

Mono County Apogee Farms Focused Rare Plant Survey Report

August 2020

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1 Background

1.1 Project Summary

1.1.1 Proposed Project

Mono County (Lead Agency) received General Plan Amendment and Conditional Use Permit applications from Apogee Farms, Inc. (Apogee Farms). A General Plan Amendment is requested to designate two parcels from Rural Residential to Agriculture. Apogee Farms is seeking approval for a Conditional Use Permit under the Agriculture designation to construct and operate a commercial cannabis facility on the northern parcel of the project site. The Conditional Use Permit would permit construction and operation of a commercial cannabis facility, which is not permitted under the existing General Plan designation of Rural Residential.

The approval of the General Plan Amendment and proposed cannabis facility constitutes a project that is subject to review under the California Environmental Quality Act (CEQA) 1970 (Public Resources Code, Section 21000 et seq.), and the State CEQA Guidelines (California Code of Regulations, Section 15000 et. seq.).

1.1.2 Project Location

The project site is located in an unincorporated area of Mono County, approximately 2.5 miles south of the town of Benton and west of Highway 6. Figure 1 and Figure 2 illustrate the regional and vicinity location of the project site.

Assessor's Parcel Numbers (APNs): 025-020-013, 025-040-002

Address: 23555 Highway 6, Benton, CA 93512

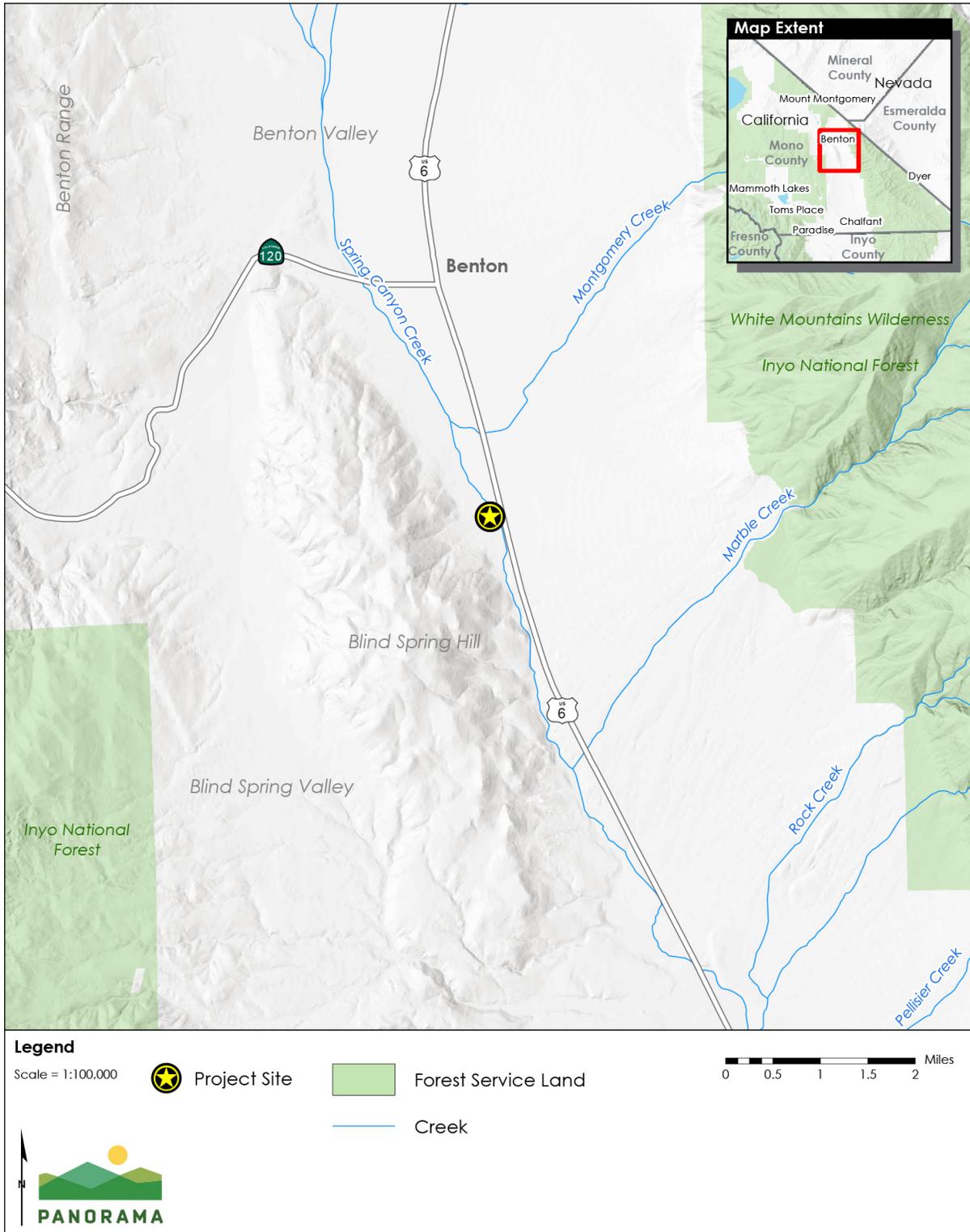
Latitude, Longitude: 37.784047, -118.468509

