

4.4 Biological Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
4. BIOLOGICAL RESOURCES— Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.4.1 Setting

Regional Setting

The project sites (study area) are located in the City of Grass Valley and an unincorporated portion of western Nevada County in the heart of the northern Sierra Nevada foothills. The Sierra Nevada foothills lie between the western edge of the Sierra Nevada and the eastern border of the Central Valley. The foothills form a belt 10 to 30 miles wide that ranges from 500 to 5,000 feet in elevation in a series of northwest to north-northwest aligned ridges that decline in elevation from northeast to southwest. Many rapidly flowing rivers and streams run westerly in deeply incised canyons with bedrock controlled channels to the Central Valley and eventually to the Pacific Ocean. All but the largest streams are generally dry during the summer. Alluvial fans,

floodplains, and terraces are not extensive. Dominant vegetation communities include grasslands, oak woodlands, and chaparral.

Within the three project sites, terrain is typical of the lower Sierra Nevada foothills, varying between flat ridges and valleys to gently and moderately sloping hillsides. Site elevation ranges from approximately 2,600 to 2,800 feet above mean sea level. The project sites are located between Wolf Creek and the South Fork Wolf Creek and are dominated by mixed hardwood-conifer forests, with smaller areas of riparian woodland and scrub, chaparral, wetlands, and annual grassland.

Project Site Habitats

Wildlife habitats were classified using the California Department of Fish and Game's (CDFG) *A Guide to Wildlife Habitats* (Mayer and Laudenslayer, 1988). These habitat types are crosswalked to the California Natural Diversity Database (CNDDDB)/Holland classification system described in *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland, 1986). The CNDDDB/Holland habitat types are listed in parentheses following the name of the Wildlife Habitat Relationship habitat type. Wildlife habitats generally correspond to vegetation or plant communities (i.e., assemblages of plant species that occur together in a given area and are defined by species composition and relative abundance).

Ponderosa Pine (Westside Ponderosa Pine Forest)

Ponderosa pine habitat is found on suitable mountain and foothill sites, at elevations between 800 and 7,000 feet above mean sea level. The structure and composition of the ponderosa pine forest varies widely according to the amount of soil moisture available during the summer. Black oak and incense cedar are common associates of ponderosa pine throughout most of the Sierra Nevada, while sugar pine, Douglas-fir, and white fir are associated with ponderosa pines on moister sites and black oaks dominate on the driest sites with only a few pines and incense cedars. A variety of understory shrub species occur throughout the ponderosa pine forest, either migrating upslope from foothill communities or downslope from montane forest communities. Among the more common understory shrubs are greenleaf manzanita, buckbrush, deer brush (*Ceanothus integerrimus*), birch-leaf mountain-mahogany, bitter cherry (*Prunus emarginata*), serviceberry (*Amelanchier utahensis*), mountain misery (*Chamaebatia foliolosa*), and common rabbit brush (*Ericameria bloomeri*). These understory shrubs form dense thickets in sunnier areas, on rocky slopes, and in recently disturbed areas. Dense thickets of young incense cedars commonly dominate the understory on shadier, undisturbed sites, often to the exclusion of shrubs. Few young pines and oaks are present in such stands. In the study area, ponderosa pine forest occurs at the Round Hole site and the Idaho-Maryland site along with common associates including black oak, madrone, Douglas-fir, manzanita, ceanothus, poison-oak, toyon, and mountain misery.

Ponderosa pine is sometimes a transitional or migratory habitat for deer and can be nutritionally important in migration holding areas. A mixture of closely interspersed, early and late

successional stages provides good wildlife habitat, and deer migratory routes and holding areas are especially important in riparian zones. In addition to deer, this habitat supports western toad (*Bufo boreas*), Pacific tree frog (*Hyla regilla*), western fence lizard (*Sceloporus occidentalis*), gilbert's skink (*Eumeces gilberti*), western whiptail (*Cnemidophorus tigris*), gopher snake (*Pituophis melanoleucus*), garter snakes (*Thamnophis* spp.), western rattlesnake (*Crotalus viridis*), Steller's jay (*Cyanocitta stelleri*), dark-eyed junco (*Junco hyemalis*), mountain chickadee (*Parus gambeli*), red-tailed hawk (*Buteo jamaicensis*), sharp-shinned hawk (*Accipiter striatus*), belted kingfisher (*Megacerle alcyon*), northern flicker (*Colaptes auratus*), acorn woodpecker (*Melanerpes formicivorus*), Brewer's blackbird (*Euphagus cyanocephalus*), California ground squirrel (*Citellus beecheyi*), chipmunks (*Eutamias* spp.), gray squirrel (*Sciurus griseus*), northern flying squirrel (*Glaucomys sabrinus*), pocket gophers (*Thomomys* spp.), deer mouse (*Peromyscus maniculatus*), porcupine (*Erethizon dorsatum*), gray fox (*Urocyon cinereoargenteus*), coyote (*Canis latrans*), black bear (*Ursus americanus*), raccoon (*Procyon lotor*), spotted skunk (*Spilogale putorius*), striped skunk (*Mephitis mephitis*), mountain lion (*Felis concolor*), and bobcat (*Lynx rufus*), among others, including numerous migratory birds.

Montane Hardwood-Conifer (Mixed Evergreen Forest)

Montane hardwood-conifer habitat in the Sierra Nevada occurs at elevations between 1,000 and 4,000 feet above mean sea level and is comprised of both conifer and hardwood (broad-leaved) tree species, often in a mosaic pattern with small pure stands of conifers interspersed with small stands of hardwoods. Typically, conifers form the upper canopy and hardwoods comprise the lower canopy. Most of the broadleaved trees are evergreen, but winter-deciduous species also occur. Species commonly found in association with montane hardwood-conifer habitats include ponderosa pine, Douglas-fir, incense-cedar, California black oak, bigleaf maple, white alder, mountain dogwood (*Cornus nuttallii*), black cottonwood (*Populus balsamifera* var. *trichocarpa*), canyon live oak, Jeffrey pine, and sugar pine. This habitat type is found on all three project sites within the study area and supports ponderosa pine, Douglas-fir, California black oak, and incense cedar, with manzanitas, ceanothus, madrone, blackberry, poison-oak, and snowberry in the shrub layer.

