

4.4 BIOLOGICAL RESOURCES

This section identifies existing biological resources within the 18 rezone sites, potential project impacts on biological resources, and mitigation measures for potential impacts. This section relies upon the analysis and findings of the *Biological Resources Inventory Report for the Housing Element Rezone Study Area, Nevada County, California*, prepared by Dudek, February 2013, which is included in Appendix C.

Dudek biologists reviewed previously prepared biological reports for some of the project sites and performed reconnaissance level field visits to each site. Field visits were conducted in May and November 2012. Previous studies reviewed included the following:

- *Wetland Delineation Report Penn Valley Oaks, Nevada County* (Heal Environmental Consulting, Inc. 2010)
- *Preliminary Biological Resources Assessment Penn Valley Oaks, Nevada County* (Heal Environmental Consulting, Inc. 2010)
- *Biological Inventory Report Penn Valley Oaks, Nevada County* (EcoSynthesis Scientific & Regulatory Services, 2003)
- *Vegetation Management Plan Clearwater Crossing and Penn Valley Oaks, Nevada County* (Heal Environmental Consulting, Inc. 2010)

Additionally, Dudek researched additional background information regarding the documented or potential occurrence of special-status species on or in the vicinity of each of the project sites from a variety of sources, including the California Natural Diversity Data Base (CNDDB), species lists created by the U.S. Fish and Wildlife Service (USFWS) and provided by the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants for the nine U.S. Geological Survey (USGS) 7.5-minute quadrangles surrounding the sites. Habitat requirements for each species returned by these queries were considered in determining the likelihood for each species to occur on the rezone sites.

4.4.1 ENVIRONMENTAL SETTING

The 18 rezone sites are located in the western portion of Nevada County, approximately 50 miles northeast of Sacramento and about 50 miles west of Lake Tahoe (refer to Figure 3-1, *Regional Location Map*). This region of the western Sierra Nevada foothills separates the low-lying Sacramento Valley from the Sierra Nevada Mountains and is characterized by rolling forested hills and deep river canyons. The plant communities identified on the sites are described below and Table 4.4-1, *Plant Communities at Each Project Site*, identifies the type and size of each vegetation community that occurs on the project sites.

PLANT COMMUNITIES

Vegetation communities are classified according to the California Wildlife Habitat Relationships (CWHR) habitat classification scheme, which is presented in *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer Jr. 1988). Vegetation communities for specific sites were also reviewed against *A Manual of California Vegetation, Second Edition* (Sawyer, Keeler-Wolf and Evens 2009). Landscape scale vegetation community mapping prepared by the Northern Sierra Nevada Foothills Vegetation Project (NSNFVP) (Menke et al 2011) and the accompanying NSNFVP report were also reviewed in assigning habitat classifications for each site.

Nine vegetation communities were mapped on the 18 sites. The characteristic components of each of these communities and the sites they occur on are provided below. Habitat mapping is provided in Figure 4.4-1 through Figure 4.4-10.

Disturbed/Developed

Disturbed/Developed is not a CWHR habitat classification, but is applied to developed or significantly disturbed areas where vegetation cover is largely absent. This designation is applied to one Nevada County property. It is best described as a habitat that has severe disturbance, such as grading or other activities that removes much of the vegetation. Plant species that do occur in these areas typically occur around the edges of cleared or developed areas and are non-native, ornamental or ruderal species that are adapted to high levels of disturbance.

Site 1 is primarily a disturbed habitat. Small areas of existing development or disturbed areas are embedded within natural communities on Sites 7, 8, 9, 11, 15, 16, and 18. These areas are developed with rural single-family homes and outbuildings or storage sheds and equipment storage on Sites 7, 8, 9, and 15, wastewater utility buildings and an access road on Site 16, a concrete house foundation on Site 11, and manicured golf course on Site 18. Smaller areas of disturbance are not identified on habitat maps.

Annual Grassland

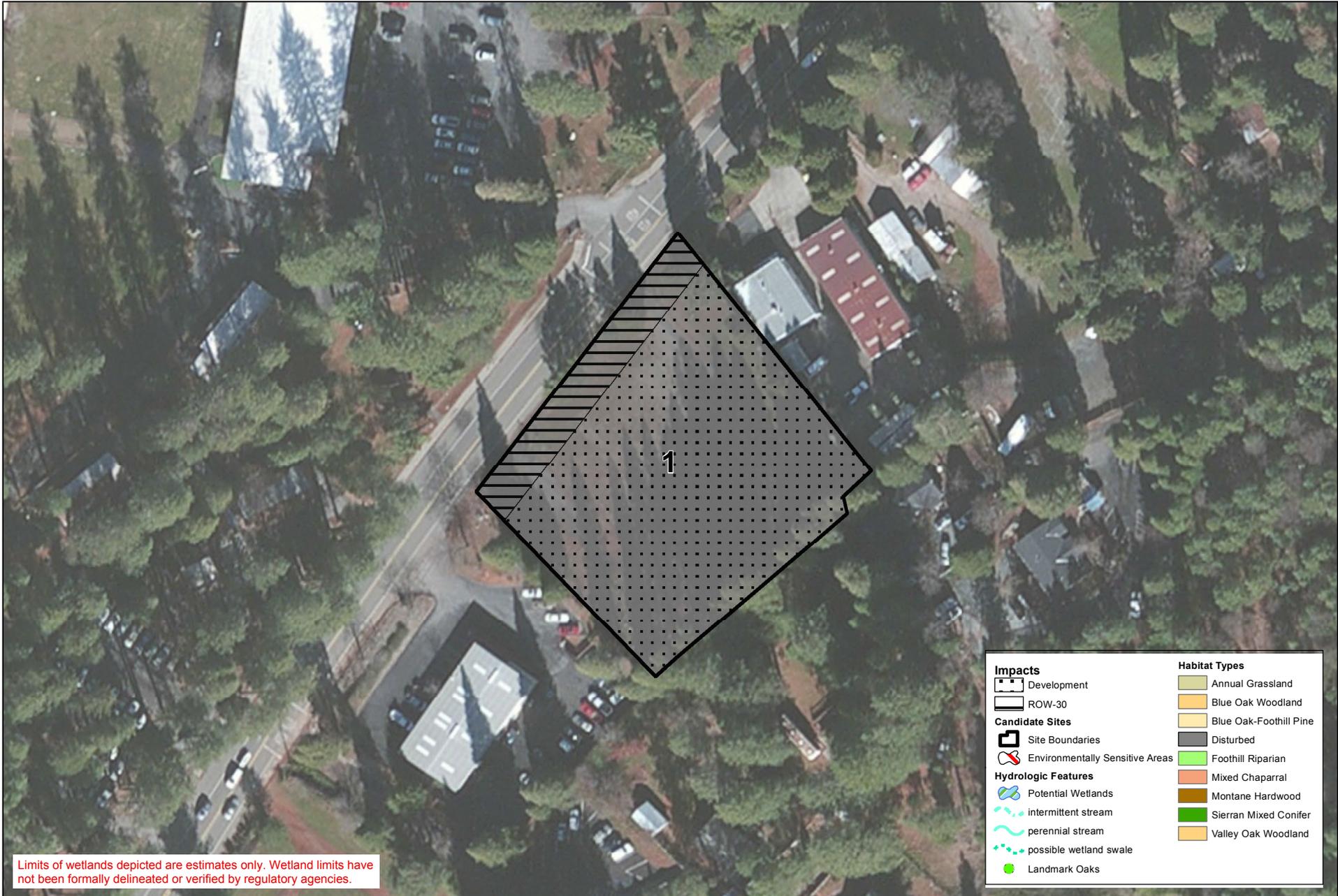
Annual grasslands are dominated by annual, non-native grasses and forbs. Common species include bromes (*Bromus* spp.), Italian ryegrass, wild oat, orchard grass, Mediterranean barley, filarees (*Erodium* spp.), and others. Nevertheless, native species do occur in this grassland, including bulbs, legumes, and some grasses, including blue wildrye. Ruderal species often occur scattered at grassland edges and in areas that have been historically disturbed and include yellow star-thistle, wild carrot, and hedge parsley (*Torilis arvensis*). All of the grass species are dormant during the dry summer months. On the project sites, this plant community supports scattered valley oaks. Some of the valley oaks growing within the grassland community are exceptional specimens with a diameter at breast height (dbh) of over 40 inches. These meet Nevada County criteria for a Landmark Tree.

Sites 10, 11, 12, and 13 are grasslands or have large grassland components.

Valley Oak Woodland

Valley oak is the dominant species in this habitat, though other oak species may also occur. Valley oaks in this habitat type grow in a mosaic with annual grasslands and more dense groupings of forest-like stands. Dispersed stands are generally on upland soils while a more dense woodlands generally are along streams or on more fertile soils. Shrubs and grasses make up the understory, with a more dense shrub layer typically occurring along drainages. Poison oak, toyon, and coffeeberry are common understory species. On the sites, understory species in this habitat type are non-native grasses, poison oak, Oregon ash, and Himalayan blackberry. Associate trees include blue oak and interior live oak.

Site 13 supports a valley oak woodland community in groupings among non-native annual grassland.



Limits of wetlands depicted are estimates only. Wetland limits have not been formally delineated or verified by regulatory agencies.

Source: Dudek, April 2013; Nevada County GIS 2013; ESRI 2012.
 Note: Habitats mapped according to CWHR classification scheme.
 Field Surveys: May 5, May 9, and November 27, 2012.



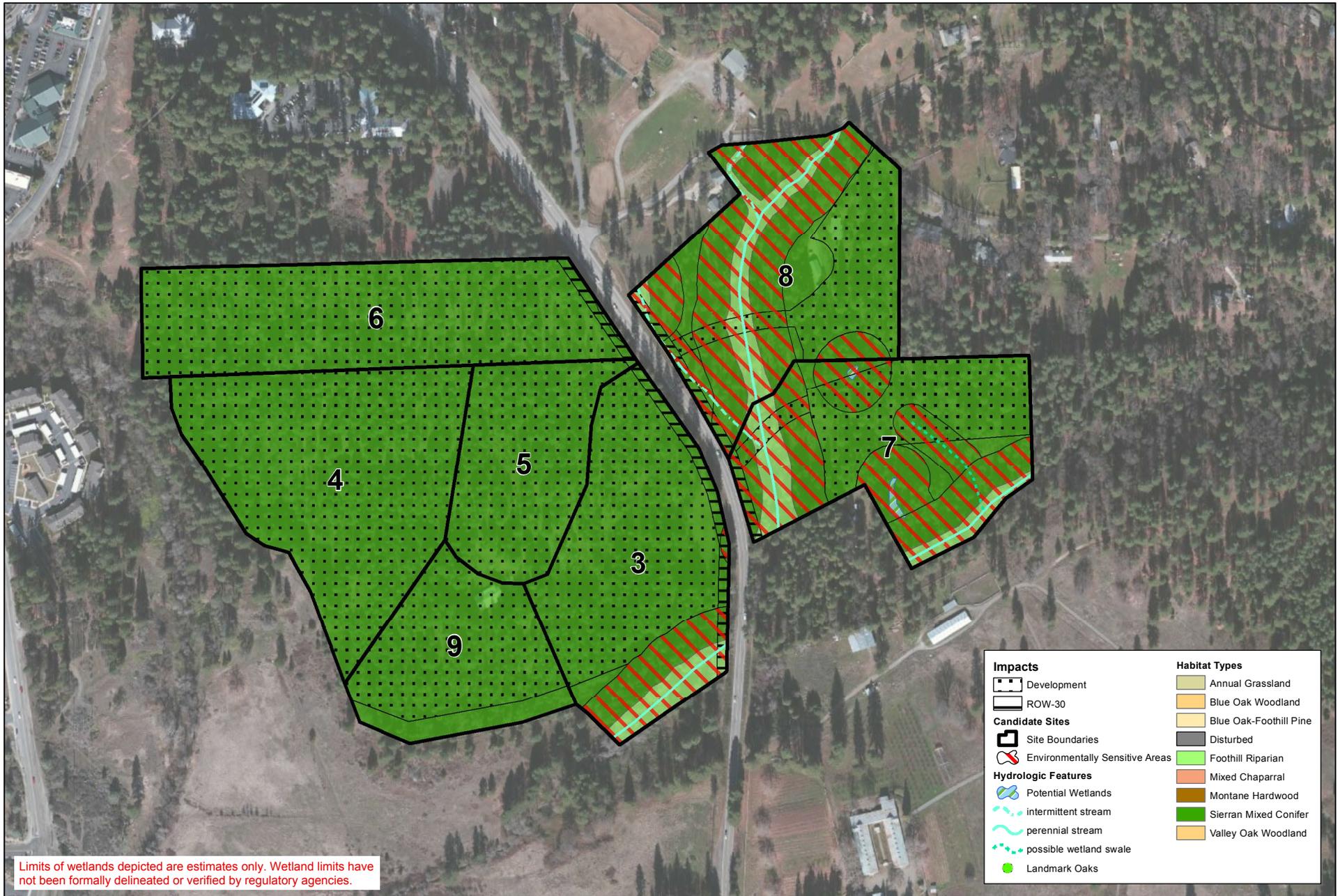
4/22/13 JN 131242-18945 MAS

COUNTY OF NEVADA
 2009-2014 HOUSING ELEMENT REZONE PROGRAM IMPLEMENTATION EIR
Site 1 - Habitat Impacts Map

