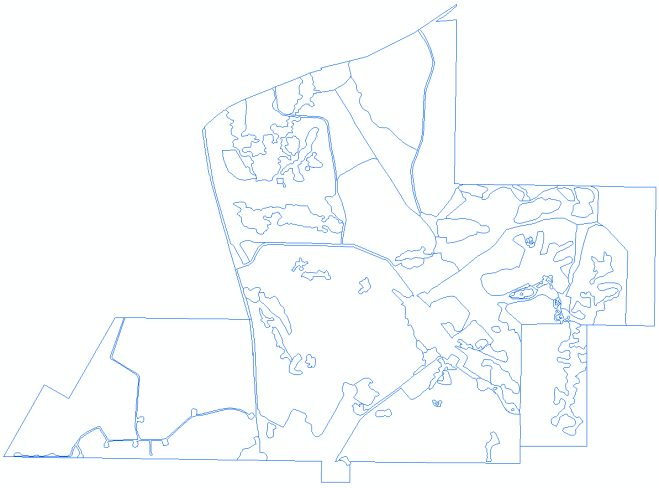
Prairie City SVRA

Vegetation Mapping Report 2021

California State Parks



Credits:

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fieldwork, data analysis, report
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fieldwork, data analysis
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VegCAMP Program, California Department of Fish and Wildlife
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Table of Contents

Link to GIS data files

Finescale Vegetation Mapping at the SVRAs (arcgis.com)

Introduction

Goals and Purpose

This finescale vegetation map for Prairie City SVRA was developed by California State Park staff in 2021. Its development was prompted by the passage of Senate Bill 249, in which California Department of Parks and Recreation's Off-Highway Motor Vehicle Recreation Division (OHMVRD) was charged with meeting new legislative mandates to ensure resources compliance within all State Vehicular Recreation Areas (SVRAs). These mandates require (among other things) that OHMVRD compile an inventory of native plant communities within each SVRA [PRC 5090.35 (c)(1)]. To meet this requirement, OHMVRD has consulted the California Department of Fish and Wildlife's Vegetation Classification and Mapping Program (VegCAMP) to source finescale vegetation maps that cover the SVRA footprint, or, if not available, used the VegCAMP methods to develop a new finescale vegetation map.

The finescale vegetation map and associated data is intended to provide an inventory of native plant communities, inform the park's natural resource management planning including the Wildlife Habitat Protection Plan (WHPP), and establish a baseline for measuring future vegetation change.

Summary of Vegetation Mapping Effort

March 2021	Conduct field surveys to sample vegetation types
August 2021	Finalize vegetation types, conduct linework
December 2021	Field check of draft map, finalize map

Description of Prairie City SVRA

Prairie City SVRA is a 1,344 acre park located 20 miles east of Sacramento, in an ecological transition zone between the Central Valley and the Sierra foothills. Parts of the park have a history of dredge mining, and mine tailings form mounds and undulating topography in places. Other portions of the current park were formerly owned by Aerojet and used for a rocket engine program, contaminating groundwater and resulting in modern remediation and groundwater treatment efforts in the park, including monitoring and extraction wells. The park includes an intermittent and several ephemeral streams that drain into Coyote Creek. The vegetation communities include ruderal grasslands, vernal pools, blue oak woodlands, and Fremont cottonwood and willow riparian areas. Several parcels of the park are closed to OHV recreation to protect vernal pool habitat, some parcels allow OHV riding on trails only, and some areas allow open riding anywhere. For more information see the Prairie City Wildlife Habitat Protection Plan (California State Parks, 2022).

Methods

Existing data

Prairie City SVRA is covered by the Great Valley Ecoregion VegCAMP project (Buck-Diaz et al., 2012), however, the mapping in the park area is incorrect in some places where vegetated areas are classified as "urban" (likely due to heavy trail usage) and other areas are less detailed for the park than desired for this project. The park also has a finescale vegetation community map developed for the Prairie City General Plan (CA State Parks 2016), which was created using different methods than typical VegCAMP standards (CDFW b) such as delineating very small patches of vegetation instead of using a ¼ or 1-acre minimum mapping units for stands. State Park staff decided to create an updated map with the appropriate level detail for this project using VegCAMP standards. Past years of vegetation monitoring data from the park was used to supplement the field surveys described below.

Fieldwork

Field surveys were conducted on March 12, 2021 and March 17, 2021. CDFW VegCAMP staff trained State Park staff on field survey methods for conducting Relevé, Rapid Assessment, and Reconnaissance samples (Appendix D, CDFW a, CDFW-CNPS). Seven formal samples were taken, and informal notes were made while walking through the park. A brief field visit was conducted on December 10th to groundtruth additional parts of the draft map.

Data interpretation and linework

The vegetation classification for the Great Valley EcoRegion (Buck-Diaz et al. 2012) was used to key vegetation alliances. Training and review of data interpretation was provided by CDFW VegCAMP staff.

Linework followed the mapping standards found in the "Survey of California Vegetation Classification and Mapping Standards"(CDFW b) as much as possible. The imagery interpreted was NAIP 2020. The minimum mapping unit was 1 acre, and ¼ acre for wetland or special types. Polygons were divided based on a change in cover class according to Braun-Blanquet categories (<1%, 1-5%, >5-15%, >15-25%, >25-50%, >50-75%, >75%), with a 3-acre minimum mapping unit break for overstory vegetation, and a 5-acre minimum mapping unit break for understory vegetation. No accuracy assessment was done because almost all polygons were visited in the field.

Vegetation Types and Descriptions

California Vernal Pool and Grassland Matrix mapping unit – 511.1 acres: This mapping unit comprises upland grasslands, with small vernal pools scattered throughout. The vernal pools vary in size and density both spatially and temporally with variation in annual rainfall. The grassland species and alliances are the same as in the California Annual and Perennial Grassland macrogroup, described below, including native species, sometimes with a high cover of non-natives, including the invasive grass medusahead (*Elymus caput-medusae*). Vernal pools, which

may be only a few square meters in size, may vary in species composition annually depending on rainfall. Surveys have found vernal pool alliances *Layia fremontii - Achyrachaena mollis* and *Lasthenia fremontii - Downingia (bicornuta*). Common species at Prairie City in these alliances include Fremont's goldfields (*Lasthenia fremontii*), downingia (*Downingia spp*.), annual hairgrass (*Deschampsia danthonioides*), pale spikerush (*Eleocharis macrostachya*), stipitate popcorn flower (*Plagiobothrys stipitatus*), and vernal pool buttercup (*Ranunculus bonariensis var. trisepalus*).

California Annual and Perennial Grassland macrogroup – 82.8 acres: This macrogroup represents grasslands with the characteristic presence of native perennial or annual grasses or forbs, even though non-native species may be significantly high in cover. The polygons are composed of multiple alliances that are patchy and blend such that they cannot be distinguished in aerial imagery but are mapped as one macrogroup. Common species include Mediterranean barley (*Hordeum marinum ssp. gussoneanum*), bromes (*Bromus diandrus, B. hordeaceus*), Medusahead (*Elymus caput-medusae*), quaking grass (*Briza maxima*), little rattlesnake grass (*B. minor*), oats (*Avena barbata, A. fatua*), nonnative forbs such as filaree (*Erodium botrys*) and hairy vetch (*Vicia villosa ssp. villosa*), native annuals such as miniature lupine (*Lupinus bicolor*), frying pan poppy (*Eschscholzia lobbii*), white meadowfoam (*Limanthes alba*), valley tassels (*Castilleja attenuata*), narrow tarplant (*Holocarpha virgata*) and native perennial forbs such as naked buckwheat (*Eriogonum nudum*), blue dicks (*Dichelostemma capitatum*) and soap plant (*Chlorogalum pomeridianum*). Alliances within this macrogroup surveyed and observed in 2021 include the *Avena spp. – Bromus spp*. Semi-Natural Herbaceous Alliance, the *Lasthenia californica - Plantago erecta - Vulpia microstachys* Herbaceous Alliance, and the *Corethrogyne filaginifolia - Eriogonum (elongatum, nudum*) Herbaceous Alliance, as well as other native annual and perennial herbaceous assemblages that did not fit defined alliances.

Mediterranean California naturalized annual and perennial grassland group – 477.1 acres: These grasslands occur throughout the areas of the park that are open to riding and subject to high degrees of disturbance. They are characterized by a high cover of non-native species.

Californian mixed annual/perennial freshwater vernal pool/swale bottomland group (Vernal pool/Swale) – 6.9 acres: This large vernal pool stand is mapped in the northern part of the park. Other vernal pools are smaller than the minimum mapping unit, so they have not been mapped individually; instead, they are included in the grassland matrix described above.

Baccharis pilularis Shrubland Alliance (Coyote brush scrub) – 15.4 acres: This scrub habitat occurs in small stands and patches throughout the Park. Coyote brush scrub is found in upland locations on open slopes and terraces. Coyote brush (*Baccharis pilularis*) is the dominant species in this vegetation community. Other scrub-like plants in the community include elderberry (*Sambucus nigra ssp. caerulea*), poison-oak (*Toxicodendron diversilobum*) and California coffeeberry (*Frangula californica*).

Populus fremontii - Fraxinus velutina - Salix gooddingii Forest & Woodland Alliance (Fremont cottonwood forest and woodland) – 55.5 acres: This community is scattered throughout the Park, especially in low-lying areas created by previous dredging operations, along marsh banks, and in the northern portion of the Park. The canopy of the cottonwood/willow stand vegetation community is co-dominated by Fremont cottonwood (*Populus fremontii*) and willows (*Salix spp*.).

Quercus douglasii Forest & Woodland Alliance (Blue oak woodland and forest) – 19.0 acres: Blue oak woodlands are dominated by blue oak (*Quercus douglasii*) mixed with other oak species such as interior live oak and valley oak (*Q. lobata*). Gray pine (*Pinus sabiniana*) is often present as well. These areas are located almost exclusively in the southeast portion of the Park.

Salix gooddingii - Salix laevigata Forest & Woodland Alliance (Red willow thickets) – 2.9 acres: These small stands surrounding seasonally-wet ponded areas are characterized by red willow (*Salix laevigata)* and Fremont cottonwood (*Platanus fremontii)*.

Salix exigua Shrubland Alliance (Sandbar willow thickets) – 3.2 acres: Several small stands of these willow thickets grow densely with little herb cover. They are characterized by sandbar willow (*Salix exigua)*, with some understory of other shrubs such as coyote brush (*Baccharis pilularis*).

Ornamental vegetation - 3.4 acres: A mixture of planted native and non-native species.

Barren – 16.1 acres: Native substrate with less than 2% vegetation cover.

Developed – 140.7 acres: Roads, parking lots, and buildings, including a gravel picnic area with ornamental trees.