Birds and mammals commonly found in montane hardwood-conifer habitats include acorn (mast) disseminators, such as western scrub and Steller's jay, acorn woodpecker, and western gray squirrel, and consumers, such as wild turkey (*Meleagris gallopavo*), mountain quail (*Oreortyx picta*), band-tailed pigeon (*Columba fasciata*), California ground squirrel, dusky-footed woodrat (*Neotoma fuscipes*), black bear, and mule deer (*Cervus canadensis*). Deer also browse the foliage of several hardwoods to a moderate extent. Several amphibians and reptiles can also be found on the forest floor in the montane hardwood habitat, including the Mount Lyell salamander (*Hydromantes platycephalus*), Ensatina species, relictual slender salamander (*Batrachoseps relictus*), western fence lizard, and sagebrush lizard (*Sceloporus graciosus*). Snakes include rubber boa (*Charina bottae*), western rattlesnake, California mountain kingsnake (*Lampropeltis getula californiae*), and sharp-tailed snake (*Contia tenuis*).

Montane Hardwood (Black Oak Woodland/Black Oak Forest)

Montane hardwood habitats are composed of a dominant hardwood tree overstory with an infrequent and poorly developed shrub understory and a sparse, herbaceous ground cover. Where trees are closely spaced, crowns may close, but seldom overlap. Tree heights tend to be uniform at most ages in mature stands where hardwoods occur, but subordinate to conifers. Snags and downed woody material generally are sparse throughout the montane hardwood habitat.

In the Sierra Nevada, steep, rocky south-facing slopes along major river canyons often are dominated by canyon live oak (*Quercus chrysolepis*) and scattered, old growth Douglas-fir (*Pseudotsuga menziesii*). At higher elevations, canyon live oak is scattered in the overstory among ponderosa pine (*Pinus ponderosa*), sugar pine (*Pinus lambertiana*), incense cedar (*Libocedrus decurrens*), California white fir (*Abies concolor*), and Jeffrey pine (*Pinus jefferyi*). Middle elevation associates include Douglas fir, tanoak (*Lithocarpus densiflorus*), and California black oak (*Quercus kelloggii*). Knobcone pine (*Pinus attenuata*), foothill pine, and Oregon white oak (*Quercus garryana*) are abundant at lower elevations. Understory vegetation consists mostly of scattered woody shrubs (manzanita, birch-leaf mountain-mahogany, poison oak) and a few grasses and forbs. Additional associated species include white alder (*Alnus rhombifolia*), bigleaf maple (*Acer macrophyllum*), valley oak, blue oak, coffeeberry, Oregon grape (*Berberis aquifolium* var. *aquifolium*), wood rose (*Rosa gymnocarpa*), snowberry (*Symphoricarpos* spp.), gooseberry, and ceanothus. In the study area, montane hardwood occurs on the Idaho-Maryland site and the Round Hole site, and supports tanoak, canyon live oak, black oak, Douglas-fir, and foothill pine.

Mature montane hardwood forests are valuable to cavity nesting birds. Nuts and berries of the various trees and shrubs are also an important food source for many birds and mammals found in this habitat. Canopy cover and understory vegetation can be variable which makes the habitat suitable for numerous species. In mesic areas, many amphibians are found in the detrital layer. Because montane hardwood habitats support similar wildlife species as montane hardwood-conifer habitats, a more detailed description of wildlife species found in this habitat type can be found in the montane hardwood-conifer forest section above.

Mixed Chaparral (Mesic North Slope Chaparral/Serpentine Chaparral)

Mixed chaparral habitats in California are highly variable in species composition and plant/animal associations, but are generally characterized by evergreen species with a component of deciduous or partially deciduous species. This habitat is a structurally homogeneous brushland type dominated by shrubs with thick, stiff, heavily cutinized evergreen leaves. Mixed chaparral is floristically rich and supports approximately 240 species of woody plants. In mature chaparral, understory vegetation is generally absent or patchily scattered in openings and grasses are normally present only following fires. The germination of grasses and forbs is inhibited by failure to compete successfully for light, moisture, and nutrients, as well as by the presence of plant toxins in the soil. The species composition of mixed chaparral, as well as shrub height and crown cover, varies considerably with age since last burn, precipitation regime, aspect, and soil type. Occasional conifers and oak trees can occur in thin stands or as scattered individuals within chaparral. When mature, vegetation can be so dense that it is often impenetrable to large mammals.

Species commonly found in mixed chaparral in the Sierra Nevada include several species of ceanothus (*Ceanothus* spp.) and manzanita (*Arctostaphylos* spp.), as well as scrub oak (*Quercus berberidifolia*), chaparral oak, huckleberry oak (*Quercus vaccinifolia*), chamies, toyon (*Heteromeles arbutifolia*), birchleaf mountain mahogany (*Cercocarpus betuloides* var. *betuloides*), silk-tassel, yerba-santa, California coffeeberry (*Rhamnus californica*), California buckeye, poison-oak, sumac, California buckthorn, hollyleaf cherry, bitter cherry (*Prunus emarginata*), and Montana chaparral pea. Incense-cedar, knobcone pine, Coulter pine, and foothill pine are frequent tree associates. Many stands, especially those on the hottest, driest slopes, are often monotypic. Other stands may be dominated by one or more species of manzanita or ceanothus. On moister slopes, stands dominated by scrub oak and a shrubby form of interior live oak (*Quercus wislizeni*) may contain a greater variety of species, including birch-leaf mountain-mahogany, flowering ash (*Fraxinus dipetala*), toyon, chaparral honeysuckle, western redbud (*Cercocarpus occidentalis*), and poison oak (*Toxicodendron diversilobum*). Mixed chaparral in the study area is limited to the Idaho-Maryland site and occurs in association with serpentine and gabbro soils and is characterized mainly by manzanitas (*Arctostaphylos* spp.) and ceanothus (*Ceanothus* spp.), with coyote brush (*Baccharis pilularis*), yerba santa (*Eriodictyon californicum*), chaparral honeysuckle (*Lonicera interrupta*), hoary coffeeberry (*Rhamnus tomentella*), scrub oak, California juniper (*Juniperus californica*), and silk tassel bush (*Garrya* sp.) as associates.

Mixed chaparral provides habitat for a wide variety of wildlife including deer, rodents, and some birds. Mixed chaparral provides critical deer summer range foraging habitat, escape cover and fawning habitat. Fawning areas are frequently found where the chaparral is in close association or proximity to grasslands or meadow-riparian habitat. Some small herbivores, such as rabbits and hares, will browse twigs, evergreen leaves and bark from chaparral species in fall and winter when grasses are not in abundance. Shrubs also provide cover during hot weather, and protection from high winds and rain in winter. Many bird species feed on seeds, fruits, and insects in montane chaparral, which also provides protection from predators and harsh climate and preferred nesting and roosting sites for some species.

