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COUNTRY CLUB HEIGHTS EROSION CONTROL PROJECT
EIP #01.01.01.0021
WILDLIFE BASELINE REPORT

Prepared For:
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1.0 INTRODUCTION

The purpose of this document is to conduct an initial baseline assessment for wildlife resources that satisfies the U.S. Fish and Wildlife Service (USFWS), Tahoe Regional Planning Agency (TRPA), and the California Department of Fish and Wildlife (CDFW) requirements to determine potential project effects on wildlife special status species. Furthermore, the Wildlife Baseline Report will provide the Project proponent with relevant resources as they pertain to special status wildlife species and habitat within the Project area, and guide the decision making process during Project design. This Report summarizes the literature review and research findings, field assessment data, and potential impacts to the special status species in the Lake Tahoe Basin within and adjacent to the Project area. For the purposes of this Report, the term special status species encompasses those species designated as federally threatened or endangered by the USFWS; those designated as state endangered, threatened, or rare by the State of California; and TRPA special interest species.

A Biological Assessment (BA) is required for the entire Project area for federally listed threatened, endangered, or proposed species and is prepared and issued by the federal lead agency, which in this circumstance is the USFS-LTBMU. The BA will be provided to the Project proponent and/or its contractor for inclusion into the National Environmental Policy Act (NEPA) document as well as other environmental documents once completed. A Biological Evaluation (BE), which evaluates Forest Service Regional 5 Sensitive Species, is required if improvements are proposed on USFS land. Both the BA and BE are prepared and issued by the USFS, and will be provided to the Project proponent and/or its contractor for inclusion into the National Environmental Policy Act (NEPA) document as well as other environmental documents. Because the USFS is conducting their own investigation and reporting of the Lake Tahoe Basin Management Unit (LTBMU) special status species on applicable USFS land, LTBMU special status species will not be evaluated in this report.

2.0 BACKGROUND

In 1997, TRPA developed a Basin-wide Environmental Improvement Program (EIP) that defined various projects which, once implemented, would assist in attaining and maintaining TRPA Environmental Threshold Carrying Capacities (ETCC) as well as meet other federal and state environmental goals. TRPA has established thresholds for air quality, water quality, soil conservation, vegetation, noise, scenic resources, recreation, fisheries, and wildlife to address public health and safety of residents and visitors as well as the scenic, recreation, education, scientific, and natural values of the Lake Tahoe Basin. The Country Club Heights Erosion Control Project (Country Club Heights ECP) is defined in the TRPA EIP as Project #01.01.01.0021. The Country Club Heights ECP boundary encompasses County rights of way and parcels owned by the California Tahoe Conservancy (CTC), USFS-LTBMU, El Dorado County (County), and private individuals.

The Project area is characterized by predominantly urban development intermixed with fragmented Jeffrey pine forest. This area produces concentrated stormwater runoff that flows from County rights of way to pervious, naturally vegetated land and ultimately the Upper Truckee River. Because the Project area is connected to Lake Tahoe through Meyers Creek and the Upper Truckee River, there is potential for fine sediments produced in the residential area to deposit directly into Lake Tahoe. Current sediment sources within Project area include residential use and vehicular traffic; road sand/cinder accumulation from local and collector roadways; and eroding cut slopes, drainages, and roadside ditches throughout the Project area.

Project improvements may include infiltrating and/or treating of stormwater from County rights of way, stabilizing eroding cut slopes with vegetation and/or rock protection, stabilizing existing drainages with rock and/or bio-engineering techniques (where feasible), and disconnecting existing storm drain conveyance systems from directly discharging into the Upper Truckee River. Sediment trapping devices and infiltration basins (on publicly owned parcels) will be used to capture stormwater and road abrasives, and treat pollutants to reduce the overall stormwater volume discharging to the Upper Truckee River.

The overall goal of the Project is to design and implement erosion control and water quality improvement measures that will reduce the discharge of sediment and pollutants to Lake Tahoe from County administered rights of way in the Country Club Heights ECP. Furthermore, it will assist the County in achieving goals associated with the EIP. The County will perform this Project in general agreement with the guidelines of the CTC Grants Program (CTC 2004), including the Preferred Design Approach.

2.1 Project Location

The Project area is located in the El Dorado County, California. The Project is located in Sections 20, 21, 28, and 29 in Township 12 North and Range 18 East of the Mt. Diablo Meridian which may be found on the following U.S. Geological Survey 7.5 minute quadrangle maps: Echo Lake, Freel Peak, and South Lake Tahoe in El Dorado County, California. It is within a TRPA Priority Two Watershed (Upper Truckee River).

The Country Club Heights ECP is located between Highway 50 and Pioneer Trail (Figure 1). The Project area is primarily a residential neighborhood with gradual increase in elevation

from west to east. The Project area covers approximately 269 acres; however, the survey area is approximately 67 acres.

Two plan area statements (PAS) present general land use zoning information for the Project area. PAS are considered land use and zoning guidance documents for both the TRPA and the County. The majority of the Project area is included within PAS 120 Tahoe Paradise Meadowvale, while a small portion of the northwest section of the Project Area is part of PAS 119, Country Club Meadow (TRPA 2002a & 2002b). Land use in the majority of the Project area is primarily characterized as single family residential. The area is 30 percent built out with 15 percent of the land covered and 25 percent disturbed. Additional planning considerations mentioned in the PAS documents note "steep and high cutbanks now protected by gunnite may start to erode within the next 20 years (TRPA 2002a)" in PAS 120 Tahoe Paradise Meadowvale, and that "most of the homes and other developed facilities are located within stream environment (TRPA 2002b)" of PAS 119, Country Club Meadows.

3.0 RECORDS AND INFORMATION SEARCHES

A literature and database review was conducted to identify existing wildlife information within and adjacent to the Project area. This review assisted with the determinations contained in this document. All of the references utilized for this Report are listed in Section 9.0. The most relevant searches, reviews, and requests are listed below.