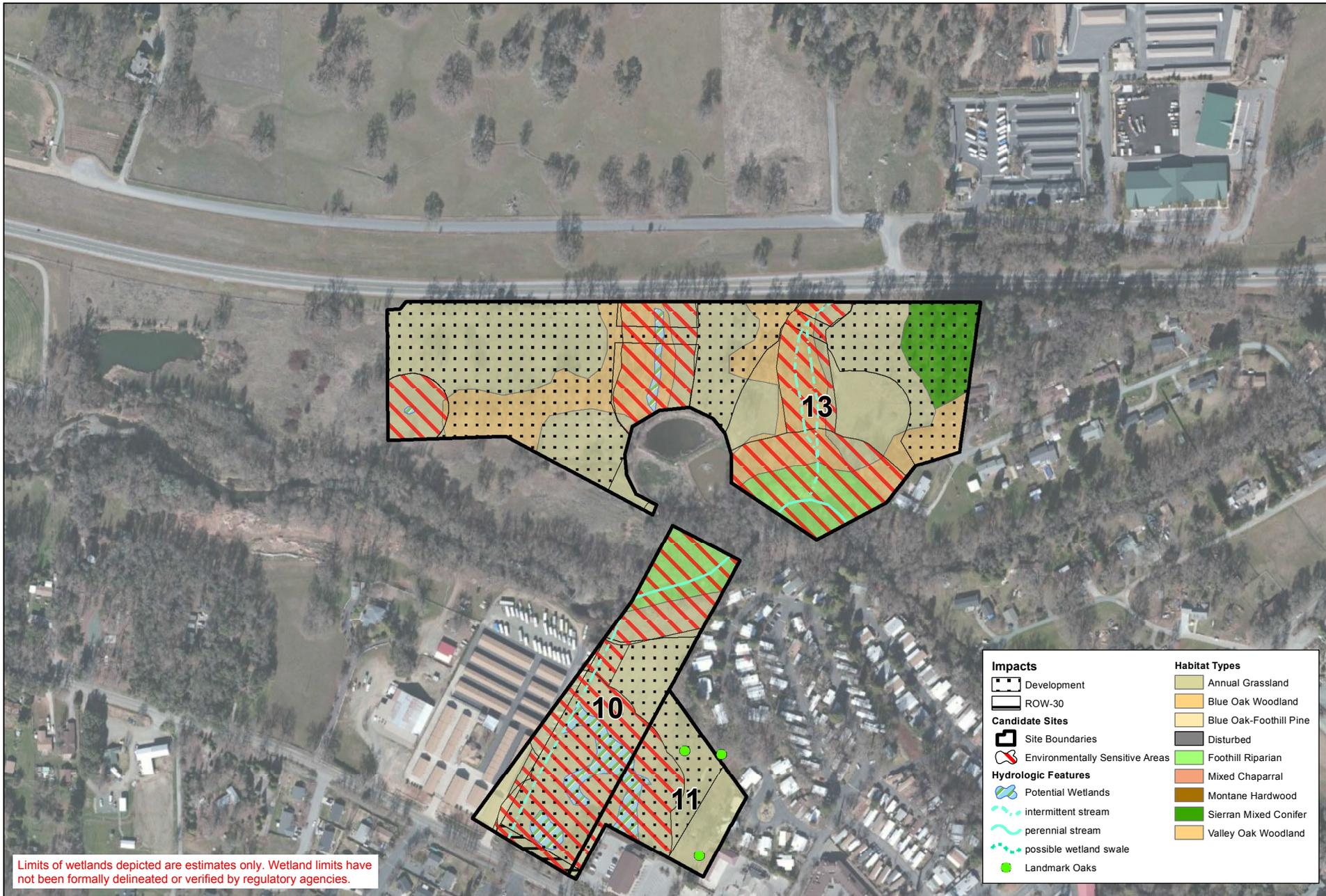
FIGURE 4.4-1



Source: Dudek, April 2013; Nevada County GIS 2013; ESRI 2012.
 Note: Habitats mapped according to CWHR classification scheme.
 Field Surveys: May 5, May 9, and November 27, 2012.



Source: Dudek, April 2013; Nevada County GIS 2013; ESRI 2012.
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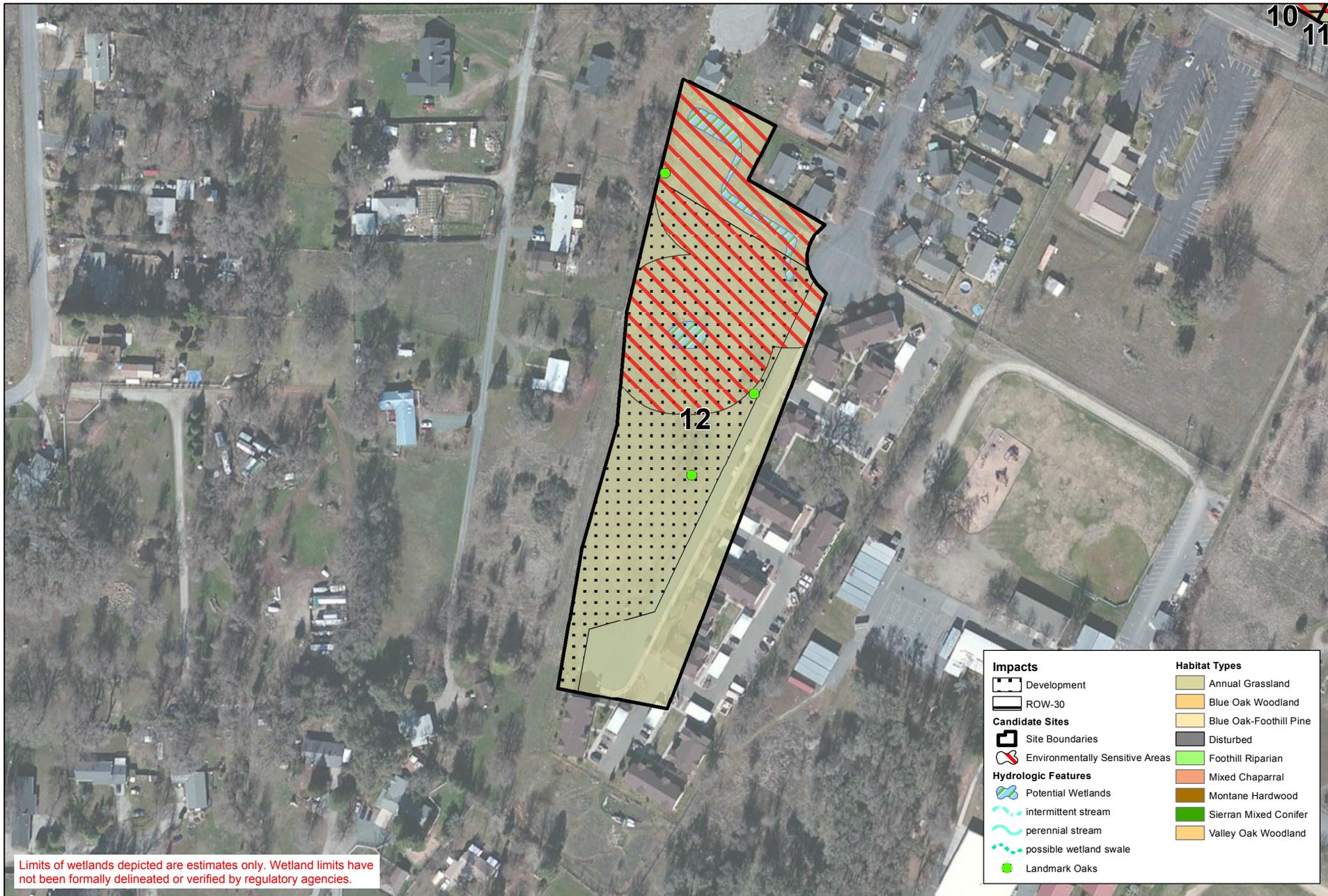
Source: Dudek, April 2013; Nevada County GIS 2013; ESRI 2012.
 Note: Habitats mapped according to CWHR classification scheme.
 Field Surveys: May 5, May 9, and November 27, 2012.



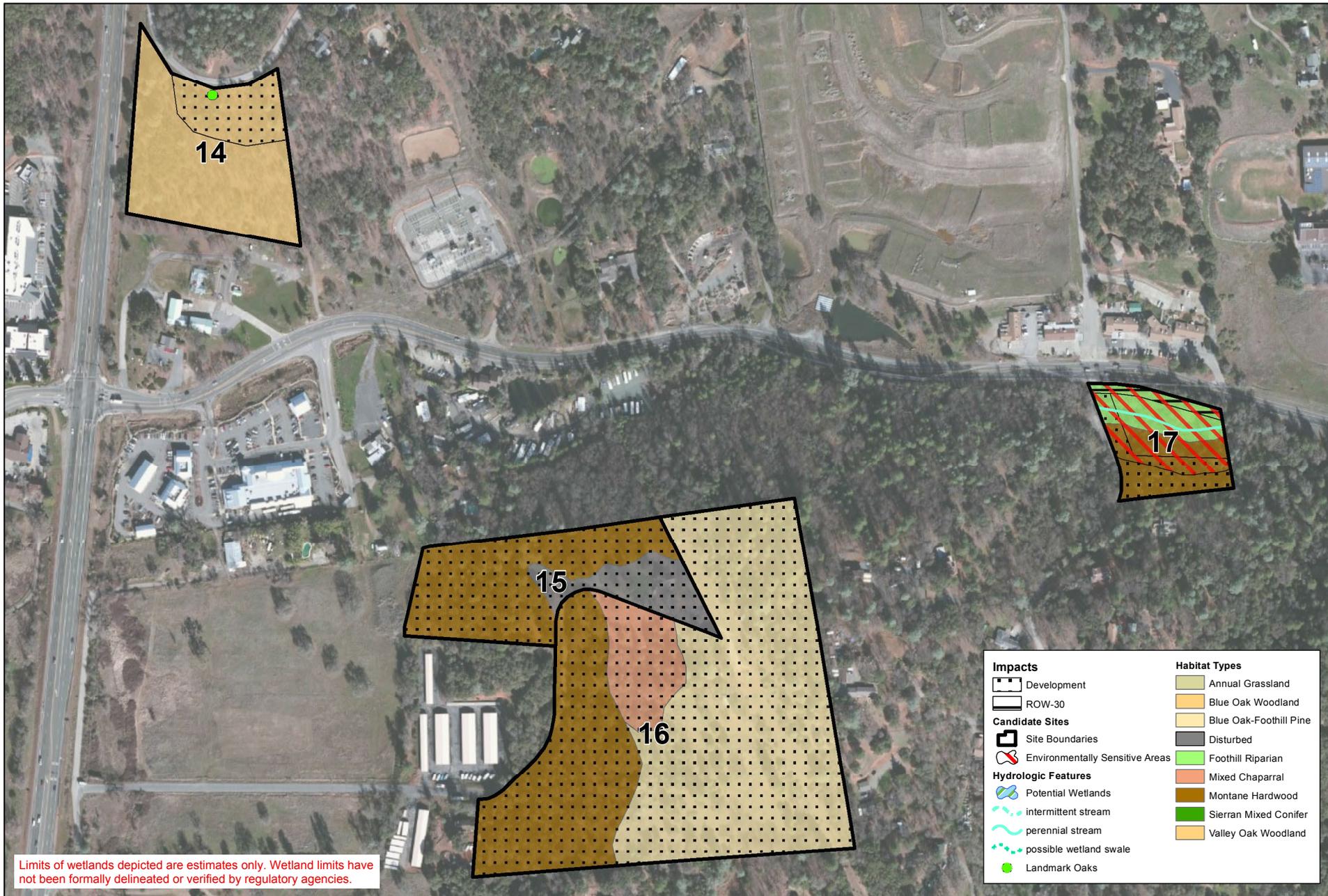
4/22/13 JN 131242-18945 MAS

COUNTY OF NEVADA
 2009-2014 HOUSING ELEMENT REZONE PROGRAM IMPLEMENTATION EIR
Sites 10, 11 & 13 - Habitat Impacts Map

FIGURE 4.4-4

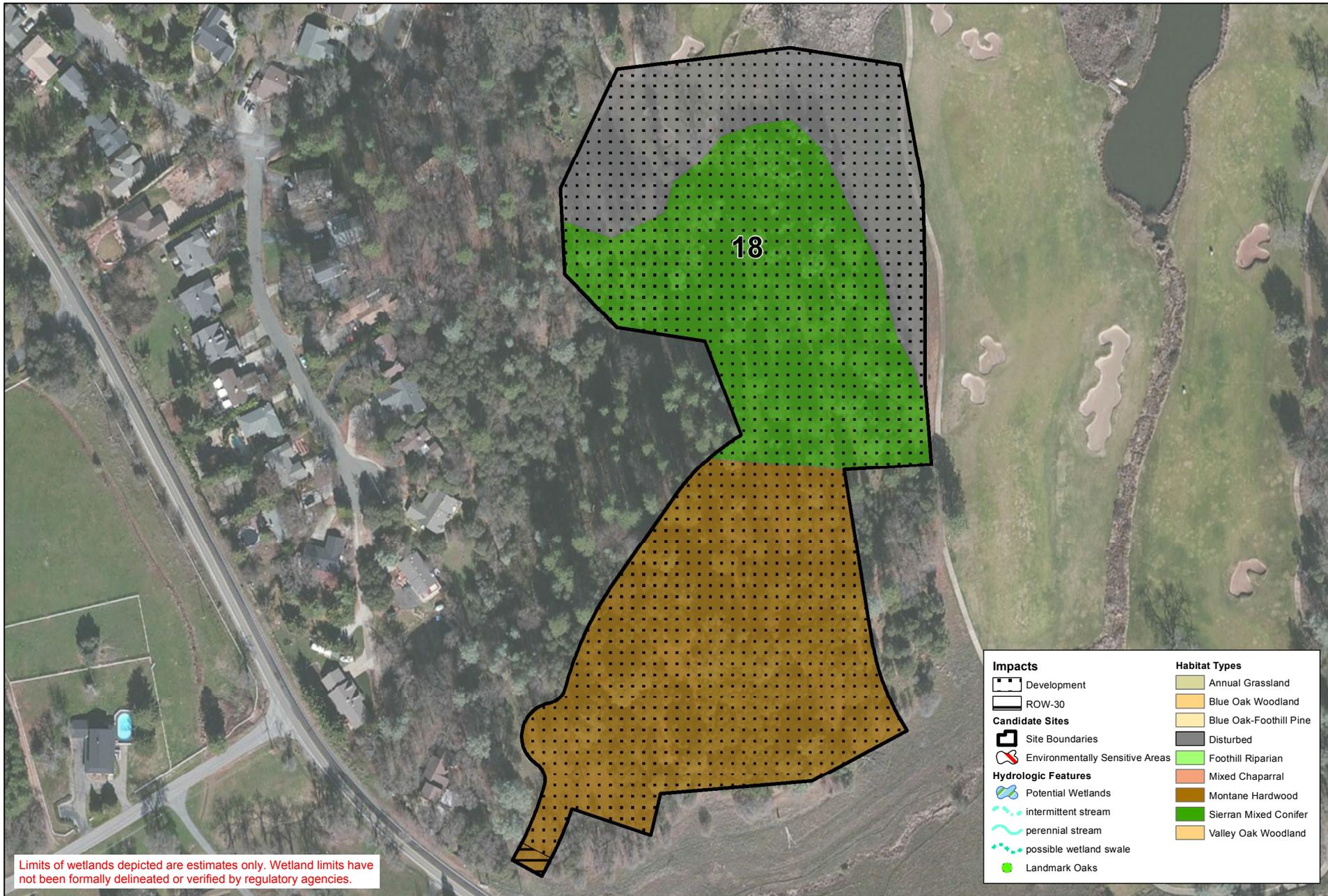


Source: Dudek, April 2013; Nevada County GIS 2013; ESRI 2012.
 Note: Habitats mapped according to CWHR classification scheme.
 Field Surveys: May 5, May 9, and November 27, 2012.