Montane Riparian (Montane Riparian Woodland/Montane Riparian Scrub)

The vegetation of montane riparian habitats is quite variable and often structurally diverse. Usually, montane riparian occurs as a narrow, often dense grove of broad-leaved, winter deciduous trees with a sparse understory. In the Sierra Nevada, characteristic species include Fremont cottonwood, white alder, thinleaf alder, aspen, dogwood, wild azalea, and willows.

A structurally diverse and variable mixture of species, including the dominant species from the neighboring habitat types, typically dominates riparian habitats in the study area. In general, oaks and pines become less frequent, while cottonwood and willows increase in number. Other common trees and shrubs were mountain dogwood, white alder, bigleaf maple, California blackberry (*Rubus ursinus*), poison oak, and California wild grape (*Vitis californica*). In the study area, montane riparian occurs at the Round Hole site and the Idaho-Maryland site.

Riparian habitats are extremely valuable for an abundance of wildlife, providing food, water, migration and dispersal corridors, and escape, nesting, and thermal cover for numerous species. The shape of many riparian zones, particularly the linear nature of streams, maximizes the development of edge which is so highly productive for wildlife. The range of wildlife that uses montane riparian habitat for food, cover and reproduction include amphibians, reptiles, birds and mammals.

Wet Meadow (Montane Meadow)

Wet meadows at all elevations generally have a simple structure consisting of a layer of herbaceous plants. Shrub or tree layers are usually absent or very sparse; however, they may be an important feature of the meadow edge. Within the herbaceous plant community a microstructure is frequently present. Wet meadows occur with a great variety of plant species; therefore, it is not possible to generalize species composition. Species may differ, but several genera are common to wet meadows throughout California. These species include *Agrostis*, *Carex*, *Danthonia*, *Juncus*, *Salix*, and *Scirpus*. In the study area this habitat type occurs on the Idaho-Maryland site and the New Brunswick site and is characterized mainly by *Juncus* and *Salix* species.

In late summer, small mammals may visit wet meadows that have dried. However, meadows are generally too wet to provide suitable habitat for small mammals. Mule deer and elk may feed in wet meadows, seeking especially forbs and palatable grasses. Waterfowl, especially mallard ducks, frequent streams flowing through wet meadows. Yellow-headed (*Xanthocephalus xanthocephalus*) and red-winged (*Agelaius phoeniceus*) blackbirds occasionally nest in wet meadows with tall vegetation and with adequate water to discourage predators. The striped racer (*Masticophis lateralis*) is the common snake of wet meadows in the Sierra Nevada. Various frog species are abundant in wet meadows throughout California.

Fresh Emergent Wetland (Montane Freshwater Marsh)

Fresh emergent wetlands are characterized by erect, rooted herbaceous hydrophytes. Dominant vegetation is generally perennial monocots. All emergent wetlands are flooded frequently enough so that the roots of the vegetation prosper in an anaerobic environment. Fresh emergent wetland habitats may occur in association with terrestrial habitats or aquatic habitats. In the study area this habitat type occurs on the Idaho-Maryland site and is characterized mainly by cattail (*Typha* sp.), willows, and *Juncus*.

Fresh emergent wetlands are among the most productive wildlife habitats in California. They provide food, cover, and water for more than 160 species of birds, and numerous mammals, reptiles, and amphibians. Many species rely on fresh emergent wetlands for their entire life cycle.

Annual Grassland (Non-native Grassland)

Annual grassland habitats are open grasslands composed primarily of annual plant species. Many of these species also occur as understory plants in woodlands and other habitats. Structure in annual grassland depends largely on weather patterns. Dramatic differences in physiognomy, both

between seasons and between years, are characteristic of this habitat. 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. Introduced annual grasses are the dominant plant species in this habitat. These include wild oats, soft chess, ripgut brome, red brome, wild barley, and foxtail fescue. Common forbs include broadleaf filaree, redstem filaree, turkey mullein, true clovers, bur clover, lupines, and many others. Perennial grasses include purple needlegrass and Idaho fescue.

Annual grasslands in the study area are composed primarily of barren areas as well as non-native, annual plant species and are more accurately considered ruderal or disturbed areas. Both the Idaho-Maryland site and the New Brunswick site contain annual grasses, including wild oats (*Avena* spp.), soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), wild barley (*Hordeum* spp.), and bluegrass (*Poa* spp.). Common forbs including yellow star thistle (*Centaurea solstitialis*) and field hedge parsley (*Torilis arvensis*) dominate the annual grasslands in the study area.

Annual grasslands in the Sierra Nevada provide foraging habitat for many wildlife species, including mammals such as the black-tailed jackrabbit (*Lepus californicus*), California ground squirrel, valley pocket gopher (*Thomomys bottae*), western harvest mouse (*Reithrodontomys megalotius*), mule deer, badger (*Taxidea taxus*), gray fox, bobcat, and coyote, and bird species such as turkey vulture (*Cathartes aura*), red-tailed hawk, great horned owl (*Bubo virginianus*), white-tailed kite (*Elanus leucurus*), northern harrier (*Circus cyaneus*), American kestrel (*Falco sparverius*), northern flicker, and red-winged blackbird. Birds known to breed in annual grasslands include killdeer (*Charadrius vociferous*), mourning dove (*Zenaida macroura*), burrowing owl (*Athene cunicularia*), short-eared owl (*Asio flammeus*), horned lark (*Eremophila alpestris*), and western meadowlark (*Sturnella neglecta*). Annual grasslands also provide important foraging habitat for amphibians and reptiles that occupy annual grassland habitats, such as the western toad, western fence lizard, garter snakes (*Thamnophis* spp.), western rattlesnake, and southern alligator lizard (*Gerrhonotus multicarinatus*). The relative lack of habitat diversity within annual grasslands limits the numbers of wildlife species able to utilize this community.

Riverine

Riverine habitats are distinguished by intermittent or continually running water, and often occur in association with a variety of terrestrial habitats. The various creeks and streams with intermittent or continually running water within the study area are considered riverine habitat. Biological components of the riverine ecosystem include aquatic invertebrates, vegetation, mammals, birds, and fish. Typical species include mayfly nymphs (*Ephemeroptera*), caddisflies (*Trichoptera*), alderflies (*Megaloptera*), stoneflies (*Plecoptera*), river otter (*Lutra canadensis*), beaver (*Castor canadensis*), raccoon, American dipper (*Cinclus mexicanus*), spotted sandpiper (*Actitis macularia*), belted kingfisher (*Ceryle alcyon*), rainbow trout (*Oncorhynchus mykiss*), brown trout (*Salmo trutta*), riffle sculpin (*Cottus gulosus*), and Sacramento sucker (*Catostomus occidentalis*).