References

Link to GIS data files

Finescale Vegetation Mapping at the SVRAs (arcgis.com)

Buck-Diaz, J., S. Batiuk, and J. M. Evens. 2012. Vegetation Alliances and Associations of the Great Valley Ecoregion, California. California Native Plant Society. Available at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=64011&inline

California State Parks 2016. "Final General Plan: Prairie City State Vehicular Recreation Area." Available at https://demo2.parks.ca.gov/pages/1170/files/Prairie-City-Final-General-Plan_9_%202016.pdf

California State Parks 2022. "Final 2022 Prairie City State Vehicular Recreation Area Wildlife Habitat Protection Plan." Available at https://ohv.parks.ca.gov/pages/1170/files/Final%202022%20PCSVRA%20WHPP_ada12212022.pdf

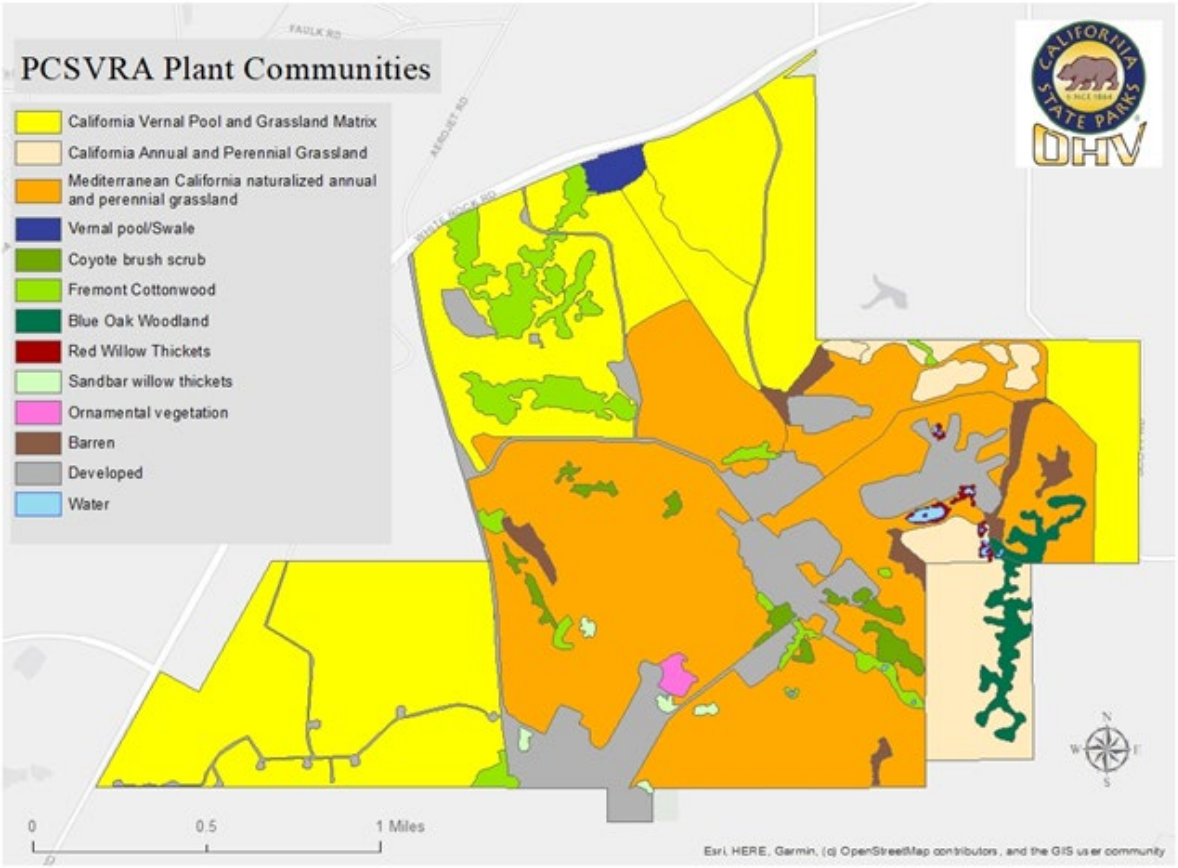
CDFW a. "Combined Vegetation Rapid Assessment and Relevé Field Form". Available at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18598&inline

CDFW b. "Survey of California Vegetation Classification and Mapping Standards" Available at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=102342&inline

CDFW-CNPS. "CDFW-CNPS Protocol for the Combined Vegetation Rapid Assessment and Relevé Field Form" Available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18599&inline

Appendices

Appendix A: Map Figures



Appendix B: Field datasheets

1 m = 1 solid sq. meter

Moss? Bare

Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised March 27, 2018)

For Office Use:	Final database #:	Final vegetation type: Alliance ___ Association ___

I. LOCATIONAL/ENVIRONMENTAL DESCRIPTION circle: Relevé or RA

Database #: PC001	Date: 3-12-21	Name of recorder: Melissa Patten
		Other surveyors: Leah Gardner, Rachelle Boule
	UID: PC001	Location Name: PC001

GPS name: MVP's phone For Relevé only: Bearing°, left axis at ID point 0° of ~~Long / Short~~ side

UTME ___ UTMN ___ Zone: 11 NAD83 GPS error: (ft.) m./ PDOP 30

Decimal degrees: LAT 38.603890 LONG 121.159726

GPS within stand? (Yes) / No If No, cite from GPS to stand: distance (m) ___ bearing ° ___ inclination ° ___

and record: Base point ID PC001 Projected UTMs: UTME ___ UTMN ___

Camera Name: Rachelle's Cardinal photos at ID point: always landscape, get horizon

Other photos: 4 + kitty corner across & Record jpg # 0582-0585

Stand Size (acres): <1, 1-5, (>5) | Plot Area (m²): (100) / ___ | Plot Dimensions 10 x 10 m | RA Radius ___ m

Exposure, Actual °: 170 NE NW (SE) SW Flat Variable | Steepness, Actual °: 5° 0° (1-5°) > 5-25° > 25

Topography: Macro: top (upper mid) lower bottom | Micro: stand convex (flat) concave undulating minor

stand w/in landscape / Plot

Geology code: MIAL Soil Texture code: FISA | Upland or Wetland/Riparian (circle one)

% Surface cover: (Incl. outcrops) (>60cm diam) (25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud)

H₂0: 0 BA Stems: 3 Litter: 17 Bedrock: 0 Boulder: 0 Stone: 0 Cobble: <1 Gravel: 35 Fines: 40 =100%

% Current year bioturbation 2 Past bioturbation present? (Yes) No | % Hoof punch 0

Fire evidence: Yes / (No) (circle one) If yes, describe in Site history section, including date of fire, if known.

Site history, stand age, comments: Lots of moss covering soil area Under power lines. PC SVRA grassland, slightly sloping, slightly hummocky/mounded, early for herb. phenology, lots of last years dead material This years new growth just emerging. Adjacent to cottonwood stand, old mine tailings nearby. Check G.P. etc. for site history. Fresh gopher mounds

Disturbance code / Intensity (L,M,H): 05 / H 15 / L ___ / ___ ___ / ___ ___ / ___ "Other" ___ / ___

II. HABITAT DESCRIPTION

Tree DBH : **T1** (<1" dbh), **T2** (1-6" dbh), **T3** (6-11" dbh), **T4** (11-24" dbh), **T5** (>24" dbh), **T6** multi-layered (T3 or T4 layer under T5, >60% cover)

Shrub: **S1** seedling (<3 yr. old), **S2** young (<1% dead), **S3** mature (1-25% dead), **S4** decadent (>25% dead)

Herbaceous: **H1** (<12" plant ht.), **H2** (>12" ht.) Dead standing doesn't count - will be taller 18

Desert Riparian Tree/Shrub: 1 (<2ft. stem ht.), 2 (2-10ft. ht.), 3 (10-20ft. ht.), 4 (>20ft. ht.) NA

Desert Palm/Joshua Tree: 1 (<1.5" base diameter), 2 (1.5-6" diam.), 3 (>6" diam.) NA

III. INTERPRETATION OF STAND

Field-assessed vegetation Alliance name: Holocarpha virgata

Field-assessed Association name (optional): ___

~~Adjacent~~ Alliances/direction: (Directly) cottonwood / S ; NW ___ / ___

Confidence in Alliance identification: L M H Explain: ___

Phenology (E,P,L): Herb E Shrub \ Tree \ Other identification or mapping information:

Species ID difficult + cover values are low b/c early

★ could add "thatch" as an attribute for PC (carbon @ vernal pools)

Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised March 27, 2018)

Database #: PC001 SPECIES SHEET

IV. VEGETATION DESCRIPTION

% NonVasc cover: 12 **Total % Vasc Veg cover:** 35

% Cover - **Conifer tree / Hardwood tree:** —/— **Regenerating Tree:** — **Shrub:** — **Herbaceous:** 35

Height Class - Conifer tree / Hardwood tree: ____/____ **Regenerating Tree:** ____ **Shrub:** ____ **Herbaceous:** ____

Height classes: 1=<1/2m, 2=1/2-1m, 3=1-2m, 4=2-5m, 5=5-10m, 6=10-15m, 7=15-20m, 8=20-35m, 9=35-50m, 10=>50m

Stratum categories: T=Tree, A = SApling, E = SEedling, S = Shrub, H= Herb, N= Non-vascular

% Cover Intervals for reference: r = trace, + = <1%, 1-5%, >5-15%, >15-25%, >25-50%, >50-75%, >75%

Stratum	Species	% cover	C	Final species determination
H	Hypochaeris (glabra ?) 2 spp. (radicata)	2		
	Dich. Capitatum			
	Erodium botrys	3		
	Elymus caput-medusa			
	Lupinus bicolor	<1		
	Lotus ?			
	Calodortus	1		
	Plantago	2		
	Gallium parisiense	<1		
	Vicia spp			
	Brodiaea sp. (elegans)			
	Unknown bunchgrass			
	Bromus sp.			
	Festuca sp.			
	Achnatherum americana	R		
	Festuca perennis			
	Triphysaria eriantha	R		
	Plagiobothrys	<1		
	(could be Fritelia sp. here)			
	cover of Lilies (bulbs/all)	1		→ made up of sp. listed above
	Trifolium	<1		
	Holocarpa / Calycadenia	<1		note presence from last yr
	Grasses	25		
	-non native	annual		grasses - likely lots of medusa head
N	Moss			

Unusual species: _____

Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised March 27, 2018)

For Office Use:	Final database #:	Final vegetation type:	Alliance Association

I. LOCATIONAL/ENVIRONMENTAL DESCRIPTION — circle: Relevé or RA

SW corner

Database #:	Date:	Name of recorder: L.G
PC001	3-12-21	Other surveyors: Melissa, Beth, Rosie, Rachelle
	UID:	Location Name: PC001

GPS name: Trimble — For Relevé only: Bearing°, left axis at ID point 0° N of Long / Short side

UTME ____ UTMN ____ Zone: 11 NAD83 GPS error: ft./ m./ PDOP ____

Decimal degrees: LAT 38°. 36' 17" N LONG 121°. 09' 34.88 W

GPS within stand? Yes / No If No, cite from GPS to stand: distance (m) ____ bearing ° ____ inclination ° ____

and record: Base point ID ____ Projected UTMs: UTME ____ UTMN ____

Camera Name: ____ 505" Cardinal photos at ID point: N, E, S, W, X order

Other photos: 0582, 0585, 0586 NE across plot

Stand Size (acres): <1, 1-5, (≥5) | Plot Area (m²): 100 / ✓ | Plot Dimensions 10 x 10 m | RA Radius ____ m

Exposure, Actual °: 170 NE NW (SE) SW Flat Variable | Steepness, Actual °: 6° (clinometer) 0° 1-5° (>5-25°) >25

Topography: Macro: top (upper) mid lower bottom | Micro: (convex) flat concave (undulating)

Geology code: MTAL Soil Texture code: FISA | (Upland) or Wetland/Riparian (circle one)

Mixed Alluvium

% Surface cover: 17 (Incl. outcrops) (>60cm diam) (25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud)

~~H₂0~~: 0 BA Stem: ~~15~~% Litter: ~~35~~ ~~Bedrock~~: 0 Boulder: 0 Stone: 0 Cobble: <1% Gravel: 35 Fines: ~~46~~ =100%

% Current year bioturbation 2% (gophers) Past bioturbation present? (Yes) No | % Hoof punch 0

Fire evidence: Yes / (No) (circle one) If yes, describe in Site history section, including date of fire, if known.

