

4.3 BIOLOGICAL RESOURCES

This section provides a discussion and overview of biological resources known or with potential to occur in Nevada City (City) and evaluates potential impacts associated with the SOI Plan update to the City of Nevada (proposed project). The information presented in this section of the DEIR is based on review of existing and available information, data, analysis, and findings provided in this section are programmatic for broad application under the Consensus Alternative, rather than site-specific. The current condition and quality of biological resources were based on an overview of the anticipated resources within the SOI Plan update areas and used as the baseline to compare potential impacts of the implementation in the Consensus Alternative area. Using that information, this section describes potential effects of project implementation on known resources. Biological resources include common vegetation and habitat types, sensitive plant communities, and special status plant and animal species. The analysis includes a description of the existing environmental conditions, the methods used for assessment, the potential direct and indirect impacts of project implementation, and mitigation measures, when appropriate, are recommended to address impacts determined to be significant or potentially significant.

4.3.1 ENVIRONMENTAL SETTING

The Consensus Alternative area contains sites with a range of development densities with the majority of the area characterized by rural and estate residential uses and some limited commercial development, and areas used for recreation and open space. There also are large tracts and parcels containing undeveloped land that is characteristic of mountain woodlands within the hills and valleys. The Consensus Area Alternative contains a diverse makeup of vegetative species that provides habitat for a variety of wildlife. The following portions of this section contain information on the existing biological resources within the SOI update area:

- project location;
- land cover types and associated biological habitat uses;
- special status species;
- sensitive natural communities;
- waters of the United States (including wetlands);
- wildlife movement corridors; and
- habitat conservation plans.

Project Location

The City's jurisdictional boundaries include approximately 1,470 incorporated acres (2018 Nevada County GIS data) and the SOI includes approximately 2,900 acres. The City is located within a basin on the western slope of the Sierra Nevada and it has a unique topography with hills and valleys, watercourses, and defined seasons to which a variety of plant and wildlife species have adapted. Residential development within the City boundaries is predominantly single-family and exists within an approximate 30-acre area on the westerly side of SR 20 that takes primary access from Broad Street. The City boundaries are generally

surrounded by rural residential development and undeveloped coniferous forest. These areas extend from the City boundary in all directions and are included in the proposed City SOI.

Baseline Data Collection

Literature Search and Review of Existing Data

The assessment of biological resources for the proposed project began with a review of documents and species and habitat data available through the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), California Native Plant Society, National Oceanic and Atmospheric Administration (NOAA) and other agencies. Biological resource data sources included, but were not limited to, the following:

- California Natural Diversity Database records
- CDFW California Wildlife Habitat Relationships database species accounts and range maps
- California Native Plant Society Inventory records

Land Cover Types

The California Department of Fish and Wildlife (CDFW) maintains the California Wildlife Habitat Relationships System (CWHRS), which provides generalized mapping related to the 59 wildlife habitats found in the state. These habitats include 27 tree habitats; 12 shrub habitats; 6 herbaceous habitats; 4 aquatic habitats; 8 agricultural habitats; 1 developed habitat; and 1-nonvegetated habitat. Within Nevada County as a whole, there are 28 different land cover types. Of these habitats, there are approximately 20 that occur or that have the potential to occur within and around the SOI area due to its presence within the transitional foothills. Accordingly, not all of the following habitat types may be present within the proposed project area, but the following descriptions provide a generalized description of the habitat characteristics, basic species composition, and animals for which the area may provide habitat. The following descriptions summarize the CWHRS descriptions of the habitat types.

Sierran Mixed Conifer

A Sierran Mixed Conifer habitat supports a variety of coniferous tree species and often includes several hardwood species. Within Nevada County, this habitat is located in the interior and eastern portions such as in and around Nevada City and is dominated by ponderosa pine. Other species also may include incense cedar (*Calocedrus decurrens*), Douglas-fir, and sugar pine (*Pinus lambertiana*). Hardwoods include California black oak (*Quercus kelloggii*) and Pacific madrone (*Arbutus menziesii*). The understory is often shrubby and common species are toyon (*Heteromeles arbutifolia*), white-leaf manzanita (*Arctostaphylos viscida*), and coffeeberry (*Frangula californica*), and depending on the presence of fires, many of the shrubs could be absent. Due to the past history of the timber industry within the County and around the City, many of the Sierran Mixed Conifer areas exhibit evidence of recent or historic timber harvesting. Harvesting for the purpose of fuel reduction, or treatments to reduce tree stem density or clearing of the understory shrub layer may also be evident.

Douglas Fir

Douglas fir forest composition will vary depending on soil, moisture, topography, and disturbance of the habitat (e.g., history of logging). Douglas fir forests in dry habitats often contain canyon live oak (*Q. chrysolepis*), tanoak, Pacific madrone, sugar pine, ponderosa pine (*P. ponderosa*), and black oak. In habitats with more moisture, Douglas fir can be associated with species like Pacific yew (*Taxus brevifolia*) and Port Orford cedar (*Chamaecyparis lawsoniana*). Douglas fir habitat is widespread throughout Nevada County and are primarily located in the interior portions. Due to its range throughout the state, Douglas fir compositions provide habitat for many wildlife species, including bird species (e.g., northern spotted owl [*Strix occidentalis caurina*], varied thrush [*Ixoreus naevius*], chestnut-backed chickadee [*Poecile rufescens*]), amphibians (e.g., coast giant salamander [*Dicamptodon tenebrosus*], northwestern salamander [*Ambystoma gracile*], Ensatina [*Ensatina* sp.]), and various mammal species (e.g., fisher [*Pekania pennanti*], dusky-footed woodrat [*Neotoma fuscipes*], Douglas squirrel [*Tamiasciurus douglasii*]).

Ponderosa Pine

Ponderosa pine habitat is located within the western interior portion of Nevada County and can be found in and around Nevada City. Plant assemblages for this habitat type vary based on elevation and geographic area; however, typical tree associates include white fir, incense-cedar, Coulter pine (*P. coulteri*), Jeffrey pine, sugar pine, Douglas-fir, bigcone Douglas-fir (*Pseudotsuga macrocarpa*), canyon live oak, California black oak, Oregon white oak, Pacific madrone and tanoak. Associated shrubs include manzanita, ceanothus (*Ceanothus* spp.), mountain-misery (*Chamaebatia foliolosa*), Pacific dogwood (*Cornus nuttallii*), hairy yerba-santa (*Eriodictyon trichocalyx*), yellowleaf silktassel (*G. flavescens*), bitter cherry (*Prunus emarginata*), California buckthorn (*Fragula californica*), poison-oak (*Toxicodendron diversilobum*), Sierra gooseberry (*Ribes roezlii*). Grasses and forbs include slimleaf brome (*Bromus marginatus*), Orcutt brome (*B. orcuttianus*), smallflower melicgrass (*Melica imperfecta*), bracken fern (*Pteridium aquilinum*), bush morning-glory (*Ipomoea leptophylla*), rhomboid clarkia (*Clarkia rhomboidea*), Sierra iris (*Iris hartwegii*), Inyo bush lupine (*Lupinus excubitus*), and summer lupine (*L. formosus*).