In the study area, riverine habitat occurs on or downstream of the Idaho-Maryland site (i.e., Wolf Creek) and the New Brunswick site (i.e., South Fork Wolf Creek). This habitat consists of stream channels which likely support aquatic invertebrates and fish as well as providing a source of water for numerous mammals, birds, amphibians, and reptiles.

Wetlands and Other Waters of the U.S.

Wetlands are ecologically complex habitats that support a variety of both plant and animal life. The federal government defines wetlands in Section 404 of the Clean Water Act as “areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support (and do support, under normal circumstances) a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3[b] and 40 CFR 230.3). Under normal circumstances, the federal definition of wetlands requires three wetland identification parameters be present: wetland hydrology, hydric soils, and hydrophytic vegetation. Examples of wetlands include freshwater marsh, seasonal wetlands, and vernal pool complexes that have a hydrologic link to other waters of the U.S (see definition below for “other waters of the U.S.”). The U.S. Army Corps of Engineers (Corps) is the responsible agency for regulating wetlands under Section 404 of the Clean Water Act, while the U.S. Environmental Protection Agency (U.S. EPA) has overall responsibility for the Act. The California Department of Fish and Game (CDFG) does not normally have direct jurisdiction over wetlands unless they are subject to jurisdiction under a Streambed Alteration Agreement or they support state-listed endangered species; however, CDFG has trust responsibility for wildlife and habitats pursuant to California law.

“Other waters of the U.S.” refers to those hydric features that are regulated by the Clean Water Act but are not wetlands (33 CFR 328.4). To be considered jurisdictional, these features must exhibit a defined bed and bank and an ordinary high-water mark. Examples of other waters of the U.S. include rivers, creeks, intermittent and ephemeral channels, ponds, and lakes.

A formal wetland delineation was conducted for the study area by MACTEC Engineering & Consulting, Inc. (MACTEC, 2004b). This delineation has not been submitted for verification to the Corps. All conclusions presented should be considered preliminary and subject to change pending official review and verification in writing by the Corps. Based on the MACTEC wetland delineation, approximately 0.02 acres of potentially jurisdictional wetlands were identified on the Round Hole site, and approximately 180 linear feet of potentially jurisdictional “Waters of the U.S.” were identified on the New Brunswick site.

4.4.2 Regulatory Context

Federal

U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service (USFWS) administers the Migratory Bird Treaty Act (16 USC Section 703-711), the Bald and Golden Eagle Protection Act (16 USC Section 668), and the federal Endangered Species Act (ESA, 16 USC Section 153 *et seq*). Projects that would result in

adverse effects on any federally-listed threatened or endangered species are required to consult with and mitigate through consultation with the USFWS. This consultation can be pursuant to either Section 7 or Section 10 of the ESA, depending on the involvement by the federal government.

U.S. Army Corps of Engineers

The Corps regulates activities in wetlands and “other waters of the U.S.” through the Clean Water Act. Wetlands are a subset of “waters of the U.S.” and receive protection under Section 404 of the Clean Water Act. The term *waters of the United States* is defined in the Code of Federal Regulations (33 CFR 328.3[a]; 40 CFR 230.3[s]).

State

California Department of Fish and Game

The CDFG administers a number of laws and programs designed to protect fish and wildlife resources. Principal of these is the California Endangered Species Act of 1984 (CESA, Fish and Game Code Section 2050 et seq.), which regulates the listing and “take” of California endangered (CE) and threatened species (CT). A “take” of such a species may be permitted by CDFG through issuance of permits pursuant to Fish and Game Code section 2081.

Prior to enactment of the CESA, the designation of “Fully Protected” was used by CDFG to identify species that had been given special protection by the California Legislature by a series of statutes in the California Fish and Game Code. (See §§ 3503.5, 3505, 3511, 3513, 4700, 4800, 5050, 5515.) Many fully-protected species have also been listed as threatened or endangered species under the more recent endangered species laws and regulations; however, the original statutes have not been repealed, and the legal protection they give the species identified within them remains in place. Fully Protected species may not be taken or possessed at any time; and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock. Because endangered or threatened species can be “taken” for development purposes with the issuance of a permit by CDFG, “fully protected species” actually enjoy a greater level of legal protection than “listed” species.

CDFG maintains lists for Candidate-Endangered Species (SCE) and Candidate-Threatened Species (SCT). California candidate species are afforded the same level of protection as listed species. California also designates Species of Special Concern (CSC) which are species of limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. These species do not have the same legal protection as listed species or fully protected species, but may be added to official lists in the future. The CSC list is intended by CDFG as a management tool for consideration in future land use decisions. Fish and Game Code includes provisions for the protection of the nests of particular types of birds, including birds of prey (Section 3503.5).

The state's authority in regulating activities in "waters of the U.S." resides primarily with the CDFG and the State Water Resources Control Board (SWRCB). CDFG provides comments on Corps permit actions under the Fish and Wildlife Coordination Act. CDFG is also authorized under the California Fish and Game Code Sections 1600–1616 to develop mitigation measures and enter into Streambed Alteration Agreements with applicants who propose projects that would obstruct the flow of, or alter the bed, channel, or bank of a river or stream in which there is a fish or wildlife resource, including intermittent and ephemeral streams. The SWRCB, acting through the Regional Water Quality Control Board (RWQCB), must certify that a Corps permit action meets state water quality objectives (Section 401, Clean Water Act).

CEQA Oak Woodlands Conservation Law

Effective January 1, 2005, Senate Bill 1334 established Public Resources Code Section 21083.4, the state's first oak woodlands conservation standards for CEQA. This new law creates two requirements for counties (it does not apply to other public agencies). Counties must determine whether or not a project may result in a conversion of oak woodlands that will have a significant effect. Second, if there may be a significant effect, they must employ one or more of the following mitigation measures:

- Conserving oaks through the use of conservation easements;
- Planting and maintaining an appropriate number of trees either onsite or in restoration of a former oak woodlands (tree planting is limited to half the mitigation requirement);
- Contributing funds to the Oak Woodlands Conservation Fund for the purpose of purchasing conservation easements; or
- Other mitigation measures developed by the county.

