

APPENDIX 11: SPECIAL STATUS PLANT SPECIES

Appendix 11 shows the 159 special status plant species that are known to occur on BLM lands within the project area. Thirteen of these species are federally listed (10 endangered, 3 threatened) and 23 are state-listed (15 endangered, 3 threatened, and 9 rare).

Codes for the table are as follows:

Status: FE = Federal Endangered; FT = Federal Threatened; FC = Federal Candidate; PE = Proposed Federal Endangered; PT = Proposed Federal Threatened; CE = California Endangered; CT = California Threatened; CR = California Rare; BLMS = BLM Sensitive.

Effects of Livestock Grazing: UG = Ungrazed (i.e., not in an active grazing allotment); G = Grazed (i.e., within an active grazing allotment); Neutral = Although within an active grazing allotment, the species does not seem to respond either positively or negatively to grazing (this can also be because the species is in areas of allotments that are not frequented by livestock); Negative = Species is negatively impacted by livestock grazing, at least in a portion of its occurrence(s) on BLM lands; Positive = Species appears to benefit from grazing, at least in a portion of its occurrence(s) on BLM lands; ? = Effects of livestock grazing are unknown. A species can be both negatively and positively affected by livestock grazing depending on the timing of the grazing. For those species so indicated below, grazing during the active growing season of the species is considered negative, but grazing following the growing season is considered positive because it reduces the amount of residual dry matter and the resulting competition from tall growing annual grasses.

Species Common Name <i>Scientific Name</i>	Status	Resource Area(s) of Occurrence	Effects of Livestock Grazing Under Current Management
Pink sand-verbena <i>Abronia umbellata</i> ssp. <i>breviflora</i>	BLMS	Arcata	UG
Jepson's onion <i>Allium jepsonii</i>	BLMS	Folsom	UG
Spanish Needle onion <i>Allium shevockii</i>	BLMS	Caliente	G, Neutral
Rawhide Hill onion <i>Allium tuolumnense</i>	PT	Folsom	G, Neutral (no evidence of grazing impacts)
Dimorphic snapdragon <i>Antirrhinum subcordatum</i>	BLMS	Clear Lake, Redding	UG
Bodie Hills rock cress <i>Arabis bodiensis</i>	BLMS	Bishop	G, Neutral

Species Common Name <i>Scientific Name</i>	Status	Resource Area(s) of Occurrence	Effects of Livestock Grazing Under Current Management
McDonald's rock-cress <i>Arabis mcdonaldiana</i>	FE, CE	Arcata	UG
lone manzanita <i>Arctostaphylos myrtifolia</i>	FC	Folsom	UG
Nissenan manzanita <i>Arctostaphylos nissenana</i>	BLMS	Folsom	UG
Sand mesa manzanita <i>Arctostaphylos rudis</i>	BLMS	Caliente	UG
Field milk-vetch <i>Astragalus agrestis</i>	BLMS	Alturas, Eagle Lake	G, Neutral
Ash Valley milk-vetch <i>Astragalus anxius</i>	BLMS	Alturas	G, Neutral
Silverleaf milk-vetch <i>Astragalus argophyllus</i> var. <i>argophyllus</i>	BLMS	Bishop, Eagle Lake	G, Neutral (Eagle Lake) UG (Bishop)
Walker Pass milk-vetch <i>Astragalus erterae</i>	BLMS	Caliente	G, ?
Geyer's milk-vetch <i>Astragalus geyeri</i> var. <i>geyeri</i>	BLMS	Eagle Lake	G, Negative
Long Valley milk-vetch <i>Astragalus johannis-howellii</i>	CR	Bishop	G, Negative (impacted by direct herbivory and trampling; about 25% of its BLM distribution is impacted in Long Valley and 10% in Bodie Hills; pop. density still high in both areas)
Lens-pod milk-vetch <i>Astragalus lentiformis</i>	BLMS	Eagle Lake	UG
Fish Slough milk-vetch <i>Astragalus lentiginosus</i> var. <i>piscinensis</i>	PE	Bishop	UG