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 Note: Habitats mapped according to CWHR classification scheme.
 Field Surveys: May 5, May 9, and November 27, 2012.

Blue Oak Woodland

The dominant species in blue oak woodland is the blue oak. Other trees found in blue oak woodland include interior live oak, California buckeye (*Aesculus californica*), and foothill or gray pine. The understory in blue oak woodlands is often herbaceous, but can include a number of shrubs. Non-native grasses form the most common understory plants, but buckbrush, poison oak, and white-leaf manzanita may be common.

Site 14 supports blue oak woodland with a small patch of interior live oak on the west side.

Montane Hardwood

Montane hardwood habitats can have a variety of tree species depending on the elevation and location in the state. The dominant species are hardwood trees, mostly oaks. Conifers may be present in small amounts and vary by location, but typically make up less than a third of the trees in this community. On the Nevada County sites, Montane Hardwood is dominated by interior live oak, California black oak, and blue oak. Ponderosa pines and foothill pines may be present in this community. Montane Hardwood habitats often have a shrubby understory because of the lack of fire.

Sites 15, 16 and 17 support Montane Hardwood habitat units.

Sierran Mixed Conifer

A Sierran Mixed Conifer habitat supports a variety of coniferous tree species and often includes several hardwood species. On the Nevada County sites this habitat is dominated by ponderosa pine, but incense cedar, Douglas-fir, and sugar pine are also present on most sites. Hardwoods include California black oak and madrone. The understory is often shrubby and common species are toyon, white-leaf manzanita, and coffeeberry (*Frangula californica*). Many of these shrubs would be absent in the presence of periodic fires. Many of these sites exhibit evidence of recent or historic timber harvesting or fuels reduction treatments that have reduced tree stem density or cleared the understory shrub layer.

Sites 13, 2 and 3 through 9 support Sierran Mixed Conifer habitat.

Foothill Riparian

Foothill Riparian habitat occurs along creeks, streams, and rivers in the foothills of California. This habitat is composed of hardwood species that include Fremont cottonwood (*Populus fremontii*), white alder, and willows (*Salix* spp.). The willows may be trees or shrubs, depending on the level of disturbance in the stream system. Valley oaks are common along the edges of some riparian habitats. American dogwood or red osier (*Cornus sericea*), California rose, and Himalayan blackberry are common shrubby species.

Sites 3, 7, 8, 10, 13 and 17 have a riparian component embedded in the primary habitat.

Mixed Chaparral

Mixed chaparral supports a variety of shrub species that typically grow in dense groupings. In the foothills area this community sometimes is early successional on recovering disturbance areas within other communities. This community was observed on one of the study area parcels in the Lake of the Pines area. Species that occur in the mixed chaparral community on this parcel include whiteleaf manzanita, buckbrush, yerba santa, coyote brush, and hoary coffeeberry.

Site 16 supports a small unit of this habitat type.

Blue Oak-Foothill Pine Woodland

This habitat type differs from blue oak woodland by having a greater proportion of foothill pines intermixed with blue oak and interior live oak. The blue oak-foothill pine woodland community occurs on one of the sites in the Lake of the Pines area. This habitat typically has mixed species tree and shrub groupings with annual grassland in small openings. Canopy cover is generally low and trees are mature. Overstory is dominated by foothill pine and blue oak, but interior live oak and California buckeye may also be present. The shrub layer, where present, is comprised of white-leaf manzanita, poison oak, and buckbrush. Non-native annual grasses and forbs occur in a small-scale mosaic of openings.

Site 16 supports a small area of the blue oak-foothill pine community.

**Table 4.4-1
 Plant Communities at Each Project Site**

Site	Disturbed (Acres)	Annual Grassland (Acres)	Valley Oak Woodland (Acres)	Blue Oak Woodland (Acres)	Montane Hardwood (Acres)	Sierran Mixed Conifer (Acres)	Foothill Riparian (Acres)	Mixed Chaparral (Acres)	Blue Oak-Foothill Pine (Acres)
1	1.15	-	-	-	-	-	-	-	-
2	-	-	-	-	-	10.48	-	-	-
3	-	-	-	-	-	9.28	0.83	-	-
4	-	-	-	-	-	11.48	-	-	-
5	-	-	-	-	-	5.61	-	-	-
6	-	-	-	-	-	10.06	-	-	-
7	-	-	-	-	-	8.23	1.37	-	-
8	-	-	-	-	-	11.00	1.48	-	-
9	-	-	-	-	-	5.81	-	-	-
10	-	5.55	-	-	-	-	1.03	-	-
11	-	3.08	-	-	-	-	-	-	-
12	-	4.56	-	-	-	-	-	-	-
13	-	10.81	6.52	-	-	1.29	1.31	-	-
14	-	-	-	5.13	-	-	-	-	-
15	1.37	-	-	-	3.86	-	-	-	-
16	-	-	-	-	5.25	-	-	1.68	11.93
17	-	-	-	-	1.43	-	1.04	-	-
18	2.42	-	-	-	4.82	3.80	-	-	-

Table 4.4-1, continued

Site	Disturbed (Acres)	Annual Grassland (Acres)	Valley Oak Woodland (Acres)	Blue Oak Woodland (Acres)	Montane Hardwood (Acres)	Sierran Mixed Conifer (Acres)	Foothill Riparian (Acres)	Mixed Chaparral (Acres)	Blue Oak-Foothill Pine (Acres)
Total Acreage									
	4.94	24	6.52	5.13	15.36	77.04	7.06	1.68	11.93
*Acreage total for all habitats on a parcel may vary slightly from County parcel size data due to mapping.									

WATERS OF THE U.S.

An estimation of the extent of wetlands within each site was made during the field work conducted. These features are shown on the habitat maps in Figures 4.4-1 through 4.4-10. Potential waters of the U.S. (including wetlands) within the 18 rezone sites include approximately 1.71 acres of seasonal wetlands, seeps, and wetland swales. This is likely an overestimate of the area total waters of the U.S. for these types of features, as it includes the area of the constructed drainage basin on Site 12 and other isolated features that may not be subject to regulation under Section 404 of the Clean Water Act.

Additionally, the 18 sites include an estimated 3,194 linear feet of perennial stream and 2,719 linear feet of intermittent stream channel. The area of these features was not estimated, as a detailed wetland delineation was not conducted for this analysis. Hydrologic features that could qualify as waters of the U.S. occur on Sites 2, 3, 7, 8, 10, 11, 12, 13, and 17, as shown in Table 4.4-2. No potential waters of the U.S. were identified on Sites 1, 4, 5, 6, 9, 14, 15, 16, and 18. It should be noted that hydrologic features not regulated as waters of the U.S. may be regulated by the State Water Resources Control Board as waters of the state.

Most of the streams within the project sites have associated riparian vegetation. Impacts to the bed, bank, or channel of rivers, streams, ponds, or lakes are regulated under Section 1602 of the California Fish and Game Code. This is usually interpreted to extend CDFW's jurisdiction to the limits of the riparian zone or hydrophytic vegetation associated with these hydrologic features.

**Table 4.4-2
Potential Waters of the U.S.**

Site	Feature Type	Estimated Size (Acres/Linear Ft.)	Location
1	--	--	--
2	potential seep	0.14/--	southwest margin of site
3	perennial stream	--/448	southeast site boundary
4	--	--	--
5	--	--	--
6	--	--	--

Table 4.4-2, continued

Site	Feature Type	Estimated Size (Acres/Linear Ft.)	Location
7	perennial stream	--/462	southeast site boundary
	perennial stream	--/391	western portion of site
	intermittent stream	--/96	bisects western portion of site
	potential seep	0.02/--	central portion of site - scattered
	wetland swale	0.06/--	eastern third of site
	wetland swale	<0.10/356	southeast corner, area not defined
8	intermittent stream	--/538	southwest site boundary
	intermittent stream	--/277	northwest corner
	wetlands	<0.10/--	northwest corner and scattered in western third of site in past mining disturbance areas
	perennial stream/vegetated ditch	--/932	bisects site north to south; has riparian corridor up to 100 feet wide
9	--	--	--
10	isolated wetland	0.17/--	southern half of site
	wetland swale	0.53/--	southern half of site
	intermittent stream	--/755	western site boundary
	perennial stream (Squirrel Creek)	--/323	bisects north end of site
11	seasonal wetland	0.27/--	southwest corner of site
12	constructed drainage basin	0.11/--	northern site boundary.
	seasonal wetland	0.04/--	north-central portion of site
13	wetland	0.01/--	southwestern corner of site
	intermittent stream	--/646	bisects center of site north-south
	intermittent stream	--/407	bisects center of site north-south, channel splits from other intermittent channel
	wetland swale	0.16/--	center of site, north of offsite wastewater ponds
	perennial stream (Squirrel Creek)	--/248	southeast corner of site
14	--	--	--
15	--	--	--
16	--	--	--
17	perennial stream (Ragsdale Creek)	--/390	bisects site E-W and has wide associated riparian zone

Table 4.4-2, continued

Site	Feature Type	Estimated Size (Acres/Linear Ft.)	Location
18	--	--	--

The features identified on the sites include tributaries to Wolf Creek on sites in the Grass Valley SOI area, Squirrel Creek in the Penn Valley area and Ragsdale Creek in the Lake of the Pines area. The EIR analysis did not include conducting formal wetland delineations to determine the extent of waters of the U.S. that would be subject to regulation by the U.S. Army Corps of Engineers (USACE). The estimate of waters of the U.S. provided in this EIR is considered conservative and could include features that might be determined to be isolated and therefore not regulated under Section 404 of the Clean Water Act and not within USACE jurisdiction. To determine the actual area subject to USACE jurisdiction, a formal wetland delineation must be prepared and verified by the USACE for each site containing potential wetland features.

OAK TREES AND WOODLANDS

Landmark Trees

Oak trees meeting the size standard to be considered Landmark Trees were observed on Sites 11, 12, 13, 14, and 18. It is considered possible that Landmark Trees could also occur within forested areas on Sites 15, 16, and 17.

Landmark Groves

Oak woodlands meeting the Nevada County Code definition of a Landmark Grove were observed within Sites 13, 14, 15, 16, 17, and 18. See mapping of habitat types for each site provided in Appendix C. Landmark Groves observed included a blue oak woodland on Site 14, as well as mixed oak woodlands and oak woodlands dominated by interior live oak, valley oak, and black oak.

Oak Woodlands

The oak woodlands on the subject sites are considered moderately degraded. Moderately degraded oak woodlands have been altered from a pristine state by limited roads or development, but natural regeneration still occurs and wildlife habitat values remain. Woodlands on the sites are somewhat fragmented by surrounding development and roads, and many have been modified by past land use practices. Impacts within these woodlands are considered mitigable.

RARE PLANTS

Intensive floristic surveys for rare plants were not conducted as part of the surveys conducted for the biological inventory. Reconnaissance-level surveys were conducted in May and November of 2012 and did not coincide with blooming periods for all rare plants that could be found on the RH Combining District sites. No special-status plant species were observed during surveys conducted on the RH Combining District sites, though there is potential for several species of rare plants to occur within specific habitats found on some of the sites. Serpentine soils in Nevada County are known to support several rare species that occur only within these soil types. None of the sites are underlain by serpentine or gabbro-derived soil types and no expression of serpentine plant communities was observed during the field surveys. Special-status plants endemic to serpentine soils were eliminated from

further consideration. Several of the special-status plant species with potential to occur typically inhabit wetland or riparian habitats, which occur on several of the sites.

SPECIAL-STATUS SPECIES

“Special-status species” refers to those plant or animal species which:

- Are listed, proposed for listing, or candidates for future listing as threatened or endangered under the Federal Endangered Species Act (FESA)
- Are listed or candidates for future listing as threatened or endangered under the California Endangered Species Act (CESA)
- Meet the definitions of endangered or rare under Section 15380 of the CEQA Guidelines
- Are identified as a species of special concern by the California Department of Fish and Wildlife (CDFW)
- Plants considered by the CNPS to be "rare, threatened, or endangered in California" (Lists 1B and 2)
- Plants listed as rare under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.)
- Are fully protected in California in accordance with the California Fish and Game Code, Sections 3511 (birds), 4700 (mammals), 5050 (amphibians and reptiles), and 5515 (fishes)

The special-status species considered for 18 rezone sites are those that are considered to have a reasonable probability of occurring at each site under current conditions. According to the CNDDDB, there are no previously documented occurrences of special-status species within the 18 rezone sites (CDFW 2012), although several special-status species occurrences have been documented within an approximate five-mile radius of some sites.

Special-Status Species Potentially Occurring within the Project Sites

The CNDDDB search recorded occurrences of 14 special-status plant species and 14 special-status wildlife species within the 9-quad regions searched around the Lake of the Pines and Penn Valley and Grass Valley site clusters. One additional plant species was added from the CNPS list for the 9-quad search area and two additional wildlife species were added from the list returned by the USFWS database search for Nevada County. Field surveys and the best professional judgment of Dudek biologists were used to further refine this list of species based on habitat requirements and occurrence location data.

