# **Appendix B: Table of Sensitive Species**

| Name                                                                 | Status*<br>Federal/<br>State/CNPS | General Habitat Description                                                                          | Potential for Occurrence in Project<br>Area.                                                                                                                       |
|----------------------------------------------------------------------|-----------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PLANTS                                                               |                                   |                                                                                                      |                                                                                                                                                                    |
| heartscale<br>Atriplex cordulata                                     | //1B                              | Chenopod scrub, meadows and seeps,<br>grassland- sandy, saline or alkaline soils; blooms<br>Apr-Oct. | Closest potential habitat is in iodine bush<br>scrub along Salt Spring, a tributary of Los<br>Banos Reservoir; no potential habitat exists in<br>the project area. |
| Lost Hills crownscale<br><i>Atriplex vallicola</i>                   | //1B                              | Chenopod scrub, grassland, vernal pools-<br>alkaline soils; blooms Apr-Aug.                          | Closest potential habitat is in iodine bush<br>scrub along Salt Spring, a tributary of Los<br>Banos Reservoir; no potential habitat exists in<br>the project area. |
| round-leaved filaree<br>California macrophylla                       | //1B                              | Cismontane woodland, grassland- clay soils;<br>blooms Mar-May.                                       | Potential grassland habitat is present on park lands.                                                                                                              |
| chapparal harebell<br>Campanula exigua                               | //1B                              | Chapparal- rocky, usually serpentine soils;<br>blooms May-Jun.                                       | No potential habitat exists in the project area.                                                                                                                   |
| Lemmon's jewelflower<br>Caulanthus coulteri var.<br>Iemmonii         | //1B                              | Pinyon and juniper woodland, grasslands;<br>blooms Mar-Apr.                                          | Potential grassland habitat is present on park lands.                                                                                                              |
| hispid bird's-beak<br>Cordylanthus mollis ssp.<br>hispidus           | //1B                              | Meadows and seeps, playas, grassland- alkali<br>soils; blooms Jun-Sep.                               | Closest potential habitat is in iodine bush<br>scrub along Salt Spring, a tributary of Los<br>Banos Reservoir; no potential habitat exists in<br>the project area. |
| Hospital Canyon larkspur<br>Delphinium californicum<br>ssp. interius | //1B                              | Chaparral openings, cismontane woodland-<br>mesic; blooms Apr-Jun.                                   | No potential habitat exists in the project area.                                                                                                                   |
| recurved larkspur<br>Delphinium recurvatum                           | //1B                              | Chenopod scrub, cismontane woodland, valley and foothill grassland- alkaline soil; blooms Mar-Jun.   | Closest potential habitat is in iodine bush<br>scrub along Salt Spring, a tributary of Los<br>Banos Reservoir; no potential habitat exists in<br>the project area. |

| Napa western flax<br>Hesperolinon serpentinum                                    | //1B | Chaparral- serpentine soils; blooms May-Jul.                                                   | No potential habitat exists in the project area.                                                                                 |
|----------------------------------------------------------------------------------|------|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| arcuate bush mallow<br><i>Malacothamnus arcuatus</i>                             | //1B | Chaparral, cismontane woodland; blooms Apr-<br>Sep.                                            | No potential habitat exists in the project area.                                                                                 |
| Hall's bush mallow<br><i>Malacothamnus hallii</i>                                | //1B | Chaparral, coastal scrub; blooms May-Sep.                                                      | No potential habitat exists in the project area.                                                                                 |
| shining navarretia<br><i>Navarretia nigelliformi</i> s ssp.<br><i>radian</i> s   | //1B | Cismontane woodland, grassland, vernal pools; blooms May-Jul.                                  | No potential vernal pool habitat exists in the project area.                                                                     |
| hairless popcorn flower<br>Plagiobothrys glaber                                  | //1A | Meadows and seeps, marshes and swamps;<br>blooms Mar-May.                                      | No potential habitat exists in the project area.<br>This species is presumed extinct in California.                              |
| slender-leaved pondweed<br>Potamogeton filiformis                                | //2  | Marshes and swamps, shallow freshwater habitats; blooms May-Jul.                               | Potential habitat exists in reservoirs.                                                                                          |
| rayless ragwort<br>Senecio aphanactis                                            | //2  | Chaparral, cismontane woodland, coastal scrub-<br>drying, alkaline flats; blooms Jan-Apr.      | No potential habitat exists in the project area                                                                                  |
| Arburua Ranch jewel-flower<br><i>Streptanthus insignis</i> ssp.<br><i>Iyonii</i> | //1B | Coastal scrub– sometimes on serpentine soils;<br>blooms Mar-May.                               | No potential habitat exists in the project area                                                                                  |
| INVERTEBRATES                                                                    |      |                                                                                                |                                                                                                                                  |
| valley elderberry longhorn<br>beetle<br>Desmocerus californicus<br>dimorphus     | T//  | Elderberry shrubs                                                                              | Closest known occurrence is 6 miles SE of<br>Los Banos Reservoir. No elderberry shrubs<br>occur in or near the project vicinity. |
| long-horn fairy shrimp<br><i>Branchinecta longiantenna</i>                       | E//  | Vernal pools with clear to turbid waters.                                                      | No potential vernal pool habitat exists in or near the project area.                                                             |
| vernal pool fairy shrimp<br>Branchinecta lynchi                                  | T//  | Vernal pools with clear to turbid waters.                                                      | No potential vernal pool habitat exists in or near the project area.                                                             |
| vernal pool tadpole shrimp<br><i>Lepidurus packardi</i>                          | E//  | Vernal pools with clear to turbid waters.                                                      | No potential habitat exists in or near the project area.                                                                         |
| FISH                                                                             |      |                                                                                                |                                                                                                                                  |
| delta smelt<br>Hypomesus transpacificus                                          | T/T/ | Estuarine, often in the mixing zone of fresh and saline waters of the delta. Spawn in shallow, | Does not occur in habitats affected by this project. Not known from O'neill Forebay or                                           |