1.2 Purpose of Focused Surveys

The initial habitat assessment and California Natural Diversity Database (CNDDDB) search conducted for the Apogee Farms site revealed the presence of suitable habitat for several special-status plant species on the project site. The project and future uses of the site under the General Plan Amendment could affect special-status plants that have a potential to occur in the area. The project impacts on any special-status plants must be evaluated in accordance with the requirements of the CEQA prior to project approval. The special-status plant survey was conducted to evaluate whether the project would impact any populations of special-status plants.

1 BACKGROUND

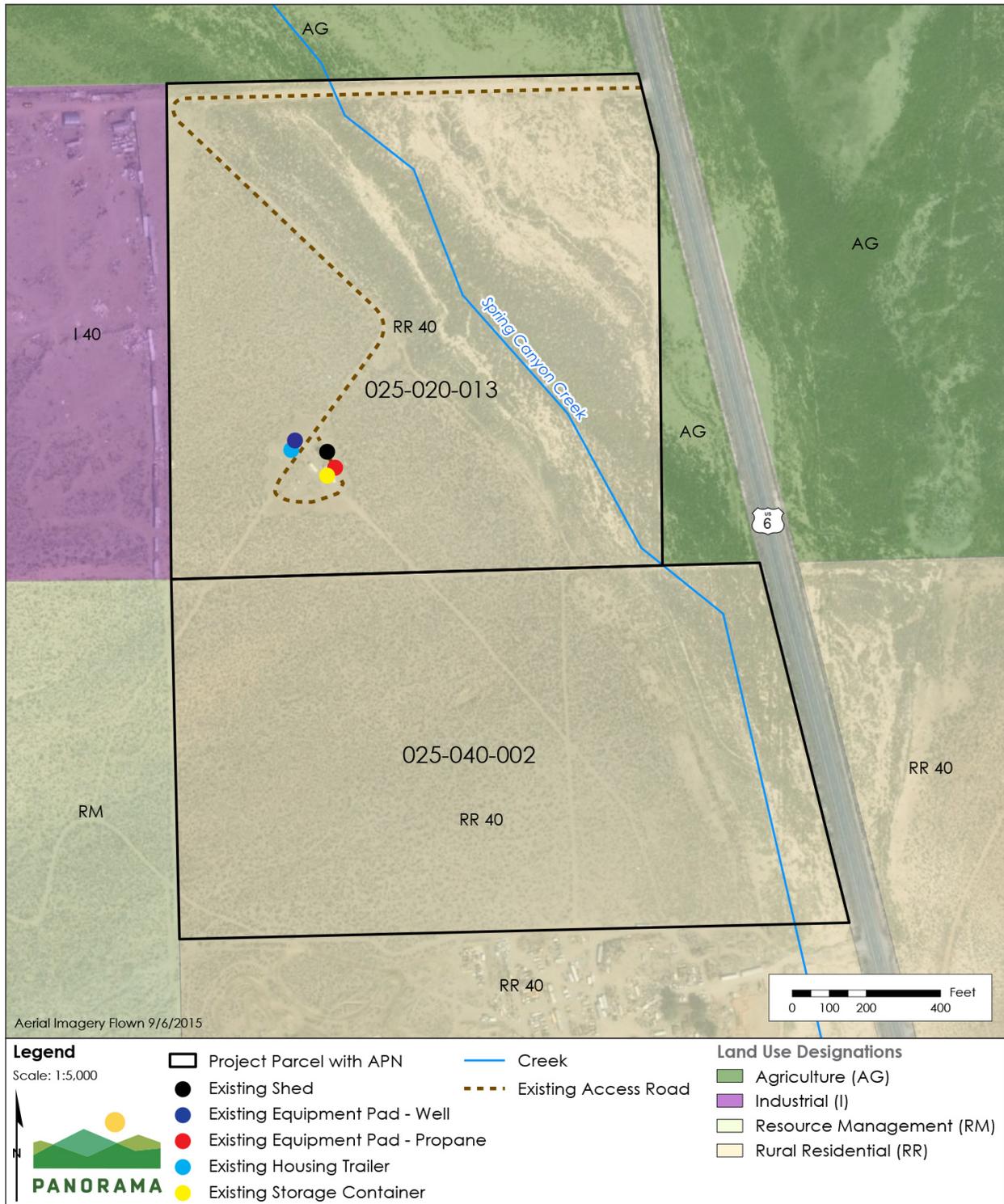
Figure 1: Regional Location



Sources: (USGS, 2019; Tele Atlas North America, Inc., 2019; USGS, 2019)

1 BACKGROUND

Figure 2: Project Site



Sources: (Mono County, 2019; Tele Atlas North America, Inc., 2019; USGS, 2019)

