



November 15, 2019

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**Technical Memorandum: Bowman Canyon Property Special-Status Ground-Nesting Bird
Habitat Assessment**

This memorandum documents the results of a habitat assessment for special-status ground-nesting birds for the Bowman Canyon Property, located west of Novato and immediately adjacent to Mount Burdell Open Space Preserve (Figure 1). The property was recently acquired by Marin County Parks, and is part of an expansion of Mount Burdell Open Space Preserve. The property is approximately 167 acres in size, and is situated primarily along a steeply sloping ridgeline characterized by grassland, oak-bay woodland, and coastal scrub, with a gentler slope and lower-growing serpentine grasslands in the northern portion.

METHODS

Nomad Ecology senior wildlife biologists Meghan Bishop and Dana Terry conducted a site assessment of the Bowman Canyon Property on March 29, 2019. Incidental observations were made during focused amphibian surveys by Ms. Bishop and Mr. Terry on May 1 and May 31, 2019. Further incidental observations were made by Nomad senior botanist Heath Bartosh during floristic surveys in April 2019.

Species Selection Criteria

Bird species were considered special-status if they are listed under either the federal or California Endangered Species Acts, are designated as Fully Protected or a Species of Special Concern by the California Department of Fish and Wildlife (CDFW), or are included on CDFW's Special Animals List (CDFW 2018).

The assessment of habitats on the Bowman Property took into account the height, density, and overall patch size of the various vegetation types on site, as well as proximity to other habitat types in the vicinity. Slope gradient, aspect, and wind exposure were also taken into consideration.

Special-status bird species were considered for this report if they typically build nests on or very near to the ground (i.e. a few centimeters up in vegetation), and are known to occur in the greater San Francisco Bay Area. Ground-nesting shorebirds such as gulls and terns were omitted from consideration due to a lack of shoreline habitat on site, as were marsh-obligate species such as rails.

Occurrence Data

Occurrence records for special-status ground nesting birds in the vicinity of the Bowman Property were obtained from the following sources:

California Natural Diversity Database

CDFW's California Natural Diversity Database (CNDDDB) was queried for occurrences of special-status ground-nesting species in Marin County and the surrounding region (CDFW 2019). The CNDDDB tracks user-submitted occurrences of all special-status species in California, and is used extensively as a reference for regulatory and planning purposes. This database generally includes only nesting records for most bird species. It may substantially under-represent actual nesting density, particularly for species that are difficult to detect. It also likely under-represents densities of species that are not prominent in regulatory permitting or environmental planning settings. Each occurrence record in the CNDDDB is given a unique reference number called an Element Occurrence Index, abbreviated EONDX. EONDX numbers are provided when referencing specific CNDDDB occurrences.

Marin County Breeding Bird Atlas

The Marin County Breeding Bird Atlas was published in 1993, and presented the results of a methodical survey designed to determine the nesting status of all bird species in a county-wide grid of blocks measuring 1.4 by 1.7 miles in size. Fieldwork for the atlas was conducted from 1976 through 1982 (Shuford 1993). Because this work was completed several decades ago, the nesting ranges presented in the atlas may not be representative of current conditions in Marin County.

eBird.org

The eBird.org online site was queried for observations throughout Marin County and the surrounding region. eBird is a citizen science database administered by the Cornell Laboratory of Ornithology that accepts user submissions of bird observations worldwide (eBird 2019). Because the San Francisco Bay Area has an active birding community, eBird has an abundance of both recent and historical occurrence records for most bird species in the region. However, much of eBird's data is comprised of checklists of observations from individual birding trips, and frequently lacks metadata that would be required to determine nesting status at any specific location. Regardless, eBird's occurrence maps provide a relatively comprehensive and up-to-date representation of each species' status in the region.

EXISTING CONDITIONS

Habitat for special-status ground nesting birds on the Bowman Canyon Property is restricted to the open grasslands on the hillsides along the ridgeline in the southern and central portion of the property (Photos 1 and 2), and the more gently sloping serpentine area in the north (Photo 3). Grasslands on the property were observed to be generally short in stature and not overly dense, with occasional small patches of bare ground interspersed throughout. The serpentine grasslands in the north were notably shorter and with more sparsely spaced tufts of vegetation than the annual grasslands elsewhere on site. The remainder of the site is characterized by thick oak woodlands (Photo 4) and occasional patches of coastal scrub (Photo 5), neither of which constitute suitable nesting habitat for the special-status ground nesting bird species considered in this assessment.