|                                                                   |        | fresh or slightly brack-ish water upstream of the mixing zone.                                                                                                                            | San Luis Reservoir, but there may be<br>potential for arrival through the California<br>Aqueduct. Historically occurred south from<br>the delta to near Tracy in the San Joaquin<br>River.                                                                                                                                                                    |
|-------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Central Valley steelhead<br>Oncorhynchus mykiss                   | T//    | Sacramento and San Joaquin rivers and their tributaries.                                                                                                                                  | Does not occur in habitats affected by this<br>project. Not known from O'neill Forebay or<br>San Luis Reservoir, but there may be<br>potential for arrival through the California<br>Aqueduct.                                                                                                                                                                |
| AMPHIBIANS                                                        |        |                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                               |
| California tiger salamander<br>Ambystoma californiense            | T/CSC/ | Vernal pools, stock ponds and other seasonal<br>ponds in grasslands for breeding; need upland<br>underground refuges, especially ground squirrel<br>burrows for the majority of the year. | Status unknown but may be present.<br>Undocumented report from Basalt<br>Campground. Potential breeding habitat near<br>Basalt Campground may have been<br>destroyed by feral pigs. Breeding ponds 2<br>miles south of park boundary and critical<br>habitat 3 miles SW of Basalt Campground.<br>No potential breeding or upland habitat will be<br>impacted. |
| California red-legged frog<br>Rana aurora draytonii               | T/CSC/ | Lowlands and foothills in or near permanent<br>sources of deep water with dense, shrubby or<br>emergent vegetation; access to estivation<br>habitat.                                      | Not expected to breed or occur near the<br>project area due to absence of stock ponds<br>and other permanent water free of predatory<br>fish. Critical habitat adjoins the west shore of<br>San Luis Reservoir.                                                                                                                                               |
| foothill yellow-legged frog<br><i>Rana boylii</i>                 | /CSC/  | Generally restricted to shallow, partly shaded,<br>flowing streams with at least some cobble<br>substrate                                                                                 | Not expected due to absence of suitable habitat in the project area.                                                                                                                                                                                                                                                                                          |
| western spadefoot<br>Scaphiopus hammondii                         | /CSC/  | Vernal pools and seasonal ponds                                                                                                                                                           | No potential habitat exists in the project area.                                                                                                                                                                                                                                                                                                              |
| REPTILES                                                          |        |                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                               |
| western pond turtle<br><i>Emys</i> (=Clemmys)<br><i>marmorata</i> | /CSC/  | Ponds, marshes, streams, rivers, and irrigation<br>ditches with aquatic vegetation; basking sites<br>and sandy banks or grassy open fields for egg<br>laying also required.               | Suitable habitat appears to be present in the<br>eastern portion of Oneill Forebay and known<br>detections have been reported in San Luis<br>and Los Banos Reservoirs. No aquatic                                                                                                                                                                             |