Agency/Entity	Date	Information Received
USFWS	9/26/2016	• Federally Protected Species List for threatened, endangered, candidate, de-listed, and special concern species (USFWS 2016)
USFS – LTBMU	9/26/2016	• Biological information/direction as it pertains to the Project (USDA 2016)
USDA	8/10/2016	• CALVEG GIS layers (USDA 2009)
TRPA	8/25/2016	• TRPA Threshold Evaluation (TRPA 2011) • TRPA Code of Ordinances (TRPA 2011) • Designated Habitat Areas and survey data (TRPA 2016)
California Department of Fish & Wildlife (CDFW)	8/20/2016	• California Wildlife Habitat Relationship (CWHR) Model Version 8.2 (CDFW 2014) • California Natural Diversity Database (CNDDB) (CNDDB 2016) • State & Federally Listed Endangered & Threatened Animals of California (CDFW 2016)

4.0 FIELD ASSESSMENTS AND SURVEYS

This section includes a summary of field assessments and survey information collected during the site investigation. The field investigation and assessment were conducted for presence of species, habitat, and range by NCE biologists on August 10, 2016. The focus of this investigation was to evaluate the habitat and determine the likelihood that special status wildlife species or their associated habitats would occur within or be impacted by the Project. Surveyed area included County rights of way and public lots where improvements are proposed (**Figure 1**).

Both avian point counts and walking transect surveys were conducted in or near specified parcels and/or sensitive habitat areas. Birds observed during these surveys were found to be consistent with species associated in the Lake Tahoe urban setting and include: Steller's jay, pygmy nuthatch, red-breasted nuthatch, dark-eyed junco, fox sparrow, American robin, mourning dove, mountain chickadee, northern flicker, Brewer's blackbird, brown-headed cowbird, white-headed woodpecker, brown creeper, and common raven.

Habitat type and condition were assessed using the CWHR sampling method. CWHR is a habitat modeling program developed by the California Department of Fish and Wildlife (CDFW) that supports habitat classifications described in *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1988). The CWHR model is used to predict regularly-occurring wildlife within a particular habitat type using physical elements, stand structure, and seral stage constraints. The mapped CWHR types Jeffrey pine, perennial grassland, and urban occur within the Project area while aspen, lacustrine, lodgepole pine, montane chaparral, sierra mixed conifer, and wet meadow occur within 0.5 miles of the Project area **(Figure 2)**. Jeffrey pine density within the project area is characterized as moderate with patches of open cover; size class is best characterized as 4 (small trees/11-24" diameter at breast height (DBH)) with areas of class 5 (medium-large trees/>24" DBH) along the Project peripheries. Habitat type, size, and density were field verified and found to be consistent with the modeled attributes; however, this area is predominantly residential and does not reflect characteristics or wildlife relationships associated with these habitats. Common disturbances include altered and non-native landscapes, litter, domestic pets, humans, and vehicular traffic. A summary of habitat classifications that exist within the Project boundary are shown at the end of this section; unless otherwise noted, habitat information is taken from *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1988).

Notable potential wildlife habitat including undeveloped county lots with moderate to high plant cover and diversity, in addition to snags, were found to exist in the Project area, but the likelihood of occupancy by special status species is low as these areas are highly disturbed and possess near prolific human and vehicular traffic. As with all construction occurring during the avian breeding season (May-August), pre-construction breeding bird surveys should be conducted in areas where improvements are proposed as there is potential to negatively impact active nests, eggs, or breeding birds protected by the Migratory Bird Treaty Act. These surveys should be conducted at a maximum of one week prior to implementation. No other significant wildlife features were found within the survey area. However, these findings do not preclude wildlife habitat from existing in areas found outside the Project boundary.

Jeffrey Pine (JPN)

Jeffrey pine occurs in a variety of physical settings throughout its extensive range (occurring at elevations from 500 to 9,500 feet). It is commonly found on soils developed from granite

and lava flows, but can also develop as a type on ultramafic soils (Walker 1954). Jeffrey pine is not restricted by aspect or slope. It usually forms pure stands but may be associated with sugar pine, lodgepole pine, white fir, red fir, incense-cedar, and black cottonwood. Shrubs common to the Jeffrey pine type on the western slope of the Sierra Nevada include huckleberry oak, manzanita, and mountain misery. East of the Sierra-Cascade crest, the dominant shrub layer species include squaw currant, snowbush, and greenleaf manzanita at higher elevations, and antelope bitterbrush, rabbitbrush, and sagebrush at lower elevations. The value of the Jeffrey pine forest type as a habitat for wildlife is due in large part to the food value of the Jeffrey pine seeds. Pine seeds are included in the diet of more wildlife species than any other genus except oak (Light 1973). The bark and foliage also serve as important food sources for squirrels and mule deer. Jeffrey pine provides vital nesting cover for several species such as nuthatch species, brown creeper, woodpecker species, and northern flying squirrel.

Perennial Grasslands (PGS)

Perennial grassland habitat typically occurs on ridges and south-facing slopes, alternating with forest and scrub in the valleys and on north-facing slopes. Perennial grassland habitats are most often found on the mollisol soil type. Perennial grassland habitats are dominated by perennial grass species such as California oatgrass, pacific hairgrass, and sweet vernal grass. Perennial grassland provides optimum habitat for many species, including common garter snake, western terrestrial garter snake, northern harrier, barn swallow, savannah sparrow, Botta's pocket gopher, western harvest mouse, California vole, and long-tailed vole. In addition, perennial grassland often serves as feeding habitat for turkey vulture, red-tailed hawk, American kestrel, peregrine falcon, western bluebird, fringe-tailed bat, big brown bat, striped skunk, coyote, black-tailed jackrabbit, brush rabbit, and black-tailed deer.