RESULTS

Six species of special-status ground nesting birds were considered to have at least some potential to nest or forage on the Bowman Canyon Property. These species are summarized in Table 1, with further details included below.

Table 1. Summary of Special-Status Ground Nesting Birds with Potential to Occur Onsite

COMMON NAME	SCIENTIFIC NAME	STATUS	ONSITE HABITAT SUITABILITY	OBSERVED ONSITE?
Northern harrier	<i>Circus hudsonius</i>	California Species of Special Concern	Foraging/Wintering: Suitable Nesting: Not suitable	Yes. One individual observed in flight, foraging.
Short-eared owl	<i>Asio flammeus</i>	California Species of Special Concern	Foraging/Wintering: Suitable Nesting: Not suitable	No
Western burrowing owl	<i>Athene cunicularia hypugaea</i>	California Species of Special Concern	Foraging/Wintering: Suitable Nesting: Not suitable	No
California horned lark	<i>Eremophila alpestris actia</i>	CDFW Watchlist	Foraging/Wintering: Suitable Nesting: Suitable	Yes. Several individuals observed along the ridgeline.
Grasshopper sparrow	<i>Ammodramus savannarum</i>	California Species of Special Concern	Foraging/Wintering: Suitable Nesting: Suitable	Yes. An individual was heard calling in grasslands near the top of the ridgeline.
Bryant's savannah sparrow	<i>Passerculus sandwichensis alaudinus</i>	California Species of Special Concern	Foraging/Wintering: Suitable Nesting: Marginally suitable	No

Northern Harrier

Status, Distribution and Habitat Requirements

The northern harrier (*Circus hudsonius*) is a California Species of Special Concern. It is a year-round resident of coastal California and the Central Valley (Smith et al. 2011). They occur more broadly and in much greater numbers during migration and winter than during the breeding season. Northern harriers appear to be nomadic, ranging widely, both within the breeding season and across years (Shuford and Gardali 2008).

Northern harriers breed and forage in a variety of open habitats that provide adequate vegetative cover, an abundance of suitable prey (mostly small mammals), and scattered hunting, plucking, and lookout perches

such as shrubs or fence posts. In California, such habitats include freshwater marshes, brackish and saltwater marshes, wet meadows, weedy borders of lakes, rivers and streams, annual and perennial grasslands, weed fields, ungrazed or lightly grazed pastures, some croplands, sagebrush flats, and desert sinks. Northern harriers nest on the ground, typically within patches of dense, often tall, vegetation in undisturbed areas (Smith et al. 2011). This species is widespread throughout the Central Coast region of California. The primary threats to breeding northern harriers are loss and degradation of nesting and foraging habitat, nest failure from human disturbance, predator-control projects, agricultural practices, and unnatural predation pressure (Shuford and Gardali 2008).

Occurrence Data and Habitat Characteristics

There is only one occurrence of nesting northern harrier recorded in the CNDDB in Marin County. This occurrence was recorded in 1973 in Point Reyes National Seashore, at a location near Limantour Estero (EONDX 27016) (CDFW 2019). The Marin County Breeding Bird Atlas primarily documented northern harriers nesting in the Point Reyes area and in agricultural fields near the Petaluma River (Shuford 1993). eBird observations are scattered throughout the region, including in Mount Burdell Open Space Preserve, adjacent to the Bowman Canyon Property (eBird 2019).

Nomad biologists observed one adult male northern harrier in flight over the northern portion of the Bowman Canyon Property during the site visit. The individual was flying low in typical hunting posture, and crossed westward over the ridgeline near the Road Wet Pool (Figure 2). There were no indications that northern harriers were nesting on site.

Northern harriers generally nest in taller, thicker grassland vegetation than what is present at the Bowman Canyon Property. Furthermore, the steep slopes and relatively dry nature of the site substantially reduce the suitability for nesting northern harriers, which typically prefer marshlands and have greater success at wetter sites (Simmons and Smith 1985). For these reasons, they are not expected to nest on site. However, they range widely in search of prey and, as evidenced by the observation of an individual in flight over the site, may either forage in grasslands on site or traverse through the Bowman Canyon Property at any time of year.