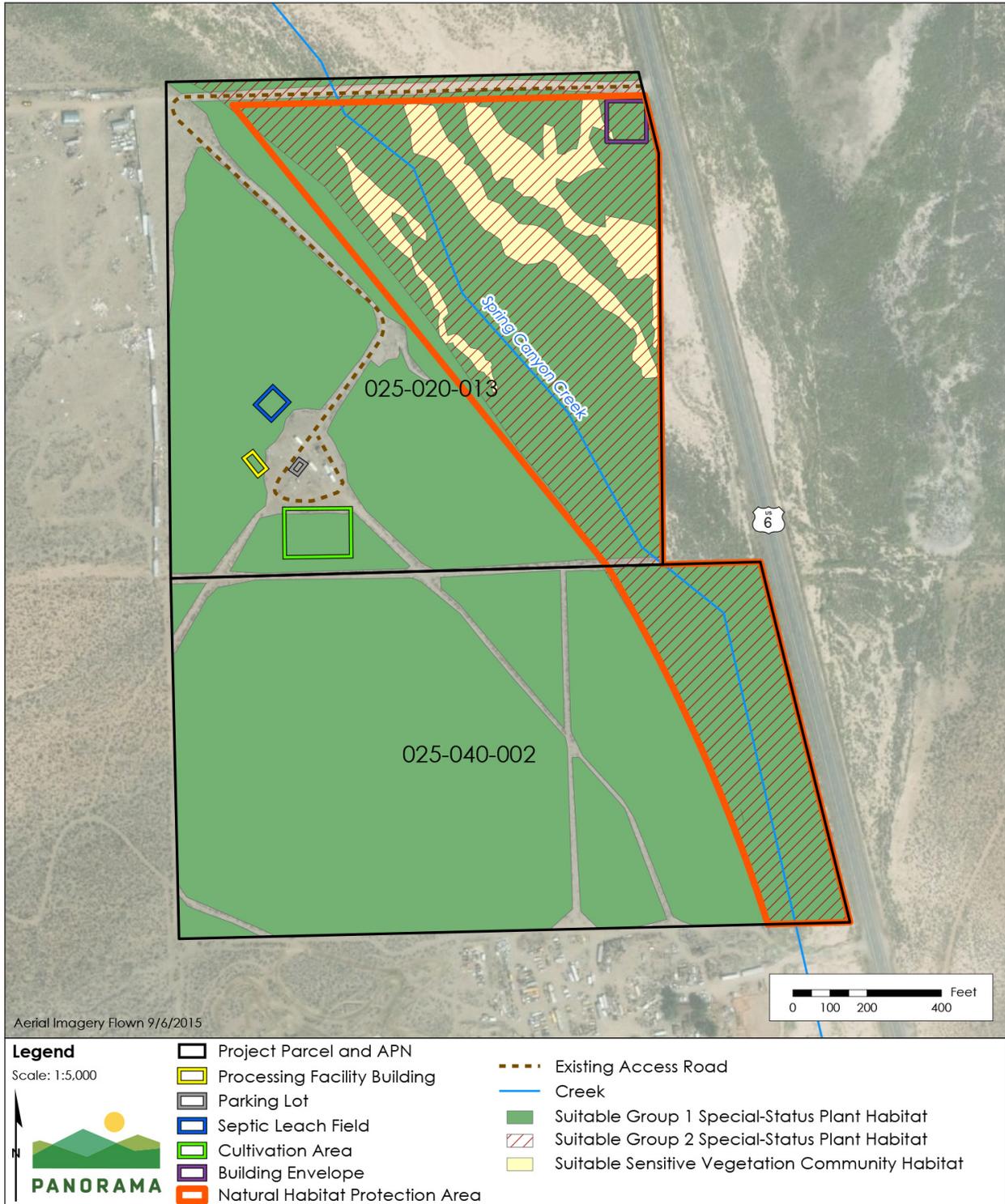
1 BACKGROUND

1.3 Potential Special-Status Plants and Habitat on the Project Site

Based on the evaluation of the project site conditions and the reconnaissance survey, 11 special-status plant species have the potential to occur on the project site. Three other special-status plant species may occur but are unlikely. Special-status plant species that could occur in the project area are listed in Table 1, and photos are attached as Appendix B. Special-status plant species have a potential to occur in the Big Sagebrush Shrubland Alliance and Rubber Rabbit Brush Scrub Shrubland Alliance vegetation communities on the project site. These suitable habitat locations are shown on Figure 3.

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Figure 3: Habitat Suitability for Special-Status Plants and Sensitive Vegetation Communities



1 BACKGROUND

Table 1: Special-status Plant Species with Potential to Occur on Project Site

Scientific Name	Common Name	Family	Lifeform	CRPR ¹	FESA/CDFW	Blooming Period	Habitat/Range
<i>Ivesia kingii</i> var. <i>kingii</i>	alkali ivesia	Rosaceae	perennial herb	2B.2	None	June-August	Low. Great Basin Scrub, meadows and seeps, playas/mesic, alkali, Observed at elevations from 1200 -2130 meters.