Site history, stand age, comments: Prairie City SVRA, grassland adjacent cottonwood riparian. Power line, mining & grazing in past, other disturbances in past. Slightly sloping w. some mounding (that influence spp. composition). Early for phenology for sp. ID, & lower cover than later in season. Last years standing stems; this yr's emerging & only a few inches high. Gopher activity. Close to a road along top of slope

Disturbance code / Intensity (L,M,H): 05/H 15/L ___/___ ___/___ ___/___ "Other" ____/___ (see list)

II. HABITAT DESCRIPTION — circle appropriate types

Tree DBH: T1 (<1" dbh), T2 (1-6" dbh), T3 (6-11" dbh), T4 (11-24" dbh), T5 (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% cover)

Shrub: S1 seedling (<3 yr. old), S2 young (<1% dead), S3 mature (1-25% dead), S4 decadent (>25% dead)

Herbaceous: H1 (<12" plant ht.), H2 (>12" ht.)

Desert Riparian Tree/Shrub: 1 (<2ft. stem ht.), 2 (2-10ft. ht.), 3 (10-20ft. ht.), 4 (>20ft. ht.)

Desert Palm/Joshua Tree: 1 (<1.5" base diameter), 2 (1.5-6" diam.), 3 (>6" diam.)

III. INTERPRETATION OF STAND

Field-assessed vegetation Alliance name: ~~Elymus caput-medusae~~ Holocarpha virgata Herbaceous Alliance

Field-assessed Association name (optional): Holocarpha virgata association

Adjacent Alliances/direction: (directly adjacent) Cottonwood / S, Cottonwood / NW

Confidence in Alliance identification: L (M) H Explain: due to phenology

Phenology (E,P,L): Herb E Shrub ~~E~~ Tree ~~E~~ Other identification or mapping information: →

spp ID difficult & cover values are low

Can put ≤ MMU here

May map transition @ Recon pts.

1 person can do whole top section

1-2 hours

Combined Vegetation Rapid Assessment and Relevé Field Form
(Revised March 27, 2018)
SPECIES SHEET

Database #: PC001

IV. VEGETATION DESCRIPTION

% NonVasc cover: 12 **Total % Vasc Veg cover:** 35

% Cover - Conifer tree / Hardwood tree: ____/____ Regenerating Tree: 0 Shrub: 0 Herbaceous: ____

Height Class - Conifer tree / Hardwood tree: ____/____ Regenerating Tree: 0 Shrub: 0 Herbaceous: 1

Height classes: 1=<1/2m, 2=1/2-1m, 3=1-2m, 4=2-5m, 5=5-10m, 6=10-15m, 7=15-20m, 8=20-35m estimate, 9=35-50m, 10=>50m

Stratum categories: T=Tree, A = SApling, E = SEedling, S = Shrub, H= Herb, N= Non-vascular
% Cover Intervals for reference: r = trace, + = <1%, 1-5%, >5-15%, >15-25%, >25-50%, >50-75%, >75%

Stratum	Species	% cover	C	Final species determination
S	Hypochaeris (glabra) + radicata	2		5 if collected; ~~Flora Press~~
	Dichelostema capitatum			
	Holocarpha virgata	<1		dead only from last yr
	~~Elymus~~ caput-medusae			
	Avena			
	Erodium botrys	3		
	Brodiaea elegans	1		
	Lupinus bicolor	<1		
	unknown aster. or	1		
	Plantago erecta	2		
	Trifolium sp.	<1		
	Calycadenia spicata	<1		dead only last yr.
	Gallium parisiense	<1		
	Vicia	<1		
	Bromus sp.			
	Festuca sp.			
	moss	12%		
	Acmispon americanus	<1	R	1 if only 1 or 2
	Festuca perennis	<1		
	Triphasia/Erianthe	<1	R	
	Plagiobothrys sp.	<1		
	Calochortus luteus	1		1 = unknown "Lily" (plentiful)
				25 = grass combined non-native annuals
				skeletons mostly Medusa head

Unusual species: _____

Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised March 27, 2018)

For Office Use:	Final database #:	Final vegetation type:	Alliance Association

I. LOCATIONAL/ENVIRONMENTAL DESCRIPTION — circle: Relevé or (RA)

Database #:	Date:	Name of recorder: MVP, LG, RB, Betty
PC002		Other surveyors:
	UID:	Location Name: PC

GPS name: Trimble — For Relevé only: Bearing°, left axis at ID point____ of Long / Short side

UTME ____ UTMN ____ Zone: 11 NAD83 GPS error: ft./ m./ PDOP ____

Decimal degrees: LAT 38.603226 LONG 121.159687

GPS within stand? (Yes) / No If No, cite from GPS to stand: distance (m) ____ bearing ° ____ inclination ° ____

and record: Base point ID ____ Projected UTMs: UTME ____ UTMN ____

Camera Name: MVP phone, Rachelle photos — Cardinal photos at ID point: Yes - see attached in Melissa's phone

Other photos:

Stand Size (acres): <1, 1-5, (>5) | Plot Area (m²): 100 / ____ | Plot Dimensions ____ x ____ m | RA Radius____ m

Exposure, Actual °: 308 NE (NW) SE SW Flat Variable | Steepness, Actual °: 1 0° (1-5°) > 5-25° > 25

Topography: Macro: top upper mid lower (bottom) | Micro: convex flat concave undulating

Geology code: MIAL Soil Texture code: FISA | Upland or (Wetland/Riparian) (circle one)

% Surface cover: (Incl. outcrops) (>60cm diam) (25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud)

H_20: 0 BA Stems: 4 Litter: 72 Bedrock: 0 Boulder: 0 Stone: 0 Cobble: 0 Gravel: 1 Fines: 23 =100%

% Current year bioturbation <1 Past bioturbation present? Yes / (No) | % Hoof punch NA

Fire evidence: Yes / (No) (circle one) If yes, describe in Site history section, including date of fire, if known.

Site history, stand age, comments: Very hummocky + disturbed from old mine tailings. Open understory under cottonwoods EW oriented. Riparian, fairly wide, open, very few shrubs. Lots of grass w/ early phenology. Kind of terraced. Cottonwoods look old/drought stressed. No lvs yet. Lots of mistletoe.

Mining - dredge tailings = hummocky.

Early phen. means herb ID incomplete, cover low

Disturbance code / Intensity (L,M,H): 05/M 09/L ___/___ ___/___ ___/___ "Other" ____/___

II. HABITAT DESCRIPTION

Tree DBH : T1 (<1" dbh), T2 (1-6" dbh), T3 (6-11" dbh), (T4) (11-24" dbh), T5 (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% cover)

Shrub: S1 seedling (<3 yr. old), S2 young (<1% dead), S3 mature (1-25% dead), S4 decadent (>25% dead)

Herbaceous: H1 (<12" plant ht.), H2 (>12" ht.) will get higher tho (hard to say w/ leaf off)

Desert Riparian Tree/Shrub: 1 (<2ft. stem ht.), 2 (2-10ft. ht.), 3 (10-20ft. ht.), 4 (>20ft. ht.)

Desert Palm/Joshua Tree: 1 (<1.5" base diameter), 2 (1.5-6" diam.), 3 (>6" diam.)

III. INTERPRETATION OF STAND

Field-assessed vegetation Alliance name: Populus fremontii

Field-assessed Association name (optional): ____

Adjacent Alliances/direction: Holocarpha / N, ____ / ____

Confidence in Alliance identification: L M (H) Explain: ____

Phenology (E,P,L): Herb E Shrub E Tree E Other identification or mapping information:

Combined Vegetation Rapid Assessment and Relevé Field Form
(Revised March 27, 2018)
SPECIES SHEET

Database #: PC002

IV. VEGETATION DESCRIPTION

will be higher when lichens added

% NonVasc cover: 0 **Total % Vasc Veg cover:** 65

% Cover - Conifer tree / Hardwood tree: 0 / 10 Regenerating Tree: 0 Shrub: 4 Herbaceous: 55

Height Class - Conifer tree / Hardwood tree: ___ / 0 Regenerating Tree: ___ Shrub: 4 Herbaceous: 1

Height classes: 1=<1/2m, 2=1/2-1m, 3=1-2m, 4=2-5m, 5=5-10m, 6=10-15m, 7=15-20m, 8=20-35m, 9=35-50m, 10=>50m

Stratum categories: T=Tree, A = SApling, E = SEedling, S = Shrub, H= Herb, N= Non-vascular
% Cover Intervals for reference: r = trace, + = <1%, 1-5%, >5-15%, >15-25%, >25-50%, >50-75%, >75%

Stratum	Species	% cover	C	Final species determination
T	Populus fremontii	10		
S	Toxicodendron d. ssp. l. ob.	3		
H	Bromus diandrus	30		
H	Vicia sp.	20		
S	Salix sp.	<1	C	
H	Br. elegans			
H	Rumex crispus	<1		
S	B. pilularis	<1		
	Geranium molle	<1		
	Elymus caput-medusae			
	Orobanchaceae (Lilies)			
	Torilis arvensis	<1		
	Centaurea solstitialis	<1		
	Stipa sp.			
	Cardunus pyc	<1		
	Coffee-berry	<1		
S	Mistletoe	1		

STOP RAS here

Unusual species: _____

RECON FIELD FORM (March 6, 2019, with slope/aspect)

Recorder: Melissa **Other Surveyors:** **Date:** 3-12-21 **Return?** ☐

Waypoint ID: PC003-R

UID:

Location Name: Prairie City

GPS Name Trimble **Projected?** (No) / Yes / Base / Digitized

If Yes, enter: **Bearing (°):** _____ **Distance (m):** _____ **Inclination (°):** _____

If Yes or Digitized, enter: **Base Waypoint ID:** _____

(Base) / **Projected** (circle one) Record either UTMs or Decimal Degrees GPS error: **ft./ m./ PDOP** _____

UTMs: UTME _____ **UTMN** _____

Decimal degrees: **LAT** 38.603984 **LONG** -121.160254

Stand Size (<1) 1–5 >5 **Camera:** **Photos:** 593-596(N) **View Radius** _____

Exposure, Actual °: NA NE NW SE SW Flat (Variable) **Steepness, Actual °:** NA 0° 1-5° >5-25° >25

Field Alliance name: Eriogonum (elogantum, nudum) Alliance 597-SE from point look online

Comments: below MMW but repeating at lower band of hummucky mounds w. diff. cover of native forms w. Eriogonum sparsely but consistly throut. (In Imagery look for darker green of Eriogonum). Discontinuous mounds. Undulating.

