

**NCTC, Crestview Drive, State Route 49
Nevada County, CA**

Preliminary Environmental Review

May 2004



Prepared for:

**Pacific Municipal Consultants
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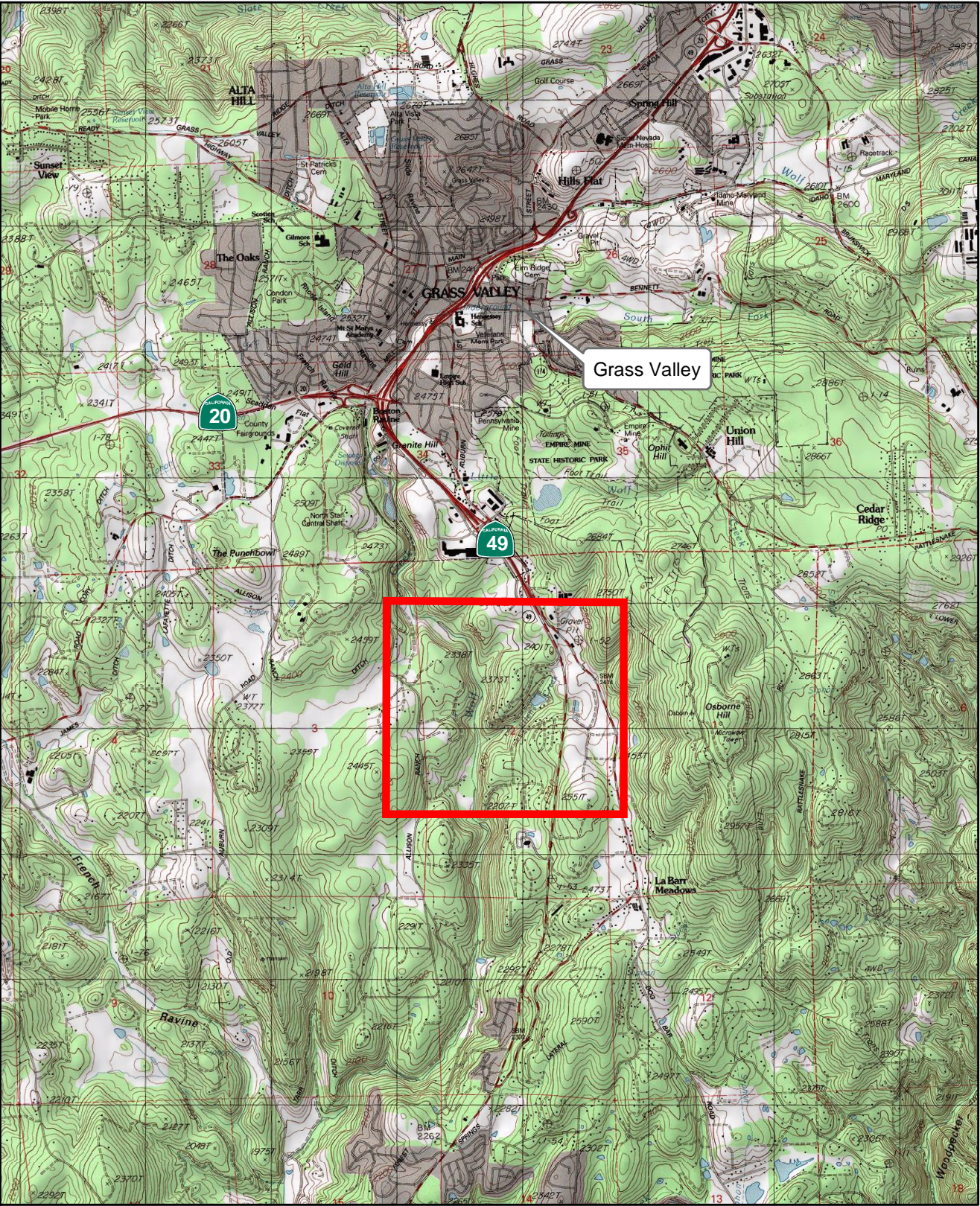
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Preliminary Environmental Review
Nevada County Transportation Commission
Crestview Drive, State Route 49
Nevada County, CA

May 2004

Summary of Findings and Conclusions

As requested, Gallaway Consulting Inc. performed preliminary biological and botanical surveys within the Nevada County Transportation Commission, Crestview Drive, State Route 49 Biological Survey Area (BSA) in Nevada County, California on 4 May 2004. The purpose of this Preliminary Environmental Review (PER) is to provide an initial biological resource evaluation of the proposed project in sufficient detail to identify environmental constraints that may affect project design and feasibility. While access to the proposed project area was limited, no federal or state endangered, threatened or sensitive species were observed within the surveyable area of the project. Based on suitable habitat present within the project sites and surrounding areas, species-specific surveys will be required to determine whether or not sensitive species occur and will be impacted by the project. Should special status species be observed, appropriate mitigation or avoidance measures will be required. Wetlands and riparian habitat were identified within the survey area. Based on topographic maps and preliminary site surveys, it is estimated that a total of six (6) stream crossings and impacts from one to three (1-3) acres of seasonal wetlands will result from completion of the proposed north alternative. Approximately two (2) stream crossings and impacts from two-five (2-5) acres of fresh emergent and seasonal wetlands are expected for completion of the proposed south alternative. Potential impacts to other sensitive biological resources are estimated to be roughly equivalent for the two alternatives. Wetlands and riparian habitat are considered sensitive biological resources by the County of Nevada, the California Environmental Quality Act, and the National Environmental Policy Act. A formal delineation of Waters of the United States will be required and the applicant will be required to conform to local, state and federal laws and regulations by avoiding and/or mitigating for substantial disturbance or destruction of these resources. Before construction occurs that may impact Waters of the United States, the project proponent will be required to obtain a 1601 Streambed Alteration permit with the California Department of Fish and Game, a water quality certification and construction storm water permit from the Regional Water Quality Board (Clean Water Act, Section 401), an Army Corps of Engineers Nationwide or Individual permit (Clean Water Act, Section 404), and final approval by California Department of Fish and Game. These permits are contingent on successfully completing the California Environmental Quality Act and National Environmental Policy Act process.



Project Area



0 0.5 1 Miles

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Figure 1.