Urban

The urban habitat occurs throughout California and Nevada, and is a result of modifying vegetation, and introducing new species. Urban climate varies in temperature and wind velocity from the surrounding landscape, and can offer heat islands, wind velocities breaks, and wind funnels caused by tall buildings and man-made features. Three urban categories relevant to wildlife are distinguished: downtown, urban residential, and suburbia. The heavily-developed downtown is usually at the center, followed by concentric zones of urban residential and suburbs. There is a progression outward of decreasing development and increasing vegetative cover. Species richness and diversity is extremely low in the inner cover. Rock dove, house sparrow, and starling comprise over 90 percent of all avian density and biomass. The urban residential zone is characterized by a denser and more varied mosaic of vegetation shade trees, lawns, hedges and planted gardens; approximately 40 percent of the land's surface is covered by impervious material. This region is characterized by a variety of bird species including western scrub jay, northern mockingbird, and house finch. Associates in the urban residential areas include the raccoon, opossum, striped skunk. Suburban areas offer landscaped gardens and lawns and relatively large tracts of adjacent natural vegetation. Wildlife diversity increases while species density decreases in suburban areas.

5.0 SPECIAL STATUS SPECIES

This section discusses the special status species that have the potential to occur in the Project area. There are no known occurrences of special status species within the Project boundary (CNDDB 2016, USFWS 2016, TRPA 2016); however, there are recorded occurrences of one special status species immediately adjacent to the Project area and within the Project 0.5 mile buffer (northern goshawk, **Figure 3**). No signs, evidence, or suitable habitat were found for special status species during surveys. Furthermore, habitat within the survey area is small, fragmented, and presently highly impacted by human use and disturbance.

All species protected under the TRPA, USFWS, and the CDFW were evaluated for the Project area using CWHR, CNDDB, additional background research, and on-site investigations (**Table 1**). According to the TRPA 2006 Threshold Evaluation Report and recent information provided by TRPA, there is one small patch of mapped willow flycatcher habitat within the Project boundary (TRPA 2016) and a northern goshawk disturbance zone intersects the northeastern Project 0.5 mile buffer. No historical or documented observations for special status species were found within the Project area. Refer to **Table 1** for a detailed account of historical occurrences, disturbance zones (northern goshawk), modeled habitat (willow flycatcher), and habitat associations for species with suitable habitat within 0.5 miles of the project area.

In summary, suitable habitat does exist within 0.5 miles of the Project area for bald eagle, bank swallow, willow flycatcher, northern goshawk, osprey, California spotted owl, waterfowl, Sierra Nevada mountain beaver, American badger, Sierra Nevada snowshoe hare, fisher (West Coast distinct population segment), Sierra Nevada red fox, and mule deer. Of these, bald eagle, bank swallow, northern goshawk, osprey, waterfowl, and mule deer have a moderate likelihood of occurring within the Project boundary as they are not uncommon species to observe in this vicinity. It is unlikely that they would use the Project area for reproduction as suitable nesting or denning habitat does not exist there.

There is a low potential for willow flycatcher to occur within the Project area. Although suitable habitat does exist within 0.5 miles or the Project, habitat requirements for cover, breeding, and foraging are lacking within the Project area. This species may pass through but is not expected to establish a nesting site in the Project area. The remaining species with suitable habitat are not expected to occur as they have very isolated populations, specific habitat requirements, and/or are sensitive to human disturbances. These include California spotted owl, Sierra Nevada mountain beaver, American badger, Sierra Nevada snowshoe hare, fisher, and Sierra Nevada red fox.

6.0 TRPA THRESHOLD STANDARDS

W-1: Threshold Standards for TRPA Special Interest Species

No TRPA special interest species were identified within the Country Club Heights ECP. There is a portion of one northern goshawk disturbance zone within 0.5 miles of the Project area, but they do not overlap with the Project boundary. It is not likely Project activities will impact this species as suitable nesting habitat is not present within the Project area. A more detailed discussion of these zones can be found in Section 6.0 and Table 1. Therefore, the Country Club Heights ECP does not have the potential to impact wildlife threshold standards for TRPA special interest species for the following reasons:

- No TRPA disturbance zones are present within the Project boundary.
- Suitable meadow and fawning habitat that could sustain the reproductive and cover needs for mule deer is not present within the Project area.
- No improvements are proposed along the Lake Tahoe shoreline.
- TRPA approved temporary BMPs will be utilized during construction to minimize any disturbance due to Project construction.

W-2: Habitats of Special Significance

Stream Environment Zones (SEZs) are throughout the Project area. TRPA approved temporary BMPs will be utilized during construction to minimize any disturbance due to Project construction.

F-1: Lake Habitat

No improvements are proposed within lake habitat; therefore, no further analysis is necessary.

F-2: Stream Habitat

No stream modification is proposed; therefore, no further analysis is necessary.

F-3: In-Stream Flow

No in-stream flow modification is proposed; therefore, no further analysis is necessary.

F-4: Lahontan Cutthroat Trout

The Country Club Heights ECP does not contain known Lahontan cutthroat trout populations (TRPA 2015); therefore, no further analysis is necessary. A discussion of Lahontan cutthroat trout can be found in **Table 1**.

7.0 SUMMARY

The Project area represents the typical urban environment found within the Lake Tahoe Basin. The Project area is primarily a residential neighborhood surrounded by natural habitat. The land surrounding the Project area is primarily State land and consists of forested open space that provides habitat for a variety of common wildlife species. The proposed Project is not expected to negatively affect special status species identified in this Report as improvements are proposed in existing disturbed areas. Additionally, habitat found within the Project area is marginal and would not support the reproductive requirements of special status species.

Background research found no detections of special status species within a 0.5 mile radius of the Project area. The 0.5 mile buffer intersects one northern goshawk disturbance zone northeast of the Project, and a small patch of modeled willow flycatcher habitat is located near the central-northern Project boundary. Field investigations found the modeled habitat within the Project area unsuitable for willow flycatcher to breed. Northern goshawk and willow flycatcher, as well as bald eagle, bank swallow, osprey, waterfowl, and mule deer could pass through or occasionally forage within Project area, but existing disturbances and lack of suitable habitat make it unlikely they would nest or den within the Project or be negatively impacted by localized construction activities.