% Cover: Conifer 0 Hardwood 0 Total Tree 0 Regen Tree 0 Shrub 0 Herb 40 Total Veg 40 Exotics (L,M,H) _____

Strata	Species	% cover	Strata	Species	% cover	Strata	Species	% cover
	Eriogonum nudum	1		Erodium botrys	4		Thysanocarpus curvipes	<1
	Eschscholzia lobbii	1		Lupinus bicolor	2		"Geophytes" unk.	<1
	Holocarpha virgata	<1		Plantago erecta	<1		unknown grasses	1 C
	Dichelostemma capitatum	<1		Plagiobothrys nothofulvus	<1		Grasses	25
	Brodiaea elegans	<1						

RECON FIELD FORM (March 6, 2019, with slope/aspect)

Recorder: MVP **Other Surveyors:** **Date:** 3-7-21 **Return?** ☑

Waypoint ID: PC004

UID:

Location Name: PC

GPS Name Trimble **Projected?** (No) / Yes / Base / Digitized

If Yes, enter: **Bearing (°):** _____ **Distance (m):** _____ **Inclination (°):** _____

If Yes or Digitized, enter: **Base Waypoint ID:** _____

Base / Projected (circle one) Record either UTMs or Decimal Degrees GPS error: **ft./ m./ PDOP** _____

UTMs: UTME _____ **UTMN** _____

Decimal degrees: **LAT** 38.599323 **LONG** -121.145473

Stand Size: (<1) 1–5 >5 **Camera:** Mel's phone **Photos:** collector last photo 30° **View Radius** _____

Exposure, Actual °: _____ NE NW SE SW Flat Variable | **Steepness, Actual °:** 7 0° 1-5° >5-25° >25

Field Alliance name: Sali x (goodingii) Alliance

Comments: Stand just a few meters wide, edge of pond. Rig-shaped sediment basin that gets scooped out every few years. Willows are not leafed out. +

% Cover: Conifer 0 Hardwood 5 Total Tree 5 Regen Tree (+) seedlings Shrub 4 Herb 5 Total Veg 13 Exotics (L,M,H) M

Strata	Species	% cover		Strata	Species	% cover		Strata	Species	% cover
	Populus fremontii	1			Baccharis pilularis	4			(could be S. lasiolepis)	
	Sal. x spp.	4	C		Typha	(+)			Annuae Grasses	5
	T. divers.-lob. var.	(+)			Q. douglasii seedlings spp.					

see Leah's data

RECON FIELD FORM (March 6, 2019, with slope/aspect)

Recorder: Melissa **Other Surveyors:** Peter, Rosie, Kayla, Cate, Mackenzie, Leah **Date:** 5-17 **Return?** ☑

Waypoint ID: PC004

UID:

Location Name: Prairie City

GPS Name Trimble **Projected?** (No) / Yes / Base / Digitized

If Yes, enter: **Bearing (°):** _____ **Distance (m):** _____ **Inclination (°):** _____

If Yes or Digitized, enter: **Base Waypoint ID:** _____

(Base) / **Projected** (circle one) Record either UTMs or Decimal Degrees GPS error: (ft.) m./ **PDOP** 9

UTMs: UTME _____ **UTMN** _____

Decimal degrees: **LAT** 38.599323 **LONG** -121.145473

Stand Size: (<1) 1–5 >5 **Camera:** Melissa's phone **Photos:** still/cardinal directions; record bearings **View Radius** ~ m (eyeball ~30 m when possible)

Exposure, Actual °: _____ NE NW SE SW Flat (Variable) | **Steepness, Actual °:** _____ 0° · 1-5° > 5-25° > 25

Field Alliance name: Salix goodingii Alliance

Comments: narrow band around pond. Phenology too early for ID + cover is low. Sediment basin gets scraped out periodically.

% Cover: Conifer 0 (Hardwood) 5 Total Tree 3 Regen Tree † (=trace) Shrub 4 Herb 5 Total Veg 13 Exotics (L,M,H)

Strata	Species	% cover	Strata	Species	% cover	Strata	Species	% cover
T	Populus fre.	1	S	Quercus douglasii	<1	S	Toxicodendron diversilobum	+ (trace)
T,S	Salix spp. (Salix lasiolepis, Salix gooddingii)	4	C	H annual grasses and forbs	5			
S	Baccharis pilularis	5	H	Typha sp.	+			

Combined Vegetation Rapid Assessment and Relevé Field Form
(Revised March 27, 2018)

For Office Use:	Final database #:	Final vegetation type:	Alliance Association

I. LOCATIONAL/ENVIRONMENTAL DESCRIPTION — circle: Relevé or (RA)

Database #:	Date:	Name of recorder: Leah
PC005	3-17-21	Other surveyors: Rosie + Torrance
	UID:	Location Name: Prairie City

GPS name: Bad Elf — For Relevé only: Bearing°, left axis at ID point____ of Long / Short side

UTME ____ UTMN ____ Zone: 11 NAD83 GPS error: (ft.) m./ PDOP 15 (160M / 100 M)

Decimal degrees: LAT 38.598846 LONG 121.140861

GPS within stand? (Yes) / No If No, cite from GPS to stand: distance (m) ____ bearing ° ____ inclination ° ____

and record: Base point ID ____ Projected UTMs: UTME ____ UTMN ____

Camera Name: iphone Cardinal photos at ID point: 1, 2, 3, 4 N, E, S, W

Other photos:

Stand Size (acres): <1, 1-5, (>5) | ~~Plot Area (m²): 100~~ / ____ | ~~Plot Dimensions ____ x ____ m~~ | RA Radius 100 m

Exposure, Actual °: 309 NE (NW) SE SW Flat (Variable) Steepness, Actual °: ~10° 0° 1-5° (>5-25°) >25

Topography: Macro: (top) upper (mid) lower bottom | Micro: convex flat concave (undulating)

Geology code: SAAL Soil Texture code: MESA | (Upland) or Wetland/Riparian (circle one)

% Surface cover: (Incl. outcrops) (>60cm diam) (25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud)

H_20: 0 BA Stems: 2% Litter: 80 Bedrock: 0 Boulder: 0 Stone: 0 Cobble: + Gravel: 1% Fines: 17 =100%

% Current year bioturbation + Past bioturbation present? Yes / (No) | % Hoof punch 0

Fire evidence: Yes / (No) (circle one) If yes, describe in Site history section, including date of fire, if known.

{little incl. downed decaying branches}

Site history, stand age, comments: This part of the stand is highly disturbed. (Stand continues to SW. + is fenced off-no OHV trails.) Road disturbance is high ~25-30% cover of the stand (Roads not taken into account for surface cover). Rolling terrain w. various slopes + aspects. A lot of downed branches + woody debris. Phenology is early so ID difficult + cover is low. Oaks are large (=old). Looks like some small oaks have been planted in the fenced-off stand to SW.

Disturbance code / Intensity (L,M,H): 02/H 05/H ___/___ ___/___ ___/___ "Other" ____/___

II. HABITAT DESCRIPTION

Tree DBH : T1 (<1" dbh), T2 (1-6" dbh), T3 (6-11" dbh), T4 (11-24" dbh), (T5) (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% cover)

NA Shrub: S1 seedling (<3 yr. old), S2 young (<1% dead), S3 mature (1-25% dead), S4 decadent (>25% dead) 0

Herbaceous: H1 (<12" plant ht.) (H2) (>12" ht.)

NA Desert Riparian Tree/Shrub: 1 (<2ft. stem ht.), 2 (2-10ft. ht.), 3 (10-20ft. ht.), 4 (>20ft. ht.) 0

NA Desert Palm/Joshua Tree: 1 (<1.5" base diameter), 2 (1.5-6" diam.), 3 (>6" diam.) 0

III. INTERPRETATION OF STAND

Field-assessed vegetation Alliance name: Quercus douglasii Alliance

Field-assessed Association name (optional): Quercus douglasii/Grass sub-Alliance

Adjacent Alliances/direction: annual grasses / all directions /

Confidence in Alliance identification: L M (H) Explain: can't ID herbs to species

Phenology (E,P,L): Herb E Shrub NA Tree E Other identification or mapping information: early phenology

Note – need to standardize what we do with Road cover

Combined Vegetation Rapid Assessment and Relevé Field Form
(Revised March 27, 2018)

Database #: PC005 SPECIES SHEET

IV. VEGETATION DESCRIPTION

(would say green more w/ leaves)

% NonVasc cover: + **Total % Vasc Veg cover:** 25

% Cover - **Conifer tree / Hardwood tree:** 0 / 3 **Regenerating Tree:** 0 **Shrub:** 0 **Herbaceous:** 25

Height Class - Conifer tree / Hardwood tree: 0 / 6 **Regenerating Tree:** 0 **Shrub:** 0 **Herbaceous:** 1

Height classes: 1=<1/2m, 2=1/2-1m, 3=1-2m, 4=2-5m, 5=5-10m, 6=10-15m, 7=15-20m, 8=20-35m, 9=35-50m, 10=>50m

Stratum categories: T=Tree, A = SApling, E = SEedling, S = Shrub, H= Herb, N= Non-vascular
% Cover Intervals for reference: r = trace, + = <1%, 1-5%, >5-15%, >15-25%, >25-50%, >50-75%, >75%

Stratum	Species	% cover	C	Final species determination
T	Quercus douglasii	3		
	Bromus (diandrus)	12	C	
	Hordeum sp.	12		
	Vicia villosa	+		
	Amsinkia sp.	+	C	
	stellaria media	+		
	Claytonia perfoliata	1		
	Calandrinia pomeridiana	+		
	Dichelostemma capitatum	+		
	Galium aparine	+		
	Carduus pycnocephala	+		
	Avena sp.	1		
	Matricaria discoidea	+		
	other grasses	2		
	Trifolium sp.	+		

Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised March 27, 2018)

For Office Use:	Final database #:	Final vegetation type:	Alliance Association

I. LOCATIONAL/ENVIRONMENTAL DESCRIPTION — circle: Relevé or RA

Database #:	Date:	Name of recorder: MVP
PC006		Other surveyors: Betsy, Leah, McKenzie, Beth, Katie
	UID:	Location Name: PC006

GPS name: MVP phone — For Relevé only: Bearing°, left axis at ID point____ of Long / Short side

UTME ____ UTMN ____ Zone: 11 NAD83 GPS error: ft./ m./ PDOP ____

Decimal degrees: LAT ____ . ____ LONG ____ . ____

GPS within stand? (Yes) / No If No, cite from GPS to stand: distance (m) ____ bearing ° ____ inclination ° ____

and record: Base point ID PC006 Projected UTMs: UTME ____ UTMN ____

Camera Name: Cardinal photos at ID point: N E S W (on phone

Other photos:

Stand Size (acres): <1, 1-5, (>5) | Plot Area (m²): 100 / _____ | Plot Dimensions ____ x ____ m | RA Radius 40 m

Exposure, Actual °: _____ NE NW SE SW Flat (Variable) | Steepness, Actual °: _____ 0° 1-5° >5-25° >25

Topography: Macro: (top) upper mid lower bottom | Micro: (convex) flat concave undulating

Geology code: MIAL Soil Texture code: MCSL | (Upland) or Wetland/Riparian (circle one)

% Surface cover: (Incl. outcrops) (>60cm diam) (25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud)

H_20: (T) BA Stems: 1 Litter: 15 Bedrock: 0 Boulder: 0 Stone: (+) Cobble: 5 Gravel: 13 Fines: 66 =100%

% Current year bioturbation _____ Past bioturbation present? Yes / (No) | % Hoof punch 0 Trace gopher bdc

Fire evidence: Yes / (No) (circle one) If yes, describe in Site history section, including date of fire, if known.