Table 1. Special-status Species and Plant Communities That May Occur within the NCTC, Crestview Drive, SR49 BSA, Nevada County, CA

| Common Name (<i>Scientific Name</i>) | Status Fed/State/ CNPS | Associated Habitats | Potential for Occurrence |
|--|-------------------------------------|---|--|
| PLANTS | | | |
| STEBBINS'S MORNING-GLORY (<i>Calystegia stebbinsii</i>) | FE, SE, CNPS 1B | Chaparral, cismontane woodland | Potential to occur exists onsite; documented occurrence within 5-miles; protocol level survey required |
| BRANDEGEE'S CLARKIA (<i>Clarkia biloba ssp. brandegeae</i>) | CNPS 1B | Chaparral, cismontane woodland, often roadcuts | Potential to occur exists onsite; documented occurrence within 5-miles; protocol level survey required |
| PINE HILL FLANNELBUSH (<i>Fremontodendron decumbens</i>) | FE, CNPS 1B | Lower montane coniferous forest | Potential to occur exists onsite; documented occurrence within 5-miles; protocol level survey required |
| BUTTE COUNTY FRITILLARY (<i>Fritillaria eastwoodiae</i>) | FSC, CNPS 3 | Chaparral, cismontane woodland, lower montane coniferous forest | Potential to occur exists onsite; not observed during survey |
| CANTELOW'S LEWISIA (<i>Lewisia cantelovii</i>) | FSC, CNPS 1B | Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest | Potential to occur exists onsite; not observed during survey |
| ELONGATE COPPER MOSS (<i>Mielichhoferia elongata</i>) | CNPS 2 | Cismontane woodland | Potential to occur exists onsite; not observed during survey |
| FOLLETT'S MONARDELLA (<i>Monardella folletti</i>) | FSC, CNPS 1B | Lower montane coniferous forest | Potential to occur exists onsite; documented occurrence within 5-miles; protocol level survey required |
| CEDAR CREST ALLOCARYA (<i>Plagiobothrys glyptocarpus var modestus</i>) | FSC, CNPS 3 | Cismontane woodland | Potential to occur exists onsite; not observed during survey |
| BROWNISH BEAKED RUSH (<i>Rhynchospora capitellata</i>) | CNPS 2 | Lower montane coniferous forest, meadows and seeps, marshes and swamps, upper montane coniferous forest | Potential to occur exists onsite; documented occurrence within 5-miles; protocol level survey required |
| SCADDEN FLAT CHECKERBLOOM (<i>Sidalcea stipularis</i>) | FSC, SE, CNPS 1B | Marshes and swamps | Potential to occur exists onsite; documented occurrence within 5-miles; not observed during survey |
| MAMMALS | | | |
| SPOTTED BAT (<i>Euderma maculatum</i>) | FSC | Rare in North America. Roosts in cliffs, caves, and rock crevices; forages over water and washes. | Not known to occur onsite |

| Common Name (<i>Scientific Name</i>) | Status Fed/State/ CNPS | Associated Habitats | Potential for Occurrence |
|---|-------------------------------------|---|--|
| GREATER WESTERN MASTIFF BAT (<i>Eumops perotis californicus</i>) | FSC, CSC | Common species of low elevations in California. Crevices in steep cliff faces or in the roof eaves of buildings of two or more stories (needs vertical faces to take flight). | Not known to occur onsite |
| SIERRA NEVADA SNOWSHOE HARE (<i>Lepus americanus tahoensis</i>) | FSC | Prefers edges, heterogeneous habitats, and areas with dense understory, particularly in riparian habitats. Also found in areas with young firs with branches drooping to ground, and in patches of ceanothus and manzanita within, or bordering, fir or pine forests. Rarely found in open spaces or mature closed canopy forests | Not known to occur onsite |
| FISHER (<i>Martes pennanti</i>) | FC | Suitable habitat for fishers consists of large areas of mature, dense forest stands with snags and greater than 50% canopy closure. | Not known to occur onsite |
| SMALL-FOOTED MYOTIS BAT (<i>Myotis ciliolabrum</i>) | FSC | Caves, mine tunnels, and abandoned buildings in relatively arid woody and brush upland areas near surface water. | Potential to occur exists onsite; not observed during survey |
| LONG-EARED MYOTIS BAT (<i>Myotis evotis</i>) | FSC | Roosts in hollow trees under loose bark, abandoned houses, caves, and mines. Uncommon; prefers coniferous habitats. | Potential to occur exists onsite; not observed during survey |
| FRINGED MYOTIS BAT (<i>Myotis thysanodes</i>) | CSC | Roosts in caves, mines, buildings, and crevices; forages over open habitats; prefers wooded habitats above 3500 ft. | Not known to occur onsite |
| LONG-LEGGED MYOTIS BAT (<i>Myotis volans</i>) | CSC | Roosts in rock crevices, buildings, under tree bark, in snags, mines and caves; prefer wooded, higher-elevation, montane habitats. | Not known to occur onsite |
| YUMA MYOTIS BAT (<i>Myotis yumanensis</i>) | FSC, CSC | Woodland and forested areas, large buildings and abandoned mine tunnels within one-half mile of a surface water source; abandoned swallow nests under bridges. | Not known to occur onsite |
| PALE TOWNSEND'S BIG-EARED BAT (<i>Plecotus townsendii pallescens</i>) | FSC, CSC | Once common species of low elevations in California in mesic habitats. Roosts in barns, attics of large buildings, caves, and mines | Not known to occur onsite |
| BIRDS | | | |
| NORTHERN GOSHAWK (<i>Accipiter gentiles</i>) | FSC | Prefers middle and higher elevations, and mature, dense conifer forests. Casual in winter along coast, throughout foothills, and in northern deserts, where it may be found in pinyon-juniper and low-elevation riparian habitats. | Potential to occur exists onsite; not observed during survey |
| TRICOLORED BLACKBIRD (<i>Agelaius tricolor</i>) | FSC, CSC | Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland blackberry or grainfields; nesting habitat must be large enough to support 50 pairs | Not expected to occur onsite |
| OAK TITMOUSE (<i>Baeolophus inornatus</i>) | SLC | Open mixed hardwood and mixed hardwood conifer woodlands. Will forage and breed in riparian areas. | Observed during onsite survey |
| LAWRENCE'S GOLDFINCH (<i>Carduelis lawrencei</i>) | FCS, CSC | Open woodland or shrubland with a nearby source of water. | Potential to occur exists onsite; not observed during survey |

| Common Name (<i>Scientific Name</i>) | Status Fed/State/ CNPS | Associated Habitats | Potential for Occurrence |
|--|-------------------------------------|--|--|
| VAUX'S SWIFT (<i>Chaetura vauxi</i>) | FSC, CSC | Nest-site in a large, hollow tree. Forages over most terrains and habitats, often high in the air. Shows an apparent preference for foraging over rivers and lakes. | Not known to occur onsite |
| AMERICAN DIPPER (<i>Cinclus mexicanus</i>) | SLC | Clear fast-flowing streams and rivers in montane regions, eats aquatic insects and larvae, small fish, snails, tadpoles, and occasionally flying insects; nests in crevice in rocks, behind waterfall, in stump or log, in bank, or under bridge or other human-made structure. | Potential to occur exists onsite; not observed during survey |
| LITTLE WILLOW FLYCATCHER (<i>Empidonax traillii brewsteri</i>) | SE | Most often occurs in broad, open river valleys or large mountain meadows with lush growth of shrubby willows. Dense willow thickets are required for nesting and roosting. | Potential to occur exists onsite; protocol level survey required |
| PRAIRIE FALCON (<i>Falco mexicanus</i>) | FSC | Nests in scrapes on sheltered ledges of a cliffs overlooking large, open areas; open terrain for foraging | Not known to occur onsite |
| AMERICAN PEREGRINE FALCON (<i>Falco peregrinus anatum</i>) | SE | Ledges of cliffs, tall buildings, occasionally in hollow trees near wetlands or open water bodies. | Not known to occur onsite |
| BALD EAGLE (<i>Haliaeetus leucocephalus</i>) | FT, SE | Requires large bodies of water, or free flowing rivers with abundant fish, and adjacent snags or other perches. Perches high in large, stoutly limbed trees, on snags or broken-topped trees, or on rocks near water. Nests in large, old-growth, or dominant live tree with open branchwork, especially ponderosa pine. | Not known to occur onsite |
| LOGGERHEAD SHRIKE (<i>Lanius ludovicianus</i>) | FSC, CSC | In lowlands and foothills. Prefers open habitat with scattered trees, shrubs, and posts. | Not known to occur onsite |
| LEWIS' WOODPECKER (<i>Melanerpes lewis</i>) | FSC | Open, deciduous and conifer habitats with brushy understory, and scattered snags for nesting. | Potential to occur exists onsite; not observed during survey |
| FLAMMULATED OWL (<i>Otus flammeolus</i>) | FSC | A common summer resident locally in a variety of coniferous habitats from ponderosa pine to red fir forests. Breeds in the North Coast and Klamath Ranges, Sierra Nevada, and in suitable habitats in mountains in southern California. Occurs in montane regions from 6000-10,000 ft elevation; prefers low to intermediate canopy closure. | Not known to occur onsite |
| WHITE HEADED WOODPECKER (<i>Picoides albolarvatus</i>) | FSC | Common, yearlong resident of montane coniferous forests up to lodgepole pine and red fir habitats; forages on live, mature conifers with deeply creviced and scaly bark; nest and roost cavities and trees provide cover. Prefers semi-open areas with large, mature trees. | Potential to occur exists onsite; not observed during survey |