To mitigate for potential temporary impacts due to construction, TRPA approved BMPs will be in place and maintained for the duration of construction to ensure impacts are minimized and/or eliminated. The Technical Advisory Committee (TAC), which will include project stakeholders, will analyze and approve all design recommendations as the Project moves forward. Once implemented, the proposed Project will reduce the amount of pollutants and sediment entering Lake Tahoe and increase the quality of habitat. This is anticipated to bring an overall positive effect to the Upper Truckee River Watershed and its associated habitats.

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APPENDIX A

Tables

Table 1. Special Status Wildlife Species Considered for the Country Club Heights ECP.								
Common Name ***Scientific Name***	**Federal Status[+]**	**State Status[+]**		**Local Status[+]**	**Occur within 0.5 miles of Project Area**	**Suitable Habitat within 0.5 miles of Project Area**	**Potential for Occurrence**	**Habitat Association (only discussed for species with a suitable habitat)**
		CESA	**CDFW**					
Amphibians								
Sierra Nevada yellow-legged frog[1] *Rana sierrae*	FE	ST	WL		No	No	**Not expected to occur**. Suitable habitat does not exist in the Project vicinity.	
Northern leopard frog[2] *Lithobates pipiens*			SSC		No	No	**Not expected to occur.** This species is presumed extirpated from the Tahoe Basin (Schlesinger and Romsos 2000). Suitable habitat is not present in the Project area.	
Yosemite toad[3] *Anaxyrus canorus*	FT		SSC		No	No	**Not expected to occur.** Outside of the known range.	
Birds								
American peregrine falcon *Falco peregrines anatum*	DL (8/99)	SD	FP	TRPA	No	No	**Not expected to occur. No Potential to Impact TRPA Threshold Standard.** Suitable habitat does not exist in the Project area and this species is not known to occur in the Project area.	

[1] Formerly mountain yellow-legged frog, *Rana muscosa*
[2] Formerly *Rana pipiens*
[3] Formerly *Bufo canorus*

Table 1. Special Status Wildlife Species Considered for the Country Club Heights ECP.								
Common Name ***Scientific Name***	**Federal Status+**	**State Status+**		**Local Status+**	**Occur within 0.5 miles of Project Area**	**Suitable Habitat within 0.5 miles of Project Area**	**Potential for Occurrence**	**Habitat Association (only discussed for species with a suitable habitat)**
		CESA	**CDFW**					
Bald eagle *Haliaeetus leucocephalus*	DL (8/07)	SE	FP	TRPA	No	Yes	**Moderate. No Potential to Impact TRPA Threshold Standard**. Suitable habitat does not exist within the Project boundary, but does along the Truckee River, which is within 0.5 miles from the Project. This species could pass through the Project area, but suitable breeding habitat is not present in the Project survey area.	Bald eagles have an expansive range with breeding areas in Northern California, wintering mostly in the Klamath Basin, and a few favored inland areas of Southern California. Locally, they are yearlong residents and migrants in the Tahoe Basin. Bald eagles use shorelines along large bodies of water and river courses for both nesting and wintering. Snags, broken-topped trees, or rocks near water are required for foraging and nesting. Most nests are located in large trees with open branches within 1 mile of a water body. In Lake Tahoe, known nesting sites include Emerald Bay and Marlette Lake. Wintering sites are located in Taylor, Tallac, Pope, and Upper Truckee Marshes (Romsos 2000)
Bank Swallow *Riparia riparia*		ST			No	Yes	**Moderate.** Suitable habitat is marginal in perennial grassland habitat within the Project area, however additional habitat is found within 0.5 miles of the Project. This species could pass through the Project area, but suitable breeding habitat is not present in the Project survey area.	This species prefers riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with fine-textured or sandy soils. It is also known to flock with other swallows over many open habitats during migration. Most of the current breeding population in California occurs along banks of the Sacramento and Feather rivers with others occurring along the central coast northeastern California. Locally, this species occurs as a migrant (CWHR 2016).

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Common Name ***Scientific Name***	**Federal Status+**	**State Status+**		**Local Status+**	**Occur within 0.5 miles of Project Area**	**Suitable Habitat within 0.5 miles of Project Area**	**Potential for Occurrence**	**Habitat Association (only discussed for species with a suitable habitat)**
		CESA	**CDFW**					
California spotted owl *Strix occidentalis occidentalis*			SSC		No	Yes	**Not expected to occur.** Suitable habitat does not exist in the Project area and only marginal habitat exists within 0.5 miles.	California spotted owl are found in Northwest California, the foothills and mid-elevation ranges of the Sierran Nevada, and localized pockets of Southern California. Locally, they are yearlong residents. They can occur in several forest types, but generally choose to breed in forested regions with high canopy cover. Because these owls are cavity dwellers, their reproductive habitat requires snags and decadent trees. Mature forests exhibit optimal habitat because they have complex forest structure, variation in tree size and age, large amounts of course woody debris, and scattered clearings that provide foraging opportunities.
Golden eagle *Aquila chrysaetos*			FP	TRPA	No	No	**Not expected to occur. No Potential to Impact TRPA Threshold Standard.** The Project area is impacted by human use and suitable habitat is lacking.	
Great gray owl *Strix nebulosa*		SE			No	No	**Not expected to occur.** Undisturbed mature red fir forests or wet meadows used for roosting and foraging are not present.	

