Appendix C
Potentially Occurring Special-Status Species and Sensitive Habitats Near PFE Road, Walerga Road, and Watt Avenue Widening Analysis Area

URS

Memorandum

Date: January 7, 2009

To: Keith Dewey – URS Austin

From: Dina Robertson – URS Oakland

Subject: **Potentially occurring Special-status Species and Sensitive Habitats near PFE Road, Walerga Road, and Watt Avenue Widening Analysis Area**

1.0 Introduction

The purpose of this memorandum is to update a previous special-status species search, wetland habitat, and reconnaissance survey that were conducted on October 23, 2007 by a URS Corporation Senior Biologist for the *1990 Dry Creek/West Placer Community Plan* update. The initial species search and reconnaissance survey included identification of the vegetation communities in the proposed project area and habitats potentially suitable for federally and state listed species within the proposed project area and the immediate vicinity. The reconnaissance survey only included a field investigation of six proposed speed reduction treatment locations.

Subsequent to the initial species search, wetland habitat, and reconnaissance survey, two new elements were added to the proposed project: (1) widening PFE Road from 2 to 4 lanes from Watt Avenue east to Walerga Road, (2) widening Walerga Road[1] from 2 to 6 lanes from Baseline Road south to Sacramento County line, and (3) widening Watt Avenue from 2 to 6 lanes from PFE Road south to the Sacramento County line. These roadway widenings assume a narrow corridor for impact analysis purposes because of the amount of existing road right-of-way, and to minimize the temporary and permanent impact area. All ground disturbance would be within 100 feet of the existing centerline of PFE Road, Walerga Road, and Watt Avenue.

This memo evaluates the potential presence of special-status species and wetlands along PFE Road (Watt Avenue east to Walerga Road), Walerga Road (Baseline Road south to the Sacramento County line), and Watt Avenue (PFE Road south to the Sacramento County Line). Mitigation measures are described in this memo that would minimize significant impacts to special-status species and wetlands. This memo is intended to be used to inform and support the Programmatic Environmental Impact Report (EIR) for the proposed project.

2.0 Analysis Area

The PFE Road, Walerga Road, and Watt Avenue analysis area consists of a linear corridor adjacent to roadways that pass through areas currently used for grazing, as well as numerous existing housing developments (Placer Vineyards, Doyle Ranch, Silver Creek, Morgan Place and Sun Valley Oaks). Elevations in the analysis area range from approximately 75 to 130 feet. Habitats in the analysis area

[1] Currently, Walerga Road from Baseline Road south to PFE Road is partially a 2-lane road and partially a 4-lane road.

include riparian woodland (Dry Creek), disturbed (directly adjacent to roadways), wetlands, cultivated crops, and valley grassland. Several drainage ditches are present, and scattered oaks (*Quercus* spp.) and vernal pools occur in some areas.

3.0 Methods

The following sources of special-status species data were reviewed: the California Department of Fish and Game, California Natural Diversity Database (CDFG, 2008) for the Citrus Heights and surrounding eight 7.5 minute U.S. Geological Survey (USGS) quadrangles; and the U.S. Fish and Wildlife Service (USFWS, 2008) species lists for the USGS quadrangles listed above. High resolution aerial photographs (2006 of the analysis area and the immediate vicinity were reviewed to evaluate wetlands and plant and wildlife habitats. The special-status determinations came from being listed under the federal or state Endangered Species Act (ESA), a California fully protected species or species of special concern, or subject to protection under the California Environmental Quality Act or the Migratory Bird Treaty Act (MBTA). Wetlands evaluated were features that may be regulated by the U.S. Army Corps of Engineers (USACE) and/or the Central Valley Regional Water Quality Control Board (RWQCB).

4.0 Results

The analysis area supports habitats for several special-status species and wetlands, which are discussed below.

Wetlands and Protected Trees

Jurisdictional Wetlands and Other waters of the U.S. and Waters of the State. Wetlands and other waters of the U.S. and waters of the State are present in the analysis area. These features include streams, perennial and seasonal wetlands and vernal pools. A segment of Dry Creek, a perennial stream, is located in the analysis area and is crossed by Walerga Road.