| Common Name (<i>Scientific Name</i>) | Status Fed/State/ CNPS | Associated Habitats | Potential for Occurrence |
|---|-------------------------------------|--|--|
| RUFOUS HUMMINGBIRD (<i>Selasphorus rufus</i>) | FSC, CSC | Uses riparian areas, open woodlands, chaparral, mountain meadows, and other habitats rich in nectar-producing flowers, including gardens and orchards. | Potential to occur exists onsite; not observed during survey |
| CALIFORNIA SPOTTED OWL (<i>Strix occidentalis occidentalis</i>) | FSC | Resides in dense, old-growth, multi-layered mixed conifer, redwood, and Douglas-fir habitats, from sea level up to approx 7600 ft; roots in dense, multi-layered canopy cover; nests in tree or snag cavity, or in broken top of large tree; in northern California, apparently prefers narrow, steep-sided canyons with north-facing slopes | Not known to occur onsite |
| CALIFORNIA THRASHER (<i>Toxostoma redivivum</i>) | FSC, CSC | Common resident of foothills and lowlands in cismontane California; requires dense cover of chaparral or riparian thicket; nests well inside a large shrub or scrubby tree; chaparral habitat with dense canopy and openings next to ground and similar riparian thickets, especially with blackberry and wild grape | Potential to occur exists onsite; not observed during survey |
| REPTILES & AMPHIBIANS | | | |
| NORTHWESTERN POND TURTLE (<i>Clemmys marmorata marmorata</i>) | FSC, CSC | Permanent or nearly aquatic habitats by slow moving waters with abundant aquatic vegetation. | Potential to occur exists onsite; not observed during survey |
| CALIFORNIA HORNED LIZARD (<i>Phrynosoma coronatum frontale</i>) | FSC, CSC | Inhabits open country, especially sandy areas, washes, flood plains and wind-blown deposits in a wide variety of habitats. | Potential to occur exists onsite; not observed during survey |
| CALIFORNIA RED-LEGGED FROG (<i>Rana aurora draytonii</i>) | FT, CSC | Ponds and small reservoirs, but may also be found along lakeshores and in marshy areas. | Not known to occur onsite |
| FOOTHILL YELLOW-LEGGED FROG (<i>Rana boylei</i>) | FSC | Elevation range extends from sea level to 6000 ft in the Sierra. Found in or near rocky streams in a variety of habitats, including valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chaparral, and wet meadow types. | Potential to occur exists onsite; not observed during survey |

| Common Name (<i>Scientific Name</i>) | Status Fed/State/ CNPS | Associated Habitats | Potential for Occurrence |
|--|-------------------------------------|--|---------------------------------|
| INVERTEBRATES | | | |
| VALLEY ELDERBERRY LONGHORN BEETLE (<i>Desmocerus californicus dimorphus</i>) | FT, ST | Within stems of blue elderberry bushes (<i>Sambucus mexicana</i>). | Not known to occur onsite |
| SAGEHEN CREEK GORACEAN CADDISFLY (<i>Goeracea oregona</i>) | FSC | Caddisfly larvae require aquatic environments | Not known to occur onsite |

| CODE DESIGNATIONS | | |
|---|--|---|
| SE = State-listed Endangered ST = State-listed Threatened FE = Federally-listed Endangered | FT = Federally-listed Threatened FPT = Federally Proposed Threatened SPT = State Proposed Threatened FSC = Federal Species of Concern CSC = California Species of Concern | FC = Federal Candidate Species CNPS 1B = Rare or Endangered in California and Elsewhere CNPS 2 = Rare or Endangered in California, More Common Elsewhere |

- Proposed for rare, threatened, or endangered designation by state and federal governments;
- Included on the California Native Plant Society (CNPS) List as 1A, 1B, and 2 (Skinner and Pavlik, 2001);
- Plants and wildlife that meet the definitions of rare or endangered species under the California Environment Quality Act (CEQA) (State CEQA Guidelines, Section 15380).

Biological Resources

A database search of CNDDDB via Rarefind (2004) was performed and the USFWS consulted to create a list of special-status wildlife species and sensitive natural communities potentially occurring within the BSA. On 4 May 2004, a preliminary biological resource survey was conducted on accessible portions of the survey area. Jody Gallaway, wildlife biologist, and Lyna Black, environmental scientist, performed a pedestrian biological resource survey.

Botanical Resources

Prior to conducting the onsite survey, lists of sensitive plant taxa were consulted, and species potentially occurring within the BSA were identified. Maps of the site were obtained and areas of potential impact were delineated. On 4 May 2004, a pedestrian survey of the accessible portions of the site was undertaken by Mary Bailey, botanist.

Sensitive Species of Concern

Sensitive Species of Concern are those that have the potential for listing under state and/or federal ESAs if negative population trends continue. By considering them early in the planning process, problems can be avoided if listing occurs before the completion of a project.

Critical Habitat

In addition to potentially occurring special-status wildlife and plant species, we determined whether or not critical habitat occurred onsite. When USFWS lists a species as threatened or endangered under the federal Endangered Species Act (ESA), areas of habitat considered essential to its conservation and survival may be designated as *critical habitat*. These areas may require special consideration and/or protection due to their ecological importance. Although critical habitat may be designated on state or private lands, activities on them are not restricted unless there is federal involvement or direct impacts to listed species.