Short-Eared Owl

Status, Distribution and Habitat Requirements

The short-eared owl (*Asio flammeus*) is a California Species of Special Concern. It is generally a migratory species, although it is resident in portions of California (Zeiner et al. 1990). Short-eared owls are more numerous in winter, with migrating birds arriving in September and October and leaving in April (Zeiner et al. 1990). Nests are built on the ground in tall stands of grasses in lowland habitats near hunting grounds in marshes, meadows, and even agricultural fields (Grinnell and Miller 1944). The breeding season is from late March to July (Zeiner et al. 1990). Breeding is generally restricted to disjunct areas in the Central Valley, northeastern California, the Mono Lake region, and a small number of coastal sites. Short-eared owl breeding numbers fluctuate greatly with rodent populations, and they may nest outside of their typical range in years with unusually high prey availability (Shuford and Gardali 2008).

Occurrence Data and Habitat Characteristics

There are no occurrences of nesting short-eared owls recorded in the CNDDB in Marin County (CDFW 2019). The Marin County Breeding Bird Atlas noted only a single nesting occurrence in the entire county, which was located in the marshlands of Drake's Estero at Point Reyes National Seashore in 1979 (Shuford 1993). Observations of short-eared owls reported to eBird are generally concentrated in the tidal marshlands of the bay and coast, with very few sightings in the interior of the county. The majority of the observations took place in fall and winter, implying that the species was migrating through the area rather than nesting (eBird 2019).

Short-eared owls generally require taller vegetation for nesting than the short grasslands that are present on the Bowman Canyon Property. They may also be deterred from nesting by the slopes that are present on site, as their nests are typically located in flatter, open areas. For these reasons, short-eared owls are not expected to nest on site. They may occur sporadically onsite during fall and winter migration periods.

Western Burrowing Owl

Status, Distribution and Habitat Requirements

The western burrowing owl (*Athene cunicularia hypugaea*) is a California Species of Special Concern. They are a year-round resident throughout much of California, including the Central Valley, San Francisco Bay region, Carrizo Plain, and Imperial Valley. Burrowing owls that nest at higher elevations (e.g., Modoc Plateau) migrate to lower elevations in winter. In addition, migrants from other parts of western North America may augment resident lowland populations in winter (Shuford and Gardali 2008).

Throughout their range, burrowing owls require habitats with open terrain, vegetation that is sparse, low-growing, and generally lacking trees, and underground burrows or burrow-like structures (Klute et al. 2003, Shuford and Gardali 2008). They often use burrows that have been dug by California ground squirrels (*Spermophilus beechyi*) as nest sites and winter roost locations (Shuford and Gardali 2008). They frequently occupy grassland, shrub steppe, and desert habitats (CDFW 2012).

Occurrence Data and Habitat Characteristics

There are six occurrences of burrowing owl recorded in the CNDDDB in Marin County. The nearest of these is a cluster of three occurrences all recorded in 2002, in the grasslands and marshes in the vicinity of Marin County Airport (Gnoss Field), located approximately 2.5 miles east of the Bowman Canyon Property. Other occurrences are noted near Lucas Valley, Point Reyes, and along a grassy ridge in Mount Tamalpais State Park (CDFW 2019). All of these occurrences were recorded during the fall or winter, and none of them are noted as nests. The Marin County Breeding Bird Atlas noted only a single occurrence of probable nesting in the county, at a location near San Rafael where three burrowing owls were observed throughout the spring season in 1976 and 1977 (Shuford 1993). There are numerous observations of burrowing owls recorded in eBird throughout Marin County, including a recent observation in Mount Burdell Preserve adjacent to the Bowman Canyon Property. However, all of these were observed between September and April, strongly implying that the individuals were wintering or migrating. eBird has no records of burrowing owls in Marin County between May and August, which is the time of year that this species is most likely to be nesting (eBird 2019).

The open grasslands and slopes on the Bowman Canyon Property are generally suitable for burrowing owls. No ground squirrels were observed, and only one burrow large enough to be used by the species was noted during the site visits. This burrow was located on the ridgeline immediately adjacent to the existing dirt access road, near the highest point of elevation on the property. Marin County Parks conducted a methodical survey of the property in the winter of 2019, prior to Nomad's site visits, and found several burrows evidently dug by California ground squirrels and American badgers, as well as a single coyote burrow (Marin County Parks 2019). Generally suitable grassland habitat is present, and burrowing owls are considered to have a moderate potential to utilize the Bowman Canyon Property for wintering or migration. They are not expected to nest on site, as this species does not appear to breed in Marin County based on several decades of occurrence data.