<i>Calochortus excavatus</i>	Inyo County star-tulip	Lilaceae	perennial herb	1B.1	None	April- July	Low. Chenopod scrub, meadows and seeps/alkaline and mesic Observed at elevations from 1150 -200 meters. Known from small remnants of former populations.
<i>Crepis runcinata</i>	fiddleleaf hawksbeard	Asteraceae	perennial herb	2B.2	None	May-July	Moderate. Mojave Desert scrub, pinyon and juniper woodland/mesic, alkaline. Observed at elevations from 1250-1450 meters.
<i>Phacelia inyoensis</i>	Inyo phacelia	Boraginaceae	annual herb	1B.2	None	April-August	Moderate. Meadows and seeps (alkaline). Observed at elevations from 915-3200 meters.
<i>Micromonolepis pusilla</i>	dwarf monolepis	Chenopodaceae	annual herb	2B.3	None	April-May	Moderate. Alkaline, openings in Great basin scrub. Observed at elevations from 1500-2400 meters.
<i>Cryptantha fendleri</i>	sand dune cryptantha	Boraginaceae	annual herb	2B.2	None	June-July	Low. Sand dunes, sandy soils, sagebrush scrub. Observed at elevations from 1950-2210 meters.
<i>Plagiobothrys parishii</i>	Parish's popcornflower	Boraginaceae	annual herb	1B.1	None	March-May	Low. Wet alkaline meadows around springs and emergent wetlands or lake beds Observed at elevations from 750-1400 meters.