Sensitive Natural Communities

Under CEQA, a project that substantially adversely affects any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS, will have a significant impact on the environment. For this assessment, the term “sensitive natural community” includes those communities that, if eliminated or substantially degraded, would sustain a significant adverse impact as defined under CEQA. CDFG-designated sensitive natural communities include, but are not limited to, Great Valley Valley Oak Riparian Forest, Great Valley Cottonwood Riparian Forest, Great Valley Mixed Riparian Forest, Great Valley Willow Scrub, California valley oak woodland, and California blue oak woodland. These community-types are important as further degradation and destruction threatens populations of dependent plant and wildlife species, significantly reducing their regional distribution and viability. Loss of sensitive natural communities can also eliminate or reduce important ecological functions such as water filtration by wetlands and bank stabilization by riparian woodlands.

Natural heritage specimens include individual native trees within sensitive natural communities that are >24” diameter at breast height (dbh). As the larger, more mature members of their communities, they provide important structural habitat characteristics for dependant wildlife and account for the greatest proportion of their community’s propagation - both important to ecological sustainability.

Waters of the United States, Including Wetlands

The U.S. Army Corps of Engineers (COE) and the U.S. Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into jurisdictional waters of the United States, under Section 404 of the Clean Water Act. The term “Waters of the United States” is an encompassing term that includes “wetlands” and “Other Waters.”

Wetlands have been defined for regulatory purposes as follows: “Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.” Other Waters of the United States are seasonal or perennial water bodies, including lakes, stream channels, drainages, ponds, and other surface water features, that exhibit an ordinary high-water mark but lack positive indicators for one or more of the three wetland parameters (i.e. hydrophytic vegetation, hydric soil, and wetland hydrology) (33 CFR 328.4).

Consultation to Date

The National Oceanic and Atmospheric Administration, Fisheries Division (NOAA Fisheries) was contacted on 13 May 2004 for information regarding the potential occurrence of special-status anadromous fishes within the project area. Michael Tucker, [senior fisheries biologist](#) with NOAA Fisheries reported that both Wolf Creek and Critter Creek flow in a southerly direction to confluence with the Bear River and eventually into Camp Far West reservoir. According to Mr. Tucker this system is not an anadromous fishery and therefore, the proposed project will not impact special-status anadromous fish or their habitat.

Representatives from the County of Nevada were contacted on 13 May 2004. The county regulates impacts of development on major deer migration corridors, critical winter and summer ranges, and critical fawning areas, as well as development impacts on landmark trees, landmark groves, and heritage trees and groves through Chapter II, Article 4 of the County Zoning Regulations.

Gallaway Consulting Inc. made several attempts to contact CDFG representatives to consult on potential impacts to deer herd migration and other potential project impacts. Phone calls to CDFG were not returned upon issuance of this report.

III. Results

Environmental Setting

Habitat types found within the survey area, as defined by Mayer and Laudenslayer (1988), include ponderosa pine, montane hardwood-conifer, montane chaparral, montane riparian, wet meadow, fresh emergent wetland, urban, barren, and small components of aspen, annual grassland, and orchard-vineyard. Several perennial and seasonal streams are located within the BSA. Wolf Creek flows from north to south approximately midway through the survey area. Critter Creek, shown on topographic maps but not directly observed, flows from the northeastern portion of the survey area in a southwesterly direction to eventually meet with Wolf Creek in the southern portion of the survey area. Wetland features and riparian habitat associated with perennial and seasonal streams were located throughout the survey area (Figure 2 and 3).

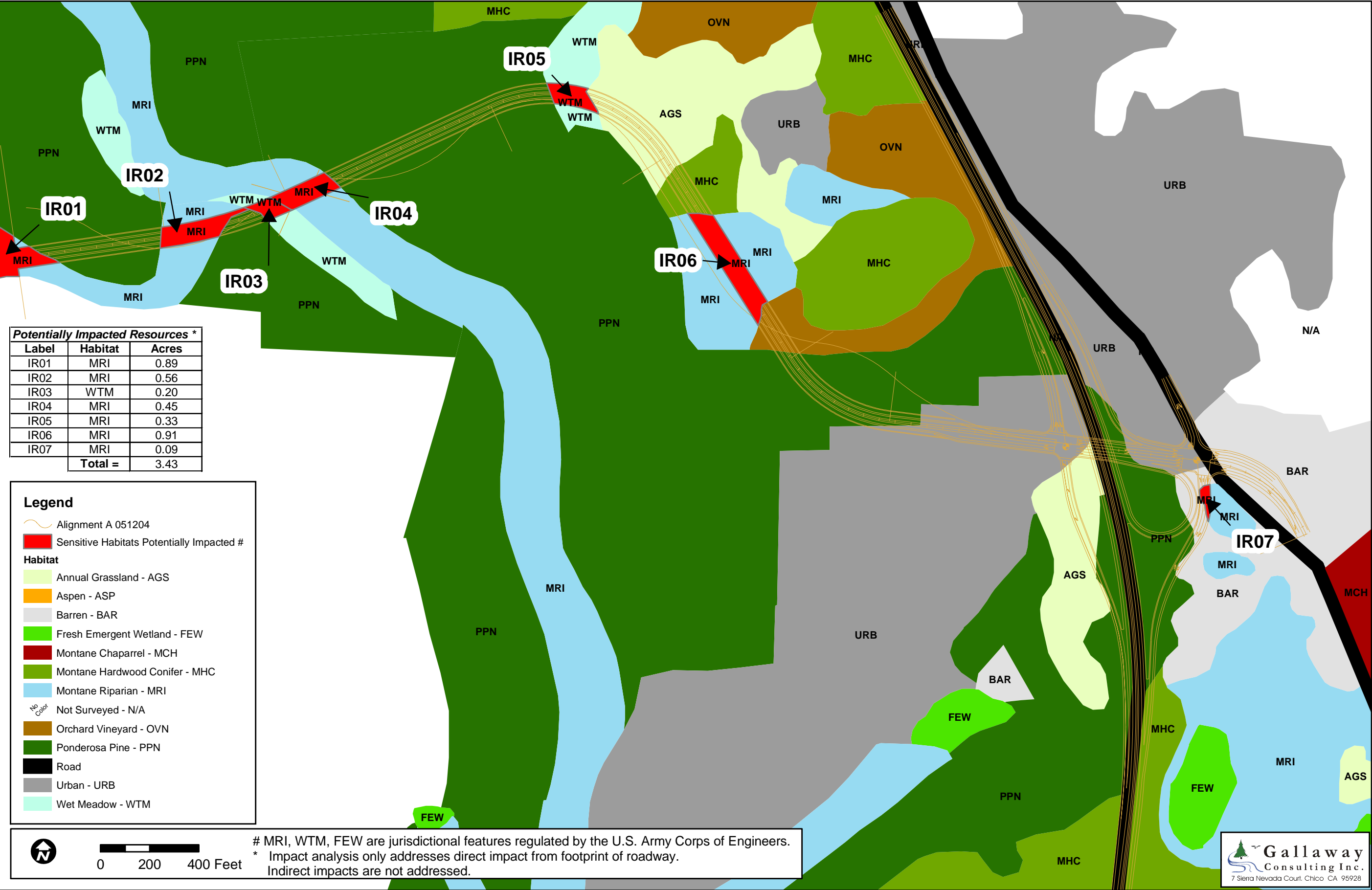


Figure 2.