|                                                            |       |                                                                                                                          | habitat and no potential upland habitat will be impacted by the project.                                                                                                                                                                                                        |
|------------------------------------------------------------|-------|--------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| blunt-nosed leopard lizard<br>Gambelia sila                | E/E/  | Sparsely vegetated plains, alkali flats, low foothills, washes and arroyos; seek cover in mammal burrows                 | Not expected to occur in the project area due to lack of suitable habitat.                                                                                                                                                                                                      |
| San Joaquin whipsnake<br>Masticophis flagellum<br>ruddocki | /CSC/ | Open, dry habitats, grasslands. Found in valley grassland and saltbush scrub in the San Joaquin Valley.                  | Status unknown but could occur on park<br>lands. Closest known locations are in Los<br>Banos Valley. Potential upland habitat will not<br>be impacted by this project.                                                                                                          |
| giant garter snake<br>Thamnophis gigas                     | Т/Т/  | Prefers freshwater marshes and low-gradient streams; may occur in drainage ditches and irrigation canals.                | No potential habitat exists in the project area.<br>Closest known locations are well to the NE in<br>Volta Wildlife Area and Los Banos Creek.<br>The closest potential habitat occurs in Oneill<br>Forebay Wildlife Area across the Forebay to<br>the east of the project site. |
| BIRDS                                                      |       |                                                                                                                          |                                                                                                                                                                                                                                                                                 |
| Swainson's hawk<br><i>Buteo swainsoni</i>                  | /T/   | Grasslands, riparian woodlands, and agricultural fields.                                                                 | Known to occur at project area. Nesting<br>documented at Basalt Campground and<br>Oneill Forebay Wildlife Area.                                                                                                                                                                 |
| golden eagle<br>Aquila chrysaetos                          | /CSC/ | Open foothill, mountain, desert, and juniper flat areas. Nests in cliff-walled canyons and in large trees in open areas. | Has been detected in the vicinity of San Luis<br>Reservoir. Not expected to nest near the<br>project vicinity.                                                                                                                                                                  |
| bald eagle<br><i>Haliaeetus leucocephalus</i>              | PD/E/ | Ocean shores, lake margins and rivers for both nesting and wintering. Nests in large trees within 1 mile of water body.  | May occur in low numbers during winter at<br>San Luis Reservoir and Oneill Forebay. Not<br>known to nest at San Luis Reservoir State<br>Recreation Area.                                                                                                                        |
| prairie falcon<br>Falco mexicanus                          | /CSC/ | Dry, open terrain; nests on open cliffs.                                                                                 | Not expected to occur in the project area.<br>Closest potential nest site is on a cliff above<br>Los Banos Reservoir.                                                                                                                                                           |
| northern harrier<br><i>Circus cyaneus</i>                  | /CSC/ | Grasslands, marshes and agricultural fields;<br>nests on ground in shrubby vegetation usually at<br>marsh edge.          | Nesting status not determined but suitable habitat occurs at Oneill Forebay and San Luis Reservoir.                                                                                                                                                                             |
| ferruginous hawk<br><i>Buteo regali</i> s                  | /CSC/ | Open grasslands, sagebrush flats, desert scrub, low foothills and agricultural fields.                                   | Status unknown but likely present in winter and during migration.                                                                                                                                                                                                               |