Ponderosa pine sometimes is a transitional or migratory habitat for deer and can be extremely important for nutrition and use as migration holding areas. A mixture of early and late successional stages closely interspersed can provide good general wildlife habitat. These areas also may contain riparian zones and depending on wildlife species may require special consideration during management planning. Special status species such as the Sierra Nevada red fox (*Vulpes necator*) can be found within this habitat

Juniper

Juniper habitats are characterized as woodlands of open to dense aggregations of junipers and are found in elevations ranging from 330 feet to 10,170 feet and are strongly influenced by soil depth, type and moisture influence, and composition of other plants in juniper habitats. Associated tree and shrub species, depending in part on species of juniper and its distribution, include white fir, Jeffrey and ponderosa pine, singleleaf pinyon, curl leaf mountain-mahogany, antelope bitterbrush, and big sagebrush. Wildlife associations are like the sagebrush, and bitterbrush habitats in the County. Wintering birds also are reliant on the juniper as the juniper berries are an important food source. Juniper foliage also is

consumed by several species of mammals and may be an important food source for some of these animals, especially during harsh winters.

Closed-Cone Pine-Cypress

Closed-cone pine-cypress habitat occurs sporadically and sparsely within the interior of Nevada County but is mapped within the area occupied by Nevada City and the SOI area. The dominant cypress species within these habitats is MacNab cypress (*Hesperocyparis macnabiana*) and the dominant closed-cone pine species include Bishop pine (*P. muricata*), knobcone pine, and lodgepole pine (*Pinus contorta*). Various wildlife species use this habitat for foraging and cover, and great horned owl (*Bubo virginianus*) and red-tailed hawk (*Buteo jamaicensis*) have been known to nest within closed-cone pine habitats.

Montane Hardwood-Conifer

Montane hardwood-conifer habitats contain at least one-third conifer and one-third broad-leaved hardwood trees. Species assemblages often include ponderosa pine, Douglas fir, incense cedar (*Calocedrus decurrens*), black oak, tanoak, Pacific madrone, and Oregon white oak (*Q. garryana*). Other potential species within this habitat type include golden chinquapin (*Chrysolepis chrysophylla*), canyon live oak, white fir, red alder (*Alnus rubra*), western red cedar (*Thuja plicata*), western hemlock (*Tsuga heterophylla*), and knobcone pine (*P. attenuata*). Montane hardwood-conifer habitat is mapped through the heart of Nevada County but is found predominately in the western portion of the County. Species assemblages will vary widely depending on specific location and other variables such as elevation, temperature ranges, and food sources.

Montane Hardwood

Montane hardwood habitats are dominated by broad-leaved hardwood tree species; primarily canyon live oak on canyon slopes, and huckleberry oak (*Q. vacciniifolia*) at higher elevations. Other species associated with montane hardwood habitat include white fir, Jeffrey pine (*P. jeffreyi*), Douglas fir, tanoak (*Notholithocarpus densiflorus*), Pacific madrone, bay laurel (*Umbellularia californica*), black oak, knobcone pine (*P. attenuata*), foothill pine (*P. sabiniana*), Oregon white oak (*Q. garryana*), and coast live oak (*Q. agrifolia*). Montane hardwood habitat in Nevada County is widespread and intergrades with Sierran mixed conifer and Douglas fir habitat within the County. Wildlife species that use acorns as a primary food source include Steller's jay (*Cyanocitta stelleri*), acorn woodpecker (*Melanerpes formicivorus*), California quail (*Callipepla californica*), western gray squirrel (*Sciurus griseus*), black bear (*Ursus americanus*), and mule deer (*Odocoileus hemionus*). Similar to Montane Hardwood-Conifer, the range within the County is widespread and includes locations within Nevada City and the surrounding areas.

Montane Riparian

Riparian habitat is associated with rivers and streams and occurs throughout the County, as well as the City and SOI area, where there is both intermittent and perennial water flows and the riparian habitat occurs adjacent to the aquatic habitat. Characteristic species of montane riparian habitat include black cottonwood (*Populus trichocarpa*), bigleaf maple (*Acer macrophyllum*), Pacific dogwood, boxelder (*Acer negundo*), and bay laurel. Valley foothill riparian habitat also contains western sycamore (*Platanus*

racemosa), white alder (*Alnus rhombifolia*), and Oregon ash (*Fraxinus latifolia*). Riparian habitat provides very important habitat for wildlife species and often supports a diversity of species. Sensitive species that utilize riparian habitat include foothill yellow-legged frog, California red-legged frog, bank swallow (*Riparia riparia*), willow flycatcher (*Empidonax traillii*), yellow warbler (*Setophaga petechia*), and yellow-breasted chat (*Icteria virens*).

Montane, Chamise, and Mixed Chaparral

Chaparral habitat within Nevada County is widespread and can be intermixed with other habitat types. Plant assemblages for this habitat type vary based on elevation and geographic area; however, chaparral habitat generally includes manzanita, various ceanothus species (*Ceanothus* sp.), huckleberry oak, chinquapin, boxleaf silk tassel (*Garrya buxifolia*), and birch leaf mountain mahogany (*Cercocarpus betuloides*). Chaparral provides important foraging habitat for mammals (e.g., deer and rabbits), as well as for many bird species. The physical structure of chaparral habitat also provides protection, cover, and nesting habitat for many wildlife species.

Grassland

Grassland habitat includes both annual and perennial grassland types, and occurs within both the western and eastern portions of the County. Annual grasses include wild oats (*Avena* sp.), soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), Chinook brome (*Bromus laevipes*), and wild barley (*Hordeum* sp.). Perennial grasses include species such as California oatgrass (*Danthonia californica*), American dune grass (*Elymus mollis*), and Kentucky bluegrass (*Poa pratensis*). While dominated by grasses, grassland habitats are often interspersed with forbs species. Grasslands provide habitat for many wildlife species, including garter snakes (*Thamnophis* sp.), western fence lizard (*Sceloporus occidentalis*), voles (*Microtus* sp.), mice (*Reithrodontomys* sp. and *Peromyscus* sp.), and various bird species. Areas where valley oak grow within the grassland community, typically contain exceptional specimens with a diameter at breast height (dbh) of over 40 inches.

Wet Meadow

Wet meadow habitat is found in association with aquatic features, such as rivers and creeks. Many different plant species can be associated with wet meadow habitats, including sedges (*Carex* sp.), rushes (*Juncus* sp.), bulrush (*Scirpus* sp.), willow (*Salix* sp.), and various grasses. Mule deer and elk often feed in wet meadows, and waterfowl and other bird species also use the habitat. Special status amphibian species, such as foothill yellow-legged frog and California red-legged frog can also be found within wet meadow habitat.

Freshwater Emergent Wetland

Fresh Emergent Wetlands may be found in and around water sources including, rivers, creek, and contained water bodies such as lakes and ponds. These areas are characterized by erect, rooted herbaceous hydrophytes. The upper margins of Fresh Emergent Wetlands, saturated or periodically flooded soils support several moist soil plant species including big leaf sedge, baltic rush, redroot nutgrass and on more alkali sites, saltgrass. On wetter sites, common cattail, tule bulrush, river bulrush, and

arrowhead are potential dominant species. Fresh emergent wetland habitats may occur in association with terrestrial habitats or aquatic habitats including Riverine (RIV), Lacustrine (LAC) and Wet Meadows (WTM). Many wildlife species utilize this productive habitat.

Riverine

Intermittent or continually running water distinguishes rivers and streams. Riverine habitats can occur in association with many terrestrial habitats. Riparian habitats are found adjacent to many rivers and streams. Riverine habitats are also found contiguous to lacustrine and fresh emergent wetland habitats. Wildlife Considerations-- The open water zones of large rivers provide resting and escape cover for many species of waterfowl. Gulls, terns, osprey and bald eagle hunt in open water. Near-shore waters provide food for waterfowl, herons, shorebirds, belted kingfisher and American dipper. Many species of insectivorous birds (swallows, swifts, flycatchers) hawk their prey over water. Some of the more common mammals found in riverine habitats include river otter, mink, muskrat and beaver.