As previously mentioned, several of the special-status species of plants that are known to occur near some of the sites are known only from serpentinite or gabbro soil units, which do not occur on any of the sites. The USFWS list for Nevada County includes species that only occur at elevations far below the study area, like Delta smelt, and that occur only at higher elevation in the Sierra Nevada or east of the Sierra crest, such as Lahontan cutthroat trout. Species known only from much lower or higher elevations or from habitats that are not found on the sites were eliminated from further consideration. Of the 31 species considered, four plants and seven wildlife species have some potential to occur on the project site and are included in Table 4.4-3. One additional plant species, Pine Hill flannelbush, is included in Table 4.4-3 because it is federally listed as endangered and there are occurrences in proximity to some of the sites near Grass Valley. Similarly, though California red-legged frog

is considered unlikely to occur, it is included in the table because there are occurrences of this species in the project region and it is a listed species. Complete lists of all special-status plant and wildlife species identified by database queries for the project region, as well as a discussion of habitat requirements and potential to occur on the sites, are included in the biological inventory report included in Appendix C. A discussion of those species considered possible or likely to occur within the study area is provided following the table.

It should be noted that the table below does not include all species of raptors or nesting migratory songbirds that could occur on the sites, and several common species of raptors and many species of nesting migratory songbirds could occur on the project parcels and are protected under the Fish and Game Code and Migratory Bird Treaty Act. Dudek biologists did not encounter any special-status species of plants or wildlife during their field visits to the sites.

**Table 4.4-3
Special-Status Species with the Potential to Occur
within the Project Rezone Sites**

Species	Federal	State	CNPS	Habitat	Potential for Occurrence**
Plants					
Western viburnum <i>Viburnum ellipticum</i>	none	none	2.3	Chaparral; cismontane woodland; lower montane coniferous forest. North facing, shaded slopes.	Possible - Suitable habitat on several forested sites. (Sites 3, 4, 7, 8, 9, 17 most suitable)
Brownish beaked-rush <i>Rhynchospora capitellata</i>	none	none	2.2	Lower montane coniferous forest, meadows and seeps, marshes and swamps, upper montane coniferous forest / mesic; elevation range 455 - 2000 meters (approx. 1,493 - 6,652 feet).	Possible - Potentially suitable habitat occurs near seeps, wetlands, and along the margins of drainages on several of the sites. (Sites 3, 7, 8, 10, 11, 12, 13, 17)
Finger rush <i>Juncus digitatus</i>	none	none	1B.1	Vernal pools (cismontane woodland; lower montane coniferous forest). 660-790 meters.	Possible - Wet, open areas on several sites provide marginally suitable habitat. (Sites 3, 7, 8, 10, 11, 12, 13)
Scadden Flat checkerbloom <i>Sidalcea stipularis</i>	none	CE	1B.1	Marshes and swamps (montane freshwater).	Possible - Potentially suitable habitat occurs near seeps, wetlands, and along the margins of drainages on several of the sites. Recorded in Nevada County growing with <i>Rhynchospora capitellata</i> . (Sites 3, 7, 8, 10, 11, 12, 13, 17)

Table 4.4-3, continued

Species	Federal	State	CNPS	Habitat	Potential for Occurrence**
Pine Hill flannelbush <i>Fremontodendron decumbens</i>	FE	CR	1B.2	Chaparral; cismontane woodland; [gabbroic or serpentinite].	Unlikely – Not observed during surveys. Typically occurs on serpentinite or gabbro substrates that do not occur on any of the sites.
Invertebrates					
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	FT***	none	--	Elderberry shrubs, found in riparian corridors and oak woodland.	Possible - Elderberry shrubs were observed in Squirrel Creek drainage and could occur along other drainages and in woodlands (occurs on Sites 10 and 13; possible on Sites 3-10, 15-18).
Amphibians					
California red legged frog <i>Rana draytonii</i>	FT	none	--	Ponds or slow moving water with overhanging vegetation	Unlikely. Aquatic habitat on sites is flowing streams or shallow and intermittent. Wastewater ponds near Site 13 lack vegetation. Nearest occurrence is over 6 miles northeast of Grass Valley sites.
Foothill yellow-legged frog <i>Rana boylei</i>	none	CSC	--	Shaded streams with rocky substrate. Needs some cobble-sized rocks as a substrate for egg laying. Requires water for 15 weeks for larval transformation.	Likely - Squirrel Creek, Ragsdale Creek, and a perennial tributary to Wolf Creek provide suitable habitat. Species reported from Squirrel Creek and known from Bear River in Nevada County. (Sites 3, 7, 10, 13, 17)
Reptiles					
Western pond turtle <i>Emys marmorata</i>	none	CSC	--	Inhabits ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs suitable basking sites and upland habitat for egg laying.	Possible – Aquatic habitat on some sites is marginally suitable. Moderate flows and lack of basking sites make available aquatic habitat suboptimal. (Sites 3, 7, 10, 13, 17)

Table 4.4-3, continued

Species	Federal	State	CNPS	Habitat	Potential for Occurrence**
Birds					
California black rail <i>Laterallus jamaicensis coturniculus</i>	none	CT	--	Salt and freshwater marshes with dense cover. Interior populations known from Sierra Nevada foothills. Typical inland habitat is irrigation-fed wetlands >0.25-acre.	Possible - Dense vegetation in riparian corridors are marginally suitable habitat. (Sites 3, 7, 8, 10, 13, 17)
Long-eared owl <i>Asio otus</i>	none	CSC	--	Dense, mixed forests and tall shrublands, usually next to open spaces. Often nests in an abandoned crow, magpie, or hawk nest, occasionally in a natural tree cavity.	Possible - Riparian and oak woodland communities, especially near open grassland areas, provide suitable nesting habitat.
Yellow warbler <i>Dendroica petechia</i>	none	CSC	--	Breeds in riparian vegetation throughout California; populations in Sacramento and San Joaquin valleys are declining. Common in eastern Sierran riparian habitats below 8,000 feet.	Possible - Riparian corridors provide suitable habitat for this species. (Sites 3, 7, 8, 10, 13, 17)
Grasshopper sparrow <i>Ammodramus saviannarum</i>	none	CSC	--	Breeds in grasslands and savannahs in rolling hills and lower mountain hillsides up to 5000 feet elevation.	Possible - Suitable grassland habitat occurs on some of the sites, though the project area is considered outside the typical range of this species. This species and other migratory songbirds could nest within sites.
Nesting Raptors****	none	CFP	--	Grasslands, large trees in woodland/forest/riparian communities.	Likely - Suitable habitat is present on all sites.

*Status Codes:

Federal

- FE Federal Endangered
- FT Federal Threatened
- FP Federal Proposed Species

State

- CE California Endangered
- CT California Threatened
- CR California Rare (plants only)
- CSC California Species of Concern
- CFP California Fully Protected

CNPS

- Rank 1B Rare, Threatened, or Endangered in California
- Rank 2 R, T, or E in California, more common elsewhere
 - 1- Seriously threatened in California
 - 2- Fairly threatened in California
 - 3- Not very threatened in California

**Definitions for the Potential to Occur:

- **None.** Habitat does not occur.
- **Unlikely.** Some habitat may occur, but disturbance or other activities may restrict or eliminate the possibility of the species occurring. Habitat may be very marginal, or the study area may be outside the range of the species.
- **Possible.** Marginal to suitable habitat occurs, and the study area occurs within the range of the species.
- **Likely.** Good habitat occurs, but the species was not observed during surveys.
- **Occurs:** Species was observed during surveys.

***Proposed for de-listing by USFWS in 2012.

****Protected under Fish & Game Codes and Federal Migratory Bird Treaty Act.

One plant, Scadden Flat checkerbloom, is state listed as endangered; one wildlife species, California black rail, is state listed as threatened; five wildlife species, Foothill yellow-legged frog, western pond turtle, long-eared owl, yellow warbler, and grasshopper sparrow are California Species of Special Concern (CSC); and all are CNPS Rank 1b and 2 species. Of the four plants and seven wildlife species with some potential to occur on the project sites, one, Scadden Flat checkerbloom, is state listed as endangered, and two are federally and/or state listed as threatened, including Valley elderberry longhorn beetle and California black rail. The remaining four special-status wildlife species are California Species of Special Concern. All special-status plants included in Table 4.4-3 are CNPS Rank 1 or 2 species. It should be noted that many species of migratory songbirds and nesting raptors that could occur on the project sites are afforded protection under the Migratory Bird Treaty Act and Fish and Game Code. A detailed discussion of each of these species is presented below.

Plants

Western viburnum (*Viburnum ellipticum*) is a three to 12 foot shrub in the honeysuckle family (Adoxaceae). It has no state or federal status. It is a CNPS Rank 2 species, meaning that it is rare in California, but more common elsewhere. It is differentiated from other members of the family by its simple, coarsely dentate leaves. It grows in chaparral, foothill woodlands, and lower montane forests at widely scattered locations in the Sierra Nevada and northern Coast Ranges of California. Viburnum is much more common and widespread from Oregon north. Oval-leaved viburnum blooms in May and June. This plant was not observed during surveys, and no occurrences are known from within five miles of any of the sites, but suitable habitat occurs on several forested sites. Sites 3, 4, 7, 8, 9, and 17 provide shaded slopes that would be most suitable for this species.

Brownish beaked-rush (*Rhynchospora capitellata*) is not listed pursuant to the federal or state Environmental Species Act; however, it is designated as a CNPS Rank 2 species. This species is an herbaceous perennial that occurs in montane coniferous forest in meadows, seeps, marshes, swamps, and moist areas. Brownish-beaked rush blooms from July to August and it is known to occur at elevations ranging from $\pm 1,500$ to $\pm 6,500$ feet. There are recorded occurrences of this species from Nevada County. The CNDDDB documents one occurrence of brownish-beaked rush approximately two miles northwest of Site 2. Wetlands and riparian areas provide potential habitat for this species.

Finger rush (*Juncus digitatus*) is an annual monocot in the rush family (Juncaceae). It has no state or federal status, but is a CNPS Rank 1B.1 species. It forms dense clumps of thin stems that are red in color and short relative to other common rushes. The fruit is a red, one to two centimeter long, curved, linear-oblong capsule. Finger rush grows in vernal pools, swales, and seeps at elevations ranging from $\pm 2,100$ to $\pm 2,700$ feet. In California this species is known from occurrences in the foothills of the Cascade Range in Shasta County and from the Sierra Nevada foothills in Nevada County. A large population of this species is recorded from just southeast of the intersection of Idaho Maryland Road and Brunswick Road, less than a half of a mile south of the Brunswick site cluster. Wet, open areas on Sites 3, 7, and 8 provide marginally suitable habitat for this species.

Scadden Flat checkerbloom (*Sidalcea stipularis*) is a perennial member of the mallow family (Malvaceae). It is a California endangered species and is a Rank 1B CNPS species. The leaves of this checkerbloom are spread evenly along the stems rather than being crowded at the base of the stems, a feature that separates it from most other checkerblooms. Two other species have similar leaves, but only the Scadden Flat checkerbloom occurs in the Sierra

Nevada. It occurs at only three locations in Nevada County near Grass Valley where it occurs in wetlands. It blooms in July and August.

Special-Status Wildlife

The 18 sites provide habitat components that could support a variety of wildlife species. Aquatic habitats and associated riparian corridors on several of the sites provide habitat for aquatic-dependent species and important cover for wildlife movement in the area. Forest and woodland communities that occur on many of the sites, particularly those with a nearby water source or close to open foraging habitat, provide important cover for wildlife and provide high quality roosting and nesting opportunities for songbirds and shelter for mammals. Though few were noted on the surveyed parcels, standing dead snags on forested sites provide nesting cavities for birds such as owls and woodpeckers and den or nest cavities for small mammals. Taller trees located near open areas could provide good nesting sites for raptors such as red-tailed hawk and other species.

Common wildlife observed on the sites included mule deer (*Odocoileus hemionus*), American crow (*Corvus brachyrhynchos*), European starling (*Sturnus vulgaris*), chipping sparrow (*Spizella passerina*), California quail (*Callipepla californica*), and Brewer's blackbird (*Euphagus cyanocephalus*). Common wildlife expected to occur on or move through the site includes red-tailed hawk (*Buteo jamaicensis*), great horned owl (*Bubo virginianus*), common raven (*Corvus corax*), California ground squirrel (*Otospermophilus beecheyi*), black-tailed hare (*Lepus californicus*), striped skunk (*Mephitis mephitis*), Pacific treefrog (*Pseudacris regilla*), western gray squirrel (*Sciurus griseus*), coyote (*Canis latrans*), and mule deer. Riparian communities associated with the various drainages crossing the study corridor are expected to provide important seasonal nesting habitat for numerous migratory songbirds, including some special-status species. No known established deer migration routes or critical habitat is known to occur on any of the sites.

Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) (VELB) is listed as threatened under the Federal Environmental Species Act, though the USFWS formally proposed to de-list the species in October 2012 following a lawsuit brought against USFWS by a coalition of flood control agencies, reclamation districts, and farm bureaus. The proposed de-listing is currently under public review.

This species is associated with elderberry shrubs (*Sambucus sp.*) during its entire life cycle. Thus, these shrubs are typically protected as a means of avoiding impacts to the beetle. It appears that in order to serve as habitat, elderberry shrubs must have stems one inch or greater in diameter at ground level. The beetles are not found in elderberry above 3,000 feet in elevation. The adults emerge from pupation inside the stems of the elderberry shrubs in the spring, as the flowers on the shrubs begin to open. The exit holes made by the emerging adults are distinctive small oval openings. Often these holes are the only clue that the beetles occur in an area. The adults feed on the elderberry foliage until the onset of mating in June. The females lay eggs in crevices in the bark before dying a short time later. Upon hatching, the larvae tunnel into the stem of the elderberry shrub where they spend one to two years eating the interior wood, which constitutes their sole food source while in the stem.

Elderberry shrubs were observed on Sites 10 and 13 near Squirrel Creek and could be found on others, particularly those with a riparian component. Sites in the Grass Valley area are near the upper elevation range of this species.

Foothill yellow-legged frog (*Rana boylei*) is a California Species of Special Concern and a U.S. Forest Service and Bureau of Land Management sensitive species. This species is found

in the drainages on the western slope of the Sierra Nevada up to about 6,000 feet. They are found in or near rocky perennial streams with cobble-sized or larger gravels and rocks. They prefer partially shaded habitats and shallow riffles but are occasionally found in vegetated backwater pools and slow-moving rivers with mud substrate. This species is reported from Squirrel Creek and known from the Bear River in Nevada County in several locations less than five miles from some of the project sites. Squirrel Creek, Ragsdale Creek, and a perennial tributary to Wolf Creek provide suitable habitat for this species on Sites 3, 7, 10, 13, and 17.