California Horned Lark

Status, Distribution and Habitat Requirements

The California horned lark (*Eremophila alpestris actia*) (nesting) is a CDFW Watchlist species, ranging from the inner Coast Ranges and San Joaquin Valley to northern Baja California, Mexico (Beason 1995). They inhabit bare ground, deserts, short-grass prairies, tundra, sandy/stony areas, agricultural feed lots, and fallow row crops characterized by open, treeless areas with low vegetation from sea level to 4,000 meters (13,123 feet) (Beason 1995, Baicich and Harrison 2005). Nest sites are built on bare ground often next to tufts of grass or stones (Beason 1995, Baicich and Harrison 2005). Breeding begins in late February, and pairs may produce two or even three broods in a single season (Baicich and Harrison 2005).

Occurrence Data and Habitat Characteristics

There are no occurrences of nesting California horned larks in Marin County recorded in the CNDDDB. There is a nesting occurrence from 2011 in neighboring Sonoma County, at Sonoma Mountain Ranch located approximately 13 miles north of the Bowman Canyon Property (CDFW 2019). The Marin County Breeding Bird Atlas found that California horned larks nested throughout much of Marin County, including an occurrence on Mount Burdell Preserve, though it notes: “They avoided steep grassy hills throughout their range here” (Shuford 1993). eBird shows reported observations of California horned lark throughout Marin County outside of densely forested areas in the southwest part of the county. They have been reported at Mount Burdell Preserve and Stafford Lake (eBird 2019), both of which are in close proximity to the Bowman Canyon Property.

Nomad senior botanist Heath Bartosh observed approximately four California horned larks on site along the ridgeline during April rare plant surveys. In addition, Marin County Parks staff photographed an adult male California horned lark in the northern portion of the property on April 30, 2019 (Campo pers. comm. 2019).

The relatively short grass that is present in open areas of the Bowman Canyon Property represents suitable nesting habitat for California horned larks. Although the steeper slopes along the ridge in the southern portion of the property may be less suitable, the gentler slopes and short serpentine grasslands in the northern portion are excellent nesting habitat for this species. Therefore, California horned larks are considered to have a high potential to nest and forage on the Bowman Canyon Property.

Grasshopper Sparrow

Status, Distribution and Habitat Requirements

The grasshopper sparrow (*Ammodramus savannarum*) is a California Species of Special Concern. It is an uncommon and local summer resident and breeder in foothills and lowlands west of the Cascade-Sierra Nevada crest from Mendocino and Trinity counties south to San Diego County (Zeiner et al. 1990). In general, grasshopper sparrows in California prefer short to medium-height, moderately open grasslands with scattered shrubs (Shuford and Gardali 2008). Grasshopper sparrows build nests domed with grasses and with a side entrance, typically well-concealed in depressions at the base of grass clumps with the rim approximately level to the ground (Vickery 1996). Areas with native bunchgrasses are important features in southern California. However, it is unclear whether this applies to other parts of California because the ecology of the species varies substantially from region to region (Shuford and Gardali 2008).

Occurrence Data and Habitat Characteristics

There are no occurrences of nesting grasshopper sparrow in Marin County recorded in the CNDDDB. There are two nesting occurrences from 2011 in neighboring Sonoma County, at Sonoma Mountain Ranch located approximately 13 miles north of the Bowman Property (CDFW 2019). The Marin County Breeding Bird Atlas primarily found grasshopper sparrows nesting in moist coastal prairies that receive

summer fog, which included much of the northern and western parts of the county. Breeding in the east part of the county was patchy (Shuford 1993). There are observations of the species throughout Marin County recorded in eBird, including several reported during the breeding season adjacent to the Bowman Canyon Property in Mount Burdell Open Space Preserve (eBird 2019).

Marin County Parks staff heard a grasshopper sparrow on site calling near the top of the ridge on April 30, 2019 (Campo pers. comm. 2019).

Grasshopper sparrows may nest in the short grasslands throughout the site, though the steeper slopes in the southern portion may be less suitable than the gentler slopes in the north. They may also nest in open spaces between shrubs in areas where coastal scrub begins to thin out and transition into grassland. Therefore, grasshopper sparrows are considered to have a high potential to nest and forage on the Bowman Canyon Property.