Lacustrine

Lacustrine habitats are inland depressions or dammed riverine channels containing standing water (Cowardin 1979). They may vary from small ponds less than one hectare to large areas covering several square kilometers. Depth can vary from a few centimeters to hundreds of meters. Typical lacustrine habitats include permanently flooded lakes and reservoirs, intermittent lakes and ponds (including vernal pools) so shallow that rooted plants can grow over the bottom. Most permanent lacustrine systems support fish life, but the more intermittent types usually do not. The relatively calm waters of lakes and ponds offer environmental conditions that contrast sharply with those of running water. Lacustrine habitats may occur in association with any terrestrial habitats, including riverine and fresh emergent wetlands.

Urban

Urban habitat makes up less than four percent of the total land cover within the county and occurs sporadically within incorporated towns and unincorporated communities including Nevada City and some existing development within the SOI area. Urban habitat includes urban landscaping, lawns, parks, and green zones. Common urban wildlife species include rock pigeon (*Columba livia*), house sparrow (*Passer domesticus*), European starling (*Sturnus vulgaris*), and racoon (*Procyon lotor*). Because much of the Nevada City urban areas are located adjacent to more natural habitats, species such as gray fox (*Urocyon cinereoargenteus*), mule deer, and a variety of resident and migratory songbirds can also be common within suburban areas.

Barren

Barren habitat is devoid of vegetation and can include rocky outcroppings, open sandy beaches, mudflats, riverbanks, canyon walks, or areas associated with urbanization. Barren habitats are present along the major rivers and streams, as well as along the edges of lakes, and adjacent to urban areas. Barren habitats vary widely in their composition and wildlife associations are also variable. Barren, vertical cliffs along

river banks can provide habitat for bank swallows. Mudflats and open sandy beaches provide foraging and nesting habitat for shorebirds, including the federally threatened western snowy plover.

Special Status Species

Special status species are plants and animals that are legally protected under the California Endangered Species Act (CESA; Fish and Game Code, Section 2050 et seq.), federal Endangered Species Act (ESA), or other regulations, as well as species considered sufficiently rare by the scientific community to qualify for such listing. For this program EIR, special status species are defined as:

- species listed or proposed for listing as threatened or endangered under the ESA (50 Code Fed. Regs., Section 17.12) for listed plants, (50 Code Fed. Regs., Section 17.11) for listed animals, and various notices in the Federal Register for proposed species;
- species that are candidates for possible future listing as threatened or endangered under the ESA (75 Code Fed. Regs., Section 69222, USFWS 2018; NOAA Fisheries 2018a);
- species that are listed or proposed for listing by the State of California as threatened or endangered under the CESA of 1984 (14 Cal. Code Regs., Section 670.5);
- plants considered by CDFW and the California Native Plant Society (CNPS) to be “rare, threatened, or endangered in California” (Rare Plant Ranks 1A, 1B, 2A, and 2B; CDFW 2018b; CNPS 2018);
- species that meet the definition of rare or endangered under the State CEQA Guidelines, Section 15380;
- animals fully protected in California (Fish and Game Code, Section 3511 for birds, Section 4700 for mammals, and Section 5050 for reptiles and amphibians); or
- animal species of special concern to CDFW (CDFW 2018b).

The California Natural Diversity Database was consulted to determine what species and the status of the species that may occur within the SOI update area. Sensitive species lists for four quadrangles, Nevada City, Grass Valley, North Bloomfield, and Chicago Park were evaluated. Although approximately 80% of the SOI update area occurs within the Nevada City Quadrangle, small portions of the area occur in the other three. It should be noted that due to the proximity of the locations, many of the species do overlap. There were 14 species listed in the Nevada City quadrangle, 20 listed in the Grass Valley quadrangle, 23 listed in the North Broomfield quadrangle, and 12 in the Chicago Park quadrangle. Accounting for the species listed in multiple quadrangles, there were a total of 31 sensitive plant and wildlife species with the potential to occur within the Consensus Alternative area. It should be noted that the listing within the quadrangle indicates an actual observation and because a species is not listed within a quadrangle does not mean it would not be present in an adjacent quadrangle.

Table 4.3-1: Special Status Wildlife Species Known to Occur in Nevada City, Grass Valley, North Bloomfield, and Chicago Park Quadrangles

Species	Regulatory Status ¹		Quadrangle of Occurrence
	Federal	State	
Invertebrates			
Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	T	--	All quadrangles
Vernal pool tadpole shrimp (<i>Lepidurus packardii</i>)	E	--	All quadrangles
Fish			
Central Valley steelhead DPS (<i>Oncorhynchus mykiss</i>)	T	--	Nevada City and Grass Valley.
Central Valley spring-run chinook salmon (<i>Oncorhynchus tshawytscha</i>)	T	T	Nevada City and Chicago Park.
Amphibians			
Foothill yellow-legged frog (<i>Rana boylei</i>)	--	CT, SSC	Nevada City, North Bloomfield, and Chicago Park.
California red-legged frog (<i>Rana draytonii</i>)	T	SSC	North Bloomfield
Birds			
Great gray owl (<i>Strix nebulosi</i>)	-	E	Nevada City
California spotted owl (<i>Strix occidentalis occidentalis</i>)	-	SSC	Nevada City and North Bloomfield
California black rail (<i>Laterallus jamaicensis coturniculus</i>)	--	T, FP	Nevada City and Chicago Park
Yellow-breasted chat (<i>Icteria virens</i>)	--	SSC	Grass Valley
Yellow warbler (<i>Setophaga petechia</i>)	--	SSC	Grass Valley
Olive-sided flycatcher (<i>Contopus Cooperi</i>)	--	SSC	Grass Valley
Cooper's hawk (<i>Accipiter cooperii</i>)	--	WL	North Bloomfield
Northern goshawk (<i>Accipiter gentilis</i>)	--	SSC	North Bloomfield
Golden eagle (<i>Aquila chrysaetos</i>)	--	FP, WL	North Bloomfield
Bald eagle (<i>Haliaeetus leucocephalus</i>)	DL	E, FP	North Bloomfield
Mammals			
Fisher – West Coast DPS (<i>Pekania pennanti</i>)	--	T, SSC	Chicago Park
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	--	SSC	Grass Valley and North Bloomfield

Table 4.3-1: Special Status Wildlife Species Known to Occur in Nevada City, Grass Valley, North Bloomfield, and Chicago Park Quadrangles

Species	Regulatory Status ¹		Quadrangle of Occurrence
	Federal	State	
Sierra Nevada red fox (<i>Vulpes necator</i>)	C	T	North Bloomfield
Reptiles			
Western pond turtle (<i>Emys marmorata</i>)	--	SSC	All quadrangles
Coast horned lizard (<i>Phrynosoma blainvilli</i>)	--	SSC	Nevada City, Chicago Park, and Grass Valley
Insects			
Western bumble bee (<i>Bombus occidentalis</i>)			
¹ Status explanations: <u>Federal</u> C = proposed candidate for listing under the federal Endangered Species Act. E = listed as endangered under the federal Endangered Species Act. T = listed as threatened under the federal Endangered Species Act. DL = delisted. <u>State</u> E = listed as endangered under the California Endangered Species Act. T = listed as threatened under the California Endangered Species Act. CT= candidate for listing as threatened under the California Endangered Species Act. SSC= = state species of special concern			

Table 4.3-2: Special Status Plant Species Known to Occur in Nevada County and their Potential for Occurrence

Species	Regulatory Status ¹			Quadrangle of Occurrence
	Federal		State	
Stebbins' morning-glory (<i>Calystegia stebbinsii</i>)	E	E	1B.1	Grass Valley
Chaparral sedge (<i>Carex xerophila</i>)	--	--	1B.2	Grass Valley
Pine Hill flannelbush (<i>Fremontodendron decumbens</i>)	E	R	1B.2	Grass Valley
Finger rush (<i>Juncus digitatus</i>)	--	--	1B.1	Grass Valley
Cantelow's lewisia (<i>Lewisia cantelovii</i>)	--	--	1B.2	Nevada County and North Bloomfield
Inundated bog club-moss (<i>Lycopodium inundatum</i>)	--	--	2B.2	North Bloomfield
Sierra bluegrass (<i>Poa sierrae</i>)	--	--	1B.3	Chicago Park,
Brownish beaked rush (<i>Rhynchospora capitellata</i>)	--	--	2B.2	Nevada City, Chicago Park, Grass Valley, and North Bloomfield
Scadden Flat checkerbloom (<i>Sidalcea stipularis</i>)	--	E	1B.1	Chicago Park and Grass Valley
¹ Status explanations: -- = no listing.				