Native Trees. Native trees are protected under the Placer County Tree Ordinance. The analysis area contains many native oak trees, including blue oak (*Quercus douglasii*) and coast live oak (*Quercus agrifolia*) of varying ages and sizes.

Special-status Invertebrates

Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus)*. Federally threatened. Elderberry shrubs (*Sambucus* sp.) are the host plant for the valley elderberry longhorn beetle. Elderberry shrubs are likely to occur in the Dry Creek riparian corridor.

Vernal pool branchiopods. Two species of vernal pool branchiopods are known from the vicinity of the project study area:

- vernal pool fairy shrimp (*Branchinecta lynchi*) federally threatened; and
- vernal pool tadpole shrimp (*Lepidurus packardi*) federally endangered.

Vernal pools and seasonal wetlands in the analysis area are potentially suitable habitat for special status vernal pool branchiopods.

Special-Status Birds

Bank swallow (*Riparia riparia*). California threatened. Suitable foraging habitat is present in the analysis area in association with grassland and riparian corridors.

Swainson's hawk (*Buteo swainsoni*). California threatened. Swainson's hawks are known to have nested within 2.5 miles of the analysis area. In addition, high quality Swainson's hawk nesting habitat occurs within 1 mile of the analysis area along the Dry Creek riparian corridor. This species could potentially nest in the analysis area. The grassland habitats in the analysis area are potentially suitable for foraging Swainson's hawks.

Migratory bird species and raptors. Migratory bird species and raptors are regulated under the Migratory Bird Treaty Act and the California Fish and Game Code. Habitats in the analysis area and vicinity are potentially suitable for nesting migratory birds and raptors.

Western burrowing owl (*Athene cunicularia*). California species of special concern. Small mammal burrows in the analysis area may be suitable for nesting burrowing owls and grassland areas could provide foraging habitat for this species.

Special-status Mammals

American badger (*Taxidea taxus*). California species of special concern. Suitable habitat may be present within grasslands with friable soils in the analysis area.

Special-status bat species. Pallid bat (*Antrozous pallidus*), small footed myotis bat (*Myotis ciliolabrum*) and Yuma myotis bat (*Myotis yumanensis*) are California species of special concern known to occur in the project vicinity. Suitable roosting and foraging habitat for these special status bat species is present in the analysis area in association with tree snags (roosts) and grasslands (foraging).

Special-status Reptiles

Western pond turtle (*Actinemys marmorata*). California species of concern. Suitable habitat for this species is present in association with Dry Creek and several unnamed tributaries in the analysis area.

Western spadefoot (*Scaphiopus hammondi*). California species of special concern. Vernal pools and adjacent grasslands in the analysis area are potentially suitable for breeding and aestivating western spadefoot.

Special-status Plant Species

Special-status plant species. Several special-status plant species are known to occur in the project vicinity:

- Bogg's lake hedge hyssop (*Gratiola hyssopifolium*) California endangered and CNPS 1B;
- Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii*) CNPS List 1B;
- Red Bluff dwarf rush (*Juncus leiospermus* var. *leiospermus*) CNPS 1B;
- pincushion navarettia (*Navarretia myersii* ssp. *myersii*) CNPS 1B;
- slender Orcutt grass (*Orcuttia tenuis*) federally threatened California endangered, CNPS List 1B;
- Sanford's arrowhead (*Sagittaria sanfordii*), CNPS List 1B;
- big-scale balsamroot (*Balsamorhiza macrolepis* var. *macrolepis)* CNPS 1B);
- dwarf downingia (*Downingia pusilla*) CNPS List 1B; and
- Hispid bird's-beak (*Cordylanthus mollis* ssp. *hispidus*) CNPS List 1B.

Vernal pools, perennial and seasonal wetlands and valley and foothill grassland habitats in the analysis area are potentially suitable for special-status plant species.

Special-status Fish Species

Special-status fish species. Two special status anadromous fish species could potentially be affected by the proposed project:

- Central Valley steelhead (*Oncorhynchus mykiss*) federally threatened;
- fall-run Chinook salmon (*Oncorhynchus tshawytscha*) federal candidate and California species of concern.

The section of Dry Creek in the analysis area is a migration corridor for these anadromous fishes.