| Potentially Impacted Resources * | | |
|----------------------------------|------|-------|
| Label | Type | Acres |
| IR01 | MRI | 0.37 |
| IR02 | MRI | 0.02 |
| IR03 | FEW | 0.16 |
| IR04 | MRI | 1.15 |
| Total = | | 1.70 |

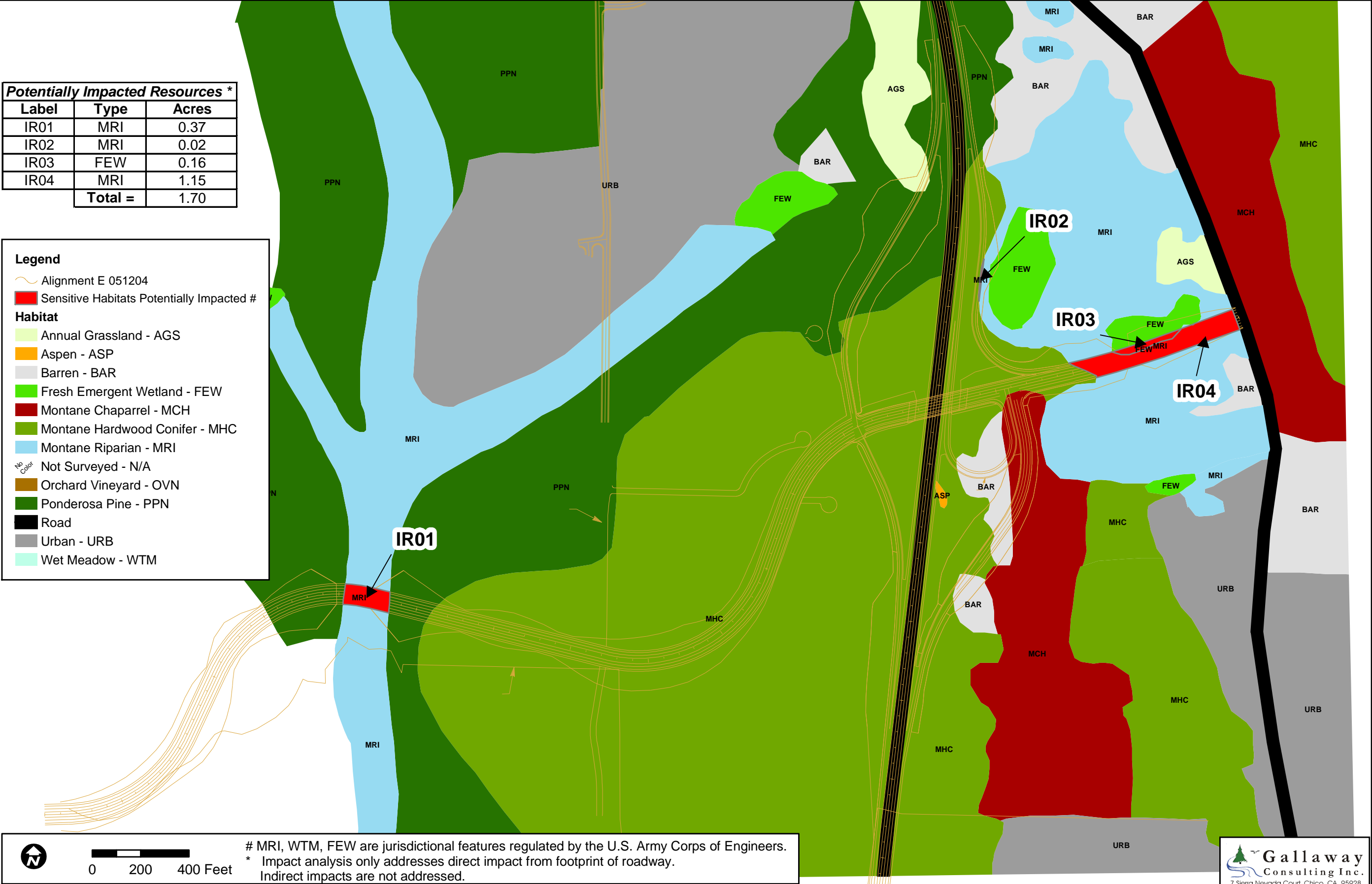
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Sensitive Habitats Potentially Impacted #

Habitat

- Annual Grassland - AGS
- Aspen - ASP
- Barren - BAR
- Fresh Emergent Wetland - FEW
- Montane Chaparrel - MCH
- Montane Hardwood Conifer - MHC
- Montane Riparian - MRI
- Not Surveyed - N/A
- Orchard Vineyard - OVN
- Ponderosa Pine - PPN
- Road
- Urban - URB
- Wet Meadow - WTM



MRI, WTM, FEW are jurisdictional features regulated by the U.S. Army Corps of Engineers.
* Impact analysis only addresses direct impact from footprint of roadway.
Indirect impacts are not addressed.

Figure 3.

A historic mine site is located west of La Barr Meadows Road and east of SR 49 in the vicinity of the southern Alternative B. In addition to barren areas, this vicinity supports a well established area of fresh emergent wetlands and montane riparian areas and appears to be a historic meander channel. The historic meander channel supports wetland habitat in the northeastern vicinity of the survey area as well. Topography is relatively flat to slightly sloping along the eastern portion of the survey area. Elevations range from approximately 2480 feet along La Barr Meadows Road in the northern vicinity of the survey area to approximately 2420 feet along SR 49. In the southeastern portion, elevations range from approximately 2420 feet along La Barr Meadows Road and slope in a westerly direction where water appears to pond for a longer duration in the vicinity of the well established fresh emergent wetlands, existing at an elevation of approximately 2340 feet. In the southeastern portion of the survey area, the fresh emergent wetland and montane riparian habitat gives way to montane chaparral as the elevation increases to approximately 2450 feet and flattens out at a ridge top to the west. An area of montane hardwood conifer exists west of the ridge top with a small area of aspen habitat located along SR 49. Elevations between SR49 and Allison Ranch Road in the southern portion of the project area range from approximately 2380 to 2240 feet. This area could not be directly viewed during the survey but, based on observations in surrounding areas, aerial photographs, and topographic maps, likely supports montane riparian, montane hardwood conifer, ponderosa pine, fresh emergent wetlands, urban and barren habitat types. The northern portion of the project area between SR49 and Allison Ranch Road ranges in elevation from 2360 to 2300 feet and supported montane riparian and wet meadow habitat along Wolf Creek and associated tributaries. Areas of ponderosa pine, montane hardwood-conifer, urban and barren habitat types were observed throughout, with small areas of annual grassland and orchard vinyard found near a farm located west of SR49.

Ponderosa pine habitat (PPN) is described by Mayer and Laudenslayer (1988) as pure stands of ponderosa pine as well as stands of mixed species in which at least 50% of the canopy area is ponderosa pine. Associated species vary depending on location in the state and site conditions. Typical tree associates include white fir incense-cedar, Coulter pine, Jeffrey pine, sugar pine, Douglas-fir, bigcone Douglas-fir, canyon live oak, California black oak, Oregon white oak, Pacific madrone and tanoak. Associated shrubs may include manzanita, ceanothus, mountain-misery, Pacific dogwood, hairy yerba-santa, yellowleaf silktassel, bitter cherry, California buckthorn, poison-oak, and Sierra gooseberry. In Northern California, ponderosa pine stands occur above coastal oak woodland, valley oak woodland, blue oak woodland, blue oak-digger pine and below mixed conifer. Montane hardwood stands may be below or interspersed with ponderosa pine.