Table 4.3-2: Special Status Plant Species Known to Occur in Nevada County and their Potential for Occurrence

Species	Regulatory Status ¹		Quadrangle of Occurrence
	Federal	State	
Federal			
E	=	listed as endangered under the federal Endangered Species Act.	
T	=	listed as threatened under the federal Endangered Species Act.	
State			
E	=	listed as endangered under the California Endangered Species Act.	
R	=	listed as rare under the California Endangered Species Act.	
T	=	listed as threatened under the California Endangered Species Act.	
California Native Plant Society			
1A	=	List 1A species: extirpated in California, rare or extinct elsewhere	
1B	=	List 1B species: rare, threatened, or endangered in California and elsewhere.	
2B	=	List 2B species: rare, threatened, or endangered in California but more common elsewhere.	
0.1	=	Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)	
0.2	=	Moderately threatened in California (20%-80% occurrences threatened/moderate degree and immediacy of threat)	
0.3	=	Not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known)	

Critical Habitat

Critical habitat is a term defined and used in the Endangered Species Act (ESA). It refers to specific geographic areas designated by USFWS or NOAA Fisheries that contain features essential to the conservation of an endangered or threatened species and that may require special management and protection. There is no critical habitat mapped for any listed threatened or endangered species within the SOI update area.

Sensitive Natural Communities

Sensitive habitat types include those that are of special concern to CDFW, or that are afforded specific consideration through CEQA, Section 1602 of the California Fish and Game Code, the Porter-Cologne Act, and Section 404 of the Clean Water Act (CWA), as discussed in *Section 4.4.2: Regulatory Setting*, below. Sensitive habitats may be of special concern to regulatory agencies and conservation organizations for a variety of reasons, including their locally or regionally declining status, or because they provide important habitat to common and special status species.

CDFW maintains a list of plant communities that are native to California. Within that list, CDFW identifies special status plant communities (i.e., sensitive natural communities), which it defines as communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects. These communities may or may not contain special status species or their habitat. Special status plant communities are tracked in the California Natural Diversity Data Base (CNDDDB). Four sensitive natural communities were reported in the CNDDDB and occur within the County and include Darlingtonia Seep habitat (south of Celina Ridge, about three miles southeast of Graniteville); Great Basin Cutthroat Trout/Paiute Sculpin Stream (upper Sagehen Creek and upper Prosser Creek); and Great Basin Sucker/Dace/Redside Stream with Cutthroat Trout [(Prosser Creek, above the Prosser Reservoir, and lower Sagehen Creek from SR 89 to Stampede Reservoir (CDFW 2018b)]. Due to the

defined boundaries, none of these three sensitive natural communities would occur within the SOI update area.

The fourth sensitive natural community; Fen Habitat; however, could exist within the SOI update area. Fen Habitat has a state rarity ranking of S1.2 and is considered threatened. It is estimated there is less than 2,000 acres remaining in California. Fens are dominated by a dense growth of low-growing, herbaceous perennials and low shrubs (Sawyer et al. 2009). Peat accumulates in cold, poorly drained areas. Fens have nutrient-rich water creating a diverse and rich flora. Fens can be found anywhere from sea level to 6,000 feet in elevation. There is the potential for Fen habitat to be located within the SOI update area.

WETLANDS AND WATERS OF THE U.S. AND STATE

Nevada County contains over 23,000 wetland and riverine features as mapped by the USFWS (2018d). These features include freshwater emergent wetlands, freshwater forested/shrub wetlands, freshwater ponds and lakes, and riverine features such as rivers, creeks, and streams.

Within the City and SOI update areas there are areas that would contain wetlands including portions of Deer Creek and its tributaries. Deer Creek is one of the three main watercourses within the SOI Update area. The other two watercourses are Little Deer Creek and Gold Run. All three waterways flow in a westerly direction and converge within the City and join to form Deer Creek which then continues to flow to the southwest. Little Deer Creek begins approximately four miles east of the City and receives flows from a few smaller tributaries until it joins Deer Creek. Gold Run flows in a northwesterly direction from near Forester Drive and converges with Deer Creek near South Pine Street. Deer Creek flows out of Scotts Flat reservoir approximately 4.5 miles to the southwest and receives flows from Mosquito Creek and Willow Valley Creek east of the SOI Update area. Deer Creek then flows into and through the City in a southwesterly direction roughly parallel to Champion Mine Road. Due to the nature of the terrain, the SOI Update area also contains numerous ephemeral drainages that receive intermittent flows from rain and snow events.

Some areas within the watercourses would be considered wetland areas. These and other locations that are saturated for long periods of time and that can support wetland vegetation. Within the SOI Update area, mapping from the National Wetland Inventory shows wetland in various areas and is discussed immediately following.

National Wetlands Inventory

According to the United State Fish and Wildlife Service (USFWS), the agency tasked with providing information to the public on the status and trends of the nation's wetland, the National Wetlands Inventory (NWI) shows there are four wetland habitat types that occur within the SOI Plan update area. The US FWS National Wetlands Inventory (NWI) is a publicly available resource that provides detailed information on the abundance, characteristics, and distribution of US wetlands. The NWI provides a high-level accounting for wetlands within the United States to include Nevada County and the SIO Plan update

area. Table 4.3-3, *Wetlands in the SOI Plan Update Area*, shows this information, below. The four-wetland habitat types in these areas are based on the NWI and include the following:

Freshwater Emergent Wetlands: The Emergent Wetland Class is characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants. All water regimes are included except subtidal and irregularly exposed (NPWRC, 2019).

Freshwater Forested/Shrub Wetland: The forested shrub wetlands are characterized by low woody vegetation and may include forested wetlands that have been harvested and are in the process of regeneration to forest. These areas generally occur where low-growing, multi-stemmed woody plants such as swamp azalea, highbush blueberry, and sweet pepperbush occur (USDA, 1995);

Freshwater Pond: The Freshwater Pond is a well-defined basin that is filled with stagnant water and ringed by vegetation. It is fed mainly by rainstorms and snowmelt, and loses most of its water through seepage and evaporation. In hot, dry months, parts of a Pond may dry out, exposing mudflats. In shallow Ponds, bottom rooted plants such as water lilies can reach the surface, while milfoils, pondweeds and other submergent plants thrive below the water's surface

Riverine: The Riverine System includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.