1 BACKGROUND

Scientific Name	Common Name	Family	Lifeform	CRPR ¹	FESA/CDFW	Blooming Period	Habitat/Range
<i>Viola aurea</i>	golden violet	Violaceae	perennial herb	2B.2	None	April-June	Moderate. Great basin scrub, pinyon and juniper woodland. Observed at elevations from 1000-1800 meters.
<i>Boechnera dispar</i>	Pinyon rockcress	Brassicaceae	perennial herb	2B.3	None	March-June	Low. Joshua tree woodland, pinyon and juniper woodland. Mojavean desert scrub; granitic, gravelly. Observed at elevations from 1200-2400 meters.
<i>Cymopterus globosus</i>	globose cymopterus	Apiaceae	perennial herb	2B.2	None	May-July	Low. Great Basin scrub. Sandy, open flats. Observed at elevations from 1215-2090 m. Last seen 04-26-1897
<i>Phacelia gymnoclada</i>	naked-stemmed phacelia	Boraginaceae	Annual herb	2B.3	None	April-August	Low. Chenopod scrub, Great Basin scrub, pinyon and juniper woodland. Gravelly or clay soils. Observed from 1200-2500 meters.
<i>Chaetadelpa wheeleri</i>	Wheeler's dune broom	Asteraceae	perennial herb (rhizomatous)	2B.2	None	April-Sept.	Low. Desert dunes, Great Basin scrub Mojavean desert scrub; sandy. Observed from 795-1900 meters.
<i>Orobanche ludoviciana var. arenosa</i>	Suksdorf's broomrape	Orobanchaceae	perennial herb (achlorophyllous)	2B.3	None	June-Sep(Oct)	Moderate. Parasitic on <i>Ericameria</i> and <i>Iva</i> spp. Similar to <i>O. parishii</i> ssp. <i>parishii</i> ; separation between them blurred in Great Basin. Observed from 795-1900 meters.
<i>Sphaeromeria potentilliodes</i>	Alkali tansy-sage	Asteraceae	perennial herb	2B.2	None	May-July	Low. Great Basin scrub. Sandy, open flats. Observed at elevations from 1985-2248 meters.

1 BACKGROUND

Scientific Name	Common Name	Family	Lifeform	CRPR ¹	FESA/CDFW	Blooming Period	Habitat/Range
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¹ CRPR Rankings:

1B: Plants rare, threatened, or endangered in California and elsewhere

2B: Plants rare, threatened, or endangered in California but more common elsewhere

Threat Ranks:

0.1: Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)

0.2: Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)

0.3: Not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

2 Survey Methods

2.1 Survey Timing

Focused botanical surveys were conducted by biologist Russell Kokx on May 28, 2020 and June 17, 2020. A previous reconnaissance-level biological survey was conducted on November 8, 2019. Surveys were conducted to determine whether special-status plant species or their habitat were present within the biological study area (BSA).

The botanical resources survey was conducted under favorable conditions for special-status plant species to be in suitable phenology for detection. The rainfall timing and totals for the 2020 growing season of December through April were sufficient for prolific germination and flowering conditions. The total at the time of the survey was 4.61 inches with a significant amount of rainfall in March (1.55 inches).

2.2 Survey Method

The botanical surveys followed guidelines published by CDFW (2009), U.S. Fish and Wildlife Service (USFWS) (1996), and CNPS (2001). Database queries and reference site visits identified 11 special-status plant species with potential to occur within the Biological survey area (BSA). The list of potentially occurring sensitive plant species (shown in Table 1) was refined, adding new species based upon new location information and updating the status of each species placed on the search list.