Local

Nevada County General Plan¹

The Nevada County General Plan includes the following objectives and policies designed to identify and manage significant areas within the County to achieve sustainable habitat that would be applicable to the proposed project:

- Objective 13.1: Discourage intrusion and encroachment by incompatible land uses in significant and sensitive habitats.
- Objective 13.2: Minimize impacts to corridors to ensure movement of wildlife); 13.3 (provide for the integrity and continuity of wildlife environments.
- Objective 13.6: Discourage significant adverse environmental impacts of land development, agricultural, forest and mining activities on important and sensitive habitats.

¹ Under the proposed project, Nevada County plans and policies would only apply to the New Brunswick site, which would not be annexed into the City of Grass Valley as part of this proposed project.

- Objective 13.7: Identify and preserve heritage and landmark trees and groves where appropriate.
- Objective 13.8: Minimize removal or disturbance of low elevation oak habitat.
- Policy 13.2A: Project review standards shall require site-specific biological inventories to determine presence of special-status species or habitat that might be affected by the project.
- Policy 13.2B: Projects with potential to remove more than one acre of natural riparian or wetland habitat will not be permitted, unless project meets specific requirements.
- Policy 13.4A: No net loss of habitat function or value shall be caused by development when rare or endangered species or wetlands are present.
- Policy 13.4B: Mitigation habitats shall be monitored and maintained in accordance with a County-approved Habitat Management Plan.
- Policy 13.4H: Non-development buffers shall be maintained adjacent to perennial stream corridors, buffers shall be of sufficient size to protect stream corridor as well as provide some adjacent upland habitat for foraging.
- Policy 13.9: Development in the vicinity of significant oak groves shall be designed and sited to maximize the long-term preservation of the grove and natural setting.

(Nevada County, 1996).

Nevada County Tree Preservation and Protection Ordinance

Section L-II 4.3.15 of the County of Nevada Zoning Regulations recognizes the importance of heritage and landmark trees and groves and their importance in providing habitat to native wildlife. The County has therefore determined that reasonable regulation of the removal of certain trees is necessary. If projects require the removal or disturbance of heritage or landmark trees, then a Management Plan must be prepared to evaluate the impacts of the project on these trees and recommend modifications that would avoid or minimize these impacts. The Ordinance requires mitigation for the removal of each tree through either replacement plantings or payment into the County Tree Preservation Fund. The Management Plan must also provide for long-term maintenance of the replacement trees. For all protected trees (during and after construction), a Tree Protection Plan must be prepared to assure that trees are adequately protected during construction as well as maintained long-term (Nevada County, 2005).

City of Grass Valley General Plan

The City of Grass Valley General Plan includes the following goals and policies designed to identify and manage natural resources to prevent waste, destruction, or neglect that would be applicable to the proposed project:

- Goal 1-COSG: Provide a balance between development and the natural environment, protecting and properly utilizing Grass Valley's sensitive environmental areas/features, natural resources and open space lands.

- Goal 2-COSG: Protect, enhance and restore hydrologic features, including stream corridors, flood plains, wetlands, and riparian zones.
- Goal 3-COSG: Ensure the protection of Grass Valley's trees and forested areas.
- Policy 5-COSP: Carefully regulate development on steep slopes.
- Policy 6-COSP: Prevent excessive alteration of the natural topography.
- Policy 12-COSP: Enhance the City's tree ordinance addressing tree maintenance and protection both within new developments and elsewhere in the City.
- Policy 13-COSP: Assist property owners wishing to preserve and protect heritage trees and significant groves.

(City of Grass Valley, 1999).

City of Grass Valley Tree Preservation and Protection Ordinance

Chapter 12.36 of the City of Grass Valley Municipal Code recognizes the importance of trees to the character and beauty of Grass Valley as well as the role that trees have in advancing the public health, safety, and welfare of its residents. The City has therefore determined that reasonable regulation of the removal of certain trees is necessary. A Construction Related Tree Removal Permit is required for any trees approved for removal. If trees are to be protected, a Tree Protection Plan must be submitted.

The Ordinance states that a project applicant may be required to provide mitigation for any tree approved for removal. The mitigation requirement must be satisfied by one or more of the following: (A) replanting either a minimum one and one-half-inch caliper healthy and well-branched deciduous tree or a five to six foot tall evergreen tree on-site for each tree removed; (B) if the City determines that there is insufficient available space on-site, replanting off-site on other property in the applicant's ownership or control within the City, in an open space tract, or in a city-owned or dedicated open space or park; or (C) if the City determines no feasible alternative exists to plant the required mitigation, payment of in lieu fees into the tree account (City of Grass Valley, 2005).

Special-Status Species

Definitions of Special-Status Species

Special-status species are plants and animals that are legally protected under state and federal ESAs or other regulations and species that are considered sufficiently rare by the scientific community to qualify for such listing. These species are in the following categories:

- Plants or animals listed or proposed for listing as threatened or endangered under the federal ESA (50 Code of Federal regulations [CFR] 17.12 [listed plants], 17.11 [listed animals] and various notices in the Federal Register [FR] [proposed species]).

- Plants or animals that are candidates for possible future listing as threatened or endangered under the federal ESA (61 FR 40, February 28, 1996);
- Plants or animals designated as “special concern” by Region 1 of the USFWS;
- Plants or animals listed or proposed for listing by the State of California as threatened or endangered under the California ESA (14 California Code of Regulations [CCR] 670.5);
- Plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.);
- Plants that meet the definitions of rare and endangered under CEQA (State CEQA Guidelines, Section 15380);
- Plants considered under the California Native Plant Society (CNPS) to be “rare, threatened or endangered in California” (Lists 1A, 1B, and 2 in CNPS 2001);
- Plants listed by CNPS as plants about which more information is needed to determine their status and plants of limited distribution (Lists 3 and 4 in CNPS 2001), which may be included as special-status species on the basis of local significance or recent biological information;
- Animal species of special concern to CDFG; and
- Animals fully protected in California (California Fish and Game Code, Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).

Potentially Affected Listed and Proposed Species

A list of special-status plant and animal species that have the potential to occur within the vicinity of the study area was compiled based on data in CNDDDB (CDFG, 2006), California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS, 2006), and the USFWS List of Federal Endangered and Threatened Species that may be Affected by Projects in the Grass Valley, CA 7.5 Minute quadrangle (USFWS, 2006). **Table 4.4-1** lists special-status plants and animals with the potential to occur within the project site. The study area habitats have not been evaluated to determine the potential for these species to occur on the project sites.