Western pond turtle (*Emys marmorata*) is a California Species of Special Concern. This species is found in quiet waters in a wide variety of aquatic habitats, including ponds, marshes, lakes, streams, and irrigation ditches and may occur in water that ranges in salinity content from fresh to brackish to seawater. This species prefers habitats with abundant cover (logs, algae, vegetation) and exposed basking sites (logs, boulders). Females build nests along wetland margins or in adjacent uplands in April and May. Egg-laying occurs in July and August and requires soils that are at least 10 centimeters deep, usually with southern exposure. Females leave the watercourse in late afternoon and evening, and travel into adjacent wetland margins or uplands to build nests. Aquatic habitat on some sites is marginally suitable for this turtle. Moderate flow rates and lack of basking sites make available aquatic habitat suboptimal; nevertheless, there is some potential for this species to occur on Sites 3, 7, 10, 13, and 17.

California black rail (*Laterallus jamaicensis coturniculus*) is a state listed threatened species that inhabits salt, fresh, and brackish water marshes. In freshwater habitats, their preference is for dense bulrush and cattails. They require marshes with little daily and/or annual water fluctuations in order to provide adequate cover from predators and to conceal nest sites. Their nests are concealed in dense vegetation, usually consisting of herbaceous wetland species. Since 1994, populations of the California black rail have been documented in several counties in the foothills of the Sierra Nevada. Typical inland habitat consists of persistent irrigation-fed wetlands over 0.25 acre that support dense riparian and wetland vegetation, including cattails, rushes, and Himalayan blackberry. The CNDDDB documents several occurrences of California black rail within less than five miles of several of the sites. While no high quality habitat for this species occurs within any of the proposed rezone sites, there is some potential for this species to utilize dense vegetation associated with perennial and intermittent streams on Sites 3, 7, 8, 10, 13, and 17.

Long-eared owl (*Asio otus*) is a California Species of Special Concern. This owl nests in the Sierra Nevada foothills, northeastern California, and scattered locations in the Coast Range and desert region. Winter range includes the Central Valley. Long-eared owl forages in open areas near woodlands and nests and roosts within riparian woodland and live oak thickets near foraging habitat. The most suitable habitat for this species occurs on sites with an oak woodland or riparian component, though all potential sites except for Site 1 could provide nesting habitat for this species.

Yellow warbler (*Dendroica petechia*) and other nesting migratory songbirds: Yellow warbler is an uncommon to common, summer resident in the northern Sierra Nevada. It primarily breeds in riparian woodlands up to 8,000 feet, but is also known to breed in montane chaparral, open ponderosa pine and mixed conifer habitats with substantial amounts of shrub cover. During migration, this species is found in a variety of forest and woodland habitats. Nests consist of an open cup placed approximately 2 to 16 feet above the ground in a deciduous tree or shrub. Breeding generally takes place from mid-April to early-August with peak activity occurring in June. Incubation is approximately 11 days. Young

fledge at about 9 to 12 days following hatching. Young yellow warblers breed the following year after hatching.

The CNDDDB documents one occurrence of yellow warbler approximately 7 miles southwest of the Penn Valley site cluster. Riparian corridors on Sites 3, 7, 8, 10, 13, and 17 provide suitable nesting habitat for this species, and it is considered likely that yellow warbler nesting could occur on these sites.

Riparian, woodland, grassland, and chaparral habitats occurring on the project sites could provide suitable nesting habitat for many species of migratory bird species afforded protection under the Migratory Bird Treaty Act (MBTA), including grasshopper sparrows and other species.

Raptors: While no listed species of raptor is considered likely to occur on any of the project sites, large trees on, or adjacent to, all eighteen of the sites could be used for nesting by raptors, including common species such as red-tailed hawk and red-shouldered hawk, and raptors designated as California Species of Special Concern, such as sharp-shinned hawk and Cooper's Hawk. All raptors are protected under the Migratory Bird Treaty Act and by the California Fish and Game Code.

4.4.2 REGULATORY SETTING

FEDERAL FRAMEWORK

Federal Endangered Species Act

The FESA protects plants and wildlife that are listed as endangered or threatened by the USFWS and the National Marine Fisheries Service. Section 9 of the FESA prohibits the taking of endangered wildlife, where taking is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 CFR 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging-up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 USC 1538). Under Section 7 of the FESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect an endangered species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to another authorized activity provided the action will not jeopardize the continued existence of the species. Section 10 of FESA provides for issuance of incidental take permits to private parties provided a habitat conservation plan is developed.

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (16 USC, Sec. 703, Supp. I, 1989) (MBTA) regulates and prohibits taking, killing, possession of, or harm to migratory bird species listed in Title 50 CFR §10.13, including migratory birds of prey (raptors). This international treaty for the conservation and management of bird species that migrate through more than one country is enforced in the United States by the USFWS. The MBTA is intended to protect migratory birds, any of their parts, eggs and nests from activities such as hunting, pursuing, capturing, killing, selling and shipping. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513 and 3503.5 of the CDFG Code. Specifically, Section 3513 of the California Fish and Game Code states that it is unlawful to take or possess any migratory

non-game bird as designated in the MBTA. This provides the CDFW with enforcement authority for project-related impacts that would result in the take of bird species protected under the MBTA.

Federal Clean Water Act

The Clean Water Act's (CWA) purpose is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge of dredged or fill material into "waters of the United States" without a permit from the USACE. The definition of waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes and wetlands. Wetlands are defined as those areas "that are inundated or saturated by surface or ground water 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 CFR 328.3 7b). The U.S. Environmental Protection Agency (U.S. EPA) also has authority over wetlands and may override a USACE permit.

Substantial impacts on wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the Regional Water Quality Control Board (RWQCB).

STATE FRAMEWORK

California Endangered Species Act

The CESA generally parallels the main provisions of the FESA, but unlike its federal counterpart, the CESA applies the take prohibitions to species proposed for listing (called "candidates" by the state). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The CESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with the CDFW to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

Fully Protected Species

The State of California first began to designate species as "Fully Protected" prior to the creation of the CESA and the FESA. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, and included fish, amphibians, reptiles, birds and mammals. Most fully protected species have since been listed as threatened or endangered under the CESA and/or FESA. The regulations that implement the Fully Protected Species Statute (California Fish and Game Code Section 4700) provide that fully protected species may not be taken or possessed at any time, except as allowed under the provisions of an incidental take permit authorized by CDFW.

Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (California Fish and Game Code Sections 1900-1913) was created with the intent to “preserve, protect and enhance rare and endangered plants in this state.” The NPPA is administered by the CDFW. The Fish and Game Commission has the authority to designate native plants as “endangered” or “rare” and to protect endangered and rare plants from take. The CESA provides further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code.

California Streambed Alteration Notification/Agreement

Section 1602 of the California Fish and Game Code requires that a Streambed Alteration Application be submitted to the CDFW for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.” The CDFW reviews the proposed actions and, if necessary, submits a proposal for measures to protect affected fish and wildlife resources to the developer. The final proposal that is mutually agreed upon by the CDFW and the developer is the Streambed Alteration Agreement. Often, projects that require a Streambed Alteration Agreement also require a permit from the USACE under Section 404 of the Clean Water Act. In these instances, the conditions of the Section 404 permit and the Streambed Alteration Agreement may overlap.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne) imposes stringent controls on any discharges into the “waters of the state” (California Water Code § 13000, et seq.). Waters of the state are defined as any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code § 13050(e)). Pursuant to Porter-Cologne, the State Water Resources Control Board (SWRCB) has the ultimate authority over state water rights and water quality policy. However, Porter-Cologne also establishes nine RWQCBs to oversee water quality at the local/regional level. Under Porter-Cologne, the state retains authority to regulate discharges of waste into any waters of the state, regardless of whether the USACE has concurrent jurisdiction under Section 404 of the CWA. This applies specifically to isolated wetlands considered non-jurisdictional by the USACE.

LOCAL FRAMEWORK

Nevada County 2012 General Plan

The County of Nevada 2012 General Plan (2012 General Plan) includes a Wildlife and Vegetation Element, which contains several goals, objectives and policies designed to preserve and protect biological resources within the County.

- | | |
|----------------|--|
| Goal 13.1 | Identify and manage significant areas to achieve sustainable habitat. |
| Objective 13.1 | Discourage intrusion and encroachment by incompatible land uses in significant and sensitive habitats. |
| Policy 13.1 | Where significant environmental features, as defined in Policy 1.17, are identified during review of projects, the County shall require all portions of the project site that contain or influence |

said areas to be retained as non-disturbance open space through clustered development on suitable portions of the project site, or other means where mandatory clustering cannot be achieved.

The intent and emphasis of such open space designation and non-disturbance is to promote continued viability of contiguous or inter-dependent habitats by avoiding fragmentation of existing habitat areas and preserving movement corridors between related habitats. Vegetation management for the benefit of habitat preservation or restoration shall be considered consistent with the intent of this policy.

Policy 13.2

As part of the Comprehensive Site Development Standards, include standards to minimize removal of existing vegetation and require installation and long-term maintenance of landscaping insetbacks and buffer areas. These standards shall be applicable to all discretionary projects and to all ministerial projects other than a single-family residence located on an individual lot. Tree removal may be allowed where necessary to comply with public right-of-way development or dedication, or development of required site access and public utilities. Individual trees or groups of trees shall be protected during construction to prevent damage to the trees and their root systems. Vegetation in proximity to structures shall conform to applicable fire protection standards.

Policy 13.2A

Project review standards shall include a requirement to conduct a site-specific biological inventory to determine the presence of special status species or habitat for such species that may be affected by a proposed project. The results of the biological inventory shall be used as the basis for establishing land use siting and design tools required to achieve the objective of no net loss of habitat function or value for special status species.

Where a Habitat Management Plan is deemed appropriate, the Plan shall be prepared to comply with the requirements of the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA). The plan shall provide the background data, impact analysis, and mitigation programs necessary to obtain a FESA Section 10(a) and CESA Section 2081 permit authorizing incidental take of federal and state listed threatened and endangered species that occur in areas proposed for future development. Prior to implementation of an adopted Habitat Management Plan, project developers proposing the development of a project that would impact a federal or state listed species, or a species that is proposed for listing, shall be individually responsible for obtaining federal and state incidental take permits on a project-by-project basis.

Policy 13.2B

Development projects which have the potential to remove natural riparian or wetland habitat of 1 acre or more shall not be permitted unless:

- a. No suitable alternative site or design exists for the land use;
- b. There is no degradation of the habitat or reduction in the numbers of any rare, threatened, or endangered plant or animal species as a result of the project;
- c. Habitat of superior quantity and superior or comparable quality will be created or restored to compensate for the loss; and
- d. The project conforms with regulations and guidelines of the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, California Department of Fish and Game, and other relevant agencies.

Policy 13.3	As part of the Comprehensive Site Development Standards, require the maximum feasible use of drought tolerant native plant species for landscaping of all new multi-family residential, commercial, industrial, and public projects. Invasive, non-native plants, as determined by a landscape architect or other similar expert, that may displace native vegetation on adjoining undeveloped lands shall not be used. Landscaping with native trees and shrubs shall be encouraged to provide suitable habitat for native wildlife, particularly in proposed open space uses of future development.
Policy 13.4	Encourage long-term sustainability and maintenance of landscaped areas.
Policy 13.4A	No net loss of habitat functions or values shall be caused by development where rare and endangered species and wetlands of over 1 acre, in aggregate, are identified during the review of proposed projects. No net loss shall be achieved through avoidance of the resource, or through creation or restoration of habitat of superior or comparable quality, in accordance with guidelines of the U.S. Fish and Wildlife Service and the California Department of Fish and Game.
Policy 13.4B	Habitat that is required to be protected, restored, or created as mitigation for a project's impacts shall be monitored and maintained in accord with a County-approved Habitat Management Plan.
Policy 13.4C	The land use designations and associated acreages identified on the proposed General Plan land use maps for Special Development Areas should be modified as necessary at the Specific Plan stage to protect sensitive natural communities and other important biotic resources.
Policy 13.4D	The County shall prepare and implement a Habitat Management Plan for rare and endangered species and wetlands habitat while allowing the preparation of individual project habitat management plans as an alternative, including an offsite ecological reserve.

- Policy 13.4E The County shall investigate establishing interagency agreements with adjoining counties where new developments could impact significant natural resource areas shared by adjoining counties. The agreements shall require notification of development projects within one mile of the County's borders and provide for review and comment by affected counties.
- Policy 13.4H Non-development buffers shall be maintained adjacent to perennial stream corridors through the use of clustering, the designation of a Planned Development, or the implementation of other siting and design tools. Buffers shall be sufficient in size to protect the stream corridor for movement, as well as provide some adjacent upland habitat for foraging.
- Objective 13.2 Minimize impacts to corridors to ensure movement of wildlife.
- Objective 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.
- Objective 13.7 Identify and preserve heritage and landmark trees and groves where appropriate.
- Policy 13.8 As part of the Comprehensive Site Development Standards, include measures applicable to all discretionary and ministerial projects to minimize disturbance of heritage and landmark trees and groves. These measures shall include, but are not limited to, requirements for on-site vegetation inventories and mandatory clustering of development in areas likely to support such vegetation or habitat.
- Policy 13.9 Development in the vicinity of significant oak groves of all oak species shall be designed and sited to maximize the long-term preservation of the trees and the integrity of their natural setting. The County shall adopt a regulation to protect native heritage oak trees and significant oak groves. All native oak tree species with a trunk diameter of 36 inches or greater shall be protected.

Nevada County Comprehensive Site Development Standards

As part of the County's Zoning Ordinance, Nevada County has adopted Comprehensive Site Development Standards, which include requirements for protection of biological resources. These standards identify avoidance of impacts to natural resources as the preferred standard, and provide that where avoidance is infeasible, impacts should be minimized "in a reasonable fashion that strikes a balance between allowing development of the project site and protecting the resource or avoiding the constraint." Compensation for an impact may be permitted when the County determines that both avoidance and minimization are infeasible. Further, where minimization or compensation is necessary, preparation and implementation of a County-approved Management Plan may be required.