2.3 Reference Site Visits

Reference site visits were conducted for 11 special-status plant species with potential to occur in the BSA. Table 2 contains information on the source and location of these sites, the date the sites were visited, and observations of the targeted special-status species. These sites were visited by botanists Russell Kokx and Onkar Singh on May 27, 2020 and Russell Kokx on June 17, 2020.

2 METHODS

Table 2: Reference Site Populations Visited

Taxon	Coordinates (Zone and UTM in NAD 83)	Observations	Date
<i>Ivesia kingii</i>	11S 361042 4189268 11S 361140 4190036	CNDDDB. Thousands, 80% in flower. This species is found in the general area but in wetter habitats than in the BSA	June 15, 2020
<i>Plagiobothrys parishii</i>	11S 360899 4186401	CNDDDB 300 + plants 90% of the plants observed flowering. This species unlikely to occur as it requires saturated soils not evident in the habitat of the BSA	June 15, 2020
<i>Cymopterus globosus</i>	11S 423215 4149256	Cal flora Consortium X 15. Plants were vegetative only but readily identifiable.	May 27, 2020
<i>Calochortus excavatus</i>	11S 361005 4189288	CNDDDB X 35 plants 95% in flower.	June 15, 2020
<i>Cryptantha fendleri</i>	11S 361855 4183702	CNDDDB This species was not located after two site visits. There is only one known occurrence	May 25 and June 25, 2020.
<i>Phacelia inyoensis</i>	11S 401231 4049092	N. Jensen new reference population. X 80 plants. Plants were 60% in flower 40% in fruit but somewhat diminutive even by this species standard.	May 25, 2020
<i>Crepis rucinata</i>	11S 360942 4187115	CNDDDB This occurrence was poorly mapped and corrected to over 600 feet to the east of the original coordinates. Plants were 80% in flower. Suitable soils and conditions are present in the BSA.	May 25, 2020 and June 15, 2020.

2 METHODS

<i>Micromonolepis pusillus</i>	11S 244898 4173773	Consortium of California Herbaria x 50+ plants. Plants had already fruited and were withered. Plants should have been detectable during the May 28, 2020 survey.	June 15, 2020
<i>Chaetodelpha wheeleri</i>	11S 425108 4147877	Consortium of California Herbaria x plants 60% in flower 40% in bud, with <i>Cymopterus globosus</i> .	May 25, 2020
<i>Phacelia gymnoclada</i>	11S 360765 4222037	CNDDDB This species was not found the habitat description was correct clay to gravely soils. The project BSA consists of sands soils and alkine silty soils only.	June 15, 2020
<i>Boechera dispar</i>	11S 397416 4125145	Consortium of California Herbaria X 12 Plants 50% in flower 50% in fruit.	May 25, 2020.

3 Results

The results of the focused botanical surveys indicate that previously mapped vegetation communities remain unchanged in composition and area. Based on the results of the reference site visits, survey conditions were optimal for detecting the presence of special-status plant species. No special-status plant species were detected within the Apogee Farms BSA. Germination of annuals was high as was diversity with seventeen new taxon added to the cumulative plant species total. The new 2020 taxon observed are in bold text in the cumulative species list (attached as Appendix A). Three of the new observed taxon are non-native species and considered invasive. The non-natives include Russian thistle (*Salsola tragus*), red brome (*Bromus madritensis*) and Arabian schismus (*Schismus arabicus*). Five cacti locations were flagged and staked for avoidance in and around the BSA: one silver cholla (*Cylindropuntia echinocarpa*) and four beavertail cactus (*Opuntia basilaris* var. *basilaris*).

4 Conclusion

The results of the focused special-status plant survey revealed that no special-status plant species are present within the Apogee Farms BSA. The Apogee Farms Project and General Plan Amendment would have no impact on special-status plant species. No additional mitigation is recommended to address rare or special-status species.