Bryant's Savannah Sparrow

Status, Distribution and Habitat Requirements

Bryant's savannah sparrow (*Passerculus sandwichensis alaudinus*) is a California Species of Special Concern. This subspecies is resident along the California coast from Humboldt County south to Point Conception (Wheelright and Rising 2008), with its center of abundance in the San Francisco Bay Area (Shuford and Garaldi 2008). Although several other savannah sparrow subspecies may be present in the area during migration, Bryant's savannah sparrow is the only one that breeds within this range (Wheelright and Rising 2008). Bryant's savannah sparrows are associated with tidal marsh habitats and adjacent ruderal uplands, as well as moist grasslands in the fog belt. They are less frequently found in dry grasslands. Plants typical of its tidal breeding areas are pickleweed (*Salicornia* sp.) and saltgrass (*Distichlis spicata*), though they also occupy tall grasses and rushes in pasturelands (Shuford and Garaldi 2008). In upland grasslands, they conceal their nests in grass tussocks or under matted grasses or weeds. Nests are placed either directly on the ground or within four inches of the ground in supporting vegetation (Shuford 1993).

Occurrence Data and Habitat Characteristics

There are no occurrences of nesting Bryant's savannah sparrow in Marin County recorded in the CNDDB (CDFW 2019), although this is almost certainly a result of under-reporting. The Marin County Breeding Bird Atlas documented breeding savannah sparrows in tidal marsh and moist grasslands throughout the north and west part of the county, as well as in salt marshes on the shoreline near Novato. They were not observed in the survey block that includes the Bowman Canyon Property (Shuford 1993). eBird does not differentiate the Bryant's subspecies from other savannah sparrows, but presumably any breeding individuals in Marin County would be considered Bryant's savannah sparrows. Observations of savannah sparrow recorded in eBird during the breeding season are spread throughout Marin County, including adjacent to the site in Mount Burdell Preserve (eBird 2019). However, the nesting status for these occurrences is not readily discernable in most instances.

The dry grasslands on the Bowman Canyon Property constitute suitable nesting habitat for Bryant's savannah sparrows, though they are likely of marginal quality due to this subspecies' preference for tidal marsh and associated habitats. For this reason, Bryant's savannah sparrow is considered to have a low potential to nest on the Bowman Canyon Property.

Non-Special-Status Species

Numerous other bird species that do not have any special regulatory status may also nest on the ground in various habitats throughout the Bowman Canyon Property, including grasslands, oak woodlands, and coastal scrub. Several species of non-special-status ground-nesting birds were observed on site during

Nomad's site visits, including dark-eyed junco (*Junco hyemalis*), lark sparrow (*Chondestes grammacus*), wild turkey (*Meleagris gallopavo*), and spotted towhee (*Pipilo maculatus*). Additional ground-nesting species that were not observed but may still occur on site include California quail (*Callipepla californica*), California towhee (*Melospiza crissalis*), western meadowlark (*Sturnella neglecta*), killdeer (*Charadrius vociferus*), mourning dove (*Zenaida macroura*), Wilson's warbler (*Wilsonia pusilla*), and common poorwill (*Phalaenoptilus nuttallii*). A list of all wildlife species observed on site is included as an attachment below.

CONCLUSIONS

Habitats on the Bowman Canyon Property are suitable to support nesting special-status ground-nesting passerine birds, but are generally not suitable for ground-nesting raptors that require flatter topography and taller grasses for nest concealment. It also lacks sufficient small mammal burrows to support nesting burrowing owls, which do not appear to breed in Marin County regardless. However, all of the special-status ground-nesting bird species considered in this assessment, including raptors, may forage, overwinter, or migrate through the Bowman Canyon Property.

Please feel free to call me at (925) 228-1027 if you have any questions.

Sincerely,

Dana Terry
Senior Wildlife Biologist
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Attachments: Figure 1. Regional Location Map
Figure 2. Site Map
Site Photographs
Table 2. Wildlife Species Observed at the Bowman Canyon Property

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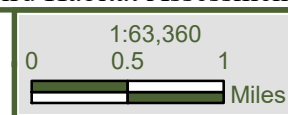