| burrowing owl<br><i>Athene cunicularia</i>           | /CSC/ | Open grasslands characterized by low growing vegetation; dependent on burrowing mammals.                              | Status unknown but likely to occur in small<br>numbers during the winter and nesting period<br>on park lands. Known to occur on lands<br>surrounding the project vicinity but no known<br>locations in or near the project area.                                       |
|------------------------------------------------------|-------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| white-tailed kite<br><i>Elanus leucurus</i>          | /FP/  | Open grasslands, meadows, marshes, and agricultural lands close to isolated dense topped trees for nesting.           | Likely nests in riparian trees at the base of San Luis Dam.                                                                                                                                                                                                            |
| California horned lark<br>Eremophila alpestris actia | /CSC/ | Open grasslands and agricultural fields, short grass prairie, alkali flats.                                           | Nesting status unknown but suitable habitat is present on surrounding lands. Known to occur in the project vicinity.                                                                                                                                                   |
| loggerhead shrike<br><i>Lanius ludovicianus</i>      | /CSC/ | Open country for hunting with fairly dense shrubs and brush for nesting.                                              | Nesting status unknown but suitable habitat is present on surrounding lands. Known to occur in the project vicinity.                                                                                                                                                   |
| tricolored blackbird<br>Agelaius tricolor            | /CSC/ | Freshwater marshes, riparian habitat, and agricultural fields.                                                        | Known to nest and forage at San Luis<br>Reservoir, along San Luis dam toe drain<br>vegetation, and at Oneill Forebay Wildlife Area.                                                                                                                                    |
| MAMMALS                                              |       |                                                                                                                       |                                                                                                                                                                                                                                                                        |
| American badger<br><i>Taxidea taxus</i>              | /CSC/ | Open, uncultivated areas with friable soils; open shrub, forest and herbaceous habitats.                              | CNDDB detection approximately 1 mile from the project area. Potential habitat exists in grasslands adjacent to the project area.                                                                                                                                       |
| San Joaquin kit fox<br><i>Vulpes macrotis mutica</i> | E/T/  | Annual grasslands or open grassy areas with scattered shrub component.                                                | Known to occur in small numbers at San Luis<br>Reservoir State Recreation Area. Detections<br>primarily north, east and south of the project<br>area, outside of state recreation area lands.<br>Suitable habitat is present in lands surrounding<br>the project area. |
| Fresno kangaroo rat<br>Dipodomys nitratoides exilis  | E/E/  | Chenopod scrub and grassland on the San<br>Joaquin Valley floor, often with damp soil<br>during portions of the year. | There are currently no known populations in<br>Merced County. Suitable habitat does not occur<br>in the project area.                                                                                                                                                  |
| giant kangaroo rat<br>Dipodomys ingens               | E/E/  | Annual grasslands on gentle slopes of <10% with friable, sandy loam soils.                                            | Project location is outside of the historic and<br>much-reduced current range of this species.<br>Suitable habitat does not occur in the project<br>area.                                                                                                              |

\*Status Explanations:

## Federal

- E = listed as endangered under the federal Endangered Species Act.
- T = listed as threatened under the federal Endangered Species Act.
- PD= proposed for delisting under the federal Endangered Species Act

## State

- E = listed as endangered under the California Endangered Species Act.
- T = listed as threatened under the California Endangered Species Act.
- FP= California Department of Fish and Game Fully Protected Species.
- CSC = California Species of Special Concern (CDFG)

## **California Native Plant Society**

- 1A = presumed extinct in California.
- 1B = considered rare, threatened, or endangered in California and elsewhere.
- 2 = considered rare, threatened, or endangered in California, but more common elsewhere.

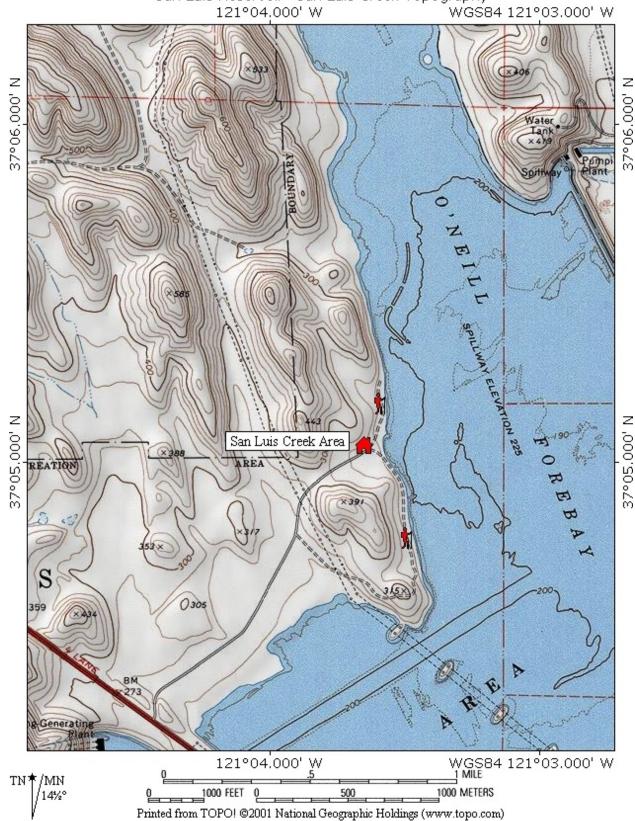
## **Appendix C: Letters of Concurrence**