Nevada County Tree Preservation and Protection Ordinance

Section L-II 4.3.15 of the Nevada County Zoning Ordinance requires projects to minimize impacts to trees, and to maximize the long-term preservation of trees in their natural setting. The ordinance calls for avoidance of impacts to Landmark Trees or Landmark Groves. Landmark Trees are defined as any oak with a dbh of at least 36 inches, or any tree whose size, visual impact, or association with a historically significant structure or event has caused it to be marked for preservation by the county, state, or federal governments. Landmark Groves are defined as hardwood tree groves with at least 33 percent canopy closure, or groves whose size, visual impact, or association with a historically significant structure or event has caused it to be marked for preservation by the county, state, or federal government.

The Nevada County Code discourages removal of Landmark Trees or trees within Landmark Groves and requires that a Management Plan be prepared to identify impacts to Landmark Trees or Groves and specify measures that would avoid or reduce such impacts. The Code further specifies that a Tree Protection Plan be prepared to identify measures for the protection of designated trees or groves that will remain onsite following improvements.

Nevada County Watercourse, Wetland and Riparian Ordinance

Section L-II 4.3.17 of the Nevada County Zoning Ordinance outlines the standards for preserving the integrity and minimizing disruption to watersheds and watercourses. A project shall be approved only when the project is not within the following non-disturbance buffers:

1. For all applicable projects, the developer shall have a Biological Inventory prepared by a qualified biologist, to determine whether the habitat for the defined resource, or the resource itself may be affected by a proposed project.
2. Within 100' of the high water mark of perennial streams and watercourses.
3. Within 50' from the high water mark of intermittent watercourses.
4. Within 100' of all wetlands and riparian areas.
5. Within 100' of the canal water surface on the uphill side of the canal; and within 20' of the water surface on the downhill side of the canal.
6. A project shall be approved only when it is determined by the Planning Agency that it will not adversely affect any wetlands over one acre, or riparian areas, and that it will result in no net loss of habitat functions or values of the wetlands or riparian area.
7. Project developers shall obtain appropriate authorizations from the U.S. Fish and Wildlife Service, State Department of Fish and Wildlife, and U.S. Army Corps of Engineers prior to project approval. Any provisions to avoid, mitigate, or compensate for impacts to the wetlands or riparian areas contained in such authorizations shall become conditions of project approval.
8. If the above standards effectively preclude development of the project or a revised project, or adversely affects another environmentally sensitive resource, a Management Plan, prepared by a qualified biologist or botanist, shall be prepared that avoids or minimizes impacts to the resource.

An alternative is the on-site or off-site creation, restoration, replacement, enhancement, or preservation of wetlands or riparian areas. This alternative may be preferred where the remaining protected wetlands or riparian areas are small,

isolated, and of low habitat value. Such areas shall take into account both site location and wetland or riparian type.

The following wetland or riparian area types shall be allowed as mitigation in descending order of general acceptability:

- a. In kind, On-site
- b. In kind, Off-site
- c. Out-of-kind, On-site
- d. Out-of-kind, Off-site

Such wetlands or riparian areas shall be maintained in perpetuity in order to compensate for the permanent effect of the project through recordation of a restrictive document. Such wetlands or riparian areas shall ensure full replacement of wetland or riparian areas lost at a minimum of not less than a 2:1 ratio.

Mitigation can involve the purchase of compensatory habitat acreage within Nevada County of comparable or superior quality within a qualified wetland or riparian area mitigation banking site in Nevada County ensuring full replacement consistent with the above standard. The bank developer shall provide assurance to the County that the created wetlands or riparian areas are permanently protected and maintained.

These standards shall not apply to open air structures, including docks piers, boat hoists and canopies, as defined in Section 4.2.5.G.5.

City of Grass Valley 2020 General Plan

The City of Grass Valley 2020 General Plan (2020 General Plan) includes several goals, objectives, and policies with respect to biological resources. The following General Plan provisions would apply only to those sites that would require annexation into the City of Grass Valley prior to development:

Land Use Element

Policy 25-LU Utilize clustering and other land use techniques to protect environmentally sensitive resources, such as heritage trees and wetlands.

Circulation Element

Goal 3-C Provide for the safe and efficient movement of people and goods in a manner that respects existing neighborhoods and the natural environment.

Objective 10-C Protection of stream courses, riparian areas and other natural features.

Policy 15-C Avoid environmentally sensitive areas, to the extent feasible, when expanding the roadway network.

Conservation/Open Space Element

Goal 1-COS 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.
Objective 1-COS	Inventory of sensitive environmental areas and features.
Objective 3-COS	Protection of rare and endangered animals and plants.
Objective 4-COS	Reduction of urban development impacts on native vegetation, wildlife and topography.
Objective 5-COS	Encouragement of wildlife through habitat protection.
Objective 6-COS	Assurance of appropriate resource conservation and environmental protection measures as prerequisites to development.
Goal 2-COS	Protect, enhance and restore hydrologic features, including stream corridors, floodplains, wetlands, and riparian zones.
Goal 3-COS	Ensure the protection of Grass Valley's trees and forested areas.
Objective 6-COS	Assurance of appropriate resource conservation and environmental protection measures as prerequisites to development.
Objective 9-COS	Identification of heritage trees for special recognition and protection.
Objective 10-COS	Identification of significant groves and groupings of trees for permanent open space designation.
Policy 2-COS	Establish an active program of land/development rights acquisition in order to protect sensitive environmental areas and features.
Policy 3-COS	Encourage clustering, density averaging, and other techniques in larger-scale new developments, as means of preserving open space and natural systems.
Policy 4-COS	Establish standards for inclusion and management of permanent open space in new developments.
Policy 13-COS	Assist property owners wishing to preserve and protect heritage trees and significant groves.

Grass Valley Tree Preservation and Protection Ordinance

The City of Grass Valley (City) Tree Preservation and Protection Ordinance (Chapter 12.36 of the City of Grass Valley Development Code) establishes standards for the maintenance, management, and preservation of native and indigenous trees. Trees protected under this ordinance are defined under four categories: Trees, Street Trees, Significant Trees and Heritage Trees. Trees include any plant with a woody trunk eight inches or more in diameter at breast height (dbh). Significant Trees are those with a trunk eighteen inches dbh. Heritage Trees are those trees listed on the City Heritage Tree List, adopted because of distinct or unique qualities. Street Trees are those that occur within a public right-of-way. The City's development approval process also requires specific measures for tree protection as established within the Tree Preservation and Protection Ordinance (Chapter 12.36, Section 12.36.200).

For construction-related tree removal, a tree removal permit is required prior to the start of any work. The permit application requires review and approval by the Planning Department. A tree protection plan, including proposed mitigation for trees to be removed, needs to be approved by the Tree Permit Administrator prior to work, and construction-related tree removal permits are required prior to the issuance of a grading or building permit. Heritage Trees must be removed from the Heritage Tree List by formal action of the City Council prior to issuance of a tree removal permit. No Heritage Trees may be removed while still on the list. Activities associated with the establishment of a public park are exempt from permitting requirements. However, the Parks Maintenance Division must submit an annual plan to the Tree Permit Administrator outlining proposed activities, and reporting activities undertaken the previous year. Trees less than eight inches dbh, except for Street Trees planted within the public right-of-way at the direction of the City or as a required condition for landscaping or planning actions, are exempt from permitting. Trees less than 18 inches on public lands are exempt, except for Significant Trees and Street Trees within a public right-of-way. For the purposes of wildlife fuel management, trees within Wildfire Lands, as defined on existing maps, are exempt from permitting requirements, as are dead trees. Activities needed for safety reasons, as defined by the California Public Utilities Commission, are exempt, with numerous provisions. Lastly, nuisance trees, as recognized by the Tree Permit Administrator, may be removed. These provisions would apply only to those sites that would require annexation into the City of Grass Valley prior to development.

City of Grass Valley Development Code

The City of Grass Valley Development Code (Title 17 of Grass Valley Municipal Code) includes several standards and requirements with respect to resource management issues, including the following:

Article 5	Resource Management – Chapter 17.50 (creek and riparian resource protection).
Article 6	Site Development Regulations – Chapter 17.60 (grading permit requirements and procedures and Chapter 17.62 (grading, erosion, and sediment control standards).
Article 7	Planning Permit Procedures – Chapter 17.70 (permit applications filings and processing).
Article 8	Subdivisions - Chapter 17.80 (subdivision ordinance applicability and administration) and Chapter 17.86 (dedication and exactions of land).

4.4.3 ENVIRONMENTAL ANALYSIS

THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the *CEQA Guidelines*, the proposed project would have significant impacts on biological resources if it would:

- Have an adverse effect, either directly or through habitat modifications, on any species listed as endangered, threatened, or proposed or critical habitat for these species

- 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 CDFW or USFWS
- 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 CDFW or USFWS
- 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
- 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
- Conflict with any local policies or ordinances protecting biological resources such as tree preservation policy or ordinances
- Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan, or other approved local, regional, or state HCP

AREAS OF NO PROJECT IMPACT

The following impacts are either not applicable to the project or are not reasonably foreseeable:

- Conflict with any local policies or ordinances protecting biological resources such as tree preservation policy or ordinances.

Standards for maintenance, management and preservation of native and indigenous trees are established in Section L-II 4.3.15 of the Nevada County Zoning Ordinance (Tree Preservation and Protection Ordinance). The measures prescribed by the Nevada County Tree Preservation and Protection Ordinance, including preparation of a Management Plan for impacts to Landmark Trees and Landmark Groves and for portions of those habitat preserved onsite, would be implemented as part of the County's ministerial permitting process.

In addition, for those sites that require annexation into the City of Grass Valley prior to development, the requirements of the City of Grass Valley Tree Preservation and Protection Ordinance (Chapter 12.36) would apply and would be implemented as part of the City's ministerial permitting process.

Future development applications would require a tree removal permit from the County or City. Future development for sites within the RH Combining District would be required to demonstrate compliance with all applicable local policies or ordinances associated with biological resources, including Section L-II 4.3.15 of the Nevada County Zoning Ordinance and the City of Grass Valley Tree Preservation and Protection Ordinance. As such, there would be no impact associated with a conflict with these adopted ordinances.

- Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan, or other approved local, regional, or state HCP.

There are no known HCPs, Natural Community Conservation Plans, or other approved local, regional, or state HCPs that apply to the project.

- 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.

While riparian corridors that occur on some of the sites provide important wildlife movement habitat, none of the 18 rezone sites support established migratory corridors or wildlife nursery sites.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Special Status Species

4.4-1 ***THE PROPOSED PROJECT HAS THE POTENTIAL TO ADVERSELY AFFECT SPECIAL-STATUS PLANT SPECIES.***

Level of Significance Before Mitigation: Potentially Significant Impact

Impact Analysis

Future development on each of the 18 rezone sites would result in direct and indirect impacts to vegetation as a result of site preparation, grading, and construction. This disturbance could adversely affect special-status plant species if they occur within the disturbance area.

No special-status plant species were observed during surveys conducted on the RH Combining District sites, though there is potential for several species of rare plants to occur within specific habitats found on some of the sites. Several of the species with potential to occur on the sites require wetland or riparian habitats, which occur on several of the sites, as shown in Table 4.4-2. Because the timeframe in which these sites could be developed is unknown, conditions on the site could change in which special-status plant species could establish on the project site. Since there is the potential for special-status plant species to be present on the project sites, impacts to special-status plant species resulting from site development are considered potentially significant. Plant communities for each site were surveyed and mapped in Table 4.4-1 and Figures 4.4-1 through 4.4-7. In order to estimate the potential impact to habitats, a proposed development footprint was created. The development footprints were overlaid on the mapped habitats and the impact to each habitat is estimated below in Table 4.4-4.

**Table 4.4-4
 Potential Impacts to Plant Communities
 within the Project Rezone Sites**

Site	Annual Grassland (Acres)	Valley Oak Woodland (Acres)	Blue Oak Woodland (Acres)	Montane Hardwood (Acres)	Sierran Mixed Conifer (Acres)	Foothill Riparian (Acres)	Mixed Chaparral (Acres)	Blue Oak-Foothill Pine (Acres)
1	-	-	-	-	-	-	-	-
2	-	-	-	5.78	8.11	-	-	-
3	-	-	-	.03	8.01	0.07	-	-
4	-	-	-	-	11.48	-	-	-
5	-	-	-	-	5.62	-	-	-
6	-	-	-	-	10.06	-	-	-
7	-	-	-	-	4.33	0.13	-	-
8	-	-	-	-	3.57	0.15	-	-
9	-	-	-	-	4.85	-	-	-

Table 4.4-4, continued

Site	Annual Grassland (Acres)	Valley Oak Woodland (Acres)	Blue Oak Woodland (Acres)	Montane Hardwood (Acres)	Sierran Mixed Conifer (Acres)	Foothill Riparian (Acres)	Mixed Chaparral (Acres)	Blue Oak-Foothill Pine (Acres)
10	4.18	-	-	-	-	-	-	-
11	2.31	-	-	-	-	-	-	-
12	2.82	-	-	-	-	-	-	-
13	7.33	2.97	-	-	1.29	-	-	-
14	-	-	1.27	-	-	-	-	-
15	-	-	-	3.86	-	-	-	-
16	-	-	-	5.25	-	-	1.68	11.93
17	-	-	-	1.00	-	0.39	-	-
18	-	-	-	4.82	3.80	-	-	-
Total	16.64	2.97	1.27	14.93	61.12	0.74	1.68	11.93

To protect sensitive wetland and riparian habitats on the sites, an Environmentally Sensitive Areas (ESA) designation was placed on sensitive habitat types, such as wetlands and riparian areas, occurring on each of the sites. The ESAs were established to identify areas that would remain outside of the development disturbance area to avoid impacts to sensitive habitats or rare plant species. ESA designations were placed on Sites 2, 3, 7, 8, 9, 10, 11, 12, 13, 17, and 18. Development that avoids ESAs would have no impact on sensitive habitats and plant species with potential to occur within these areas. Mitigation Measure 4.4-1a requires the designation of ESAs on those sites with sensitive habitat. However, there are some sites where encroachment into sensitive habitats is necessary to gain access to or through the site. In such cases in which impacts would be necessary within designated sensitive habitat areas, Mitigation Measure 4.4-1a requires the preparation of a management plan that identifies how impacts would be minimized and mitigated.