Table 4.3-3: Wetlands in the SOI Plan Update Area

Wetland	City	SOI	Total
Freshwater Emergent Wetland	0.19	1.84	1.04
Freshwater Forested/Shrub Wetland	5.06	6.82	11.89
Freshwater	3.74	8.40	12.15
Riverine	15.08	23.11	38.20
Total:	24.10	40.20	64.30
Source: NWI, 2019			

INVASIVE PLANT SPECIES AND NOXIOUS WEEDS

An invasive plant is one that is not native to a region, but rather is introduced, and tends to crowd out native vegetation and thereby adversely affect the wildlife that feeds on it. There are many types of invasive plant species, and they occur within all habitat types (Nevada County, 2018). Aggressive noxious weeds such as yellow star-thistle (*Centaurea solstitialis*), Scotch broom (*Cystisus scoparius*), Spanish broom (*Spartium junceum*), spotted knapweed (*Centaurea maculosa*), French broom (*Genista monspessulana*), and Scotch thistle (*Onopordum acanthium*) can invade grasslands and pastures and

exclude native grassland species. Riparian and wetland habitats can be adversely affected by invasive plants such as purple loosestrife (*Lythrum salicaria*), red sesbania (*Sesbania punicea*), giant reed (*Arundo donax*), leafy spurge (*Euphorbia esula*), and perennial peppergrass (*Lepidium latifolia*), excluding native aquatic and riparian species.

INVASIVE WILDLIFE SPECIES

The introduction of nonnative wildlife species can be detrimental to native species assemblages. Common nonnative wildlife species such as bullfrog (*Lithobates catesbeianus*), crayfish (*Procambarus clarkii*), and red-eared sliders (*Trachemys scripta elegans*), which are common in most of California's waterways are likely to be distributed within the SOI update area. Brown-headed cowbirds (*Molothrus ater*) also have become permanent residents in many areas and in part because of nesting parasitism have resulted in a reduction of habitat for the Willow flycatcher (*Empidonax traillii*) (CDFW 2018). Additionally, several invasive invertebrate species, such as Asian clam (*Corbicula* spp.) and New Zealand mud snail (*Potamopyrgus antipodarum*), could potentially occur in area waterways as this species has been observed in the Yuba River since 2016 (CDFW 2018c).

WILDLIFE MOVEMENT CORRIDORS

The SOI update area contains areas that are largely undeveloped and that would provide relatively undisturbed wildlife habitat and provide connectivity to larger open space areas. Although the proposed project area is not listed by CDFW as being in an essential connectivity area, the project area still may be beneficial to species as they may be a part of a functional network providing connectivity between the various habitat communities and animal populations in the area and region.

4.3.2 REGULATORY SETTING

Federal

The Federal Endangered Species Act (ESA) provisions protect federally listed threatened and endangered species and their habitats from unlawful take and ensure that federal actions do not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. Under the ESA, the Secretary of the Interior and the Secretary of Commerce jointly have the authority to list a species as threatened or endangered (16 United States Code [USC] Section 1533[c]). Pursuant to the requirements of the ESA, an agency reviewing a project within its jurisdiction must determine whether any federally listed threatened or endangered species may be present in the project site and determine whether the project will result in "take" of any such species. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under the ESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC Section 1536[3], [4]).

Critical habitat is defined in Section 3(5)(A) of the ESA as "(i) the specific areas within the geographical area occupied by the species on which are found those physical or biological features (I) essential to the conservation of the species, and (II) which may require special management considerations or protection;

and (ii) specific areas outside the geographical area occupied by the species upon a determination by the Secretary of Commerce or the Secretary of the Interior that such areas are essential for the conservation of the species.” The effects analyses for designated critical habitat must consider the role of the critical habitat in both the continued survival and the eventual recovery (i.e., the conservation) of the species in question, consistent with the recent Ninth Circuit judicial opinion, *Gifford Pinchot Task Force v. United States Fish and Wildlife Service*.

Section 7 of the ESA provides a means for authorizing incidental take of federally endangered or threatened species that result from federally conducted, permitted, or funded Projects. Similarly, Section 10 authorizes incidental take of federally endangered or threatened species that result from non-federal Projects.

Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) (16 USC, Sec. 703, Supp. I, 1989) prohibits killing, possessing, or trading migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, bird nests, and eggs, and includes raptors (e.g., eagles, hawks, and owls) and their nests are protected under both federal and state regulations. The MBTA is administered by the United States Fish and Wildlife Service (USFWS) and special permits from the agency are generally required for the take of any migratory birds. This act applies to all persons and agencies in the U.S., including federal agencies.

Federal Clean Water Act

Areas meeting the regulatory definition of “Waters of the U.S.” (Jurisdictional Waters) are subject to the jurisdiction of the USACE under provisions of Section 404 of the Clean Water Act (CWA)(1972) and Section 10 of the Rivers and Harbors Act (1899). The CWA’s 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 United States Army Corps of Engineers (Corps). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide. 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 groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3 7b). The U.S. Environmental Protection Agency (EPA) also has authority over wetlands and may override a Corps permit.

Construction activities within jurisdictional waters are regulated by the USACE. The placement of fill into such waters must comply with permit requirements of the USACE. Substantial impacts on wetlands may require an individual permit. As a part of the permit process, the USACE works directly with the USFWS to assess project impacts on biological resources. 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 applicable Regional Water Quality Control Board (RWQCB).

State

California Endangered Species Act

Under the California Endangered Species Act (CESA), CDFW has the responsibility for maintaining a list of threatened and endangered species designated under state law (California Department of Fish and Game Code (CFGF) Section 2070). Pursuant to the requirements of CESA, an agency reviewing a project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present in the project site and determine whether the proposed project will result in take of any such species. Under CESA, “take” is defined as the action of or attempt to “pursue, hunt, shoot, capture, collect, or kill.” Habitat degradation or modification is not expressly included in the definition of “take” under CDFW Code. The CDFW may authorize the incidental take of a state-listed species under Section 2081 of the CFGF. For species that are listed as threatened or endangered under both the ESA and CESA, and for which an incidental take permit has been issued in accordance with Section 10 of the ESA, CDFW may authorize take after certifying that the incidental take permit is consistent with CESA, pursuant to Section 2080.1 of the CFGF.

In addition to federal and State-listed species, CDFW also has produced a list of Species of Special Concern to serve as a “watch list.” Species on this list are of limited distribution or the extent of their habitats has been reduced substantially, such that threat to their populations may be imminent. Species of Special Concern may receive special attention during environmental review, but they do not have statutory protection.

California Department of Fish and Game Code

The CDFW provides protection from take for state-listed and non-listed species. The CFGF defines “take” as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” CFGF Section 2080 prohibits take of a species listed as endangered or threatened under the CESA and CFGF Section 2081 allows CDFW to issue an incidental take permit in accordance with Title 14 California Code of Regulations (CCR) Sections 783.4(a) and (b), and CFGF Section 2081(b). Eggs and nests of all birds are protected from take under CFGF Section 3503. Raptors and raptor nests or eggs are protected from take under CFGF Section 3503.5. Migratory birds are expressly prohibited from take under CFGF Section 3513 and species designated by CDFW as fully protected species are protected from take under CFGF Sections 3511, 4700, 5050, and 5515.

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.

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 Corps 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.

Local

Nevada City General Plan

The Nevada City General Plan (NCGP) discusses biological resources in the sense of conservation and preservation of the existing natural environment to the extent feasible. The Conservation element discusses the great beauty that should be preserved and talks about open space preservation and mentioned Deer Creek and Little Deer Creek. The NCGP notes that the existing open space is a distinctive characteristic of the City and one of the goals of the City is to preserve a strong sense of entry and distinctness created by the surrounding green and wooded hills and an effort should be made to preserve the surrounding forest. Regarding to the protection of riparian corridors are the policies related to flooding and drainage. These policies are as follows:

- In cooperation with the county, enforce a required building setback from all drainageways;
- Include assessment of drainage impact of proposed projects as part of the environmental review process

Zoning Ordinance

Chapter 17.80.120- Stream zone standards defines the requirements for building in proximity to a stream or watercourse. Watercourse is defined as a lake, river, creek, stream, wash, arroyo, channel or other topographic feature over which water flows at least periodically. More specifically, this section states the following: “Building closer than one hundred feet from a perennial (runs year-round) stream or closer

than twenty-five feet from a seasonal swale centerline shall be prohibited, unless a variance is granted under the provisions of Chapter 17.88 of this title. In cases where lot coverage is closer than one hundred feet to a stream or watercourse, a certified statement from a registered engineer or sanitarian attesting that such coverage or use will not pollute the stream or watercourse and that there will not be a hazard to the buildings or improvements due to flooding, may be a condition necessary for permit issuance. Nothing in this title shall waive additional requirements that might be imposed by the California Department of Fish and Game.”