Site history, stand age, comments: Sloped up to 12° but also flat (1-2°) at top of hill, chose "variable" because not typical Exposure also variable. Stand spans flat ridge and slopes on either side. Narrow gulley/rills from dirt bike trails. Also wide open roads. Fence divides stand. Patchy Baccharis w/ occassional toxicodendron. Patches driven by cross country OHV activity. Occasional sambucus. Herbaceous cover under + surrounding shrubs, also cut up by OHV activity. Cottonwood @ edge of stand. A few coffeeberry inds, * Qu. Wi. Exposed PVC pipe?

Mowing at edges along road

Disturbance code / Intensity (L,M,H): 02/H 05/ 36/L 15/M / / "Other" _____ / ___

II. HABITAT DESCRIPTION

Tree DBH : T1 (<1" dbh), T2 (1-6" dbh), T3 (6-11" dbh), T4 (11-24" dbh) - one-2 trees, T5 (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% cover)

Shrub: S1 seedling (<3 yr. old), S2 young (<1% dead), S3 mature (1-25% dead), S4 decadent (>25% dead)

Herbaceous: H1 (<12" plant ht.), H2 (>12" ht.)

Desert Riparian Tree/Shrub: 1 (<2ft. stem ht.), 2 (2-10ft. ht.), 3 (10-20ft. ht.), 4 (>20ft. ht.)

Desert Palm/Joshua Tree: 1 (<1.5" base diameter), 2 (1.5-6" diam.), 3 (>6" diam.)

III. INTERPRETATION OF STAND

Field-assessed vegetation Alliance name: Baccharis pilularis

Field-assessed Association name (optional): Baccharis pilularis

Adjacent Alliances/direction: Annual /pes. grassland / all around Willow / Sediment basin /

Confidence in Alliance identification: L M (H) Explain: _____

Phenology (E,P,L): Herb E Shrub E Tree E Other identification or mapping information:

Baccharis = evergreen, TODi: some lvs. Herbs v. young

Combined Vegetation Rapid Assessment and Relevé Field Form
(Revised March 27, 2018)
SPECIES SHEET

Database #: PC006

IV. VEGETATION DESCRIPTION

% NonVasc cover: T **Total % Vasc Veg cover:** 30

% Cover - **Conifer tree / Hardwood tree:** 0 / <1 **Regenerating Tree:** 0 **Shrub:** 20 **Herbaceous:** 15

Height Class - Conifer tree / Hardwood tree: NA / 7 **Regenerating Tree:** NA **Shrub:** 3 **Herbaceous:** 1

Height classes: 1=<1/2m, 2=1/2-1m, 3=1-2m, 4=2-5m, 5=5-10m, 6=10-15m, 7=15-20m, 8=20-35m, 9=35-50m, 10=>50m

Stratum categories: T=Tree, A = SApling, E = SEedling, S = Shrub, H= Herb, N= Non-vascular
% Cover Intervals for reference: r = trace, + = <1%, 1-5%, >5-15%, >15-25%, >25-50%, >50-75%, >75%

Stratum	Species	% cover	C	Final species determination
	B. pilularis	18		
	Sambucus	<1		
	Toxicodendron diversilobum	1		
T	P. fremontii	<1		
↑	Frangula californica ssp. tomentella	<1		
S	Q. wizlenzii	<1		
	Heterotheca grandiflora	<1		
	Bromus hordeaceus			
	Geranium spp	<1		
	Tarrelis	<1		
	Erodium + botrys + Secutarium	<1		
	St. Johns Wort	10		
	Micropus californica	<1		
	Hypochaeris	<1		
	Carduus pycnocephalus	1		
	Crassula erecta	1		
	Vulpia sp ?	<1		
	Amsinkia sp.			
	Yellow star thistle	<1		
	Lomatium sp.	<1		
	All annual grasses	50		

Unusual species: _____

Combined Vegetation Rapid Assessment and Relevé Field Form
(Revised March 27, 2018)

For Office Use:	Final database #:	Final vegetation type:	Alliance Association

I. LOCATIONAL/ENVIRONMENTAL DESCRIPTION — circle: Relevé or RA

Database #:	Date:	Name of recorder: BH, Melissa, McKenzie (PC staff)
PC006	3/17	Other surveyors:
	UID:	Location Name:

GPS name: Trimble — For Relevé only: Bearing°, left axis at ID point____ of Long / Short side

UTME ___ UTMN ___ Zone: 11 NAD83 GPS error: ft./ m./ PDOP ____

Decimal degrees: LAT ___ LONG ___

GPS within stand? (Yes) / No If No, cite from GPS to stand: distance (m) ____ bearing ° ____ inclination ° ____

and record: Base point ID ____ Projected UTMs: UTME ___ UTMN ___

Camera Name: Melissa Cardinal photos at ID point: NESW

Other photos:

Stand Size (acres): <1, 1-5, ~~5-10~~, >5 | Plot Area (m²): 100 / NA | Plot Dimensions NA x ___ m | RA Radius 40 m

Exposure, Actual °: ___ NE NW SE SW Flat (Variable) | Steepness, Actual °: 12° 0° 1-5° (>5-25°) >25

Topography: Macro: (top) (upper) mid lower bottom | Micro: (convex) flat concave undulating

Geology code: MiAl Soil Texture code: MGSL | Upland or Wetland/Riparian (circle one)

% Surface cover: (Incl. outcrops) (>60cm diam) (25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud)

H_20: T BA Stems: 1% Litter: 15% Bedrock: Boulder: Stone: T Cobble: 5% Gravel: 13% Fines: 66% =100%

% Current year bioturbation 0 Past bioturbation present? Yes / (No) | % Hoof punch 0

Fire evidence: Yes / (No) (circle one) If yes, describe in Site history section, including date of fire, if known.

Site history, stand age, comments: Off road vehicle impacts in prior years on flat area. Grasses were mowed (exc. 2020). Bearing & slope take — NE facing hillslope — top of slope → very slight sloping flat area on top then slope to S ~ 10% on other side of mesh. Erosion rills & gullies on slopes. Fence + road divide stand. Patchy BAPI, occasional TODI stands, scattered SAMMEX Herb. cover under + surrounding shrubs. 2 POPPRE at edge of stand. Coffee berry sparse, QUWI (rare) Bapi are regenerating in previously mowed area

Disturbance code / Intensity (L,M,H): 02 / H 05 / M 15 / M 36 / L ___ / ___ "Other" ___ / ___

II. HABITAT DESCRIPTION

Tree DBH : T1 (<1" dbh), T2 (1-6" dbh), T3 (6-11" dbh), T4 (11-24" dbh), T5 (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% cover)

Shrub: S1 seedling (<3 yr. old), S2 young (<1% dead), S3 mature (1-25% dead), S4 decadent (>25% dead)

Herbaceous: H1 (<12" plant ht), H2 (>12" ht.)

Desert Riparian Tree/Shrub: 1 (<2ft. stem ht.), 2 (2-10ft. ht.), 3 (10-20ft. ht.), 4 (>20ft. ht.)

Desert Palm/Joshua Tree: 1 (<1.5" base diameter), 2 (1.5-6" diam), 3 (>6" diam)

III. INTERPRETATION OF STAND

Field-assessed vegetation Alliance name: Baccharis pilularis Shrubland Alliance

Field-assessed Association name (optional): Baccharis pilularis — Associa

Adjacent Alliances/direction: Annual/perennial grassland

Confidence in Alliance identification: L M H Explain: ___

Phenology (E,P,L): Herb E Shrub (P) Tree E Other identification or mapping information:

phenology for BAPI is leaf-on (evergreen)

Combined Vegetation Rapid Assessment and Relevé Field Form

(Revised March 27, 2018)

For Office Use:	Final database #:	Final vegetation type: Alliance / Association

I. LOCATIONAL/ENVIRONMENTAL DESCRIPTION — circle: (Relevé) or RA

Database #:	Date:	Name of recorder: MVP
PC007		Other surveyors: MVP, Leah, Bethg, Torrance
	UID:	Location Name: PC007 Prairie City

GPS name: Bad Elf — For Relevé only: Bearing°, left axis at ID point N of Long / Short side

UTME ____ UTMN ____ Zone: 11 NAD83 GPS error: ft./ m./ PDOP ____

Decimal degrees: LAT 38.597406 LONG 121.142406

GPS within stand? (Yes) / No If No, cite from GPS to stand: distance (m) ____ bearing ° ____ inclination ° ____

and record: Base point ID PC007 Projected UTMs: UTME ____ UTMN ____

Camera Name: Leah's phone Cardinal photos at ID point: (N) plus one of plot; NE

Other photos:

Stand Size (acres): <1, (1-5), >5 | Plot Area (m²): (100) ____ | Plot Dimensions 10 x 10 m | RA Radius ____ m

Exposure, Actual °: 229 NE NW SE (SW) Flat Variable | Steepness, Actual °: 13 0° 1-5° (5-25°) > 25

Topography: Macro: top upper mid (lower) bottom | Micro: (convex) flat concave undulating

Geology code: MIAL Soil Texture code: MCSL | Upland or Wetland/Riparian (circle one)

% Surface cover: (Incl. outcrops) (>60cm diam) (25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud)

H_20: 0 BA Stems: <1 Litter: 20 Bedrock: 0 Boulder: 0 Stone: 0 Cobble: <1 Gravel: 15 Fines: 65 =100%

% Current year bioturbation (+) Past bioturbation present? (Yes) / No | % Hoof punch 0 - grazing allowed in this area

Fire evidence: (Yes) / No (circle one) If yes, describe in Site history section, including date of fire, if known.

Site history, stand age, comments: Lack of grass is distinctive. Post-fire - grassland under blue oak. Burned fall 2020. Erodium, Dichelostemma, other geophytes, crassula is bright red + stands out. Bioturbation is from moles/gophers/ground. Old cow-pies present from grazing. Soil seems thin - nutrient poor compared to under trees. Surrounded by blue oak. Annual veg prob. driven by recent fire

Disturbance code / Intensity (L,M,H): 04/L 05/H ___/___ ___/___ ___/___ ___/___ "Other" Fire / H

II. HABITAT DESCRIPTION

Tree DBH : T1 (<1" dbh), T2 (1-6" dbh), T3 (6-11" dbh), T4 (11-24" dbh), T5 (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% cover)

Shrub: S1 seedling (<3 yr. old), S2 young (<1% dead), S3 mature (1-25% dead), S4 decadent (>25% dead)

Herbaceous: (H1) (<12" plant ht.), H2 (>12" ht.)

Desert Riparian Tree/Shrub: 1 (<2ft. stem ht.), 2 (2-10ft. ht.), 3 (10-20ft. ht.), 4 (>20ft. ht.)

Desert Palm/Joshua Tree: 1 (<1.5" base diameter), 2 (1.5-6" diam.), 3 (>6" diam.)