5.0 Potential Impacts

Construction of the proposed project could result in significant impacts to special-status species. Impacts could include displacement and possible mortality to special-status species.

Numerous wetlands regulated by the USACE and/or the state were observed in the analysis area. Construction of the proposed project could result in direct impacts to jurisdictional waters of the U.S. and jurisdictional waters of the state in the analysis area through placement of fill within wetlands.

The project study area contains many native oak trees, including blue oak (*Quercus douglasii*) and coast live oak (*Quercus agrifolia*) of varying ages and sizes. Native trees are protected under the Placer County Tree Ordinance. Construction of the proposed project could result in direct loss of native trees. Native trees could also be indirectly impacted through damage to roots and limbs during construction.

6.0 Mitigation Measures (Recommended)

This section outlines recommended avoidance, minimization, and mitigation measures for special status species and habitats that potentially occur in the analysis area. The following avoidance, minimization, and mitigation measures are proposed based on the results of the previous site reconnaissance and desktop analysis summarized above. A substantial portion of the analysis area has been surveyed for special-status species and their habitats during the planning of development projects in the vicinity of the proposed project. The results of these surveys will be used to determine appropriate mitigation measures for the proposed project to the extent feasible. However, the utility of this approach is dependent on the timing, location, quality, and availability of existing survey information.

Wetlands and Protected Trees

Jurisdictional Wetlands: The project study area contains several potentially jurisdictional features. Therefore, a jurisdictional delineation should be completed for the project study area. A jurisdictional delineation report should be submitted to the USACE for review and verification. A Clean Water Act Section 404 permit should be acquired prior to any fill activities or discharges that cannot be avoided within jurisdictional wetlands. If impacts to jurisdictional waters cannot be avoided, the County should mitigate the impacts in compliance with the terms and conditions of the Section 404 permit issued by the USACE and the Section 401 Water Quality Certification and Waste Discharge Requirements issued by the Central Valley RWQCB. The creation/restoration requirements should be in compliance with the *Placer County General Plan* "no net loss" of wetlands policy (Policy 6.B.1).

In addition, the following best management practices (BMPs) to avoid impacts to wetlands in the project study area should be implemented for all construction related to the proposed project:

- Four-foot-tall, brightly colored (yellow or orange), synthetic mesh material or chainlink fencing should be installed at the edge of all avoided wetlands and a minimum of 50 feet from the edge of tributaries to Dry Creek prior to any construction equipment being moved on site or any construction activities taking place. Fencing should be continuously maintained and should be the responsibility of an onsite compliance officer designated by the developer. Fencing is to remain intact until construction is complete and may not be removed without the written consent of the County.

- Ground disturbance associated with construction, including vehicle operation/parking and construction material storage, should be prohibited within wetlands or within 50 feet of the edge of tributaries to Dry Creek.
- Where working areas encroach on live or dry streams, lakes, or wetlands, RWQCB-approved physical barriers adequate to prevent the flow or discharge of sediment into these systems should be constructed and maintained between working areas and streams, lakes and wetlands. Discharge of sediment into streams should be held to a minimum during construction of the barriers. Discharge should be contained through the use RWQCB-approved measures that will keep sediment from entering jurisdictional waters beyond the project limits.
- Oily or greasy substances originating from the Contractor's operations should not be allowed to enter or be placed where they will later enter a live or dry stream, pond, or wetland.
- Asphalt concrete should not be allowed to enter a live or dry stream, pond, or wetland.
- All off-road construction equipment should be cleaned of potential noxious weed sources (mud, vegetation) before entry into the site and after entering a potentially infested area before moving on to another area, to help ensure noxious weeds from outside of the project study area are not introduced into the project study area. The contractor should employ whatever cleaning methods (typically the use of a high-pressure water hose) are necessary to ensure that equipment is free of noxious weeds. Equipment should be considered free of soil, seeds, and other such debris when a visual inspection does not disclose such material. Disassembly of equipment components or specialized inspection tools is not required. Equipment washing stations should be placed in areas that afford easy containment and monitoring and that do not drain into sensitive (riparian, wetland, etc.) areas.
- To further minimize the risk of introducing additional nonnative species into the area, only native plant species appropriate for the project study area should be used in any erosion control or revegetation seed mix or stock. No dry-farmed straw should be used, and certified weed-free straw should be required where erosion control straw is to be used. In addition, any hydroseed mulch used for revegetation activities should be certified weed-free.
- The County should restore and revegetate all temporary construction disturbance areas. Temporary disturbance areas should be restored to the original topography and hydrology, disked to relieve compaction, and planted with an erosion control mix composed only of native species. The proposed restoration and revegetation measures should be summarized in the storm water pollution prevention plan for the project and submitted to Placer County for approval prior to initiation of construction activities.