4.4.3 Impacts Discussion

Methods

This evaluation of biological resources included a review of vegetation and wildlife habitat, special-status species, and jurisdictional “waters of the United States” that occur or potentially could occur at or in the vicinity of the Project Area. The effort to identify potential impacts to biological resources in the project area included a data search, review of existing documents and reference materials, and a field survey.

A data search was conducted in February 2006 by an ESA staff biologist to ascertain the list of special status species (i.e., plants, animals, amphibians, etc.) that could potentially be impacted by

**TABLE 4.4-1
SPECIAL-STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT AREA**

Scientific Name Common Name	Listing Status: Federal/State/ CNPS	General Habitat
Plants		
<i>Calystegia stebbinsii</i> Stebbin's morning glory	FE/SE/1B	Rhizomatous herb that grows in open areas of chaparral and cismontane woodland. Grows on red clay soils (gabbroic or serpentine substrate) of the Pine Hill Formation at elevations 185-730 meter (m). Blooms April-July.
<i>Chlorogalum grandiflorum</i> Red Hills soaproot	FSC/--/1B	Bulbiferous herb growing in chaparral, cismontane woodland, coniferous forests on serpentinite or gabbroic substrates. At elevations 245-1170 m. Blooms May-June.
<i>Clarkia biloba</i> ssp. <i>Brandegeeae</i> Brandegee's clarkia	FSLC/--/1B	Annual herb that occurs in chaparral and cismontane woodland, often in roadcuts, at elevations 225-915 m. Blooms May-July.
<i>Didymodon norrisii</i> Norris's beard-moss	--/--/2	Found in cismontane woodland, lower montane coniferous forest, and/or intermittently mesic rock.
<i>Fremontodendron decumbens</i> Pine Hill flannelbush	FE/SR/1B	Grows on rocky ridges, often among rocks and boulders, in chaparral and cismontane woodland. Species is a gabbro or serpentine endemic. 420-685m.
<i>Fritillaria eastwoodiae</i> Butte County fritillary	FSC/--/3	Bulbiferous herb that grows in chaparral, cismontane woodland, and lower montane coniferous forest. Usually found on dry slopes but also found in wet places. Soil can be serpentine, red clay, or sandy loam. Occurs at elevations 40-1500m. Blooms March-May.
<i>Juncus marginatus</i> var. <i>marginatus</i> Red-anthered rush	--/--/2	In marshes in California; in Arizona, known from along streams. 750-1370m.
<i>Lewisia cantelovii</i> Cantelow's lewisia	FSC/--/1B	Mesic rock outcrops and wet cliffs, usually in moss or clubmoss, in broadleaved upland forest, lower montane coniferous forest, cismontane woodland, and chaparral. On granitic or sometimes serpentine soils. 330-1340m.
<i>Monardella follettii</i> Follett's monardella	FSLC/--/1B	Open rocky serpentine slopes in lower montane coniferous forests. 600-2000m.
<i>Plagiobothrys glyptocarpus</i> var. <i>modestus</i> Cedar Crest popcorn-flower	FSC/--/3	Cismontane woodland. One historical site known at 870m.
<i>Rhynchospora capitellata</i> Brownish beaked-rush	--/--/2	Perennial herb occurring under wet conditions in coastal and salt-marsh habitats; coastal salt marsh, and upper and lower montane coniferous forests. Found at 455-2000 m. Blooms July-Aug.
<i>Sidalcea stipularis</i> Scadden Flat checkerbloom	--/SE/1B	Wet montane marshes fed by springs. 700-740m.

TABLE 4.4-1 (Continued)
SPECIAL-STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT AREA

Scientific Name Common Name	Listing Status: Federal/State/ CNPS	General Habitat
Amphibians		
<i>Rana boylei</i> Foothill yellow-legged frog	FSC/CSC/--	Breeds in shaded stream habitats with rocky, cobble substrate, usually below 6,000 feet in elevation. Absent or infrequent when introduced predators are present.
Reptiles		
<i>Emys (=Clemmys) marmorata</i> Western pond turtle	FSC/CSC/--	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites and suitable upland habitat for egg-laying. Nest sites most often characterized as having gentle slopes (<15%) with little vegetation or sandy banks.
<i>Phrynosoma coronatum frontale</i> California horned lizard	FSC/CSC/--	In a variety of habitats, most commonly in lowlands and sandy washes with scattered low bushes. Requires open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant ant/insect prey.
Birds		
<i>Baeolophus inornatus</i> Oak titmouse	--/SLC/-- (nesting)	Breeds in open pine-juniper and oak woodlands, often in riparian areas.
<i>Carduelis lawrencei</i> Lawrence's goldfinch	FSC/--/-- (nesting)	Dry grassy slopes with weed patches, chaparral, and open woodlands; nests in trees or shrubs, closely associated with oaks.
<i>Chaetura vauxi</i> Vaux's swift	FSC/CSC/-- (nesting)	Nests in large hollow trees or snags in coniferous forests and forages widely, especially over riparian areas and open water.
<i>Cinclus mexicanus</i> American dipper	FSLC/--/--	Montane streams and rivers with rocky shores and bottoms in clear, fast moving water. Nests and roosts in cover of sheltered cavity or crevice along stream bank.
<i>Cypseloides niger</i> Black swift	FSC/CSC/-- (nesting)	Nests in steep canyons in cliff faces and near waterfalls, June through August.
<i>Empidonax traillii brewsteri</i> Little willow flycatcher	--/SE/-- (nesting)	Inhabits thickets of low, dense willows on edge of wet meadows and montane riparian habitats at 600-2500 meters.
<i>Falco peregrinus anatum</i> American peregrine falcon	FD/SE,CFP/-- (nesting)	Breeds on high cliffs, banks, and human-made structures near wetlands, lakes, rivers, or other sources of water.
<i>Melanerpes lewis</i> Lewis' woodpecker	FSC/--/-- (nesting)	Winters in oak savannahs and broken deciduous and coniferous habitats.
<i>Otus flammeolus</i> Flammulated owl	FSC/--/-- (nesting)	Prefers coniferous communities from ponderosa pine to red fir forests with low to intermediate canopy cover.
<i>Picoides albolarvatus</i> White-headed woodpecker	FSC/--/-- (nesting)	Nests in open conifer habitats, often near edges of roads, natural openings, or on edges of small clearings. Resident of montane coniferous forests up to lodgepole pine and red fir habitats.