III. INTERPRETATION OF STAND

see Sierra Nevada Foothills key

Field-assessed vegetation Alliance name: ____

Field-assessed Association name (optional): Blue Oak, grass

Adjacent Alliances/direction: ____/____, ____/____

Confidence in Alliance identification: L M H Explain: ____

Phenology (E,P,L): Herb ____ Shrub ____ Tree ____ Other identification or mapping information: ____

Combined Vegetation Rapid Assessment and Relevé Field Form
(Revised March 27, 2018)
SPECIES SHEET

Database #: PC 007

IV. VEGETATION DESCRIPTION

% NonVasc cover: + **Total % Vasc Veg cover:** 24

% Cover - **Conifer tree / Hardwood tree:** 0 / 0 **Regenerating Tree:** + **Shrub:** 0 **Herbaceous:** 24

Height Class - Conifer tree / Hardwood tree: 0 / 0 **Regenerating Tree:** 1 **Shrub:** 0 **Herbaceous:** ____

Height classes: 1=<1/2m, 2=1/2-1m, 3=1-2m, 4=2-5m, 5=5-10m, 6=10-15m, 7=15-20m, 8=20-35m, 9=35-50m, 10=>50m

Stratum categories: T=Tree, A = SApling, E = SEedling, S = Shrub, H= Herb, N= Non-vascular
% Cover Intervals for reference: r = trace, + = <1%, 1-5%, >5-15%, >15-25%, >25-50%, >50-75%, >75%

Stratum	Species	% cover	C	Final species determination
	Erodium botrys	18		
	Acmispon parviflorus	+		
	Aira caryophylla	+		
	Dichelostemon cap.	1		perennial
	Tryphysaria eriantha	R		
	Chlorogalum pomeridianum	R		perennial
	Crassula connata	3		
	Hypochaeris glabra	1		
	Lupinus bicolor	+		
	Briza minima	+		
	Trifolium sp.	R		
	Onagraceae unk.	R		
	unknown geophytes	+		
	Logfia gallica	R		
	Quercus douglasii	R		
	Bromus sp.	+		

Unusual species: _____

Appendix C: Plant species list

Plant List - Prairie City SVRA (updated 6/2020 by LG) - Includes plants found in previous years of botanical surveys, not just in surveys from this mapping project

Family	Taxonomic name	Common Name	Status/Notes
Adoxaceae	Sambucus nigra ssp. caerulea	Blue elderberry	
Agavaceae	Chlorogalum angustifolium	Narrowleaf Soap plant	
Agavaceae	Chlorogalum pomeridianum	Soap plant	
Alismataceae	Alisma triviale	Northern water plantain	
Alismataceae	Damasonium californicum	California damasonium	
Anacardiaceae	Pistacia chinensis	Chinese pistachio	non-native
Anacardiaceae	Toxicodendron diversilobum	Poison-oak	
Apiaceae	Anthriscus caucalis	Bur chervil	non-native
Apiaceae	Daucus pusillus	American wild carrot	
Apiaceae	Eryngium castrense	Great valley button celery	
Apiaceae	Eryngium vaseyi	Coyote thistle	
Apiaceae	Lomatium caruifolium	Caraway leaved lomatium, Alkali parsnip	
Apiaceae	Sanicula bipinnatifida	Purple sanicle	
Apiaceae	Torilis arvensis	Sock Destroyer, Field hedgeparsley	non-native
Apiaceae	Yabea microcarpa	Hedge parsley	
Apocynaceae	Asclepias fascicularis	Narrow leaf milkweed	
Apocynaceae	Asclepias speciosa	Showy milkweed	
Apocynaceae	Vinca sp.	Periwinkle	non-native
Asteracaea	Achyrachaena mollis	Soft blow wives	
Asteracaea	Agoseris heterophylla	Annual agoseris, Annual mountain dandelion	
Asteracaea	Anthemis cotula	Mayweed, dog fennel	non-native
Asteracaea	Baccharis pilularis	Coyote brush	
Asteracaea	Baccharis salicifolia	Mule fat	
Asteracaea	Blennosperma nanum var. nanum	Common blennosperma, Common stickyseed	
Asteracaea	Calycadenia spicata	Spiked rosin weed	
Asteracaea	Carduus pycnocephalus	Italian thistle	non-native
Asteracaea	Centaurea solstitialis	Yellow star-thistle	non-native
Asteracaea	Centromadia fitchii	Spikeweed	
Asteracaea	Centromadia parryi	Pappose tarweed	
Asteracaea	Chondrilla juncea	Skeleton weed	non-native
Asteracaea	Cirsium vulgare	Bull thistle	non-native

Family	Taxonomic name	Common Name	Status/Notes
Asteracaea	Cirsium sp.	Thistle	
Asteracaea	Cotula coronopifolia	Brassbuttons	non-native
Asteracaea	Dittrichia graveolens	Stinkwort	non-native
Asteracaea	Erigeron sumatrensis	Tropical horseweed	non-native
Asteracaea	Eriophyllum lanatum	Common woodlly sunflower	
Asteracaea	Grindelia camporum	Common gumplant	
Asteracaea	Helminthotheca echioides	Bristly ox-tongue	non-native
Asteracaea	Heterotheca grandiflora	Telegraph weed	
Asteracaea	Holocarpha obconica	San Joaquin tarweed	
Asteracaea	Holocarpha virgata ssp. virgata	Yellowflower tarweed	
Asteracaea	Hypochaeris glabra	Smooth cat's ear	non-native
Asteracaea	Hypochaeris radicata	Hairy cats's ear	non-native
Asteracaea	Lactuca saligna	willow lettuce	non-native
Asteracaea	Lactuca serriola	Prickly lettuce	non-native
Asteracaea	Lasthenia californica	Goldfields	
Asteracaea	Lasthenia fremontii	Vernal pool goldfields	
Asteracaea	Lasthenia glaberrima	Smooth goldfields	
Asteracaea	Layia fremontii	Fremont's tidytips	
Asteracaea	Leontodon saxatilis	Hawkbit	non-native
Asteracaea	Logfia gallica	Narrowleaf cottonrose	non-native
Asteracaea	Madia elegans	Common madia	
Asteracaea	Matricaria discoidea	Pineapple weed	
Asteracaea	Micropus californicus var. californicus	Q-tip plant, Slender cottonweed	
Asteracaea	Microseris douglasii	Douglas' silverpuffs, Douglas' microseris	
Asteracaea	Pseudognaphalium luteoalbum	Jersey cudweed	non-native
Asteracaea	Psilocarphus brevissimus var. brevissimus	Woolly-heads	
Asteracaea	Psilocarphus chilensis	Round woolly marbles	
Asteracaea	Psilocarphus oregonus	Woolly marbles	
Asteracaea	Psilocarphus tenellus	Slender woolly-heads	non-native
Asteracaea	Senecio vulgaris	Old man of spring, Common groundsel	non-native
Asteracaea	Silybum marianum	Milk thistle	non-native
Asteracaea	Soliva sessilis	South American soliva	non-native
Asteracaea	Sonchus asper	Prickly sowthistle	non-native
Asteracaea	Sonchus oleraceus	Sow thistle	non-native
Asteracaea	Taraxacum officinale	Red seeded dandelion	non-native

Family	Taxonomic name	Common Name	Status/Notes
Asteracaea	Tragopogon porrifolius	Oyster Plant, Salsify	non-native
Asteracaea	Uropappus lindleyi	Silver puffs	
Asteracaea	Wyethia angustifolia	Narrow-leaved mule ears	
Asteracaea	Wyethia bolanderi	Bolander's mule ears	
Asteracaea	Xanthium strumarium	Cocklebur	
Boraginaceae	Amsinckia intermedia	Common fiddleneck	
Boraginaceae	Amsinckia menziesii	Small flowered fiddleneck	
Boraginaceae	Plagiobothrys fulvus var. campestris	Tawny popcornflower	
Boraginaceae	Plagiobothrys greenei	Greene's popcornflower, Greene's allocarya	
Boraginaceae	Plagiobothrys nothofulvus	Rusty popcorn flower	
Boraginaceae	Plagiobothrys stipitatus var. micranthus	Common vernal pool allocarya	
Brassicaceae	Brassica nigra	Black mustard	non-native
Brassicaceae	Brassica rapa	Field mustard	non-native
Brassicaceae	Capsella bursa-pastoris	Shepherd's purse	non-native
Brassicaceae	Cardamine oligosperma	Bitter cress	
Brassicaceae	Hirschfeldia incana	Mediterranean hoary mustard	non-native
Brassicaceae	Lepidium didymum	Lesser swine cress	non-native
Brassicaceae	Lepidium nitidum var. nitidum	Shining pepper-grass	
Brassicaceae	Raphanus raphanistrum	Jointed charlock	non-native
Brassicaceae	Raphanus sativus	Wild radish	non-native
Brassicaceae	Rorippa curvisiliqua	Curvepod yellow cress	non-native
Brassicaceae	Sisymbrium officinale	Hedge mustard	non-native
Brassicaceae	Thysanocarpus radians	Showy fringe pod	
Caryophyllaceae	Cerastium glomeratum	Chickweed	non-native
Campanulaceae	Downingia bicornuta	Doublehorn downingia	
Campanulaceae	Downingia ornatissima	Horned downingia, Folded downingia	
Campanulaceae	Heterocodon rariflorum	Rareflower heterocodon	
Campanulaceae	Legenere limosa	Legenere	Listed 1B.1, s2, g2
Caryophyllaceae	Minuartia californica	Sandwort	
Caryophyllaceae	Petrorhagia dubia	Petrorhagia	non-native
Caryophyllaceae	Petrorhagia prolifera	Pink grass	non-native
Caryophyllaceae	Scleranthus annuus	German knotgrass	non-native
Caryophyllaceae	Silene gallica	Common catch-fly	non-native
Caryophyllaceae	Spergula arvensis	Corn spurry	non-native

Family	Taxonomic name	Common Name	Status/Notes
Caryophyllaceae	Spergularia bocconei	Boccon's sand spurrey	non-native
Caryophyllaceae	Spergularia rubra	Purple sand spurry	non-native
Caryophyllaceae	Stellaria media	Chickweed	non-native
Convolvulaceae	Convolvulus arvensis	Field bindweed	non-native
Convolvulaceae	Cuscuta howelliana	Boggs lake dodder	
Crassulaceae	Crassula aquatica	Aquatic pygmyweed	
Crassulaceae	Crassula connata	Pigmy weed	
Cyperaceae	Carex sp.	Sedge	
Cyperaceae	Cyperus eragrostis	Tall flatsedge	
Cyperaceae	Cyperus sp.	Sedge	
Cyperaceae	Eleocharis acicularis	Needle Spike rush	
Cyperaceae	Eleocharis macrostachya	Creeping Spike rush	
Cyperaceae	Eleocharis palustris	Common spike rush	
Dipsacaceae	Dipsacus fullonum	Fuller's teasel	non-native
Euphorbiaceae	Croton setiger	Turkey-mullein, Dove weed	
Fabaceae	Acmispon americanus	Spanish lotus, American bird's foot trefoil	
Fabaceae	Acmispon parviflorus	Hill lotus	
Fabaceae	Lathyrus angulatus	Angled pea vine	non-native
Fabaceae	Lathyrus cicera	Red peavine	non-native
Fabaceae	Lathyrus hirsutus	Caley pea	non-native
Fabaceae	Lupinus bicolor	Dwarf lupine	
Fabaceae	Lupinus nanus	Sky lupine	
Fabaceae	Medicago polymorpha	CA burclover	non-native
Fabaceae	Melilotus indicus	Yellow sweetclover	non-native
Fabaceae	Melilotus officinalis	Yellow sweet clover	non-native
Fabaceae	Trifolium albopurpureum	Indian clover	
Fabaceae	Trifolium campestre	Hop clover	non-native
Fabaceae	Trifolium ciliolatum	Tree clover	
Fabaceae	Trifolium depauperatum var. depauperatum	Cow bag clover, Dwarf bladder clover	non-native
Fabaceae	Trifolium dubium	Shamrock	non-native
Fabaceae	Trifolium glomeratum	Clustered clover	non-native
Fabaceae	Trifolium gracilentum	Pinpoint clover	
Fabaceae	Trifolium hirtum	Rose clover	non-native
Fabaceae	Trifolium incarnatum	Crimson clover	non-native
Fabaceae	Trifolium microcephalum	Smallhead clover	
Fabaceae	Trifolium subterraneum	Subterranean clover	non-native