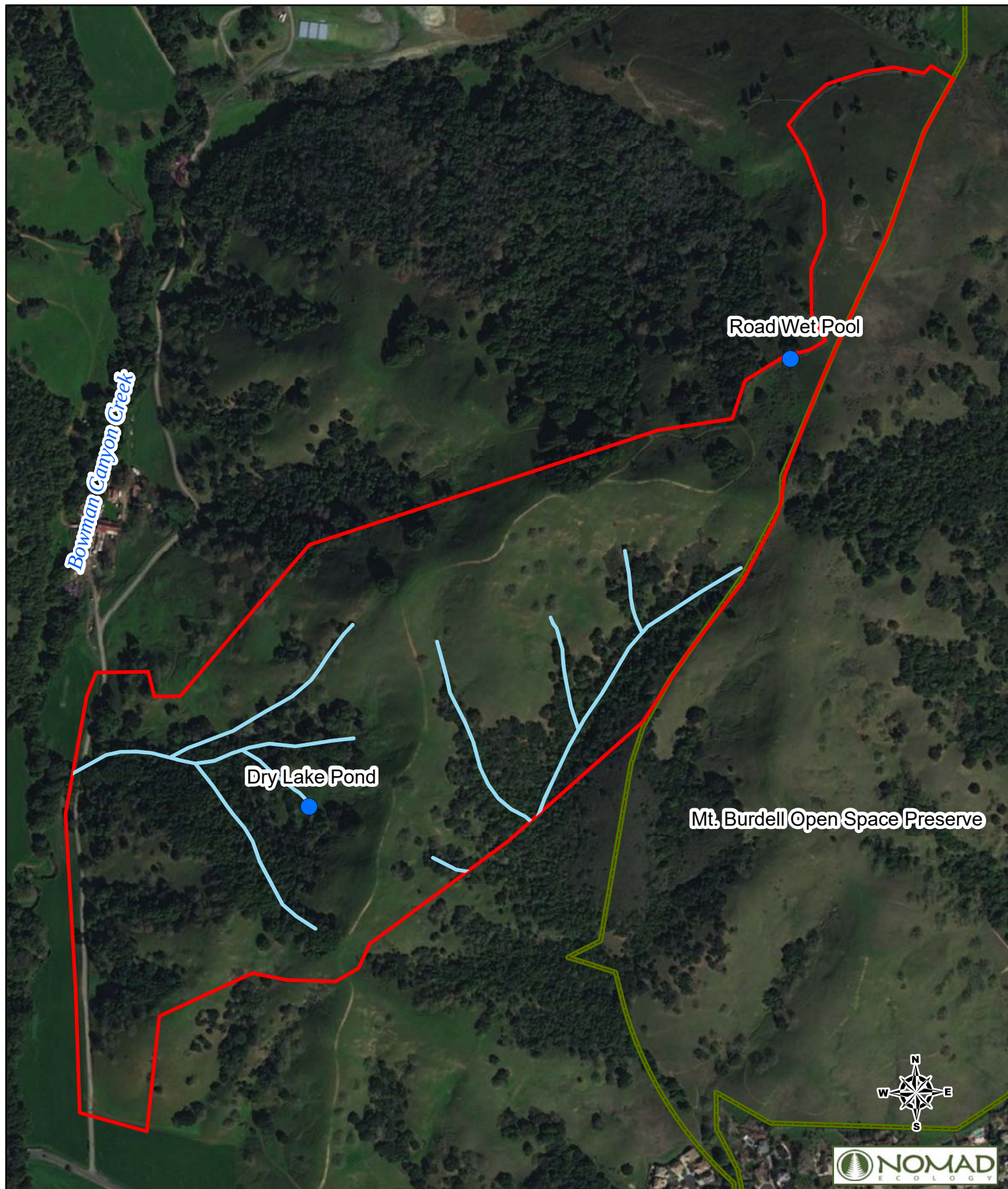
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Special-Status Ground-Nesting Bird Habitat Assessment



Figure 1
Regional Location Map
Bowman Canyon Property
Marin County Parks





August 2019

Special-Status Ground-Nesting Bird Habitat Assessment

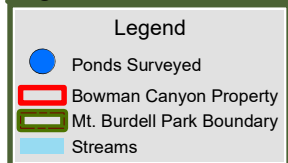
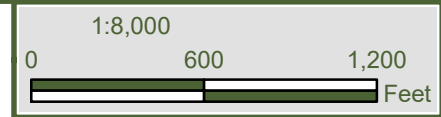


Figure 2
Site Map
 Bowman Canyon Property
 Marin County Parks



Site Photographs



Photo 1. Steep grassland slopes along central ridge in center of property.



Photo 2. Steep grassland slopes along central ridge in southern portion of property.