Native Trees (Protection): Native trees that are not planned for removal should be preserved and protected per the Placer County Tree Preservation Ordinance, particularly Section 12.16.070, Item "D".

Native Trees (Removal): Mitigation for the loss of native trees in the study area should follow the policies and mitigation guidelines set forth in The Placer County Tree Preservation Ordinance found in

Chapter 12, Article 12.16 of the Placer County Code. See Article 12.16 for details on protection, replanting and mitigation for removed trees.

Special-status Invertebrates

Valley Elderberry Longhorn Beetle: Focused surveys for blue elderberry (*Sambucus mexicanus*), the host plant of the valley elderberry longhorn beetle, should be conducted prior to construction by a qualified botanist. Blue elderberry shrubs are likely to occur along Dry Creek in the northern portion of the study area.

If elderberry shrubs are found, the shrubs should be mapped and avoided to the extent feasible. The following avoidance, minimization, and compensation measures are based on the USFWS Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS 1999).

To avoid impacts to the host plant 4-foot tall, brightly colored (yellow or orange), synthetic mesh material or chain link fencing should be installed a minimum of 100 feet from the dripline of avoided shrubs. Fencing should be continuously maintained and should be the responsibility of an onsite compliance officer designated by the County. Fencing should remain intact until construction is complete and may not be removed without the written consent of the County.

If elderberry shrubs cannot be avoided, the County should implement the following measures:

- All elderberry plants with one or more stems measuring 1.0 inch diameter or greater at ground level that cannot be avoided should be transplanted to a conservation area. A detailed mitigation/conservation plan that includes long-term strategies to ensure no net loss of valley elderberry longhorn beetle habitat should be developed in consultation with USFWS.

If elderberry shrubs are transplanted or if transplantation is not feasible, one of the following measures should be implemented:

- Each elderberry stem measuring 1.0 inch or greater in diameter at ground level that is adversely affected (i.e., transplanted or destroyed) must be replaced, in the conservation area approved by the USFWS according to the ratios described in the USFWS conservation guidance on valley elderberry longhorn beetle (USFWS 1999). Additional native plants should be planted at a minimum ratio of one plant for every stem 1.0 inch in diameter or greater that would be affected. Stock of either seedlings or cuttings should be obtained from local sources. Cuttings may be obtained from the plants to be transplanted if the source sites are in the vicinity of the USFWS-approved conservation area. Transplanted shrubs should be monitored for 10 to 15 years as required by the USFWS 1999 guidance. A qualified biologist should supervise all work involving encroachment, restoration or transplanting of elderberry shrubs.
- Elderberry mitigation credits from a USFWS approved mitigation bank equivalent to the ratio should be specified by the USFWS 1999 conservation guidelines.

Vernal Pool Branchiopods: To avoid impacts to vernal pool branchiopods, vernal pool branchiopod surveys should be conducted, pending USFWS approval, according to the 1996 USFWS Interim Survey Guidelines Listed Branchiopod Surveys within suitable habitat in the project study area. One season of wet and dry surveys or two wet season surveys are typically required to determine presence or absence of the listed branchiopod species. If listed vernal pool branchiopods are found, ESA consultation with the USFWS will be required. Alternatively, the County could assume presence of listed vernal pool branchiopods and provide appropriate mitigation for seasonal wetlands and vernal pool habitats according to the conditions of the programmatic Biological Opinion between the USFWS and the USACE (1996). Proposed mitigation measures may include habitat compensation through an off-site mitigation bank.