Family	Taxonomic name	Common Name	Status/Notes
Fabaceae	Trifolium variegatum	White-tipped clover, variegatum	
Fabaceae	Trifolium willdenovii	Tomcat clover	
Fabaceae	Vicia benghalensis	Purple vetch	non-native
Fabaceae	Vicia sativa ssp. sativa	Common vetch	non-native
Fabaceae	Vicia villosa ssp. villosa	Hairy vetch	non-native
Fagaceae	Quercus douglasii	Blue oak	
Fagaceae	Quercus lobata	Valley oak	
Fagaceae	Quercus wislizeni	Interior live oak	
Gentianaceae	Centaurium tenuiflorum	Slender centaury	non-native
Gentianaceae	Cicendia quadrangularis	Oregon timwort	
Gentianaceae	Zeltnera muehlenbergii	Muehlenberg's centaury	
Geraniacea	Erodium botrys	Broad leaf filaree	non-native
Geraniacea	Erodium cicutarium	Red stem filaree	non-native
Geraniacea	Erodium moschatum	White stem Filaree	non-native
Geraniacea	Geranium dissectum	Cut leaved geranium	non-native
Hypericaceae	Hypericum perforatum	Klamath weed, St. John's Wort	non-native
Isoetaceae	Isoetes orcuttii	Orcutt’s quillwort	
Juglandaceae	Juglans hindsii	Northern CA Black walnut	
Juncaceae	Juncus balticus	Baltic rush	
Juncaceae	Juncus bufonius	Toad rush	
Juncaceae	Juncus capitatus	Leafy bracted dwarf rush	
Juncaceae	Juncus tenuis	Slender rush	
Juncaceae	Juncus uncialis	Inch-high dwarf rush	
Juncaceae	Juncus xiphioides	Iris leaved juncus	
Juncaginaceae	Triglochin scilloides	Flowering-quillwort	
Lamiaceae	Trichostema lanceolatum	Vinegarweed	
Lamiaceae	Mentha pulegium	Pennyroyal	non-native
Lamiaceae	Pogogyne zizyphoroides	Sacramento mint	
Lamiaceae	Pogoyne douglasii	Douglas' mesamint	new addition
Liliaceae	Calochortus luteus	Yellow mariposa lily	
Limanathaceae	Limnanthes alba ssp. alba	White meadow-foam	
Limanathaceae	Limnanthes douglasii ssp. striata	Foothill meadowfoam	
Linaceae	Hesperolinon californicum	California dwarf-flax	non-native
Linaceae	Linum bienne	Narrowleaf flax, Pale flax	non-native
Lythraceae	Ammannia robusta	Grand Ammannia	
Lythraceae	Lythrum hyssopifolia	Hyssop loosestrife	non-native
Lythraceae	Lythrum portula	Broad-leaved loosestrife	non-native

Family	Taxonomic name	Common Name	Status/Notes
Lythraceae	Lythrum tribracteatum	Three bracted loosestrife	non-native
Malvaceae	Malva parviflora	Cheeseweed	non-native
Malvaceae	Sidalcea calycosa	Annual checkerbloom	
Malvaceae	Sidalcea hartwegii	Hartweg's checker-mallow	
Malvaceae	Sidalcea hirsuta	Hairy checkerbloom	
Marsileaceae	Marsilea vestita	Hairy waterclover	
Marsileaceae	Pilularia americana	Pillwort	
Montiaceae	Calandrinia ciliata	Fringed red maids	
Montiaceae	Calandrinia menziesii	Red maids	
Montiaceae	Claytonia perfoliata	Miner’s lettuce	
Montiaceae	Claytonia sp.	Miner's lettuce	
Montiaceae	Montia fontana	Water montia	
Myrsinacae	Lysimachia arvensis	Scarlet pimpernel	non-native
Myrsinacae	Lysimachia minima	Chaffweed	non-native
Oleaceae	Fraxinus latifolia	Oregon ash	
Onagraceae	Clarkia purpurea ssp. quadrivulnera	Purple clarkia	
Onagraceae	Epilobium brachycarpum	Annual fireweed, Autumn willowweed	
Onagraceae	Epilobium canum	CA fuchsia	
Onagraceae	Epilobium densiflorum	Dense boisduvlia	
Onagraceae	Epilobium torreyi	Narrow biosduvalia, brook willowherb	
Orobanchaceae	Castilleja attenuata	Valley tassels	
Orobanchaceae	Castilleja campestris ssp. campestris	Field owl clover	
Orobanchaceae	Castilleja lacera	Cutleaf owl's clover	
Orobanchaceae	Parentucellia viscosa	Yellow parentucellia, yellow glandweed	non-native
Orobanchaceae	Triphysaria eriantha ssp. eriantha	Butter and eggs	
Orobanchaceae	Triphysaria sp.	parasite	
Papaveraceae	Eschscholzia californica	California poppy	
Papaveraceae	Eschscholzia lobbii	Frying pan poppy	
Phrymaceae	Erythranthe guttata	Yellow monkey-flower	
Phrymaceae	Diplacus tricolor	Tri-color monkeyflower	
Pinaceae	Pinus sabiniana	Foothill pine, Bull pine	
Plantaginaceae	Callitriche heterophylla	Water starwort	
Plantaginaceae	Callitriche marginata	CA water starwort	
Plantaginaceae	Collinsia sparsiflora	Few flowered collinsia	

Family	Taxonomic name	Common Name	Status/Notes
Plantaginaceae	Gratiola heterosepala	Bogg's lake hyssop	Listed 1B.2, s2, g2
Plantaginaceae	Gratiola ebracteata	Common hedge hyssop	non-native
Plantaginaceae	Plantago coronopus	Cutleaf plantain	non-native
Plantaginaceae	Plantago erecta	California plantain	
Plantaginaceae	Plantago lanceolata	English plantain, Ribwort	non-native
Plantaginaceae	Plantago major	Common plantain	non-native
Plantaginaceae	Plantago virginica	Dwarf plantain	non-native
Plantaginaceae	Veronica peregrina ssp. xalapensis	Purslane speedwell, Speedwell, neckweed	
Poaceae	Aegilops triuncialis	Barbed goatgrass	non-native
Poaceae	Aira caryophylla	Silver hairgrass, Shivergrass	non-native
Poaceae	Alopecurus saccatus	Pacific foxtail	
Poaceae	Anthoxanthum odoratum	Sweet vernal grass	non-native
Poaceae	Avena barbata	Slender wild oats	non-native
Poaceae	Avena fatua	Wild oat	non-native
Poaceae	Brachypodium distachyon	Purple false brome	non-native
Poaceae	Briza maxima	Quaking grass	non-native
Poaceae	Briza minor	Little quaking grass	non-native
Poaceae	Bromus diandrus	Ripgut brome	non-native
Poaceae	Bromus hordeaceus	Soft brome, soft chess brome	non-native
Poaceae	Bromus madritensis ssp. rubens	Foxtail brome	non-native
Poaceae	Crypsis vaginiflora	African pricklegrass	non-native
Poaceae	Cynosurus echinatus	Bristly dog-tail grass	non-native
Poaceae	Deschampsia danthonioides	Annual hairgrass	
Poaceae	Elymus caput-medusae	Medusahead	non-native
Poaceae	Elymus glaucus	Blue wild rye	
Poaceae	Elymus multisetus	Squirreltail grass	
Poaceae	Festuca bromoides	Brome fescue	non-native
Poaceae	Festuca microstachys	Small Fescue	
Poaceae	Festuca myuros	Rat-tail fescue, Rattail sixweeks grass	non-native
Poaceae	Festuca perennis (previously Lolium)	Italian ryegrass	non-native
Poaceae	Gastridium phleoides	Nit grass	non-native
Poaceae	Glyceria declinata	Waxy mannagrass	non-native
Poaceae	Glyceria occidentalis	Western manna grass	non-native
Poaceae	Hordeum brachyantherum	Meadow barley	

Family	Taxonomic name	Common Name	Status/Notes
Poaceae	Hordeum marinum ssp. gussoneanum	Mediterranean barley	non-native
Poaceae	Hordeum murinum ssp. leporinum	Foxtail barley	non-native
Poaceae	Phalaris aquatica	Harding grass	non-native
Poaceae	Phalaris minor	Mediterranean canarygrass	non-native
Poaceae	Phalaris paradoxa	Hood canarygrass	non-native
Poaceae	Poa annua	Annual bluegrass	non-native
Poaceae	Poa secunda ssp. secunda	Sandburt's bluegrass	
Poaceae	Polypogon monspeliensis	Rabbit's foot grass, Annual beard grass	non-native
Poaceae	Pleuropogon californicus	Annual semaphore grass	
Poaceae	Stipa pulchra	Purple needlegrass	
Poaceae	Triticum sp.	Wheat	non-native
Polemoniaceae	Navarretia intertexta	Interwoven navarretia	
Polemoniaceae	Navarretia leucocephala ssp. Leucocephala	White-headed navarretia	
Polemoniaceae	Navarretia prolifera ssp. prolifera	Burr navarretia	
Polemoniaceae	Navarretia pubescens	Downy or purple pincusion	
Polemoniaceae	Navarretia tagetina	Marigold navarretia	
Polygonaceae	Eriogonum fasciculatum	CA buckwheat	
Polygonaceae	Eriogonum nudum	Nude buckwheat	
Polygonaceae	Polygonum avivulare ssp. depressum	prostrate knotweed	non-native
Polygonaceae	Rumex acetosella	Sheep sorrel	non-native
Polygonaceae	Rumex conglomeratus	Green dock	non-native
Polygonaceae	Rumex crispus	Curly dock	non-native
Polygonaceae	Rumex pulcher	Fiddleleaf dock	non-native
Polygonaceae	Rumex salicifolius	Willow leaved dock	
Ranunculaceae	Delphinium variegatum	Royal larkspur	
Ranunculaceae	Ranunculus aquatilis	Whitewater crowfoot	
Ranunculaceae	Ranunculus bonariensis var. trisepalus	Vernal pool buttercup	
Ranunculaceae	Ranunculus californicus	California buttercup	
Ranunculaceae	Ranunculus muricatus	Stick-seed buttercup	non-native
Ranunculaceae	Ranunculus pusillus	Low buttercup	
Rhamnaceae	Frangula californica ssp. tomentella	Hoary coffeeberry	
Rosaceae	Heteromeles arbutifolia	Toyon	
Rosaceae	Rosa californica	CA wild rose	

Family	Taxonomic name	Common Name	Status/Notes
Rubiaceae	Galium aparine	Common bedstraw	
Rubiaceae	Galium parishii	Parish's bedstraw	
Rubiaceae	Galium parisiense	BRMI	non-native
Rubiaceae	Sherardia arvensis	Field madder	non-native
Salicaceae	Populus fremontii	Fremont's cottonwood	
Salicaceae	Salix laevigata	Red willow, Polished willow	
Salicaceae	Salix sessilifolia	Northern sandbar willow	
Themidaceae	Brodiaea coronaria	Crown brodiaea	
Themidaceae	Brodiaea elegans	Harvest brodiaea	
Themidaceae	Brodiaea minor	Dwarf brodiaea	
Themidaceae	Brodiaea nana	Dwarf brodiaea	
Themidaceae	Dichelostemma capitatum ssp. Capitatum	Blue dicks	
Themidaceae	Dichelostemma multiflorum	Manyflower brodiaea	
Themidaceae	Triteleia hyacinthina	Wild hyacinth, White brodiaea	
Themidaceae	Triteleia laxa	Wally basket, Itherial's spear	
Typhaceae	Typha latifolia	Broad leaf cattail	
Verbenaceae	Phyla nodiflora	Common lippia	
Viscaceae	Phoradendron leucarpum ssp. tomentosum	Mistletoe	
Vitaceae	Vitis californica	California wild grape	

Appendix D: Reconnaissance protocol and field form

Protocols and blank forms for the “Recon” protocol, a shortened version of the Relevé/Rapid Assessment survey protocol, is included here, since it is not published on the VegCAMP website.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE PROTOCOL FOR

RECON FIELD FORM

(March 30, 2017)

This protocol describes the methodology for the reconnaissance technique as recorded in the Recon Field Form dated March 30, 2017. Reconnaissance surveys (recons) are complementary to relevés and rapid assessments, but collect only a small subset of the data gathered using the more detailed methods. Recons are generally used as an aid to digital vegetation mapping, to determine the boundaries of a stand, or to illustrate a particular vegetation signature. For more background on the relevé and rapid assessment sampling methods, see the relevé and rapid assessment protocol at http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18599.