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Common Name ***Scientific Name***	**Federal Status+**	**State Status+**		**Local Status+**	**Occur within 0.5 miles of Project Area**	**Suitable Habitat within 0.5 miles of Project Area**	**Potential for Occurrence**	**Habitat Association (only discussed for species with a suitable habitat)**
		CESA	**CDFW**					
Northern goshawk *Accipiter gentilis*			SSC	TRPA	Yes	Yes	**Moderate. No Potential to Impact TRPA Threshold Standard.** There is a TRPA Northern Goshawk Disturbance Zone outside of the Project area but within the 0.5 mile buffer. No improvements are proposed outside of the Project boundary and the TRPA Disturbance Zone does not overlap with the Project boundary. This species could pass through the Project area, but suitable breeding habitat is not present in the Project survey area.	Northern goshawk are distributed throughout California in middle to higher elevation forested areas, particularly in the North Coast Ranges through Sierra Nevada, Klamath, Cascade, and Warner Mountains (Zeiner et al. 1990). Locally, they can be yearlong residents and seasonal migrants. Goshawks usually nest on north-facing slopes near water and require mature conifer or aspen forests with large diameter trees, dense canopy cover, and an open under story interspersed with meadows or shrub patches. Open areas provide foraging opportunities, while logs, snags, and broken-top trees are used as "plucking posts" to de-feather prey. Nests are usually located within the largest tree in the stand, next to the bole of the tree, in the lower third of the canopy.
Osprey *Pandion haliaetus*			WL	TRPA	Yes	Yes	**Moderate. No Potential to Impact TRPA Threshold Standard.** Osprey could pass through the Project area as there several undocumented observations, but suitable breeding and foraging habitat is not present in the Project area.	Osprey are yearlong residents. Osprey diets are almost entirely fish; therefore, its range has a close association with open, calm, and clear waters for feeding. Platform nets are built atop large snags, living trees, and human structures. Tall, open trees called “pilot trees” are required nearby for landing approaches and flight practice for fledglings.

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		CESA	**CDFW**					
Waterfowl (collectively)				TRPA	Yes	Yes	**Moderate. No Potential to Impact TRPA Threshold Standard.** Designated Wildlife Habitat for Waterfowl is not located within the Project area. Waterfowl most likely will frequent the nearby Upper Truckee River, but existing disturbances and lack of suitable habitat make it unlikely they would nest in the Project area.	Mallards and other waterfowl are found throughout California in wetlands and waters such as lakes, creeks, drainages, marshes, and wet meadows. Locally, some species such as mallards are common, yearlong residents. While breeding, they need shallow-water areas with nest sites nearby. Usually nests in fairly dry sites in tall, dense herbaceous vegetation or low shrubbery within 100 m of water, rarely up to 8 km (Bellrose 1976).
Willow flycatcher *Empidonax traillii*		SE			No	Yes	**Low.** Willow flycatcher has very distinct habitat requirements that dictate meadow size, vegetation type, height, and access to water. There is modeled habitat within 0.5 miles of the Project, as well as a small pocket near the north-central Project boundary, but no suitable habitat was identified within the Project area.	Willow flycatchers are rare to locally uncommon, summer residents in the Sierra Nevada and Cascade Range. In the Sierra Nevada, suitable habitat typically consists of broad, flat meadows that support riparian deciduous shrubs (particularly willows) and retain soil moisture throughout the nesting season (May-July). Three critical habitat components are sufficient meadow size, access to water, and presence of willows. Suitable nesting habitat must have willows (at least 2m high with foliage density of 50-70%) with low, exposed branches present (Sanders and Flett 1989). Generally, willow flycatchers inhabit meadows larger than 8 hectares (at 2000-8000 ft. in elevation) and do not typically utilize willow clumps along steep terrain, or narrow bands bordered by conifer forests.
Mammals								

Table 1. Special Status Wildlife Species Considered for the Country Club Heights ECP.								
Common Name ***Scientific Name***	**Federal Status[+]**	**State Status[+]**		**Local Status[+]**	**Occur within 0.5 miles of Project Area**	**Suitable Habitat within 0.5 miles of Project Area**	**Potential for Occurrence**	**Habitat Association (only discussed for species with a suitable habitat)**
		CESA	**CDFW**					
California wolverine *Gulo gulo luteus*		ST	FP		No	No	**Not expected to occur.** Suitable alpine habitat is not present in the Project area. There are very few documented occurrences in the region.	
Sierra Nevada mountain beaver[4] *Aplodontia rufa californica*			SSC		No	Yes	**Not expected to occur.** Habitat requirements for cover, breeding, and foraging are lacking within the Project area but are within 0.5 miles. It is not expected this species would pass through the Project area as appropriate stream requirements are not found there.	Found throughout the Cascade, Klamath, and Sierra Nevada Ranges. Distribution often is scattered; populations local and uncommon in the Sierra Nevada and other interior areas. Occur in dense riparian-deciduous and open, brushy stages of most forest types. Typical habitat in the Sierra Nevada is montane riparian with a dense understory near water. Deep, friable soils are required for burrowing, along with a cool, moist microclimate (Zeiner et al. 1990).
American badger *Taxidea taxus*			SSC		No	Yes	**Not expected to occur.** Habitat requirements for cover, breeding, and foraging are lacking within the Project survey area but are within 0.5 miles. It is not expected this species would pass through the Project area as appropriate habitat requirements are not found there.	Uncommon, permanent resident found throughout most of the state, except in the northern North Coast area (Grinnell et al. 1937). Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Suitable habitat for badgers is characterized by herbaceous, shrub, and open stages of most habitats with dry, friable soils (Zeiner et al. 1990).