Title 18 of the City Municipal Code in Chapter 18.01 discusses tree preservation and notes the quality of life and character of the City of Nevada County and value of property are directly related to the large number of native and ornamental trees. In particular the ordinance notes the benefits include aesthetics, natural watersheds, erosion and flooding control, air quality and temperature, noise reduction, and ecological balance. Based on this, the City policy is to do the following:

- Preserve Trees through the development review process;
- Require permits for cutting and removal of protected trees; and
- Require property owners to coordinate with the city to ensure optimum maintenance and health of street trees.

Protected trees include the following species which are followed by the required diameter breast height (dbh) broadleaf maple (6 dbh); cedar (6 dbh), Fir 6 (dbh), Madrone (4 dbh), manzanita (4 dbh), oak (4 dbh), oak (4 dbh), pine [ponderosa, gray (6 dbh)], pine [sugar pine (all protected)], sequoia giganteum (6 dbh), and all other trees not specified (6 dbh) (Nevada City, 2019).

4.3.3 STANDARDS OF SIGNIFICANCE

Appendix G of the State CEQA Guidelines provides a checklist of potential impacts to consider when analyzing the significance of project effects. The impacts listed in Appendix G may or may not be significant, depending on the level of the impact. For biological resources, these impacts include whether the project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service.
- Have a substantial adverse effect on state or federally protected wetlands (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 a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

4.3.4 PROJECT IMPACTS AND MITIGATION

The proposed project consists of an update to the SOI Plan for the City (proposed project). This EIR evaluates four project alternatives. The following impact evaluation focuses on the LAFCo/City Preferred Consensus Alternative (Consensus Alternative) which has been identified as the Preferred Alternative in accordance with CEQA requirements. Impacts for the other alternatives are discussed in *Chapter 6.0 Alternatives*. In some instances; however, impacts related to the overall SOI Plan update may be presented when applicable and to help illustrate the environmental effects in the framework of the overall SOI Plan update. The impacts are discussed in terms of direct and indirect impacts. Direct impacts are those that occur immediately upon initiation of a project such as ground disturbance or demolition of existing structure(s). Indirect impacts occur when a project would induce growth into areas such as through the extension of infrastructure and that extension could facilitate new development or result in an annexation that could enable future development.

Impacts Discussion Overview

The Consensus Alternative would update the SOI Plan area, and future development projects under City jurisdiction would occur only after being annexed to the City. The majority of these undeveloped areas within the Consensus Alternative area are designated for estate residential, rural residential, or open space with minor areas designated for planned development, employment centers, public uses, or service commercial. Development in these areas is anticipated to be consistent with the existing City designations.

Within the Consensus Alternative boundaries there are four priority annexation areas (Annexation Areas #1, #2, #3, and #4). In general, these areas are already developed, are in close proximity to, or are already being served by existing water or wastewater lines. These areas are in logical locations for extension of City municipal services and represent a logical progression of City boundaries.

In addition, the six potential development areas identified by the City do not yet have any development approval and the specific project footprints are unknown. Annexation and the anticipated timeline for build out would occur over a period of time and is anticipated to be at similar densities as to what is shown in the project description and in accordance with existing City planning documents.

The majority of the remaining undeveloped areas within the Consensus Alternative area are designated for estate residential, rural residential, or open space with some areas designated for planned development, employment centers, public uses, or service commercial.

All future City development after annexation within the Consensus Alternative area, including the six potential development areas would be subject to City design and review as part of City's project review process. All projects would be evaluated for consistency with the NCGP, Nevada City Municipal Code, and Nevada City Design Guidelines. The City also has authority to prezone all future annexations to Nevada City, and for annexations that include new development, the City would be able to specify conditions to ensure that future projects would incorporate all required elements of the listed development guidance documents related to protection of air quality. The project by project review also would include a City led CEQA analysis and as applicable, would require project-specific mitigation measures or binding conditions of approval to reduce impacts related to biological resources.

Impact BIO-1 Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

The Consensus Area Alternative occurs within portions of four USGS quadrangles. According to the CDFW CNDDDB there are 22 special status wildlife species known to occur within the quadrangles. These species and their listing are shown in *Table 4.3-2*, above. In addition, there are a total of 9 special status plant species known to occur within the quadrangles. These species and their listings are shown in *Table 4.3-3*, above.

The Consensus Alternative would not directly result in the implementation of any new construction, authorize development proposals, or new entitlements or improvements. The Consensus Alternative would not result in any direct impacts to any special status species.

The timeframe over which annexations and subsequent development of improvements is unknown and no development authorizations exist at this time. In addition, the Consensus Alternative area covers a large area and conditions affecting the potential presence or absence of sensitive wildlife species could substantially change before any development activity does occur. Depending on the habitat types and availability of resources, there is the potential for some special-status species to be present within the Consensus Alternative area. Surveys for these species within the future development footprint of previously undisturbed areas and adjacent locations would likely be needed prior to annexation.

The Consensus Alternative includes Priority Annexation Areas #1, #2, #3, and #4, and the six potential development areas. Indirect impacts to special status species resulting from future annexation and development under the Consensus Alternative could occur. While most of the four Priority Annexation Areas are already developed, annexation would enable extension of services and some additional development could occur. In addition, inclusion of the six potential development areas within the

Consensus Alternative could result in annexation and subsequent improvements or development on those properties. Construction and operation of future projects could result in the disruption of some special status species should they be present on future projects sites or in adjacent areas.

All future annexations and development would be subject to the City's review and regulation when development plans are submitted, and/or application(s) filed. This would provide a screening mechanism for the City to determine when and if biological resources studies are needed. As required by the City Municipal Code, all future annexations must include a site-specific CEQA evaluation. In addition, the following mitigation measure would be implemented to ensure impacts to special status wildlife and plant species are reduced to less than significant.

Mitigation Measures: Implement MM-BIO-1

MM-BIO-1: Prior to LAFCo approval of an annexation involving new non-ministerial development and construction, the project applicant shall demonstrate to the City that the project will comply with the following measures:

- If the proposed action requires a grading permit or other action requiring substantial ground disturbance or removal of vegetation including trees, review of the site by a qualified biologist shall be required. The site shall be reviewed for the presence of special-status species, sensitive habitat, or waters or wetlands to identify resources that may occur in or around the project site and that may be disturbed by construction or operation of the project. If the biological survey does not identify any sensitive wildlife or plant species and no impacts would occur, no further mitigation is required.
- If the biological resources survey identifies special-status species, sensitive habitat, or waters or wetlands that would be disturbed by implementation of the proposed project, the qualified biologist shall develop a mitigation plan to the satisfaction of the City. The mitigation plan shall include measures such as the following but not limited to:
 - All ground disturbing activities shall be required to be conducted outside of nesting season and after preconstruction surveys to minimize impacts to nesting birds;
 - The project site shall be evaluated for the presence of special status plant species. If special status plants have the potential for presence, a site survey by a qualified biologist shall be conducted during the blooming period. If special status plant species are located, the qualified biologist shall develop a mitigation plan for the sensitive plant species.
 - The project site shall be evaluated for the presence of any riparian habitat or other sensitive natural community. If such habitats are located or would be potentially impacted by the project, a mitigation plan to the satisfaction of the CDFW and RWQCB, as required, shall be implemented.
 - The project site shall be evaluated for the presence of waters of the U.S. wetlands. If such waters or wetlands are located or would be affected by the project, a mitigation plan for

the resources to the satisfaction of the CDFW, RWQCB, and USACE, as required, shall be implemented.