Species Common Name <i>Scientific Name</i>	Status	Resource Area(s) of Occurrence	Effects of Livestock Grazing Under Current Management
Mono milk-vetch <i>Astragalus monoensis</i> var. <i>monoensis</i>	CR	Bishop	G, Negative (impacted by direct herbivory and trampling; about 15% of BLM distribution impacted)
Tonopah milk-vetch <i>Astragalus pseudiodanthus</i>	BLMS	Bishop	G, Negative (impacted by direct herbivory and trampling; about 10% of BLM distribution impacted)
Pulsifer's milk-vetch <i>Astragalus pulsiferae</i> var. <i>pulsiferae</i>	BLMS	Eagle Lake	G, Neutral
Suksdorf's milk-vetch <i>Astragalus pulsiferae</i> var. <i>suksdorfii</i>	BLMS	Alturas, Eagle Lake	G, Neutral
Jepson's milk-vetch <i>Astragalus rattanii</i> var. <i>jepsonianus</i>	BLMS	Clear Lake	UG
Shevock's milk-vetch <i>Astragalus shevockii</i>	BLMS	Caliente	UG
Tiehm's milk-vetch <i>Astragalus tiehmii</i>	BLMS	Surprise	G, Neutral
Heart-leaved saltbush <i>Atriplex cordulata</i>	BLMS	Caliente	G, Neutral
Lost Hills saltbush <i>Atriplex vallicola</i>	BLMS	Caliente	UG
Woolly balsamroot <i>Balsamorhiza hookeri</i> var. <i>lanata</i>	BLMS	Redding	G, Neutral
Indian Valley brodiaea <i>Brodiaea coronaria</i> ssp. <i>rosea</i>	CE	Clear Lake, Redding	UG

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Leafy reedgrass <i>Calamagrostis foliosa</i>	CR	Arcata	G, Neutral (occurs almost exclusively in rock crevices and on rocky soils on very steep slopes)
Inyo mariposa <i>Calochortus excavatus</i>	BLMS	Bishop	G, Negative (impacted by direct herbivory and trampling; about 30% of BLM distribution impacted)
Greene's mariposa <i>Calochortus greenei</i>	BLMS	Redding	G, Neutral (although this species is impacted by herbivory, over 80% of this is due to deer and some wild horse use)
Alkali mariposa lily <i>Calochortus striatus</i>	BLMS	Caliente	G, Negative (small amount of species distribution impacted by direct herbivory, trampling and habitat degradation due to trespass grazing on 20 acre BLM parcel)
Shirley Meadows star-tulip <i>Calochortus westonii</i>	BLMS	Caliente	G, Negative (impacted by trampling at 3 small occurrences on BLM lands; all other occurrences (probably 95% of distribution) is on Sequoia National Forest)

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Stebbins' morning glory <i>Calystegia stebbinsii</i>	FE, CE	Folsom	UG
San Benito evening-primrose <i>Camissonia benitensis</i>	FT	Hollister	G, Negative and Positive (only a small portion of occurrence on BLM lands is grazed)
San Luis Obispo sedge <i>Carex obispoensis</i>	BLMS	Caliente	UG
Succulent owl's clover <i>Castilleja campestris</i> ssp. <i>succulenta</i>	PT, CE	Folsom	UG (Folsom)
California jewelflower <i>Caulanthus californicus</i>	FE, CE	Caliente, Hollister	UG (Caliente) G, Positive (Hollister; portion of habitat grazed only after flowering, which reduces the residual dry matter levels and appears to reduce competition from alien grasses)
Pine Hill ceanothus <i>Ceanothus roderickii</i>	FE, CR	Folsom	UG
Shasta chaenactis <i>Chaenactis suffrutescens</i>	BLMS	Redding	G, Neutral
Red Hills soaproot <i>Chlorogalum grandiflorum</i>	BLMS	Folsom	G, Negative (small portion of BLM occurrence grazed)
Straight-awned spineflower <i>Chorizanthe rectispina</i>	BLMS	Caliente, Hollister	UG
Ashland thistle <i>Cirsium ciliolatum</i>	CE	Redding	UG
Surf thistle <i>Cirsium rhothophilum</i>	FC, CT	Caliente	UG