Special-status Birds

Nesting Raptors: If project activities are proposed during the breeding period of the Swainson's hawk or other nesting raptors (March 1 to September 15), a qualified biologist should conduct pre-construction surveys within a 0.25-mile radius of the project, not more than two weeks prior to construction. Surveys should be conducted using the guideline established in the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee 2000). If nesting Swainson's hawks or other raptors are found, project activities should be delayed within the following buffer distances until the young have fledged:

- Swainson's hawks – 1,320 feet (0.25 mile)
- Other raptor species – 520 feet (0.10 mile)

Swainson's hawk nest sites within 0.25 mile of active construction should be monitored by a qualified biologist to evaluate whether the construction activities are disturbing nesting hawks. If the nesting birds appear distressed, the monitor should halt all construction activities within 0.5 mile of the nest site and CDFG should be contacted to identify appropriate contingency measures. These measures might include limitations on the activities that would be allowed within 0.25 mile of the nest site or termination of all work within 0.25 mile of the nest site. All CDFG recommendations should be complied with. If construction activities occur over more than 1 year, surveys should be conducted during each year of construction.

If no active nests are identified during the preconstruction survey or if construction activities are proposed to occur during the nonbreeding season (September 16 through February 28), no preconstruction surveys or other mitigation measures for Swainson's hawk or other nesting raptors will be required.

Migratory Birds: Migratory birds may nest in the project study area. In order to avoid potential impacts to nesting migratory birds, project construction should be limited to outside of the bird nesting season (March 15- September 15), where feasible. If construction must occur during this time period, a

qualified biologist should conduct preconstruction surveys within areas potentially affected by the proposed project. If nesting migratory birds are found during preconstruction surveys, consultation with the CDFG should take place regarding appropriate actions to comply with the Migratory Bird Treaty Act and the Fish and Game Code. In general, avoidance should include a 250-foot buffer zone surrounding active nests. Unless CDFG specifies otherwise, buffer zones should remain until young birds have fledged.

Western Burrowing Owl: Surveys should be conducted for potential nesting burrowing owls in the project study area prior to construction. If burrowing owls are determined to be using the project study area for nesting, then onsite passive exclusion of burrowing owls from burrows should be implemented prior to the nesting season (December or January). Owls should be excluded from the occupied burrows using one-way doors and allowed to occupy alternate natural or artificial burrows that are beyond 250 feet from the impact zone and that are within or contiguous to a minimum of 6.5 acres of potential foraging habitat for each pair of relocated owls.

If construction is proposed during the burrowing owl breeding season (February 1 through August 31), focused surveys for active burrows should be conducted within 30 days prior to the beginning of the construction activities. Surveys should be conducted by a qualified biologist. If active nests are found, no construction activities should take place within 250 feet of the nest until the young have fledged. Burrows that cannot be avoided should be removed during the nonbreeding season (see above) in accordance with CDFG protocols (CDFG 1995). If no active nests are found during focused surveys, no further mitigation would be required.

Onsite preservation of foraging habitat adjacent to any relocated owls should be protected in a conservation easement and managed to promote burrowing owl use of the site. CDFG approval would be required for the habitat conservation easement.

If there is not suitable preservation habitat located adjacent to the relocated owls, burrowing owl habitat mitigation credits should be purchased from a conservation bank approved by the CDFG. Offsite habitat must provide suitable burrowing owl habitat. Land should be purchased and /or placed in a conservation easement in perpetuity and managed to main suitable habitat. Offsite mitigation should use the following ratios:

(i) Replacement of occupied habitat with occupied habitat: 1.5 times 6.5 acres per pair or single bird (9.75 acres).
(ii) Replacement of occupied habitat with habitat contiguous to currently occupied habitat: 2 times 6.5 acres per pair or single bird (13.0 acres).
(iii) Replacement of occupied habitat with suitable unoccupied habitat: 3 times 6.5 acres per pair or single bird (19.5 acres).

Special-status Mammals

American Badger: Preconstruction surveys should be implemented no less than 14 days and no more than 30 days prior to the beginning of construction activities that could impact American badger dens. If an active badger den is found, the CDFG should be consulted to determine appropriate avoidance measures. Avoidance measures may include designation of an exclusion zone around potential badger dens during the breeding period (summer through early fall) and hand excavation of dens during the nonbreeding period. A qualified biologist should be present during construction to monitor any activities within 100 feet of an occupied den.