[4] Formerly mountain beaver, *Aplodontia rufa*

Table 1. Special Status Wildlife Species Considered for the Country Club Heights ECP.								
Common Name ***Scientific Name***	**Federal Status+**	**State Status+**		**Local Status+**	**Occur within 0.5 miles of Project Area**	**Suitable Habitat within 0.5 miles of Project Area**	**Potential for Occurrence**	**Habitat Association (only discussed for species with a suitable habitat)**
		CESA	**CDFW**					
Mule deer *Odocoileus hemionus*				TRPA	Yes	Yes	**Moderate. No Potential to Impact TRPA Threshold Standard.** Suitable habitat is located outside the Project area. Habitat in the Project area is not suitable for fawning due to existing disturbance levels.	Mule deer have a widespread distribution throughout most of California (CDFW 2014). Locally, they are common to abundant migrants. Shrubs provide food, cover, and thermoregulation, making them essential habitat criteria. Openings interspersed through dense thickets and abundant edges are preferred. Deer require 3 quarts of water/day/100 lb. (Zeiner et al. 1990), so access to water and mineral licks are also critical features to suitable habitat.
Sierra Nevada snowshoe hare *Lepus americanus tahoensis*			SSC		No	Yes	**Moderate**. This species could use the Project area for foraging, but the small, exposed nature of the survey area does not meet breeding habitat requirements.	The Sierra Nevada snowshoe hare is a medium-sized, cinnamon-brown rabbit characterized by short ears, large hind feet, and a short tail. Snowshoe hares are secretive and typically observed when flushed. This species is most active during the night or early morning. Snowshoe hares in general have populations that tend to fluctuate dramatically; however, the *tahoensis* subspecies that occupies fragmented habitat may not show dramatic population fluctuations (Zeiner et al. 1990, CDFW 2014).
Fisher (West Coast Distinct Population Segment) *Pekania pennanti*	Proposed Threatened	SCT	SSC		No	Yes	**Not expected to occur.** Appropriate habitat for denning and foraging is not present within the Project area; however marginal resting habitat is located within 0.5 miles of the Project.	Fisher are rare residents in the Lake Tahoe Basin. They prefer woody debris, vegetated understory, and continuous, dense canopy cover is essential for foraging and cover. Fisher also favor riparian areas as rest sites. Dens are made in cavities of large conifers; both snags and live trees are used. Rarely enter areas of low canopy cover, or patches of large clearings.

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		CESA	**CDFW**					
Sierra Nevada red fox *Vulpes vulpes necator*		ST			No	Yes	**Not expected to occur.** Habitat requirements for cover, breeding, and foraging are lacking within the Project survey area but are within 0.5 miles. Presumed extirpated from the Tahoe Basin (Schlesinger and Romsos 2000).	Sierra Nevada red fox are found in the Cascades and from Lassen to Tulare County (CDFW 2014). Their local population size has high imperilment, but numbers are suspected to be increasing (Manley and Schlesinger 2000). Although most habitats found in the Lake Tahoe Basin are suitable for Sierra Nevada red fox, they are very rare in this region. Habitats they are found in include wet meadows, sub-alpine conifers, lodgepole pine, red fir, aspen, montane chaparral, riparian, mixed conifer, and Jeffrey pine. Open areas for hunting and covered areas for den sites are required, making habitat edges ideal.
Pallid bat *Antrozous pallidus*			SSC		No	No	**Not expected to occur.** They are not known to occur in the Project area. This species is vulnerable to disturbance, so it is not likely they would roost within the highly impacted Project area. Roosting sites (rocky outcrops, cliffs, and crevices with access to open habitats for foraging) are sensitive to disturbance.	

Table 1. Special Status Wildlife Species Considered for the Country Club Heights ECP.								
Common Name ***Scientific Name***	**Federal Status+**	**State Status+**		**Local Status+**	**Occur within 0.5 miles of Project Area**	**Suitable Habitat within 0.5 miles of Project Area**	**Potential for Occurrence**	**Habitat Association (only discussed for species with a suitable habitat)**
		CESA	**CDFW**					
Townsend's big ear bat *Corynorhinus townsendii*		SCT	SSC		No	No	**Not expected to occur.** There are few occurrences of this species in the Tahoe Basin, and they are not known to occur in the Project area. This species is vulnerable to disturbance, so it is not likely they would roost within the highly impacted Project area. Because roosting sites (undisturbed caves or cave surrogates) are the most important limiting resource for Townsend's big ear bat (Zeiner et al. 1990), their occurrence in the Project area is unlikely.	
Fish								
Lahontan cutthroat trout *Oncorhynchus clarkii henshawi*	FT			TRPA	No	No	**Not expected to occur.** The USFS LCT Reintroduction Project removes non-native trout from the main stem of the Upper Truckee River (below Meiss Meadows, the outlet tributary of Round Lake, and the inlet and outlet of Dardanelles Lake). This project also removes and returns LCT from the lower reaches of the Upper Truckee River to the upper portion of the river so prevent hybridization with rainbow trout (USDA 2012). LCT is not expected to occur in the portion of the Upper Truckee River that passes within 0.5 miles of the Project.	
Lahontan Lake tui chub *Gila bicolor pectinifer*			SSC		No	No	**Not expected to occur.** Suitable habitat does not exist within or adjacent to the Project area.	