Species Common Name <i>Scientific Name</i>	Status	Resource Area(s) of Occurrence	Effects of Livestock Grazing Under Current Management
Mariposa clarkia <i>Clarkia biloba ssp. australis</i>	BLMS	Folsom	G, Negative and Positive
Shasta clarkia <i>Clarkia borealis ssp. borealis</i>	BLMS	Redding	UG
Beaked clarkia <i>Clarkia rostrata</i>	BLMS	Folsom	G, ?
Mt. Hamilton coreopsis <i>Coreopsis hamiltonii</i>	BLMS	Hollister	UG
Silky cryptantha <i>Cryptantha crinita</i>	BLMS	Redding	G, Neutral
Schoolcraft's cryptantha <i>Cryptantha schoolcraftii</i>	BLMS	Surprise	G, Neutral
Piute cypress <i>Cupressus arizonica ssp. nevadensis</i>	BLMS	Caliente	G, ?
Bodie Hills cusickiella <i>Cusickiella quadricostata</i>	BLMS	Bishop	G, Neutral
Ornate dalea <i>Dalea ornata</i>	BLMS	Eagle Lake	G, Neutral?
July gold <i>Dedeckera eurekaensis</i>	CR	Bishop	UG
Kern County larkspur <i>Delphinium purpusii</i>	BLMS	Caliente	G, Neutral
Recurved larkspur <i>Delphinium recurvatum</i>	BLMS	Hollister	G, ?
Kern mallow <i>Eremalche kernensis</i>	FE	Caliente	UG
Brandegge's eriastrum <i>Eriastrum brandegeae</i>	CR	Arcata, Clear Lake, Redding	UG (Arcata, Clear Lake) G, Neutral (Redding)

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Hoover's woollystar <i>Eriastrum hooveri</i>	FT	Caliente, Hollister	G, Neutral (Caliente -- occurs generally in areas that cattle do not favor; little if any direct herbivory; species highly tolerant of disturbance) G, Neutral to Positive (Hollister -- same situation as Caliente: cattle grazing appears to open up new potential habitat by reducing competing vegetation)
Blochman's leafy daisy <i>Erigeron blochmaniae</i>	BLMS	Caliente	UG
lone buckwheat <i>Eriogonum apricum</i> var. <i>apricum</i>	FC, CE	Folsom	UG
Crosby's buckwheat <i>Eriogonum crosbyae</i>	BLMS	Surprise	G, Negative (from trampling; <5% of its distribution on BLM lands has been impacted by livestock grazing)
Red Mountain buckwheat <i>Eriogonum kelloggii</i>	FC, CE	Arcata	UG
Snow Mtn. buckwheat <i>Eriogonum nervulosum</i>	BLMS	Clear Lake	UG
Mouse buckwheat <i>Eriogonum nudum</i> var. <i>murinum</i>	BLMS	Caliente, Hollister	G, Neutral
Prostrate buckwheat <i>Eriogonum prociduum</i>	BLMS	Alturas, Surprise	G, Neutral

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Temblor buckwheat <i>Eriogonum temblorense</i>	BLMS	Caliente	G, Neutral (except negative in places where cattle are trailed)
Humboldt Bay wallflower <i>Erysimum menziesii</i> ssp. <i>eurekaense</i>	FE, CE	Arcata	UG
Tuolumne fawn-lily <i>Erythronium tuolumnense</i>	BLMS	Folsom	G, Neutral
Pine Hill flannelbush <i>Fremontodendron decumbens</i>	FE, CR	Folsom	UG
Butte County fritillary <i>Fritillaria eastwoodiae</i>	BLMS	Redding	UG
Talus fritillary <i>Fritillaria falcata</i>	BLMS	Hollister	UG
Adobe-lily <i>Fritillaria pluriflora</i>	BLMS	Clear Lake, Redding	UG
El Dorado bedstraw <i>Galium californicum</i> ssp. <i>sierrae</i>	FE, CR	Folsom	UG
Modoc bedstraw <i>Galium glabrescens</i> ssp. <i>modocense</i>	BLMS	Surprise	G, Neutral
Hardham's bedstraw <i>Galium hardhamiae</i>	BLMS	Caliente	UG
Scott Mountain bedstraw <i>Galium serpenticum</i> ssp. <i>scotticum</i>	BLMS	Redding	G, Neutral
Mendocino gentian <i>Gentiana setigera</i>	BLMS	Arcata	UG