**TABLE 4.4-1 (Continued)
SPECIAL-STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT AREA**

Scientific Name Common Name	Listing Status: Federal/State/ CNPS	General Habitat
Birds (cont.)		
<i>Selasphorus rufus</i> Rufous hummingbird	FSC/--/-- (nesting)	Riparian areas, open woodlands, chaparral, and other areas rich with nectar producing flowers.
<i>Toxostoma redivivum</i> California thrasher	FSC/--/--	Nests in dense chaparral habitats from March through August.
Mammals		
<i>Euderma maculatum</i> Spotted bat	FSC/CSC/--	Roosts primarily in crevices in cliff faces. Primarily feeds on moths. Maternity colonies active April through July.
<i>Eumops perotis californicus</i> Greater western mastiff-bat	FSC/CSC/--	Isolated occurrences in northern California. Roosts primarily in crevices within cliffs and canyons, occasionally in buildings. Primarily feeds on moths. Maternity colonies active May through July.
<i>Myotis ciliolabrum</i> Small-footed myotis bat	FSC/--/--	In association with steep limestone outcrops and talus slopes. Forages over a wide range of habitats, mostly open, arid wooded and brushy uplands near water. Seeks cover in caves, buildings, mines and crevices.
<i>Myotis evotis</i> Long-eared myotis bat	FSC/--/--	Prefers mixed-conifer forests, but can be found in all brush, woodland, and forest habitats below 9,000 feet. Roosts in caves, mines, trees, crevices, buildings, and bridges. Maternity colonies active May through July.
<i>Myotis thysanodes</i> Yuma myotis bat	FSC/--/--	Primarily found in woodland/forests. Mostly roosts in buildings or mines. Maternity colonies active April through June.
<i>Myotis yumanensis</i> Yuma myotis	FSC/--/--	Often near reservoirs, optimal habitats are open forests and woodlands with water sources to feed over. Roosts in buildings, trees, mines, caves, bridges, and rock crevices. Maternity colonies active May through July.

Status Codes:

Federal: (USFWS)

FD = Federal Delisted
FE = Listed as Endangered by the Federal Government
FPD = Federal Proposed for Delisting

FSC = Federal Species of Special Concern
FT = Listed as Threatened by the Federal Government
FC = Listed as Candidate by the Federal Government
FSLC = Species of Local Concern
-- = No listing

State: (CDFG)

SE = Listed as Endangered by the State of California
CFP = California Fully Protected
SR = Listed as Rare by the State of California (plants only)
CSC = California Species of Special Concern
ST = Listed as Threatened by the State of California
-- = No listing

CNPS: (California Native Plant Society)

List 1B = Plants rare, threatened, or endangered in California and elsewhere
List 2 = Plants rare, threatened, or endangered in California but more common elsewhere
List 3 = Need more information
-- = No listing

SOURCES: CNDDDB (2005); CNPS (2006); USFWS (2006)

the proposed project. Data sources included: the California Natural Diversity Database Rarefind 3 computer program, the California Native Plant Society's Inventory of Rare and Endangered Plants, California Department of Fish and Game (CDFG) Special Vascular Plants, Bryophytes, and Lichens List, the CDFG Special Animals List, and United State Fish and Wildlife Service's List of Federal Endangered and Threatened Species that may be Affected by Projects in the "Grass Valley, CA" 7.5 Minute Quadrangle.

Other sources of information included review of the Nevada County General Plan, the City of Grass Valley General Plan, the City of Grass Valley Municipal Code and respective Oak Tree Ordinances. Project-specific information included a Biological Screening Evaluation (MACTEC, 2004a); a Wetland Assessment (MACTEC, 2004b); the Preliminary Arborist Report for the Idaho-Maryland Mine Project (Randall Frizzell and Associates, 2004); the 1995 Idaho-Maryland Mine Dewatering and Mine Exploration EIR (Nevada County, 1995); the Idaho-Maryland Mine Project Formal Development Review, Mineral Project, General Plan Amendment, Rezone/Prezone, and Annexation Applications and Expanded Environmental Assessment; and the U.S. Geological Survey (USGS) Grass Valley, California 7.5-minute topographic quadrangle.

A reconnaissance-level survey of the Idaho-Maryland, Round Hole, and New Brunswick project sites was conducted by an ESA Staff Biologist, Joshua Boldt, on February 16, 2006. The survey was conducted by walking portions of the Idaho-Maryland, New Brunswick, and Round Hole sites. Each site was evaluated for its potential to support regionally occurring special-status species, sensitive habitats, and jurisdictional "waters of the U.S."

Impact 4.4-1: The proposed project would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS. This would be a potentially significant impact.

A total of 54 special-status species (15 plants, 2 invertebrates, 7 fish, 3 amphibians, 2 reptiles, 17 birds, and 8 mammals) were initially evaluated from master lists provided by the U.S. Fish and Wildlife Service. Based on the habitats present, the results of the database searches, and cross-referencing with Nevada County's natural resource inventory (Nevada County Planning Department, 2002), this number was reduced to the 33 species listed in Table 4.4-1. The study area supports several vegetation communities that could provide habitat for special-status species. Due to the presence of serpentine and gabbro soils on the Idaho-Maryland site, there is a high probability that rare plants may occur, particularly within the mixed chaparral community. The CNDDDB has a documented occurrence of Pine Hill flannelbush at the Idaho-Maryland site. Habitat evaluations and protocol level surveys have not been performed for special-status species within the study area; therefore impacts to special-status species cannot currently be specified.

Implementation of the proposed project could result in direct impacts to some of the special-status species listed in **Table 4.4-1**, or result in the removal of habitats that support these species. This would be a potentially significant impact.

Impact 4.4-2: The proposed project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG and/or USFWS. This would be a potentially significant impact.

The project sites contain several sensitive communities including montane riparian, serpentine chaparral, and montane freshwater marsh, all of which are considered to be sensitive natural communities by the CDFG. Although habitats have been mapped for the project sites in the Nevada County Natural Resources Report, the scale made the data difficult to quantify; therefore, impacts to sensitive habitats could not be assessed. Coordination with Nevada County to receive the information that the report is based on in an electronic format, may allow for detailed analysis. However, based on a preliminary review of these maps and a reconnaissance survey, several of these sensitive communities are likely to be adversely affected by implementation of the proposed project. This would be a potentially significant impact.