Photo 3. Moderate slopes with serpentine grassland in northern portion of property.



Photo 4. Overview of oak woodlands in western portion of property.



Photo 5. Coastal scrub in northern portion of property.

Table 2. Wildlife Species Observed During 2019 Baseline Surveys on the Bowman Canyon Property

COMMON NAME	SCIENTIFIC NAME	DATE(S) OBSERVED	NOTES
AMPHIBIANS			
California newt	<i>Taricha torosa</i>	3/29, 5/1	Larvae in Dry Lake Pond, adult near Road Wet Pool
Sierran tree frog	<i>Pseudacris sierra</i>	3/29, 5/1	Adults and larvae in Dry Lake Pond and Road Wet Pool
REPTILES			
Western skink	<i>Eumeces skiltonianus</i>	5/1	Carcass
Western fence lizard	<i>Sceloporus occidentalis</i>	3/29	
BIRDS			
Acorn woodpecker	<i>Melanerpes formicivorus</i>	3/29, 5/1	
American crow	<i>Corvus brachyrhynchos</i>	3/29, 5/1	
American robin	<i>Turdus migratorius</i>	3/29	
Anna's hummingbird	<i>Calypte anna</i>	3/29	
Ash-throated flycatcher	<i>Myiarchus cinerascens</i>	5/1	
Bewick's wren	<i>Thryomanes bewickii</i>	3/29	
Black phoebe	<i>Sayornis nigricans</i>	3/29	
Black-tailed jackrabbit	<i>Lepus californicus</i>	3/29	
Blue-gray gnatcatcher	<i>Poliophtila caerulea</i>	3/29	
Brewer's blackbird	<i>Euphagus cyanocephalus</i>	5/1	
California horned lark	<i>Eremophila alpestris actia</i>	4/30	Four individuals observed during April rare plant surveys. Approximately four individuals heard along the ridgeline, and one adult male observed and photographed near northern property boundary on 4/30.
California scrub jay	<i>Aphelocoma californica</i>	3/29	
Common raven	<i>Corvus corax</i>	3/29	
Dark-eyed junco	<i>Junco hyemalis</i>	3/29	
Eurasian collared dove	<i>Streptopelia decaocto</i>	3/29	
Grasshopper sparrow	<i>Ammodramus savannarum</i>	4/30	One individual heard calling near the highest point of the ridgeline.
House finch	<i>Haemorhous mexicanus</i>	3/29	
Lark sparrow	<i>Chondestes grammacus</i>	3/29	
Lesser goldfinch	<i>Carduelis psaltria</i>	3/29	
Mallard	<i>Anas platyrhynchos</i>	5/1	
Mourning dove	<i>Zenaida macroura</i>	5/1	
Northern flicker	<i>Colaptes auratus</i>	3/29	
Northern harrier	<i>Circus hudsonius</i>	3/29	

COMMON NAME	SCIENTIFIC NAME	DATE(S) OBSERVED	NOTES
Nuttall's woodpecker	<i>Picoides nuttallii</i>	3/29	
Oak titmouse	<i>Baeolophus inornatus</i>	5/1	
Red-shouldered hawk	<i>Buteo lineatus</i>	3/29	
Red-tailed hawk	<i>Buteo jamaicensis</i>	3/29, 5/1	
Red-winged blackbird	<i>Agelaius phoeniceus</i>	3/29	
Ruby-crowned kinglet	<i>Regulus calendula</i>	3/29	
Spotted towhee	<i>Pipilo maculatus</i>	3/29, 5/1	
Steller's jay	<i>Cyanocitta stelleri</i>	3/29	
Turkey vulture	<i>Cathartes aura</i>	3/29, 5/1	
Violet-green swallow	<i>Tachycineta thalassina</i>	3/29	
Western bluebird	<i>Siala mexicana</i>	3/29	
White-breasted nuthatch	<i>Sitta carolinensis</i>	3/29	
White-crowned sparrow	<i>Zonotrichia leucophrys</i>	3/29	
Wild turkey	<i>Meleagris gallopavo</i>	3/29	
MAMMALS			
Black-tailed deer	<i>Odocoileus hemionus</i>	3/29, 5/1	
Botta's pocket gopher	<i>Thomomys bottae</i>	3/29	Mounds observed
Dusky-footed woodrat	<i>Neotoma fuscipes</i>	3/29	Two nests observed