Mitigation Measure 4.4-1b requires that special-status plant surveys are conducted prior to any site disturbance and would ensure that special-status plant species are identified and that a management plan is prepared to avoid or minimize impacts to any special-status plant discovered during required surveys.

Mitigation Measure 4.4-1c requires that all agency permits associated with impacts to special-status plant species be obtained and that the developer adhere to and implement all conditions of permit issuance. With implementation of these mitigation measures, impacts to special-status plant species, including listed species, would remain less than significant.

Mitigation Measures:

The following mitigation measure applies to Sites 2, 3, 7 through 13, 17, and 18.

- 4.4-1a Prior to approval of a Site Plan, grading plan, or any permit authorizing construction for a property within the RH Combining District, the project developer shall to the satisfaction of the Director of the County Planning Department (or City of Grass Valley Planning Department for Sites 2, 3, 7, 8 and 9):

Designate wetland and riparian habitat areas an Environmentally Sensitive Area (ESA) consistent with the ESA exhibits shown in Section 3.0 of this EIR on all Site Plans, grading plans, or any permit authorizing construction for a property within the RH Combining District. No construction shall be permitted within the ESAs, unless as part of a

management plan consistent with Nevada County Land Use and Development Code Section L-II 4.3.17, is approved by the County Planning Department. For projects located within the Grass Valley SOI, a Wetland and Riparian Mitigation Monitoring Program shall be approved by the City Planning Department. The boundaries of the ESAs shall be clearly shown on all final plans and specifications.

The following mitigation measures apply to all sites.

4.4-1b Prior to approval of a Site Plan, grading plan, or any permit authorizing construction for a property within the RH Combining District, the project developer shall to the satisfaction of the Director of the County Planning Department (or City of Grass Valley Planning Department for Sites 1-9):

- i) Conduct focused special-status plant surveys within and adjacent to (within 100 feet, where appropriate) the proposed impact area, which will include impacts from project construction (temporary construction zone and staging areas) or by post-construction fuel management. Surveys shall be conducted during the appropriate time of year to determine the presence of special-status plant species that have been identified as potentially occurring on the project site. Surveys shall be conducted in accordance with the Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities (CDFG 2000). Field surveys shall be scheduled to coincide with known flowering periods (for the specific species) and/or during periods of physiological development that are necessary to identify the plant species of concern. According to the known blooming periods, surveys would need to be conducted in May or June and again in July or August; however, unusual weather may affect blooming periods so reference sites should be checked.

It is important for the required plant survey to be scheduled in time to allow for salvage and transplantation, if required, prior to initiation of project grading. Specifically, if construction is to be initiated during or prior to September in any year, the survey will need to be completed during the previous calendar year in order to satisfy the mitigation measure requirements. Project approval conditions should include language that alerts project proponents to this circumstance to avoid costly construction delays.

The survey report, including a description of methods, map of area surveyed, results, and a complete list of all plant taxa found during the survey, shall be provided to County staff prior to initiation of any grading or equipment operation. If no occurrences of special-status species are found, no further mitigation is required.

- ii) If any federally or state-listed, CNPS Rare Plant Rank 1 or 2 plant species are found within or adjacent to (within 100 feet) the proposed impact area during the surveys, the CDFW (in the case of state-only listed plants) and/or USFWS (in the case of federally listed plants), as applicable, shall be notified regarding the status and location of the plant and the necessary approval and/or permits obtained. These plant species shall be avoided to the extent feasible. Avoidance measures shall

include fencing of the population(s) before construction, exclusion of project activities from the fenced-off areas (no ingress of personnel or equipment), and construction monitoring by a qualified biologist. Avoidance areas shall be identified on project plans. If these plants cannot be avoided completely, the following mitigation measures shall be applied:

- Before the approval of grading plans or any groundbreaking activity within the project site, the project developer shall submit a mitigation plan concurrently to the CDFW (in the case of state-only listed plants) and/or USFWS (in the case of federally listed plants) for review and comment, and the developer may consult with these entities before approval of the plan. The plan shall include mitigation measures for the population(s) to be directly affected. Possible mitigation for the population(s) that would be removed during construction of the project includes implementation of a program to transplant, salvage, cultivate, or re-establish the species at suitable sites. The mitigation ratio for directly impacted plant species shall be at a minimum ratio of 2:1. The actual level of mitigation may vary depending on the sensitivity of the species (its rarity or endangerment status), its prevalence in the area, and the current state of knowledge about overall population trends and threats to its survival. Alternatively, replacement credits may be purchased by the project developer at an approved mitigation bank should such credits be available.
- Transplantation of existing special-status plants could be undertaken to move the plant(s) to a suitable habitat location, either within the project site or at an off-site preserve to be protected in perpetuity. The off-site preserve shall include similar soil, climate, and associated plant species as are currently present at the project site. This location will be protected in perpetuity under a conservation easement and managed appropriately to ensure the transplantation is a success. Please note, however, that for some species transplantation may not be a successful or effective method for conservation, as requirements for some species are highly specialized and not clearly understood. Thus, transplantation shall only be used where success can be assured. Avoidance shall be required for special-status plant species that cannot be transplanted, salvaged or cultivated.
- If on-site preservation is determined to be feasible, a conservation easement shall be placed over project open space areas to preserve the mitigation areas in perpetuity.

This mitigation measure applies to all sites.

- 4.4-1c Appropriate Permits: Prior to approval of a Site Plan, grading plan, or any permit authorizing construction for a property within the RH Combining District, the project developer shall demonstrate, to the satisfaction of the Director of the County Planning Department, that the project developer has obtained all permits and authorizations required by federal, state,

regional and local jurisdictions to proceed with their development proposals. These could include incidental take permits that set forth specific measures to minimize, avoid, or fully mitigate impacts to listed species. This should also include, for sites with mapped ESAs, a demonstration of how the development footprint will avoid all ESAs on the project site. Measures could also include limiting operating periods such as prohibiting grading during the wet season (October to May), requiring 100 foot buffers to disturbance and fencing for sensitive areas, design revisions, and species relocation by soil salvage, seed collection, or other means approved by the agencies with jurisdiction. Prior to development of any individual site, additional species could be listed or designated as special-status, and the future developers of the Housing Element Rezone Implementation Program project sites shall comply with any new requirements of the USFWS or CDFW for such species, as may be imposed through subsequent consultation, if necessary.

Level of Significance After Mitigation: Less Than Significant Impact.

4.4-2 THE PROPOSED PROJECT HAS THE POTENTIAL TO ADVERSELY AFFECT SPECIAL-STATUS WILDLIFE SPECIES.

Level of Significance Before Mitigation: Potentially Significant Impact

Impact Analysis

Seven special-status wildlife species are considered to have potential to occur on the 18 rezone sites and could be adversely affected by site development.

Valley Elderberry Longhorn Beetle (VELB): Elderberry shrubs were observed on Sites 10 and 13 near Squirrel Creek and could occur on some other sites, particularly those with a riparian component. Sites in the Grass Valley area are near the upper elevation range of this species of beetle, nevertheless, there is some potential for this species to occur. Impacts to the unique habitat of VELB or direct impacts to VELB resulting from site development would constitute a take under the Federal Endangered Species Act and would be a significant impact.

To ensure that no adverse impacts to VELB would occur, Mitigation Measure 4.4-1a requires that all riparian areas, which are suitable for elderberry shrub habitat, be mapped and recorded as Environmentally Sensitive Areas. Mitigation Measure 4.4-2a requires that surveys for elderberry shrubs be carried out prior to site disturbance and that shrubs with stems of at least one inch diameter be preserved or that an incidental take permit authorization be obtained for VELB impacts and that the developer complies with all measures associated with the incidental take authorization and the biological opinion that would serve to mitigate impacts to VELB¹.

Raptors and Songbirds: Each of the 18 sites includes some potential nesting habitat for raptors and songbirds. Construction activities could disturb nesting birds or their young, which would result in a significant impact. Mitigation Measure 4.4-2b requires completion of a pre-construction survey to locate nests and implementation of best practices consistent with state and federal regulations to minimize adverse effects at nest sites. This would

¹ Note: The USFWS formally proposed to de-list VELB in October 2012 following a lawsuit brought against the USFWS by a coalition of flood control agencies, reclamation districts, and farm bureaus. The proposed de-listing is currently under public review. De-listing of the species could result in new guidance regarding impacts to VELB and the elderberry host plant.

ensure that impacts to special-status birds, including raptors and songbirds, would remain less than significant.

Aquatic Habitat Dependent Species: Any disturbance to aquatic habitats and nearby upland habitat associated with Ragsdale Creek, Squirrel Creek, or Wolf Creek could result in impacts to Foothill yellow-legged frog or western pond turtle. Impacts to these California Species of Special Concern or their habitat would be a significant impact of the site development. Ragsdale Creek, Squirrel Creek, and tributaries to Wolf Creek and other waterways within the RH Combining District sites provide potential habitat for other aquatic species. The riparian vegetation associated with these waterways is considered sensitive habitat as it provides important habitat values including vegetative cover and a natural corridor for movement by many common species of wildlife. To ensure that impacts to waterways and riparian corridors remain less than significant, Mitigation Measure 4.4-1a would require all riparian areas be mapped and recorded as an Environmentally Sensitive Area. Future construction on any of the project sites shall avoid all ESAs, unless a Management Plan that specifies impact mitigation measures, including compensatory or replacement habitat as required by resource agencies with jurisdiction over the resource, is approved by the County.

Additionally, Mitigation Measure 4.4-1a requires that site development comply with Section 4.3.17 of the Nevada County Land Use Development Code, which specifies that non-disturbance buffers be maintained to all waterways, riparian areas, and wetlands except as approved according to a Management Plan and when a finding can be made by the Planning Department that no adverse effects to wetlands over one acre or to riparian areas would occur, or that impacts are fully mitigated and appropriate permits are obtained from all agencies with jurisdiction. This would ensure that no net loss of habitat values or functions of creeks, streams, or wetlands would occur with the development of the project sites, and impacts to aquatic habitat dependent species are less than significant.

Where construction within the ESAs is unavoidable, Mitigation Measure 4.4-2c outlines the proper steps that should be taken to protect special-status wildlife species.

Mitigation Measures:

The following mitigation measure applies to Sites 2 through 18:

Valley Elderberry Long Beetle

4.4-2a Prior to approval of a Site Plan, grading plan, or any permit authorizing construction for a property within the RH Combining District, the project developer shall to the satisfaction of the Director of the County Planning Department (or City of Grass Valley Planning Department for Sites 3-9):

Conduct surveys for the elderberry shrub VELB host plant prior to site disturbance. Prior to development, any elderberry shrubs measuring 1.0 inch or greater in diameter shall be mapped and clearly marked in the field. At all times during development of the project, developers shall comply with the conservation guidelines set forth in USFWS's *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (July 9, 1999), which generally require a buffer of 100 feet around each elderberry shrub with stems measuring 1.0 inch or greater in diameter at ground level. If encroachments into the ESA are required, consultation with USFWS shall be required as contemplated by USFWS 1999 Guidelines. Mitigation for impacts on VELB habitat shall be determined via

consultation with USFWS pursuant to Section 7, Section 10, or USFWS 1999 Guidelines, as applicable, and may include onsite mitigation planting or the purchase of mitigation credits from an approved conservation bank. To avoid adverse effects on VELB, Mitigation Measures 4.4-1a, and 4.4-1c shall be implemented to ensure avoidance of elderberry shrubs and appropriate protection for this species. If necessary, agency-approved mitigation developed through the permitting process would establish the appropriate and required mitigation for impacts to this species. Note: If VELB is de-listed by the USFWS or if there is any change in the listing status of this species, the USFWS guidance in effect at the time of site development shall be followed for impacts to VELB and elderberry shrubs. Additionally, if development does not occur within 5 years on any of the proposed project sites, additional surveys would be required upon development to reassess the location of the elderberry shrub VELB.

The following mitigation measure applies to all sites:

- 4.4 -2b Prior to approval of a Site Plan, grading plan, or any permit authorizing construction for a property within the RH Combining District, the project developer shall to the satisfaction of the Director of the County Planning Department (or City of Grass Valley Planning Department for Sites 1-9):

Conduct Pre-construction Surveys for Nesting Birds. The future developers within the RH Combining District shall avoid disturbance to active nests within or near disturbance areas. To avoid take of any active raptor nest or disturbance of other protected native birds, to the extent feasible, site disturbance shall be avoided from March 1 through August 31, which coincides with the typical nesting season for most common bird species in the region.

If construction, grading or other project-related activities will occur during the typical nesting season, a pre-construction nesting survey shall be conducted by a qualified wildlife biologist to determine if any raptors or protected native birds are nesting in or in the immediate vicinity of vegetation that will be removed. The survey shall be conducted within 15 days prior to the start of work from March through May (since there is higher potential for birds to initiate nesting during this period), and within 30 days prior to the start of work from June through August. If active nests are found in the work area, the biologist shall determine an appropriately sized buffer around the nest in which no work shall be allowed until the young have successfully fledged. The size of the nest buffer shall be determined by the biologist, and if necessary, in consultation with the CDFW (and USFWS as appropriate). Buffer widths shall be determined based on the nesting species and its sensitivity to disturbance. The no-work buffer zone shall be delineated by highly visible temporary construction fencing.

Monitoring of nest activity by a qualified biologist may be required if the project-related construction activity has potential to adversely affect the nest or nesting behavior of the bird. No project-related construction activity shall commence within the no-work buffer area until a qualified biologist confirms that the nest is no longer active.

This mitigation measure applies to all sites:

- 4.4-2c **Protect Special-Status Wildlife Species:** Where construction of future development projects within the RH Combining District would occur within or near known or potential habitat for special-status species, as defined the following measures shall be implemented:

Employ Approved Biological Monitors: Prior to commencement of grading for any phase of the project or portion thereof, a project biologist should be designated as an environmental monitor. The qualified biologist should be approved by the County and shall be present at clearing and grubbing stage or as mandated through the regulatory permitting process. Qualified biologists shall be responsible for pre-construction surveys, staking sensitive resources, onsite monitoring, documentation of violations and compliance, coordination with contract compliance inspectors, and post-construction documentation.