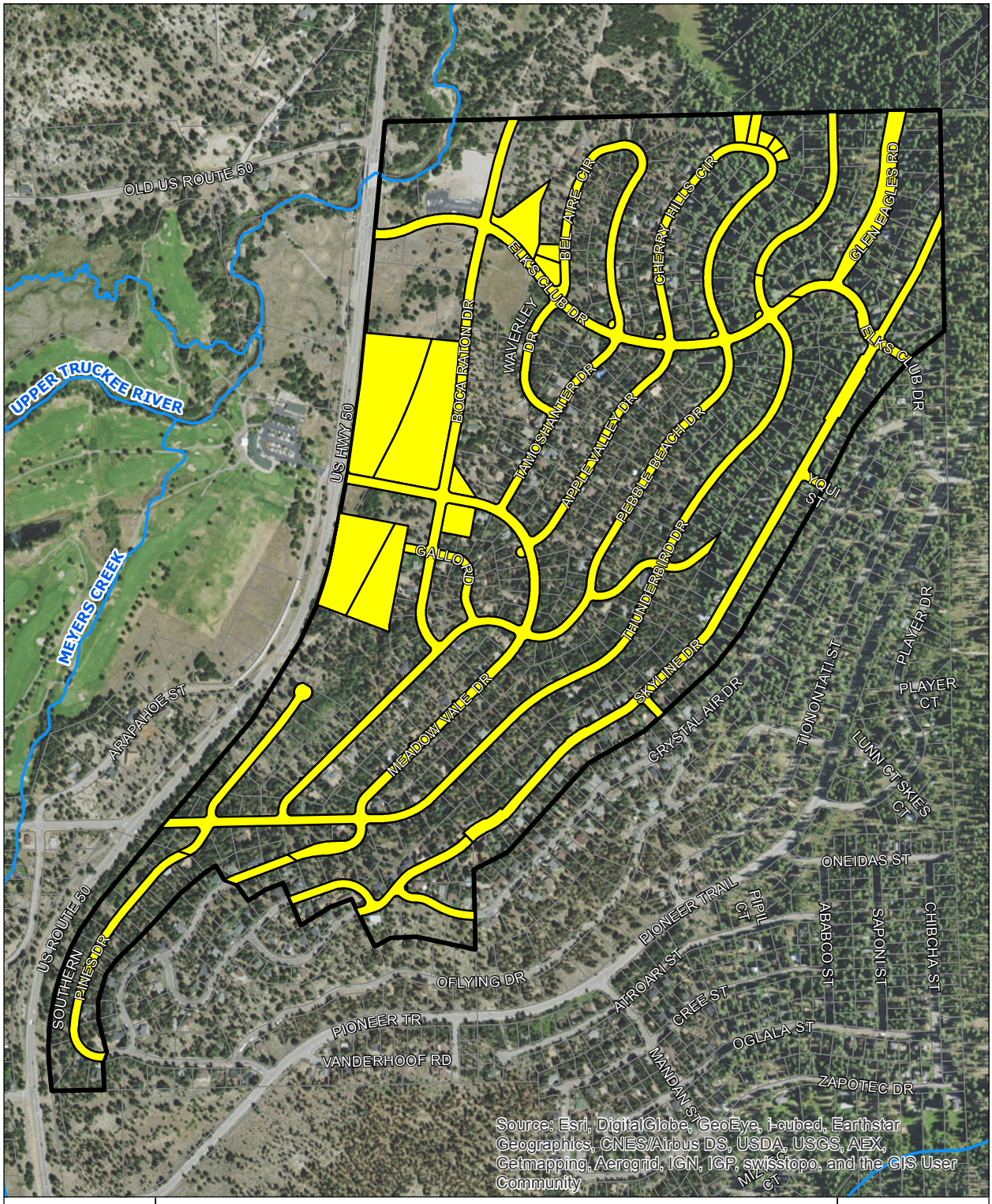
Special Status Codes

[+] Federal	State	CDFW
FE = Federally Endangered under the ESA	SCT = State Candidate Threatened	SSC = Species of Special Concern
FT = Federally Threatened under the ESA	SE = State Endangered under CESA	FP = Federally Protected
FC = Federal Candidate under the ESA	ST = State Threatened under CESA	WL = Watch List
DL = Federally De-listed	SD = State Delisted	Local
		TRPA = TRPA Special Interest Species

Sources: CDFW 2016, CNDDB 2016, TRPA 2011, TRPA 2016, USFWS 2016

APPENDIX B

Figures



Legend

- Project Boundary
- Survey Area
- Parcels
- Streams

Country Club Heights ECP

Draft Basemap

1:10,000

0 500 1,000 ft.