- The project site shall be evaluated for the presence of any native resident or migratory fish or wildlife species or the potential to be used as a migratory wildlife corridor, or native wildlife nursery sites. If the site is determined to have the potential of being such a resource, a site survey by a qualified biologist shall be conducted. If these resources are located or the site would function as such and the project would substantially impede the use, the qualified biologist shall develop a mitigation plan for the resources.
- The project site shall be evaluated for potential conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. If the site is determined to have the potential of such a conflict, a site survey by a qualified biologist or evaluation by a qualified professional shall be conducted. The qualified biologist or professional shall develop a mitigation plan to comply with planning requirements.

Mitigation Measures: Implement MM-BIO-1

Level of Impact After Mitigation: Less Than Significant Impact with Mitigation Incorporated

Impact BIO-2 ***Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?***

The Consensus Alternative area contains some sites with sensitive habitats including riparian areas. There are three main watercourses within the Consensus Alternative area, including Deer Creek, Little Deer Creek, and Gold Run. The Consensus Alternative would not directly implement any development projects, new construction, new entitlements or improvements, and it would not change any existing land use designations. The Consensus Alternative would not result in any direct impacts to any of the listed watercourses, tributaries, or intermittent streams.

Indirect impacts due to annexation and future development would be enabled by inclusion to the Consensus Alternative areas and could result in indirect impacts to riparian or other sensitive habitats. Development could result in vegetation removal or trampling, filling of wetlands, hydrologic changes, deposition of dust or debris, soil compaction, or other disturbances that could temporarily affect the condition and function of sensitive habitats and the plants and animals that use them. Streams supporting riparian and wetland vegetation are regulated by CDFW under Section 1600-1616 of the CFGC, which provides for the protection of these habitats and fish, wildlife, and native plant resources that use these areas.

Riparian habitat within the Consensus Alternative area can be found adjacent to aquatic habitat such as streams and rivers. Due to the presence of the listed watercourses, the Consensus Alternative area also may contain four sensitive natural communities used by the Great Basin Cutthroat Trout/Paiute Sculpin

Stream and Great Basin Sucker/Dace/Redside Stream with Cutthroat Trout, and two aquatic plant communities including Darlingtonia Seep and Fen. Indirect impacts from future development that occurs under the Consensus Alternative could result in impacts to riparian areas.

There are five distinct tree-dominated habitat types as mapped by CALFIRE in the Consensus Alternative area. These habitat types including Douglas fir, montane hardwood, montane hardwood-conifer, ponderosa pine, and subalpine conifer and may contain old-growth and late-successional forests and may be considered sensitive habitat. Some special status wildlife species, including fisher, and California wolverine, use these habitats for denning and movement corridors. Loss of, or disturbance to sensitive habitats, including sensitive natural communities, riparian habitat, and old-growth habitat, would be a potentially significant impact.

The Consensus Alternative includes Priority Annexation Area #1, #2, #3, and #4 and the potential development areas. While most of the area within the four Priority Annexation areas are already developed annexation would enable the extension of utility services annexation and subsequent development could affect riparian habitat or other sensitive natural communities. Additionally, although the specific habitat types on the six potential development areas and other undeveloped locations within the SOI are not known, annexation of these areas and subsequent development and improvements could impact the listed resources. This is considered a potentially significant impact.

All future annexations and development would be subject to the City's review and regulation at the time development plans are submitted, and/or application(s) filed. Additionally, City Code Chapter 17.80.120 contains regulations regarding the prohibition of development within riparian and adjacent to stream zones. The City prohibits building closer than 100 feet from a perennial stream and closer than 25 feet from seasonal water (unless a variance is granted). This would prevent some, but possibly not all impacts to riparian habitat. As discussed above, all annexations also would must include a site-specific CEQA evaluation which would include needed mitigation anticipated to reduce impacts. Lastly, *MM-BIO-1* has been included to the proposed project to ensure impacts to riparian habitat or other sensitive natural community are reduced to less than significant.

Mitigation Measures: Implement MM-BIO-1.

Level of Impact After Mitigation: Less than Significant Impact with Mitigation Incorporated.

Impact BIO-3 ***Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?***

The SOI Plan update area covers approximate 2,702 acres and contains some areas that are mapped as wetland. In sum, the SOI Plan update area contains four wetland habitat types including freshwater emergent wetlands, freshwater forested/shrub wetland, freshwater pond, and riverine. Within the SOI Plan update area there are approximately 1.84 acres of freshwater emergent wetland, 6.82 acres of

freshwater forested/shrub wetland, 8.4 acres of freshwater wetland, and 23.11 of riverine wetland (NWI, 2019).

The Consensus Alternative would not directly implement any development proposals, new construction, new entitlements or improvements, and it would not change any existing land use designations. The Consensus Alternative would not result in any direct impacts to any wetlands.

Indirect impacts due to annexation and potential future development would be enabled by inclusion to the SOI and could result in impacts to wetlands. Within the SOI Plan update area there are a total of approximately 40.2 acres of wetlands. Much of this area is associated with the existing riparian corridors discussed in Impact BIO-2. Mitigation to protect riparian habitats would protect the associated wetlands. This includes areas near Deer Creek, Little Deer Creek, Gold Run, other drainages, and smaller unnamed tributaries.

Each future annexation and subsequent project within the Consensus Alternative area that would affect waters of the U.S. would be required to obtain permits from the USACE in compliance with Sections 404 of the CWA. Each permit would identify mitigation requirements to ensure that the project attempts to achieve the USACE goal of “no net loss.” Regarding waters of the state, permits from the RWQCB would be required for future projects that could result in impacts to waters of the State. Such a permit would require measures to ensure no net loss of these water and each responsible or trustee agency would have the opportunity to add conditions of approval to their permits to ensure no net loss of the resource is achieved.

As discussed in Impact BIO-2, above City Code Chapter 17.80.120 contains regulations regarding the prohibition of development within riparian and adjacent to stream zones. Because many of the existing wetlands and most of the water of the U.S. and state would be adjacent to riparian zones, compliance with this code would help prevent impacts to wetlands and other habitat adjacent to watercourses.

To account for potential impacts, all future annexations and future projects, as applicable and per City Municipal Code, are required to undergo individual CEQA analysis. CEQA analysis would evaluate the projects for compliance with federal, state, and local regulations and is anticipated to reduce impacts to resulting from future annexations after adoption of the Consensus Alternative to less than significant. This would include an evaluation of compliance with USACE, RWQCB, and CDFW permit conditions. Lastly, implementation of *Mitigation Measure MM BIO – 1*, would require implementation of a mitigation plan for biological resources that would ensure impacts remain less than significant.

Mitigation Measures: Implement MM-BIO-1.

Level of Impact After Mitigation: Less than Significant Impact with Mitigation Incorporated

Impact BIO-4 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?

Approval of the proposed Consensus Alternative would not directly implement any development proposals, new construction, new entitlements or improvements, and it would not change any existing land use designations. The Consensus Alternative does not propose any new development and would not directly result in a physical impact to the movement of any native fish, wildlife species, or nursery site.

