volans</i> Long-legged myotis bat	FSC/--	Primarily in woodland and forest habitats above 4,000 feet. Trees are important day roosts; use caves and mines for night roosts.	A	Study area is outside of the known distribution of this species. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Myotis yumanensis</i> Yuma myotis bat	FSC/--	Inhabit open forests and woodlands. Distribution is closely tied to bodies of water. Maternity colonies occur in caves, mines, buildings, or crevices. Roost in buildings, caves, mines, abandoned swallow nests, and under bark of large snags.	A	Water bodies are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).
<i>Perognathus inornatus</i> San Joaquin pocket mouse	FSC/--	Inhabit dry, open grasslands or scrub areas on fine-textured soils.	A	Dry, open grasslands or scrub habitats are not present within the study area. There are no CNDDDB recorded occurrences of this species within five miles of the project area (CDFG 2006).

APPENDIX D

Incidental Wildlife Observations

Reynolds Ranch Development Project
Incidental Wildlife Observations
March 17, 2006

Scientific Name	Common Name
<i>Sceloporus occidentalis</i>	Western fence lizard
<i>Buteo jamaicensis</i>	Red-tailed hawk
<i>Carpodacus mexicanus</i>	House finch
<i>Cathartes aura</i>	Turkey vulture
<i>Corvus brachyrhynchos</i>	American crow
<i>Euphagus cyanocephalus</i>	Brewer's blackbird
<i>Mimus polyglottos</i>	Northern mockingbird
<i>Pica nutallii</i>	Yellow-billed magpie
<i>Pipilo fuscus</i>	Brown towhee (?)
<i>Sturnella neglecta</i>	Western meadowlark
<i>Turdus migratorius</i>	American robin
<i>Zonotrichia leucophrys</i>	White-crowned sparrow
<i>Lepus californicus</i>	Black-tailed jackrabbit
<i>Spermophilus beecheyi</i>	California ground squirrel