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APPENDICES

APPENDICES

Appendix A	Cumulative Plant List
Appendix B	Photos

APPENDIX A

APPENDIX A

Cumulative Plant List

APPENDIX A

Plant List – Apogee Farms, Mono County, CA

This list is a compilation of the results of three botanical surveys that were conducted on November 8, 2019, May 28, 2020 and June 17, 2020. Surveys were conducted by Russell Kokx and Onkar Singh. Following the California Department of Fish and Game (CDFG). 2009. Protocol for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities.

Scientific Name	Common Name
<i>Ephedraceae</i>	
<i>Ephedra nevadensis</i>	Nevada ephedra
<i>Amaranthaceae</i>	
<i>Nitrophila occidentalis</i>	Western nitrophila
<i>Asteraceae</i>	
<i>Ambrosia acanthicarpa</i>	annual bur-sage
<i>Artemisia spinescens</i>	budsage
<i>Artemisia tridentata</i> ssp. <i>tridentata</i>	big sagebrush
<i>Chaenactis macrantha</i>	Mojave pincushion
<i>Chaenactis stevioides</i>	Esteve's pincushion
<i>Chaenactis xantiana</i>	Xantus' pincushion
<i>Dieteria canescens</i>	hoary aster
<i>Ericameria nauseosa</i> var. <i>c.f. oreophila</i>	Great basin rabbitbrush
<i>Erigeron canadensis</i>	horseweed
<i>Eriophyllum pringlei</i>	Pringle's eriophyllum
<i>Eriophyllum wallacei</i>	easter bonnets
<i>Iva axillaris</i>	poverty weed
<i>Layia glandulosa</i>	white tidy-tip
<i>Lessingia glandulifera</i> var. <i>glandulifera</i>	Lemmon's lessingia
<i>Logfia filaginoides</i>	California cottonrose

APPENDIX A

<i>Malacothrix glabrata</i>	desert dandelion
<i>Stephanomeria exigua</i>	small wirelettuce
<i>Stephanomeria pauciflora</i>	wire-lettuce
<i>Tetradymia axillaris</i> var. <i>longispina</i>	longspine horsebrush
Boraginaceae	
<i>Amsinckia tessellata</i> var. <i>tessellata</i>	fiddleneck
<i>Cryptantha circumscissa</i> var. <i>rosulata</i>	capped Cryptantha
<i>Cryptantha micrantha</i>	redroot cryptantha
<i>Cryptantha pterocarya</i>	wingnut cryptantha
<i>Heliotropium curassavicum</i> var. <i>oculatum</i>	salt heliotrope
<i>Lappula redowski</i> var. <i>occidentalis</i>	Redowski's stickseed
<i>Phacelia vallis-mortae</i>	Death Valley phacelia
<i>Tiquilia nuttallii</i>	Nuttall's tiquilia
Brassicaceae	
<i>Descurainia pinnata</i>	western tansy mustard
<i>Lepidium flavum</i>	yellow peppergrass
<i>Sisymbrium irio</i>	London rocket
<i>Stanleya pinnata</i> var. <i>pinnata</i>	Inyo desert plume
Cactaceae	
<i>Cylindropuntia echinocarpa</i>	silver cholla
var. <i>rosulata</i>	
<i>Opuntia basilaris</i> var. <i>basilaris</i>	beavertail cactus
Chenopodiaceae	
<i>Atriplex canescens</i> var. <i>canescens</i>	fourwing saltbush
<i>Atriplex confertifolia</i>	shadscale