Impact 4.4-3: The proposed project would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means. This would be a potentially significant impact.

A formal wetland delineation was conducted for each project site by MACTEC Engineering & Consulting, Inc. (MACTEC, 2004b). Since this delineation has not been submitted for verification to the Corps, all conclusions presented should be considered preliminary and subject to change pending official review and verification in writing by the Corps.

Based on the wetland delineation, approximately 0.02 acres of potentially jurisdictional wetlands were identified on the Round Hole site, and approximately 180 linear feet of potentially jurisdictional “waters of the U.S.” were identified on the New Brunswick site. As proposed, the project is unlikely to impact either of these features. Additionally, on a reconnaissance site visit, portions of the Idaho-Maryland site exhibited wetland characteristics such as wetland hydrology and a predominance of hydrophytic vegetation. Therefore, these areas may be considered jurisdictional by the Corps. In the event that these areas meet Corps jurisdictional criteria, impacts to these wetlands would be potentially significant.

The Corps’ framework for determining jurisdiction on wetlands and waters is in flux following the 2001 Supreme Court ruling in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers (SWANCC)* 531 U.S. 159, 2001 and subsequent interpretation of wetland proximity to waters of the U.S (i.e. “other waters”). Therefore, regulatory assessment of potential jurisdiction of wetlands and waters, including created channels such as the documented “roadside drainage channel,” needs to be reviewed and updated per current regulatory guidance as “roadside drainage channel” could be determined to be a jurisdictional feature (i.e. “other waters”).

Therefore, the MACTEC wetland delineation should be modified and updated to comply with current regulatory guidance and changes to the site that have occurred since 2004. Additionally, the wetland mapping should include all potentially jurisdictional wetlands (including those identified in Figure 5-3 of the City of Grass Valley General Plan (see **Figure 4.4-1**) and “other waters of the U.S.” and should be evaluated using current Corps methodology.

Impact 4.4-4: The proposed project would interfere substantially with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. This would be a potentially significant impact.

Development of the proposed project would alter the movement patterns of wildlife species traveling between the surrounding habitats and the project sites. However, there are no known terrestrial migration corridors through or in the vicinity of the project sites, and the wildlife that could use the sites are highly mobile and could easily adjust their movement to open lands adjacent to the project sites. While the project would result in the removal of woodland habitat that wintering mule deer may use for food and shelter, most of the habitat proposed for removal occurs in islands of woodland habitat and would not result in the fragmentation of woodland habitat.

The project could impact aquatic (fisheries) nursery sites through impacts to riparian habitats and streams. Impacts could occur through changes to water quality (e.g., turbidity or chemical discharges), velocity (e.g., scouring), or riparian vegetation (e.g., shade and water temperature). Aquatic habitats have not been characterized in sufficient detail to evaluate potential impacts. Therefore, potential impacts to aquatic habitats within the project sites would be a potentially significant impact on fisheries nursery sites.

Impact 4.4-5: The proposed project would conflict with local policies or ordinances protecting biological resources. This would be a potentially significant impact.

According to Randall Frizzell and Associates (2004), a total of 1,029 trees would be removed through implementation of the proposed project. Trees are defined as any woody plant having a trunk eight caliper inches or larger in diameter at breast height (City of Grass Valley Municipal Code Section 12.36). Most of the trees to be removed would be ponderosa pine and cottonwood. Other tree species to be removed include grey pine, madrone, incense cedar, black oak, black locust, big leaf maple, and live oak. The majority of these trees would be removed in coniferous and hardwood habitats such as ponderosa pine forest, montane hardwood forest, and montane hardwood-conifer forest as well as montane riparian habitat. As discussed in the Setting section, these habitats and the individual trees within them provide important wildlife habitat.

Woodlands such as those found on the project site, as well as the individual trees within those woodlands, are protected by a variety of State and local ordinances and policies, including the City of Grass Valley Tree Preservation and Protection Ordinance (Chapter 12.36), the CEQA Oak Woodlands Conservation Law (Senate Bill 1334), and the Nevada County Tree Preservation and

Figure 4.4-1
8.5x11 color

Protection Ordinance (Section L-II 4.3.15). Under the proposed project, which includes annexation of the Idaho-Maryland site into the City of Grass Valley, CEQA law and the County Tree Ordinance would only pertain to the New Brunswick site, which would remain in County jurisdiction. The Round Hole site currently is and the Idaho-Maryland site would be under the City of Grass Valley's jurisdiction. Therefore, the City's Tree Preservation and Protection Ordinance would be the applicable regulation pertaining to loss of tree resources at the Round Hole and Idaho-Maryland sites. This Ordinance has detailed approval and permit requirements for tree removal as well as specific mitigation requirements for loss of trees.

Because of declining native tree populations in the project area and the State, and the recognized value of native trees by the City, the loss of native trees as well as woodland habitats would be a potentially significant impact.

The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. There would be no impact.

Since there are no adopted habitat conservation plans, natural conservation community plans, or other approved local, regional, or state habitat conservation plans that encompass the project area, there would be no impact.

4.4.4 Data Gaps

1. Rare plant surveys results conducted during the 2006 blooming season should be incorporated into the environmental documentation during the next phase. These surveys focused on identifying species listed on **Table 4.4-1** that may be affected by the proposed project.
2. Obtain and review for adequacy aquatic species surveys conducted by Affiliated Researchers in 1991 and Willdan and Wallace-Kuhl in 1995 for South Fork Wolf Creek. Supplemental surveys will be required if the previous surveys are not adequate.
3. Aquatic surveys should be conducted during the appropriate season for evaluating habitat and water quality that may be affected by the proposed project (i.e., Wolf Creek).
4. During the EIR phase, map sensitive natural communities in the project area including riparian, other wetlands, oak woodlands, and gabbro-soil associated communities to evaluate whether adverse impacts to the communities would be substantial.
5. Update MACTEC 2004 Wetland Delineation to reflect current regulatory standards and baseline conditions.
6. Confirm with CDFG information from the City of Grass Valley 1999 General Plan Draft EIR that states that a locally important deer herd would not be affected by activities within the project area.

7. Confirm with CDFG that no Natural Community Conservation Plans or Habitat Conservation Plans are in effect in the project area.
8. Coordinate with Nevada County to determine if the Nevada County Natural Resources Report data layers pertaining to habitats are at an appropriate scale for project analysis. If so, ESA would request these data layers to incorporate into the CEQA analysis.

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