Montane Hardwood-Conifer habitat (MHC) includes both conifers and hardwoods with at least one-third of the trees conifer and at least on-third broadleaf. The habitat often occurs in a mosaic-like pattern with small pure stands of conifers interspersed with small stands of broad-leaved trees. Relatively little understory occurs under the dense, bilayered canopy, however, considerable ground and shrub cover can occur following disturbance such as fire or logging. Common associates are ponderosa pine, Douglas-fir,

incense-cedar, California black oak, tanoak, Pacific madrone, Oregon white oak, and other localized species (Mayer and Laudenslayer, 1988).

Aspen habitats (ASP) are mature stands of quaking aspen usually having relatively open canopies, often shared with other deciduous trees and a few conifer species, typically pines. The open nature of the stands results in substantial light penetration to the ground and result in an herbaceous understory. Common associated species include willows, alders, black cottonwood, lodgepole pine, Jeffrey pine, ponderosa pine, red fir, white fir, Douglas-fir, sagebrush, roses, snowberry, western chokecherry, and western serviceberry (Mayer and Laudenslayer, 1988).

Montane Chaparral (MCH) is described by Mayer and Laudenslayer (1988) as often impenetrable to large mammals. Its structure is affected by site quality, history of disturbance and the influence of browsing animals. Montane chaparral is characterized by evergreen species; however, deciduous or partially deciduous species may also be present. Understory vegetation in the mature chaparral is largely absent. Conifer and oak trees may occur in sparse stands or as scattered individuals. Species composition changes with elevational and geographical range, soil type, and aspect. One or more of the following species usually characterize montane chaparral communities: whitethorn ceanothus, snowbrush ceanothus, Greenleaf manzanita, pinemat manzanita, hoary manzanita, bitter cherry, huckleberry oak, sierra chinkapin, juneberry, Fremont silktassel, Greene goldenweed, mountain mahogany, toyon, sumac and California buckthorn.

Montane Riparian habitat (MRI) are associated with montane lakes, ponds, seeps, bogs and meadows as well as rivers, streams and springs. Water may be permanent or ephemeral and vegetation is quite variable and structurally diverse. This habitat most commonly exists as a narrow, often dense grove of broadleaved, winter deciduous trees with a sparse understory. At high mountain elevations, trees are shorter with more shrubs in the understory and may not be as well developed or may occur in the shrub stage only. Species may include black cottonwood, aspen, white alder and thinleaf alder. Riparian habitats have an exceptionally high value for many wildlife species by providing water, thermal cover, migration corridors and diverse nesting and feeding opportunities.

Fresh Emergent Wetlands (FEW) provide food, cover, and water for more than 160 species of birds and numerous mammals, reptiles, and amphibians. They occur on virtually all exposures and slopes, provided a basin or depression is saturated or at least periodically flood. Frequency of flooding or saturation allows only vegetation with roots able to survive low oxygen levels. On the upper margins of the Fresh Emergent Wetlands, saturated or periodically flooded soils support several moist soil plant species including big leaf sedge, Baltic rush, redroot nutgrass. In the wetter areas, common species are cattails, tule bulrush, river bulrush, and arrowhead (Mayer and Laudenslayer, 1988).

Wet Meadows (WTM) are generally comprised of herbaceous plants with sparse shrub or trees occurring where water is at or near the surface for a majority of the growing season, following spring runoff. Species occurring in Wet Meadows may include thingrass,

abruptbeak sedge, beaked sedge, Nebraska sedge, tufted hairgrass, needle spikerush, few-flowered spikerush, common spikerush, Baltic rush, Nevada rush, iris-leaf rush, pullup muhly, Anderson aster, Jeffrey shooting star, trailing Saint-Johnswort, hairy pepperwort. Wildlife that may utilize this habitat type include small mammals, mule deer, elk, waterfowl, yellow-headed and red-winged blackbirds, and various frog species.

Small areas of annual grassland (AGS) are located in the vicinity of the northern alternative west of SR 49. These areas were likely historical montane chaparral or montane hardwood-conifer habitats cleared in association with homesteads. Populations of fruit trees were found in these areas and appeared to be relics from the historical homesteading as well. Annual grasslands habitats are open grasslands composed primarily of annual plant species. Fall rains cause germination of annual plant seeds. Plants grow slowly during the cool winter months, remaining low in stature until spring, when temperatures increase and stimulate more rapid growth. Large amounts of standing dead plant material can be found during summer in years of abundant rainfall and light to moderate grazing pressure. Introduced annual grasses are the dominant plant species in this habitat including wild oats, soft chess, ripgut brome, red brome, wild barley, and foxtail fescue. Wildlife species that use annual grasslands include western fence lizard, garter snake, western rattlesnake, black-tailed jackrabbit, California ground squirrel, burrowing owl, short-eared owl, horned lark, western meadowlark, northern harrier, American kestrel, and others (Mayer and Laudenslayer, 1988).

Orchard-Vineyard (OVN) is typically dominated by open single species tree habitat. Depending on the tree type and pruning methods they are usually low, bushy trees with an open understory to facilitate harvest. The understory is usually composed of low growing grasses and other herbaceous plants, but may be managed to prevent understory growth totally or partially, such as along tree rows. Orchards and vineyards can be found on flat alluvial soils in the valley floors, in rolling foothill areas, or on relatively steep slopes. Though some orchards are nonirrigated, most are irrigated by flood, drip or sprinkler methods. Wildlife may include deer, rabbits, squirrels, and various bird species (Mayer and Laudenslayer, 1988).

Urban (URB) areas are described by Mayer and Laudenslayer as developed areas with five types of vegetative structure defined as tree grove, street strip, shade tree/lawn, lawn, and shrub cover. A distinguishing feature of the urban wildlife habitat is the mixture of native and exotic species. Both native and exotic species are valuable, with exotic species providing a good source of additional food in the form of fruits and berries.

Special Status Species

Oak titmouse (*Baeolophus inornatus*), identified as a species of local concern by USFWS, were observed foraging on the property. A species of local concern does not require mitigation however, should it become listed prior to completion of the project, consultation and mitigation may be required. No additional federal or state endangered, threatened, or sensitive species were observed within the project area during the 4 May 2004 surveys. A 5-mile radius CNDDDB search identified no documented occurrences of

special-status species within the survey area; however numerous occurrences were identified in the surrounding area (Figure 4). Based on the documented occurrences of six special status species, Brandegee's clarkia (*Clarkia biloba* ssp. *brandegeae*), Stebbins's morning-glory (*Calystegia stebbinsii*), Follett's monardella (*Monardella follettii*), Scadden Flatt checkerbloom (*Sidalcea stipularis*), brownish beaked-rush (*Rhynchospora capitellata*), Pine Hill flannelbush (*Fremontodendron decumbens*), within 5-miles of the survey area, as well as suitable habitat observed within the BSA, species specific surveys will be required. Additionally, high potential for yellow-legged frog and willow flycatcher to occur onsite exists based on suitable habitat observed within the BSA. Therefore, protocol level surveys should be conducted for these species as well.