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<i>Atriplex polycarpa</i>	allscale
<i>Atriplex serenana</i> var. <i>serenana</i>	bractscale
<i>Atriplex torreyi</i> var. <i>torreyi</i>	Torrey's saltbush
<i>Bassia hyssopifolia</i>	hyssopleaf bassia
<i>Chenopodium album</i>	Lamb's quarter
<i>Grayia spinosa</i>	hop-sage
<i>Salsola paulsenii</i>	barbwire Russian thistle
<i>Salsola tragus</i>	Russian thistle
<i>Sarcobatus vermiculatus</i>	greasewood
<i>Stutzia covillei</i>	arrowscale
Cleomaceae	
<i>Cleomella obtusifolia</i>	mojave stinkweed
<i>Peritoma lutea</i>	yellow bee plant
Convolvulaceae	
<i>Cuscuta indecora</i> var. <i>indecora</i>	bigseed dodder
Elaeagnaceae	
<i>Elaeagnus angustifolia</i>	Russian olive
Fabaceae	
<i>Psoralea argophylla</i> var. <i>minutifolia</i>	indigo bush
<i>Psoralea polydenia</i>	dotted dalea
Geraniaceae	
<i>Erodium cicutarium</i>	red-stemmed filaree
Lamiaceae	
<i>Salvia columbariae</i>	chia
Loasaceae	

APPENDIX A

<i>Mentzelia albicaulis</i>	whitestem blazing star
Malvaceae	
<i>Sphaeralcea ambigua</i> var. <i>ambigua</i>	globe mallow
Montiaceae	
<i>Calyptridium monandrum</i>	sand cress
Oleaceae	
<i>Menondora spinescens</i> var. <i>spinescens</i>	Spiny menondora
Onagraceae	
<i>Eremothera boothii</i> ssp. <i>desertorum</i>	desert shredding primrose
Papaveraceae	
<i>Argemone munita</i>	flatbud pricklypoppy
<i>Eschscholzia minutiflora</i> ssp. <i>twisselmannii</i>	little gold poppy
Polemoniaceae	
<i>Aliciella monoensis</i>	Mono Lake aliciella
<i>Eriastrum wilcoxii</i>	Wilcox's woollystar
<i>Gilia sinuate</i>	cinder gilia
<i>Loeseliastrum matthewsii</i>	desert calico
Polygonaceae	
<i>Centrostegia thurberi</i>	Thurber's spineflower
<i>Eriogonum ampullacea</i>	Mono buckwheat
<i>Eriogonum brachyanthum</i>	yellow buckwheat
<i>Eriogonum nidularium</i>	birdnest buckwheat
<i>Oxytheca dendroidea</i> ssp. <i>dendroidea</i>	narrowleaf oxytheca
Ranunculaceae	
<i>Delphinium parishii</i> ssp. <i>parishii</i>	Parish's larkspur

APPENDIX A

Salicaceae

Salix exigua narrow-leaved willow

Rosaceae

Prunus tridentate var. *glandulosa* bitterbrush

Cyperaceae

Carex sp. ^[11]_[SEP] sedge

Juncaceae

Juncus mexicanus Mexican rush

Poaceae

Bromus madritensis ssp. *rubens* red brome

Bromus tectorum cheat grass

Distichlis spicata saltgrass

Elymus cinereus Great Basin wildrye

Schismus arabicus Mediterranean barley

Sporobolus airoides alkali sacaton

Stipa hymenoides sand ricegrass

Stipa speciosa desert needlegrass

APPENDIX B

APPENDIX B

Photos

APPENDIX B



View of big sagebrush (*Artemisia tridentata*).



View of Pinyon rockcress (*Boechea dispar*).



View of Inyo County star-tulip (*Calochortus excavatus*).



View of Wheeler's dune broom (*Chaetadelpa wheeleri*).



View of fiddleleaf hawksbeard (*Crepis rucinata*).



View of globose cymopterus (*Cymopterus globosus*).

APPENDIX B



View of Inyo phacelia (*Phacelia inyoensis*).



View of Parish's popcornflower (*Plagiobothrys parishii*).



View of Great basin rabbitbrush (*Ericameria nauseosa*)



View of alkali ivesia (*Ivesia kingii* var. *kingii*).



View of greasewood (*Sarcobatus vermiculatus*).



View of Mojave sea-blite (*Suaeda nigra*).

APPENDIX B



View of golden violet (*Viola aurea*).