Indirect impacts; however, could occur from future use, conversion, or development, and could adversely affect resident or migratory wildlife corridors from habitat fragmentation, degradation of aquatic habitat (e.g., streams and rivers), or blockage of important wildlife migration paths. Impacts to movement corridors and habitat connectivity for some species would be potentially significant.

Aquatic wildlife movement corridors within the Consensus Alternative area occur within three major stream courses, their tributaries, and other connected drainages or water bodies. Fish species and other wildlife such as amphibians that rely on water for their lifecycle could be adversely affected if aquatic habitat or corridors were degraded from future construction after annexation. Construction adjacent to a watercourse also could result in disturbance of a surface water and adversely affect a resident or migratory wildlife species due to habitat fragmentation, degradation, or blockage. Impacts to movement corridors and habitat connectivity for these species would be potentially significant and would require approval and permits from NOAA Fisheries, CDFW, RWQCB, and the USACE.

The Consensus Alternative contain Priority Annexation areas #1, #2, #3, and #4. Priority Annexation areas #1 and #2, consist of an existing Caltrans site and the County Juvenile Hall. These sites are currently developed, and no additional expansion of the sites is proposed. Priority Annexation Areas #3 and #4 contain existing rural residential uses and a cemetery. The majority of the sites are developed with a few lots remaining undeveloped. A portion of a single lot within Priority Annexation Area #4 contains streamflow within Deer Creek and associated riparian habitat and would be used fish and other wildlife species.

Regarding the six potential development areas and other undeveloped areas within the SOI that could potentially overlap with migration routes and summer and winter ranges for some species, future annexation could impact these areas. New developments would increase the number of barriers to movement and reduce habitat available for use by these species. However, because the footprint, extent, and specific design of other future projects that could occur if the areas are annexed are not known, it is not possible to know the extent of potential impacts.

To account for potential impacts, all future annexations and future projects, as applicable and per City Municipal Code, are required to undergo individual CEQA analysis. CEQA analysis would evaluate the projects for compliance with federal, state, and local regulations, and to determine impacts to the movement of fish and wildlife or uses of a site as a corridor, breeding habitat or nursery site. This would include compliance with USACE, RWQCB, and CDFW permit conditions. Lastly, implementation of

Mitigation Measure MM BIO – 1, would require implementation of a mitigation plan for these types of biological resources and would ensure impacts remain less than significant.

Mitigation Measures: Implement MM-BIO-1.

Level of Impact After Mitigation: Less than Significant Impact with Mitigation Incorporated.

Impact BIO-5 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Approval of the proposed Consensus Alternative would not directly authorize any new construction, development proposals, or new entitlements or improvements. The Consensus Alternative would not directly result in a conflict with a local policy or ordinance related to protection of biological resources including a tree preservation.

The Consensus Alternative contain Priority Annexation areas #1, #2, #, and #4. Priority Annexation areas #1 and #2, consist of an existing Caltrans site and the County Juvenile Hall. These sites are currently developed, and not additional expansion of the sites is proposed. Priority Annexation Areas #3 and #4 contain existing rural residential uses and a cemetery. The majority of the sites are developed with a few lots remaining undeveloped. Within each area there are a number of trees and future development would likely require some tree removal. Regarding the six potential development areas, other undeveloped areas within the SOI and service potential, future annexation and development would result in removal of an unknown number and species of trees. Because the footprint, extent, and specific design of other future projects that could occur if the areas are annexed are not known, it is not possible to know the extent of potential impacts.

To account for potential impacts, all future annexations and future projects, as applicable and per City Municipal Code, are required to undergo individual CEQA analysis. CEQA analysis would evaluate the projects for compliance with federal, state, and local regulations, and to determine significance of impacts to these resources as well as conformance with Title 18 of the City Municipal Code in Chapter 18.01 regarding tree preservation. Lastly, implementation of *Mitigation Measure MM BIO – 1*, would require evaluation of potential conflicts with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. As needed on a project by project basis, a mitigation plan for would be implemented and would reduce impacts to less than significant.

Mitigation Measures: Implement MM-BIO-1

Level of Impact After Mitigation: Less than Significant Impact with Mitigation Incorporated.

Impact BIO-6 Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?

There are no Habitat Conservation Plans (HCPs), Natural Community Conservation Plans (NCCPs), or other approved local, regional, or state HCPs that apply to the proposed project. Nevada County is not currently covered under any existing HCPs or NCCPs. Thus, there would be no direct or indirect impacts.

Mitigation Measures: No mitigation is required.

4.3.5 CONCLUSION

The proposed project consists of an update to the SOI Plan and this discussion specifically pertains to the Consensus Alternative. As discussed above, the Consensus Alternative would not directly result in land use impacts by authorizing or providing for any land use entitlement. Future development projects that are annexed to the City would be subject to the City's land use authority and would undergo individual CEQA review for all projects as set forth City zoning ordinance. The Consensus Alternative would be consistent with NCGP and conform to policies and procedures related to protection of biological resources. Upon annexation all applicable policies and guidance would be applied to the new City areas. Accordingly, if required based on further evaluation of biological resources and as the lead agency for these projects, the City would require mitigation to reduce impacts associated sensitive wildlife and plant species, sensitive habitats including riparian and wetlands, wildlife corridors (aquatic and terrestrial) and nursery sites, and all ordinances related to the preservation of biological resources such that significant impacts to the resources would be less than significant.

4.3.6 CUMULATIVE IMPACTS

Adoption of the Consensus Alternative and future development undertaken in accordance with the City's General Plan upon annexation from to the City would not result in any direct changes to existing land uses. The adoption; however, could result in indirect future changes the environment and affect biological resources. Long term, as development occurs this would result in changes to the environment from other future projects within unincorporated County land, future annexation areas, and within the City could contribute to cumulative environmental effects. The significance of these potential changes can be difficult to determine, especially under such a project as this SOI update. This is because there are no specific proposed land uses or plans to analyze and the likelihood of future development is uncertain.

Overall, if buildout occurs in conformance with the NCGP, this would result in a marked increase in development throughout the Consensus Alternative area as the areas are annexed into the City's jurisdiction. The cumulative nature of projects in the Consensus Alternative area would contribute to physical changes to biological resources and associated planning document resulting in potentially significant environmental impacts. Some of the lands within the Consensus Alternative area are currently developed with predominantly rural and estate residential uses, separated by open tracts of undeveloped land. These areas contain three main watercourses, diverse native vegetation, habitats used by sensitive wildlife and plant species, and other sensitive natural communities. With the exception of a few locations designated for planned development, open space, and employment commercial, the vast majority the Consensus Alternative area is designated for rural residential development. Such development would be consistent with the NCGP.

Construction, as well as daily uses in Consensus Alternative area and vicinity would result in changes to the environment and affect biological resources in the area. Under the Consensus Alternative, while no direct impacts would occur, there is the potential for the area to experience growth as future projects are approved. Future projects; however, are anticipated to be designed to be sensitive to and implement the requirements of the City Municipal Code, which would require additional CEQA review. All projects also would be subject to the City's design and review process on a project-by-project basis. This would provide an additional layer of review to help ensure impacts are minimized.

As discussed above, the proposed project itself would not result in any development and does not include any entitlements for development. The project itself is an adjustment and update to the SOI Plan area and the Consensus Alternative does not propose any physical development. As part of the aforementioned CEQA review, and as required by *MM-BIO-1*, future projects annexed to the City would be required to be evaluated for potential impacts and if needed, be evaluated by a qualified biologist to develop a plan with performance standards intended to reduce impacts. All appropriate permits also would be required including those issued by CDFW and USACE. Therefore, it is anticipated that the Consensus Alternative would not significantly contribute to cumulative long-term impacts to biological resources.