4/2/2007: Dan Shaw is working on getting these

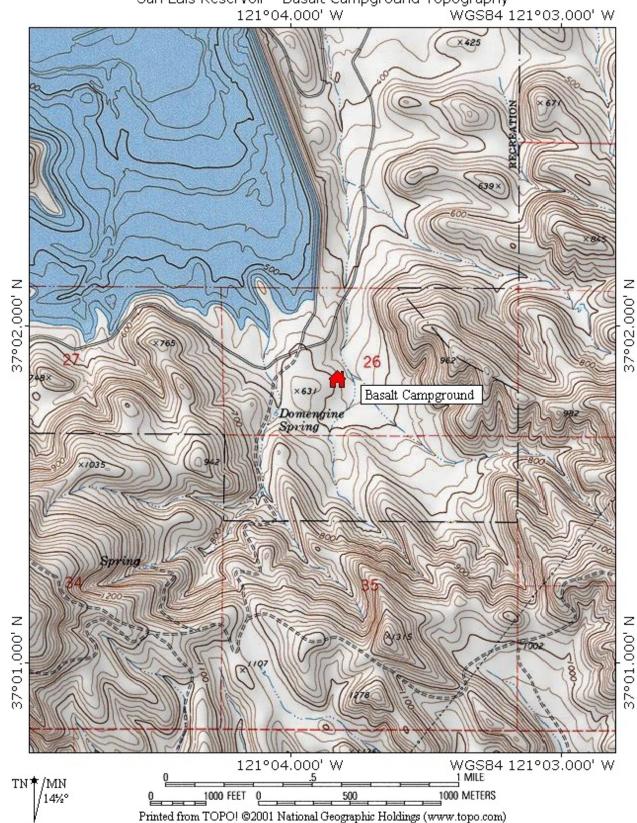
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**Appendix D: Maps, and Project Plans** 

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San Luis Reservoir -San Luis Creek Topography 121°04,000' W WGS8

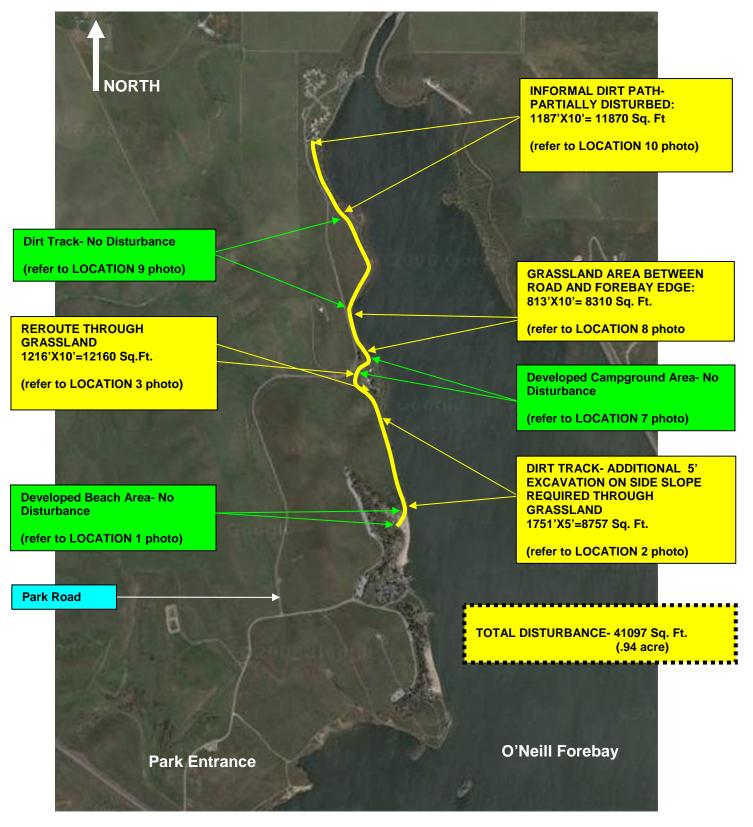


San Luis Reservoir - Basalt Campground Topography 121°04.000' W WGS84 121°03,000' W

#### San Luis Creek Trail (1.5 Mi. One-Way) Accessibility Improvements

San Luis Reservoir State Recreation Area

## **Habitat Disturbance**



San Luis Creek Trail (1.5 Mi. One-Way) Accessibility Improvements San Luis Reservoir State Recreation Area **Potential Staging Areas** 



**Appendix E: Cultural Resource Reports** 

**Insert Reports for Final EA**