N

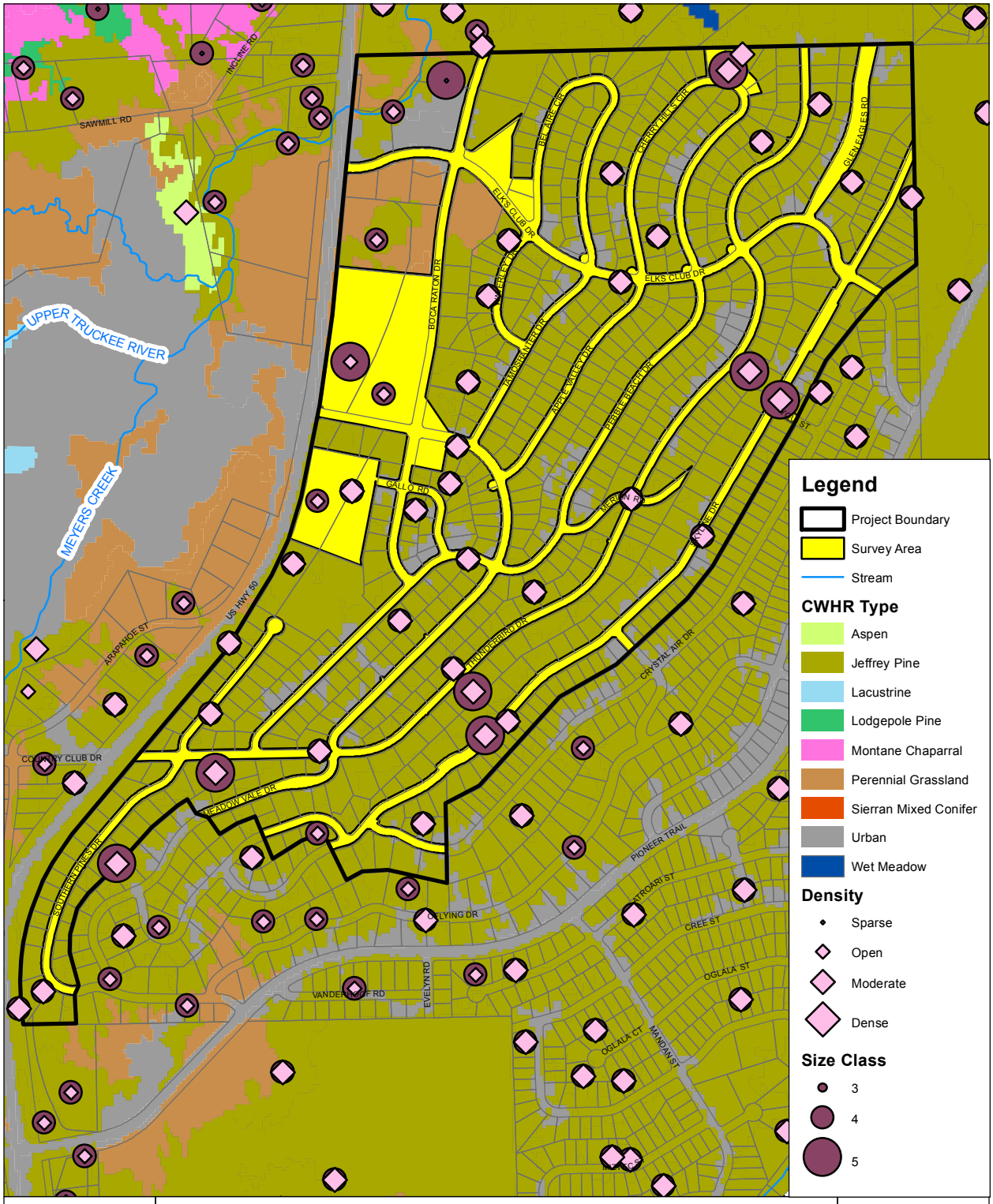
Credits: ESRI; El Dorado County; TRPA

Date: 7/19/2016

Author: drios

Figure 1

NCE



Country Club Heights ECP

CWHR Type, Size, and Density

1:10,000

0 500 1,000 ft.

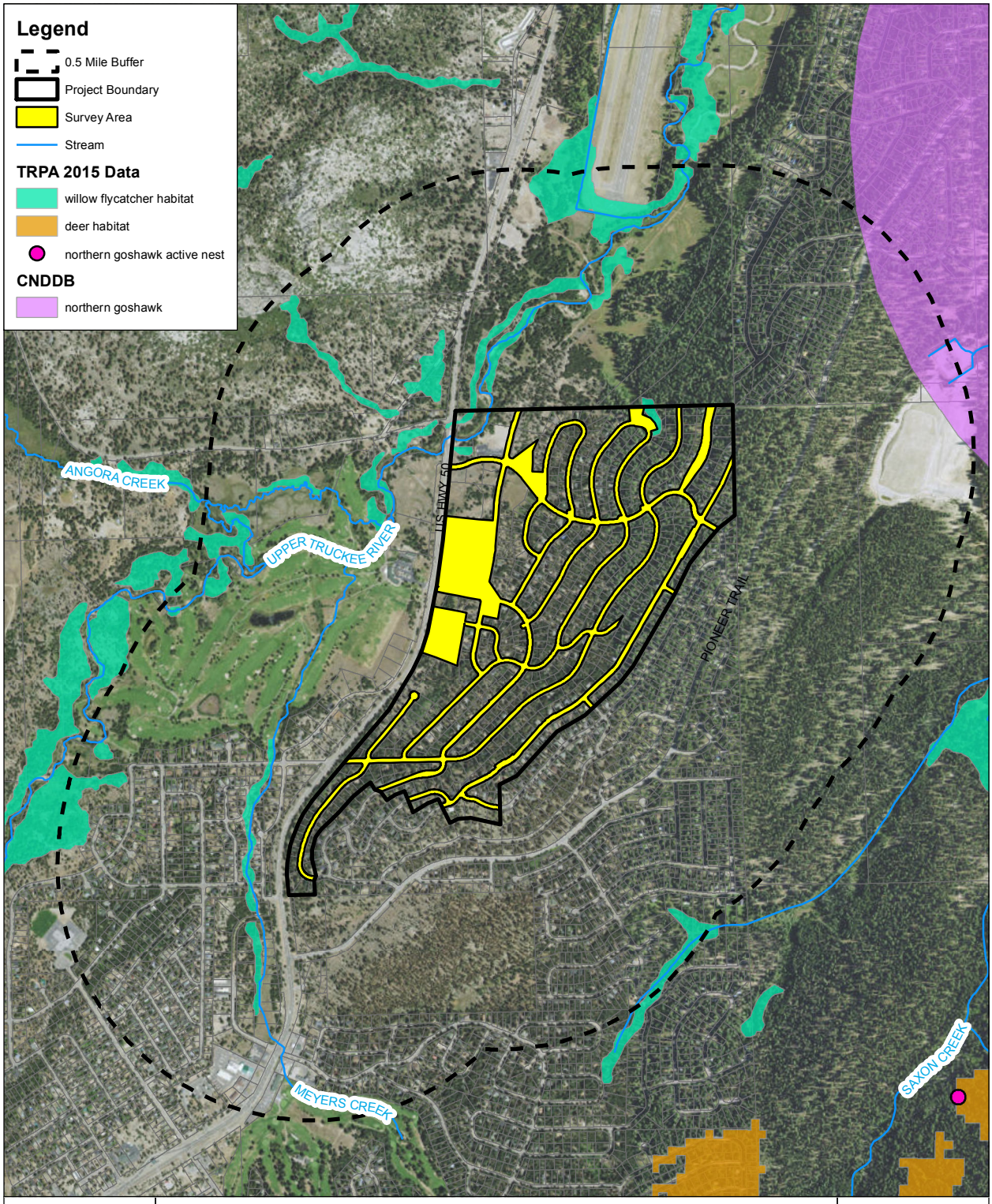
N

Credits: ESRI; El Dorado County; CWHR; TRPA

Date: 9/2/2016

Author: mrios

Figure 2



Country Club Heights ECP

Wildlife Basemap

1:20,000

0 1,000 2,000 ft.

N

Credits: ESRI; El Dorado County; TRPA; CNDDB

Date: 9/2/2016

Author: mrios

Figure XX