Sensitive Natural Communities

As described above, habitat types found within the survey area include ponderosa pine, montane hardwood-conifer, montane chaparral, montane riparian, wet meadow, fresh emergent wetland, urban, barren, and small components of aspen, annual grassland, and orchard-vineyard. Wetlands and riparian habitat are considered sensitive natural communities by the County of Nevada and CEQA and were identified within the survey area. A formal delineation of Waters of the United States will be required prior to construction. The other community types are not considered sensitive natural communities by CDFG or USFWS, however, the project will be required to comply with the County of Nevada environmental regulations regarding impacts to deer habitat and trees. No other sensitive natural communities identified in local or regional plans, policies, regulations, or by the CDFG or USFWS, including designated critical habitat were observed, or are expected to occur within the project area. While portions of the project area could not be accessed, based on surrounding conditions, it is likely that impacts to these resources would be roughly equivalent for both alternatives.

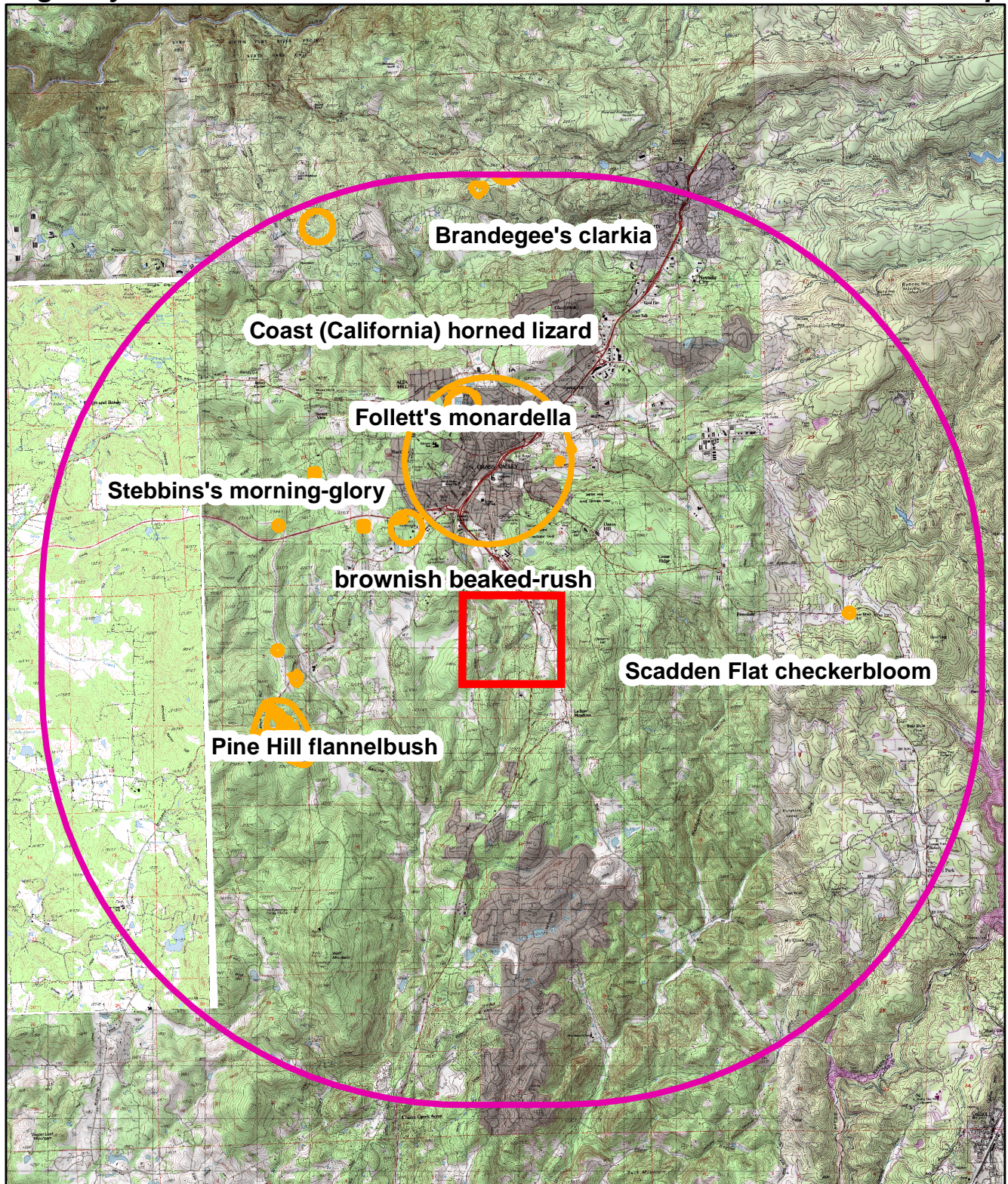
Waters of the United States, Including Wetlands

Wetlands and riparian habitat were identified within the survey area. A formal delineation of Waters of the United States will be required to determine the extent of various jurisdictional features and the nature of potential impacts to these resources. If the wetland features are found to be jurisdictional, disturbance to existing wetlands and Other Waters of the U.S. should be avoided and/or minimized to the greatest extent possible.

IV. Potential Impacts and Mitigation

Waters of the United States, Including Wetlands

While a formal delineation of Waters of the United States has not yet been completed, based on topographic maps and preliminary site surveys, it is estimated that one (1) perennial and five (5) small ephemeral or intermittent drainages for a total six (6) stream crossings will be required. Additionally, one to three (1-3) acres of seasonal wetlands will



- 5 Mile Buffer of Project Area
- Project Area
- CNDDDB Occurrences



0 1 2 Miles

Gallaway
Consulting Inc.
7 Sierra Nevada Court, Chico CA 95928

Figure 4.

be impacted as a result from completion of the proposed north alternative. Approximately two (2) stream crossings, including one (1) perennial and one (1) small ephemeral or intermittent drainage, and impacts from two-five (2-5) acres of fresh emergent and seasonal wetlands are expected for completion of the proposed south alternative. These impact estimates are for the direct footprint of the roadway and do not reflect impacts from fill slopes and indirect impacts. Should the features be verified as jurisdictional, disturbance should be avoided to the greatest extent possible through the implementation of setbacks of enough width to adequately protect the resource (50 feet from the top of each bank). Where complete avoidance is not possible, impacts should be minimized to the greatest extent practicable. Before construction occurs that may impact Waters of the U.S., the project proponent will be required to obtain a 1601 Streambed Alteration permit with CDFG, a water quality certification and construction stormwater permit from the Regional Water Quality Board (Clean Water Act, Section 401), an Army Corps of Engineers Nationwide permit (Clean Water Act, Section 404), and final approval by CDFG. These permits are contingent on successfully completing the CEQA process.