Special-status Bat Species: Prior to construction, a qualified biologist should survey any affected structures and trees for evidences of active bat roosts (e.g., bat guano). If roosts are found, they should be removed in April, September, or October in order to avoid the hibernation and maternity seasons. Appropriate exclusion methods should be used, as needed, during habitat removal. If bats must be excluded, the County should work with a qualified biologist to determine appropriate exclusion methods. If bats are found onsite and cannot be avoided, the County should work with a qualified biologist to determine if additional mitigation, such as the construction of bat boxes, is appropriate. Determination of these additional measures will depend on the species present and their specific ecological preferences/requirements. Other steps could include improving other avoided bat habitat or designing new project elements such as bat-friendly road crossings. If no active bat roosts are found during focused surveys, no further mitigation would be required.

Special-status Reptiles

Western Spadefoot: To avoid potential impacts to the western spadefoot, preconstruction surveys should be conducted within suitable habitat in the project study area. If western spadefoot is found, relocation of individuals should be coordinated with CDFG. In addition, the County should replace any aquatic habitat that would be permanently filled by the project at a 1:1 ratio. This mitigation would be implemented according to one of the following three options, to be determined in consultation with the CDFG and completed prior to impact: (1) on-site creation of habitat; (2) off-site creation of habitat; or (3) purchase of comparable aquatic habitat credits from a mitigation bank.

Western Pond Turtle: Suitable habitat for the western pond turtle is present along Dry Creek, and two unnamed tributaries in the project study area. Immediately prior to construction, a qualified biologist should conduct preconstruction surveys for the western pond turtle. Individual western pond turtles, if found, should be relocated to suitable habitat in coordination with CDFG. In addition, the County should replace any aquatic habitat that would be permanently removed by the proposed project at a 1:1 ratio. This mitigation would be implemented according to one of the following three options, to be determined in consultation with the CDFG and completed prior to impact: (1) on-site creation of habitat; (2) off-site creation of habitat; or (3) purchase of comparable aquatic habitat credits from a mitigation bank.

Special-status Plant Species

Special-status Plant Species: Conduct focused surveys for special-status plant species in suitable habitat in portions of the project study area. Surveys for special-status plant species should be timed to coincide with the appropriate period for identification of special-status plant species with potential to occur. If any state or federally listed species are observed and impacts cannot be avoided, the County should consult with the USFWS and/or the CDFG to determine appropriate mitigation, and should comply with the identified requirements. A detailed mitigation/conservation plan should be developed if special status plant species would be affected by the proposed project. The plan should provide for preservation and restoration at ratios that would ensure no net loss of the affected plant habitat and minimize the effects of the project on the regional abundance and distribution of the affected plant species. If special-status plant species are not found during surveys, no further studies or mitigation will be necessary.

Special-status Fish Species

Special-status Fish: Dry Creek is used by special-status fish species, including the central valley steelhead (*Oncorhynchus mykiss*), and Chinook salmon (*Oncorhynchus tshawytscha*). Implementation of the proposed project could result in a potentially significant impact to aquatic habitats utilized by these fish species. Impacts could include degradation of water quality in Dry Creek due to ground disturbance during construction or degradation of the upland riparian habitats adjacent to Dry Creek.

The County should exclude all ground disturbing activities within 100-feet of Dry Creek to minimize degradation of water quality and fish habitat in Dry Creek. The use of BMPs is also recommended (refer to jurisdictional wetlands mitigation measures for potential BMPs).

7.0 References

California Department of Fish and Game (CDFG), 1995. Staff Report on Burrowing Owl Mitigation.

California Department of Fish and Game (CDFG), 2008. Rarefind 3, California Natural Diversity Data Base (CDFG). Electronic data provided by the Natural Heritage Division, California Department of Fish and Game, Sacramento, CA.

Swainson's Hawk Technical Advisory Committee, 2000. Recommended Timing and Methodology for Swainson's Hawks Nests in California Central Valley.

U.S. Fish and Wildlife Service (USFWS), 1996. Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans Within the Jurisdiction of the Sacramento Field Office, California.

U.S. Fish and Wildlife Service (USFWS), 1999. Conservation Guidelines for the Valley Elderberry Longhorn Beetle.