Foothill Yellow-legged Frog. Suitable breeding, aestivation, and dispersal habitat for the foothill yellow-legged frog is present along perennial waterways within several of the proposed rezone sites. If disturbance would occur within 100 feet of known or potential habitat for foothill yellow-legged frog (i.e., perennial streams), pre-construction surveys shall be conducted to determine if this species is present in the disturbance area. If surveys determine that foothill yellow-legged frogs are present, a determination shall be made in consultation with CDFW as to whether or not construction would adversely impact this species and what measures shall be implemented. Measures could include limited operating periods, BMPs to avoid habitat impacts, disturbance exclusion zones, or other measures approved by CDFW.

Western Pond Turtle. Potential basking, foraging, and dispersal habitat for the western pond turtle is present along perennial waterways within some of the RH Combining District. Where disturbance would occur within 200 feet of potential habitat for western pond turtle (i.e., near perennial streams), pre-construction surveys shall be conducted to determine whether the proposed disturbance would adversely affect this species. This determination shall be made by a qualified biologist based on the suitability of the affected habitat for this species and/or the presence or absence of this species in the affected area as determined by surveys of suitable habitat. If pond turtles are observed, a determination shall be made in consultation with CDFW as to whether or not construction will adversely impact this species and what measures shall be implemented. Measures could include limited operating periods, BMPs to avoid habitat impacts, disturbance exclusion zones, relocation, or other measures approved by CDFW.

Other Special-Status Wildlife Species. Prior to approval of a Site Plan, grading plan, or any permit authorizing construction for a property within the RH Combining District, the project developer shall demonstrate, to the satisfaction of the Director of the County Planning Department, that the site has been assessed for habitat suitability for special-status species of wildlife and that appropriate surveys have been carried out, as necessary,

and according to the protocol of state or federal agencies with jurisdiction over the special-status species under review. Should any special-status species be identified, the developer shall retain a qualified biologist to develop and oversee implementation of a management plan. Depending on the species identified, appropriate measures could include avoidance, impact minimization, relocation or other measures and must incorporate measures to satisfy regulatory requirements of agencies with jurisdiction over the species at issue (Mitigation Measure 4.4-1b). Where onsite avoidance is feasible, barrier fencing, stakes, flagging or other measures shall be implemented prior to site disturbance to ensure impacts are avoided.

Level of Significance After Mitigation: Less Than Significant Impact

Wetlands and Riparian Areas

4.4-3 THE PROPOSED PROJECT HAS THE POTENTIAL TO DIRECTLY IMPACT WETLANDS AND RIPARIAN AREAS DUE TO VEGETATION REMOVAL AND TO INDIRECTLY AFFECT WETLANDS BY ALTERING HYDROLOGY, INCREASING EROSION AND SEDIMENTATION, AND/OR ADVERSELY AFFECTING WATER QUALITY.

Level of Significance Before Mitigation: Less than Significant Impact

Impact Analysis

Wetland and riparian areas occur on several of the 18 rezone sites, as shown in Table 4.4-2. Impacts to wetland and riparian areas based on the proposed development footprints are estimated in Table 4.4-4.

Each project within the RH Combining District that affects waters of the U.S. would be required to obtain permits from the USACE in compliance with Section 404 of the Clean Water Act. Each permit would identify the mitigation requirements to ensure that the project attains the USACE “no net loss” standard. In order to obtain a permit, a developer must demonstrate that impacts have been avoided and/or minimized to the extent feasible and must commit to mitigation, which is generally required to meet a minimum ratio of 1:1 (one acre of mitigation for every acre of impact). Permits also typically include a requirement that wetlands created, restored, or preserved as a condition of the permit must be maintained in perpetuity.

Compliance with the federal Clean Water Act and associated permitting requirements would ensure that impacts to waters of the U.S. would remain less than significant. Permits from the RWQCB would also be required for impacts to waters of the State of California, and would require measures to ensure no net loss of waters of the State. Each agency would have the opportunity to add conditions of approval to their permits to ensure no net loss of the resource. Mitigation measures included in Section 4.10 (Hydrology and Water Quality) would further ensure that site development does not result in indirect impacts to wetland hydrology and function and that wetland impacts related to erosion, sedimentation, and pollution are avoided.

Additionally, Mitigation Measure 4.4-1a requires that all Environmentally Sensitive Areas, including wetland and riparian areas, be mapped on all Site Plans, grading plans, or any plan authorizing construction for a property within the RH Combining District, and avoided upon future development. If future development plans cannot avoid an ESA, an appropriate Habitat Management Plan approved by the County prior to any site disturbance would be required.

Each project within the RH Combining District that affects the bed, bank, or channel of any stream, lake, or pond and the associated riparian habitat would be required to obtain a Streambed Alteration Agreement from the CDFW and implement mitigation measures required as conditions of the agreement. Implementation of the measures included in the Streambed Alteration Agreement typically include best management practices to maintain water quality, reduce vegetation impacts, protect sensitive habitat, and restore impacted areas and / or provide habitat to compensate for loss and to ensure no net loss of habitat values.

In addition, each project within the RH Combining District that affects waters of the U.S. would be required to comply with Nevada County's Comprehensive Site Development Standards, Section L-II 4.3 of the Zoning Ordinance. LUDC Sec. L-II 4.3.17 requires that development projects be designed to provide the following non-disturbance buffers:

- 100 feet from the high water mark of perennial streams and watercourses
- 50 feet from the high water mark of intermittent watercourses
- 100 feet from all wetlands and riparian areas

Where these non-disturbance buffers preclude development of a project site, the County's Site Development Standards allow that a project may proceed under the provisions of a Management Plan prepared by a qualified biologist or botanist. The Management Plan must provide for avoidance and minimization of impacts.

It is expected that in compliance with federal and local regulations, impacts to perennial and intermittent streams would be avoided other than potential impacts associated with bridge and infrastructure crossings. Impacts resulting from bridge and infrastructure crossings would be mitigated to a less than significant level in compliance with USACE, RWQCB, and CDFW permit conditions and the Management Plan required by Nevada County.

It is expected that it may not be feasible to avoid impacts to swales, seeps, and seasonal wetlands on some sites, particularly Sites 2, 7, 8, 12, and 13. These wetlands are located in interior portions of these sites where avoidance could constrain site development. Impacts resulting from site development would be mitigated to a less than significant level in compliance with the USACE and / or RWQCB permit conditions and the Management Plan required by Nevada County.

Impacts on wetlands and riparian areas would be considered potentially significant. Implementation of Mitigation Measures 4.4-1a and 4.4-3, requiring mapping and avoidance of wetlands on all grading and construction plans, compensation for wetland and riparian impacts, and development restrictions (e.g., prescribed wetland and riparian buffers), would reduce the impact on wetlands and riparian areas to a less than significant level. Furthermore, mitigation measures identified in Section 4.10 (Hydrology and Water Quality) would ensure that site development does not result in indirect impacts to wetland hydrology.

Mitigation Measures:

The following mitigation measure applies to Sites 2, 3, 7, 8 within the Grass Valley SOI:

4.4-3a Prior to approval of a Site Plan, grading plan, or any permit authorizing construction for a property within the RH Combining District, the project developer shall to the satisfaction of the Director of the Grass Valley Planning Department:

Develop and implement a Wetland and Riparian Mitigation Monitoring Program that provides measures that avoid, minimize, and compensate for damages and/or losses of wetland and riparian vegetation resulting from the future development proposals by completing the following:

- Avoidance of wetlands and riparian areas through project design.
- Maximum avoidance of wetlands and riparian areas by including fencing and using appropriate buffer zones during construction activities. Unless otherwise required through consultation with state and federal agencies, the minimum development-free setback from the top of creek bank for linear water features shall be 50 feet. For non-linear wetlands or waters of the U.S., the minimum development-free setback shall be 25 feet. Development-free shall mean building construction and grading.
- Provide measures for creek enhancement and added habitat value.
- If wetlands cannot be avoided, a minimum 1:1 replacement ratio to compensate for lost extent and functioning of wetland areas.
- Supervision and verification of the implementation of adopted measures, including provisions for an onsite Environmental Monitor (a qualified biologist approved by the City, USFWS and CDFW) during construction activities.

Unavoidable direct impacts on wetland vegetation types during construction of future development projects on Sites 2, 3, 7, and 8 shall require consultation with the appropriate jurisdiction (USACE and RWQCB) and would require a permit from these agencies. Potential impacts shall be mitigated by restoration of the affected area to pre-construction conditions, offsite compensatory mitigation, or purchase of credits in a mitigation bank, in accordance with permits issued by the USACE, RWQCB and CDFW.

The following mitigation measures apply to Sites 10 – 13, and 17:

4.4-3b Where potential wetland impacts are involved, the following mitigation measure would apply.

A formal wetland delineation shall be conducted for areas that will be permanently or temporarily impacted by the proposed project including driveway improvements where access to the site would otherwise be prohibited. If jurisdictional waters cannot be avoided, the project developer shall apply for a CWA Section 404 permit from the USACE and a Section 401 permit from the RWQCB. These permits shall be obtained prior to issuance of grading permits and implementation of the proposed project.

The project developer shall ensure that the project will result in no net loss of waters of the U.S. by providing mitigation through impact avoidance, impact minimization, and/or compensatory mitigation for the impact, as

determined in the CWA Section 404/401 permits. Mitigation must also be consistent with any permitting requirements of the CDFW Section 1602 Streambed Alteration Agreement.

Compensatory mitigation may consist of (a) obtaining credits from a mitigation bank; (b) making a payment to an in-lieu fee program that will conduct wetland, stream, or other aquatic resource restoration, creation, enhancement, or preservation activities; these programs are generally administered by government agencies or nonprofit organizations that have established an agreement with the regulatory agencies to use in-lieu fee payments collected from permit developers; and/or (c) providing compensatory mitigation through an aquatic resource restoration, establishment, enhancement, and/or preservation activity. This last type of compensatory mitigation may be provided at or adjacent to the impact site (i.e., on-site mitigation) or at another location, usually within the same watershed as the permitted impact (i.e., off-site mitigation). The project proponent/permit applicant retains responsibility for the implementation and success of the mitigation project. Written documentation of compliance with this mitigation measure shall be provided to the County prior to construction and grading activities for the proposed project.

Level of Significance After Mitigation: Less Than Significant Impact

4.4-4 THE PROPOSED PROJECT HAS THE POTENTIAL TO INDIRECTLY IMPACT SENSITIVE AQUATIC HABITAT AS A RESULT OF EROSION, SEDIMENTATION, AND/OR CONTAMINATION.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis

Aquatic habitat degradation within and adjacent to future construction areas associated with future development of the RH Combining District sites could occur due to erosion of exposed soils or contaminants associated with construction activities. Implementation of Mitigation Measure 4.4-1a, as discussed above, and Mitigation Measures 4.10-1a and 4.10-1b, as discussed in Section 4.10 (Hydrology and Water Quality), would reduce impacts resulting from erosion or contamination to a less than significant level.

Mitigation Measures:

This mitigation measure applies to Sites 2-9, 10-13, 17, and 18:

Implement Mitigation Measures 4.4-1a, 4.4-3a and 4.4-3b.

Level of Significance After Mitigation: Less Than Significant Impact.

4.4-5 THE PROPOSED PROJECT WOULD IMPACT OAK WOODLAND HABITAT

Level of Significance Before Mitigation: Potentially Significant Impact

Impact Analysis

Sites 13, 14, 15, 16, 17, and 18 contain oak woodland habitat. Development of these sites could result in impacts to up to approximately 31 acres of oak woodlands on these sites (refer to Table 4.4.1 and Figures 4.4-1 through 4.4-10). The loss of approximately 31 acres of oak woodland habitat would be a significant impact of development on some of the project sites (see Table 4.4-4) for estimated oak woodland loss per parcel. Oak woodlands on the sites qualify as Landmark Groves under the Nevada County Tree Preservation and Protection Ordinance, which discourages removal of trees within Landmark Groves and requires that a Management Plan be prepared to specify measures that would avoid or reduce impacts to Landmark Groves. Mitigation Measure 4.4-5 requires that the Management Plan specify mitigation measures for impacts to oak woodlands habitat to ensure no net loss of oak woodlands as a result of site development, and that the plan specifies measures to ensure protection of protected oak woodlands on a site during and following construction. Compliance with the Nevada County Tree Preservation and Protection Ordinance and implementation of Mitigation Measure 4.4-5 would ensure less than significant impacts to oak woodlands as a result of developing sites containing oak woodland communities.

**Table 4.4-5
 Oak Woodland Habitat Impacts**

Site	Habitat Woodland Type	Total Acres of Oak Woodland	Acres of Impact
13	Valley Oak Woodland	6.52	2.97
14	Blue Oak Woodland	5.13	1.27
15	Montane Hardwood	3.86	3.86
16	Blue Oak-Foothill Pine	11.93	11.93
	Montane Hardwood	5.25	5.25
17	Montane Hardwood	1.0	4.3
18	Montane Hardwood	4.82	4.82
TOTAL		38.51	31.06

Mitigation Measures:

The following Mitigation Measure applies to Sites 13 through 18:

- 4.4-5 Prior to approval of a Site Plan, grading plan, or any permit authorizing construction for a property within the RH Combining District, the project developer shall prepare an oak woodland Management Plan (Management Plan) as required under the Nevada County Tree Preservation and Protection Ordinance. The Management Plan shall specify measures to mitigate for the loss of oak woodland habitat values as a result of site development to ensure no net loss of oak woodland habitat. Measures could include preservation of on-site oak woodlands in a conservation easement, purchase and preservation of off-site oak woodlands, on- or off-site enhancement of degraded oak woodlands, or by paying in-lieu fees into a County-approved fund used to purchase and preserve comparable oak woodland communities in the region.

The Management Plan shall also include measures to protect trees during construction and following site development. Measures could include specifications for protective fencing and construction buffers, project design modifications, woodland maintenance prescriptions for fuel reduction, forest health, and habitat improvements, and specifications for appropriate uses of the woodland area following site development. The plan shall identify financial responsibility and funding sources for all measures.

Level of Significance After Mitigation: Less Than Significant Impact.

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