Raptors

Raptors in the orders Falconiformes (hawks, eagles, and falcons) and Strigiformes (owls) are protected in varying degrees under California Fish and Game Code, Section 3503.5, the Migratory Bird Treaty Act, as well as state and federal ESAs and CEQA. Several large trees on and adjacent to the BSA, as well as open annual grassland habitat onsite, provide suitable nesting and foraging habitat respectively for many of these species. Therefore, a pre-construction raptor survey should be conducted April-May, or prior to construction activities, to determine the presence of nesting raptors in the project area. Should nesting raptors be observed, appropriate mitigation or avoidance measures will be required per CDFG. Direct take of active nests, eggs, or birds is prohibited by CDFG and measures must be taken to minimize disturbance. While portions of the project area could not be accessed, based on surrounding conditions, it is likely that impacts to raptors would be roughly equivalent for both alternatives.

Deer Habitat and Trees

Both proposed project alternatives have the potential to impact deer habitat and trees within the survey area. The County of Nevada zoning regulations require a Biological Inventory and Management Plan for projects that will require the removal of trees and/or will impact timber resources. Important Timber Resources are defined as being contained on parcels 40 acres or larger, mapped within the Forest designation, and that have ideal soil characteristics for timber production. In the surveyable area of the project we identified several groves of blue oak (*Quercus douglasii*) that may be impacted. Blue oaks have a limited distribution in the County and are considered a sensitive species worthy of special protection. A focus survey to identify and map blue oak groves within the project area will be required. While large portions of the project area could not be

accessed, based on surrounding conditions and mapped soil types, it is likely that impacts to deer and trees would be roughly equivalent for both alternatives.

V. Regulatory Framework

The following laws and regulations were identified as possible constraints to development within the assessment area based on the identified resources. No federal or state listed plants or wildlife were identified, nor were any CNPS list 1, 2 or 4 species identified, thus a discussion of the federal and state endangered species acts are not included.

Clean Water Act, Section 404

The Corps and the U.S. Environmental Protection Agency regulate the placement of dredged or fill material into “Waters of the United States” under Section 404 of the Clean Water Act. Waters of the United States include lakes, rivers, streams, and their tributaries, and wetlands. Wetlands are defined for regulatory purposes as “areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 Code of Federal Regulations [CFR] 328.3, 40 CFR 230.3).

The Corps may issue either individual permits on a case-by-case basis or general permits on a program level. General permits are preauthorized and are issued to cover similar activities that are expected to cause only minimal adverse environmental effects. Nationwide permits (NWP) are general permits issued to cover particular fill activities. All NWPs have general conditions that must be met for the permits to apply to a particular project, as well as specific conditions that apply to each NWP.

Clean Water Act, Section 401

Section 401 of the Clean Water Act requires water quality certification and authorization of placement of dredged or fill material in wetlands and Other Waters of the United States. In accordance with Section 401 of the Clean Water Act, criteria for allowable discharges into surface waters have been developed by the State Water Resources Control Board, Division of Water Quality. The resulting requirements are used as criteria in granting NPDES permits or waivers, which are obtained through the Central Valley Regional Water Quality Control Board (CVRWQCB). Any activity or facility that will discharge waste (such as soils from construction) into surface waters, or from which waste may be discharged, must obtain an NPDES permit or waiver from the CVRWQCB. The CVRWQCB evaluates an NPDES permit application to determine whether the proposed discharge is consistent with the adopted water quality objectives of the basin plan.

California Fish and Game Code, Sections 1601-1607

Under the California Fish and Game Code, Sections 1601-1607, CDFG regulates projects that divert, obstruct, or change the natural flow or bed, channel, or bank of any river, stream, or lake. Proponents of such projects must notify DFG and enter into streambed alteration agreement with them.

Section 1601 of the California Fish and Game Code requires a state or local governmental agency or public utility to notify CDFG before it begins a construction project that will: (1) divert, obstruct, or change the natural flow or the bed, bank, channel, or bank of any river, stream, or lake; (2) use materials from a streambed; or (3) result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into any river, stream, or lake. Once the notification is filed and determined to be complete, CDFG issues a streambed alteration agreement that contains conditions for construction and operations of the proposed project.

California Fish and Game Code, Section 3503.5

Under the California Fish and Game Code, Section 3503.5, it is unlawful to take, possess, or destroy any birds in the orders Falconiformes (hawks, eagles, and falcons) or Strigiformes (owls). Take would include the disturbance of active nest that result in the abandonment or loss of young.

Migratory Bird Treaty Act

The MBTA (16 United States Code [USC] 703) enacts the provisions of treaties between the United States, Great Britain, Mexico, Japan, and the Soviet Union and authorized the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. The MBTA sets seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs (16 USC 703, 50 CFR 21, 50 CFR 10).

County of Nevada

The project will require complete compliance with CEQA and NEPA. The lead agency will conduct an environmental review, which will include a review of all studies conducted in compliance with CEQA and NEPA, and the creation and adoption of appropriate mitigation measures. The applicant will be required to conform with County of Nevada regulations protecting sensitive biological resources. Other discretionary permits issued by the County may include a grading permit.

VII. Specific Survey Requirements

Several special status species were identified as having a potential to exist within the project area. Protocol level surveys will be required for these species. Table 2 identifies the species, the appropriate survey window, and the protocol that should be utilized.

Table 2. Survey Requirement for Special-status Species and Plant Communities With a High Potential for Occurrence Within the NCTC, Crestview Drive, SR49 BSA, Nevada County, CA Project Area.

| Common Name <i>(Scientific Name)</i> | Status Fed/State/ CNPS | Survey Window | Protocol |
|--|-------------------------------------|---------------------------|--|
| STEBBINS'S MORNING-GLORY <i>(Calystegia stebbinsii)</i> | FE, SE, CNPS 1B | April through June | Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered plants and Natural Communities, Department of Fish and Game, December 9, 1983 (Revised May 8, 2000). Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants, USFWS, January 2000. Mitigation Guidelines Regarding Impacts to Rare, Threatened, and Endangered Plants, California Native Plant Society Rare Plant Scientific Advisory Committee, February 1991 (Revised April 1998). |
| BRANDEGEE'S CLARKIA <i>(Clarkia biloba ssp. brandegeae)</i> | CNPS 1B | May through July | Same as above |
| PINE HILL FLANNELBUSH <i>(Fremontodendron decumbens)</i> | FE, CNPS 1B | April through July | Same as above |
| FOLLETT'S MONARDELLA <i>(Monardella folletti)</i> | FSC, CNPS 1B | June through September | Same as above |
| BROWNISH BEAKED RUSH <i>(Rynchospora capitellata)</i> | CNPS 2 | July through August | Same as above |
| SCADDEN FLAT CHECKERBLOOM <i>(Sidalcea stipularis)</i> | FSC, SE, CNPS 1B | July through August | Same as above |
| LITTLE WILLOW FLYCATCHER <i>(Empidonax traillii brewsteri)</i> | SE | June through July | A willow flycatcher survey protocol for California. Bombay, Helen L. , Teresa M. Ritter, and Brad E. Valentine. June 6, 2000. |

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Appendix A

USFWS and CNDDB Special-status Species Lists for the
NCTC, Crestview Drive, SR 49 BSA and Surrounding Area