Definitions of fields in the form

LOCATIONAL/ENVIRONMENTAL DESCRIPTION

Recorder: The full name of the recorder should be provided for the first field form for the day. On successive forms, initials can be recorded.

Other Surveyors: The full name of each person assisting should be provided for the first field form for the day. On successive forms, initials of each person assisting can be recorded.

Date: Date of the sampling.

Return?: Check this box if team members should return to this spot at a later date to take a recon or RA/relevé. This can be used if the phenology is not conducive to identification of the major species, or if there is not enough time to take the survey.

Waypoint ID: The Waypoint ID in this format: GPS device name + date (yymmdd) + time (hhmm). For example, for a survey taken on iPad "V" on March 27 at 1:45 in the afternoon, the Waypoint ID will be "V1803271345."

UID: The ID number of a reference point or polygon which this reconnaissance describes.

Location Name: The name of the property, park, or the location within large holdings (like USFS or BLM properties).

GPS name: The name/number assigned to the GPS unit.

Projected? Yes / No / Base / Digitized: Circle the appropriate option:

> **Yes** - The point is a projected, or offset point. The surveyor used a bearing and distance to project the point to match what they are describing with the survey.

No - The surveyors are in the vegetation they are describing and the point is where the observer was standing for photographs. This location can also be used as a base location for an offset survey.

Base - Base point only. This is where a surveyor was standing when taking an offset survey to describe vegetation not at that point. No plant data or vegetation descriptions are associated with this location. However, cardinal photos taken at this point will be stored in a directory of this name.

Digitized – An offset point was created on the GPS unit without taking bearing and distance readings. This option should only be used when the imagery on the GPS unit is unique and unmistakable.

Bearing (°): The compass bearing from the Base point to the Projected point.

Distance (m): The distance in meters from the Base point to the Projected point, determined by use of a range finder.

Inclination (°): The vertical offset from the Base point to the Projected point.

Base Waypoint ID: For a projected or digitized point, this is the location where the surveyor was standing when the information was collected. Cardinal photographs will be taken at this point and will be stored on the computer under this ID. Photographs of the stand vegetation will be taken from this point and will be stored on the computer under the Projected point's ID.

Base / Projected UTMs or Decimal degrees: If the point is projected or digitized, circle whether the coordinates of the base point or the offset point have been recorded. These will generally be for the offset point.

GPS error: ft./m./PDOP: The accuracy of the GPS location. Record the error reading and circle the appropriate units.

GPS coordinates: Record either UTM coordinates, easting (**UTME**) and northing (**UTMN**), or decimal degrees, **LAT** (latitude) and **LONG** (longitude). Record this information from a GPS unit.

Stand Size: Estimate the size of the entire stand in which the sample is taken and circle the appropriate range. As a measure, one acre is similar in size to a football field.

View Radius: Enter the radius, in meters, of the viewable area of the stand from the survey point; the radius should be a minimum of 20 meters.

Camera/Photos: Write the name camera, JPG numbers, and direction of photos. Take four photos in the main cardinal directions (N, E, S, W) clockwise from the north, from the GPS location. This symbol can be used to indicate the cardinal photos: 

. If additional photos are taken in other directions, please note the JPG numbers and a description of each photo.

HABITAT AND VEGETATION DESCRIPTION

Field alliance name: Name of alliance following the most recent Manual of California Vegetation (Sawyer, Keeler-Wolf, and Evens 2009), using scientific nomenclature, *e.g., Quercus agrifolia*. An alliance is based on the dominant or diagnostic species of the stand, and usually reflects the uppermost and/or dominant height stratum. A dominant species covers the greatest area. A diagnostic species is consistently found in some vegetation types but not others.

Please note: The field-assessed alliance name may not exist in the present classification, in which case you can provide a new alliance name in this field.

Comments: Briefly describe the stand age/seral stage, disturbance history, nature and extent of land use, and other site environmental and vegetation factors that will aid in the mapping effort.

% Cover:

Conifer: The total cover of all the conifer trees taking into consideration the porosity, or the holes, in the vegetation. This is an estimate of the absolute conifer cover, disregarding the overlap[1] of individual trees.

Hardwood: The total cover of all the hardwood trees taking into consideration the porosity, or the holes, in the vegetation. This is an estimate of the absolute hardwood tree cover, disregarding the overlap[1] of individual trees.

Total Tree: The total cover of all the trees taking into consideration the porosity, or the holes, in the vegetation. This is an estimate of the absolute tree cover, disregarding the overlap[1] of individual trees.

Regen Tree: The total foliar cover of seedlings and saplings, disregarding overlap[1] of individual recruits. See seedling and sapling definitions below.

Shrub: The total cover of all the shrubs taking into consideration the porosity, or the holes, in the vegetation. This is an estimate of the absolute shrub cover, disregarding the overlap[1] of individual shrubs.

Herb: The total cover of all the herbs taking into consideration the porosity, or the holes, in the vegetation. This is an estimate of the absolute herbaceous cover, disregarding the overlap[1] of individual herbs.

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[1] Porosity reduces the total cover of the canopy. Overlapping strata should not be included in the total cover percent; for instance, if a shrub is growing under a tree, only the cover of the tree will be added into the total; the cover of the shrub will be disregarded, except for the amount by which it fills in the porosity of the tree canopy.

Total Veg: The total cover of all vascular vegetation taking into consideration the porosity, or the holes, in the vegetation. This is an estimate of the absolute vegetation cover, disregarding the overlap[1] of the various tree, shrub, and/or herbaceous layers and species.

Exotics (L,M,H): The extent to which the stand is impacted by exotic/non-native species.

Divide the total exotic cover (e.g. 25% Bromus diandrus + 8% Bromus madritensis + 5% Centaurea melitensis = 38% total exotics) by the Total Veg cover (e.g. 80% total) and multiply by 100 to get the % relative cover of exotics (e.g. 38% total exotics / 80% total cover = 48% relative exotic cover). **L** = 0-33% *relative* cover of exotics; **M** =34-66% relative cover, and **H** = >66% relative cover.

Species List and Coverage

List the species that are dominant or that are characteristically consistent throughout the stand. This list is used if there is some uncertainty in the field-assessed alliance name, so the most common species should be listed. In the interests of time and efficiency, this species list should not be exhaustive.

Strata:

T = Tree. A woody perennial plant that has a single trunk.

A = SApling. 1" - <6" dbh and young in age, OR small trees that are <1" dbh, are clearly of appreciable age, and are kept short by repeated browsing, burning, or other disturbance. Includes trees that are re-sprouting from roots or stumps following fire, logging or other disturbance. These re-sprouts may exhibit a shrubby form, with multiple small trunks, but are species that are generally considered trees. If a majority of the trunks are >6" dbh, then the re-sprouts would be recorded under the "Tree" stratum.

E = SEedling. A tree species clearly of a very young age that is < 1" dbh or has not reached breast height. Applies only to trees propagating from seed; re-sprouts are not recorded here even if they meet the size requirements.

S = Shrub. A perennial, woody plant, that is multi-branched and doesn't die back to the ground every year.

H = Herb. An annual or perennial that dies down to ground level every year.

N = Non-vascular. Includes moss, lichen, liverworts, hornworts, cryptogammic crust, and algae.

When one or more tree species are regenerating, the Tree, Seedling and/or Sapling strata may be noted on the same line, e.g.:

Strata	Species	%Cover	C
T/A/E	Quercus douglasii	40/<1/<1	

Species: Use Jepson Manual nomenclature. When uncertain of an identification (which you intend to confirm later) use parentheses to indicate what part of the determination needs to be confirmed. For example, you could write out *Brassica* (*nigra*) if you are sure it is a *Brassica* but you need further clarification on the specific epithet.

% cover: provide the % absolute aerial cover for each species listed. All species percent covers may total over 100% because of overlap.

Collections: If a species collection is made, it should be indicated in the blank column next to "% cover" with a "C" (for collected). If the species is later keyed out, cross out the species name or description and write the keyed species name in pen on the data sheet. Do not erase what was written in the field, because this information can be used if specimens get mixed up later. If the specimen is then thrown out, add a "T" to the "C" in that column (CT = thrown out after

confirmation) or cross out the "C". If the specimen is kept but is still not confidently identified, add a "U" to the "C" (CU = collected and unconfirmed). In this case the unconfirmed species epithet should be put in parentheses [e.g *Hordeum (murinum)*]. If the specimen is kept and is confidently identified, add a "C" to the existing "C" (CC = collected and confirmed). If the specimen is later deposited in an herbarium, add a "D" to the existing "C" (CD = collected and deposited) and note the receiving herbarium.

RECON FIELD FORM (March 6, 2019, with slope/aspect)

Recorder:	**Other Surveyors:** **Date:** **Return?** ☐
Waypoint ID:	**GPS Name** _____ **Projected? No / Yes / Base / Digitized** If Yes, enter: **Bearing (°):** _____ **Distance (m):** _____ **Inclination (°):** _____
UID:	If Yes or Digitized, enter: **Base Waypoint ID**: _____
Location Name:	**Base / Projected** (circle one) Record either UTMs or Decimal Degrees GPS error: **ft./ m./ PDOP** _____ **UTMs: UTME** ___ ___ ___ ___ ___ ___ **UTMN** ___ ___ ___ ___ ___ ___ ___ Decimal degrees: **LAT** ___ ___ . ___ ___ ___ ___ ___ ___ **LONG -** ___ ___ ___ . ___ ___ ___ ___ ___ ___
Stand Size: <1 1–5 >5	**Camera:** **Photos:** **View Radius** _____
Exposure, Actual°: _____ **NE NW SE SW Flat Variable** | **Steepness, Actual°:** _____ **0° 1-5° > 5-25° > 25**	
Field Alliance name:	
Comments:	

% Cover: Conifer_____ Hardwood_____ Total Tree_____ Regen Tree_____ Shrub_____ Herb_____ Total Veg_____ Exotics (L,M,H)_____

Strata	Species	% cover		Strata	Species	% cover		Strata	Species	% cover