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Boggs Lake hedge-hyssop <i>Gratiola heterosepala</i>	CE	Alturas, Eagle Lake, Folsom, Redding	G, Neutral to possibly Negative (Alturas -- <10% of its distribution on BLM lands is grazed; monitoring has been unable to tease the effects of grazing from those of weather) UG (Eagle Lake) G, Neutral (Redding) UG (Folsom)
Drymaria-like western flax <i>Hesperolinon drymarioides</i>	BLMS	Clear Lake	UG
Tehama County western flax <i>Hesperolinon tehamense</i>	BLMS	Redding	UG
Parry's horkelia <i>Horkelia parryi</i>	BLMS	Folsom	G, Neutral
Sierra Valley ivesia <i>Ivesia aperta</i> var. <i>aperta</i>	BLMS	Eagle Lake	G, Negative (determination based upon observations of grazing impacts on US Forest Service lands, where most of it occurs; the limited BLM occurrence appeared fine when last visited, several years ago)
Alkali ivesia <i>Ivesia kingii</i> var. <i>kingii</i>	BLMS	Bishop	G, Negative (impacted by trampling; about 20% of distribution on BLM lands is impacted)
Ash Creek ivesia <i>Ivesia paniculata</i>	BLMS	Alturas	G, Neutral

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Grimy ivesia <i>Ivesia rhypara</i> var. <i>rhypara</i>	BLMS	Surprise	G, Neutral
Webber's ivesia <i>Ivesia webberi</i>	BLMS	Eagle Lake	G, Neutral (occurs only in a corner of one allotment that is very slightly grazed)
Red Bluff dwarf rush <i>Juncus leiospermus</i> var. <i>leiospermus</i>	BLMS	Redding	UG
Beach layia <i>Layia carnosa</i>	FE, CE	Arcata	UG
Rayless tidytips <i>Layia discoidea</i>	BLMS	Hollister	UG
Pale-yellow layia <i>Layia heterotricha</i>	BLMS	Caliente, Hollister	G, Negative and Positive (species benefits from light and properly timed grazing but is negatively impacted by heavy grazing or grazing during peak flowering season)
Jones' layia <i>Layia jonesii</i>	BLMS	Hollister	UG
Munz's tidy-tips <i>Layia munzii</i>	BLMS	Caliente	G, ?
Legenere <i>Legenere limosa</i>	BLMS	Redding	UG

Species Common Name <i>Scientific Name</i>	Status	Resource Area(s) of Occurrence	Effects of Livestock Grazing Under Current Management
San Joaquin woolly threads <i>Lembertia congdonii</i>	FE	Caliente, Hollister	G, Negative and Positive (some negative impacts from direct herbivory and trampling, primarily in heavy use areas around water troughs, but some positive impacts from reduced competition; only 20% of BLM distribution is grazed in Caliente; research is ongoing)
Panoche pepper-grass <i>Lepidium jaredii</i> ssp. <i>album</i>	BMS	Hollister	G, Negative and Positive
Jared's pepper-grass <i>Lepidium jaredii</i> ssp. <i>jaredii</i>	BLMS	Caliente	UG
Cantelow's lewisia <i>Lewisia cantelovii</i>	BLMS	Folsom	UG
Sagebrush loeflingia <i>Loeflingia squarrosa</i> var. <i>artemisiarum</i>	BLMS	Bishop, Eagle Lake	G, Negative (impacted by direct herbivory and trampling in Bishop) (<25% of distribution in Eagle Lake impacted, primarily by trampling)
Congdon's lomatium <i>Lomatium congdonii</i>	BLMS	Folsom	G, Negative (small portion of BLM occurrence grazed)
Owens Peak lomatium <i>Lomatium shevockii</i>	BLMS	Caliente	G, Neutral
Mariposa lupine <i>Lupinus citrinus</i> var. <i>deflexus</i>	PE, CT	Hollister	UG

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Mono Lake lupine <i>Lupinus duranii</i>	BLMS	Bishop	G, Negative (impacted by direct herbivory and trampling; about 10% of its distribution on BLM lands is impacted)
Shaggyhair lupine <i>Lupinus spectabilis</i>	BLMS	Folsom	G, Neutral
Hall's madia <i>Madia hallii</i>	BLMS	Clear Lake	UG
Stebbins's madia <i>Madia stebbinsii</i>	BLMS	Redding	UG
Carmel Valley bush-mallow <i>Malacothamnus palmeri</i> var. <i>involucratus</i>	BLMS	Hollister	UG
Slender-stemmed monkeyflower <i>Mimulus filicaulis</i>	BLMS	Folsom	G, Neutral
Kaweah monkeyflower <i>Mimulus norrisii</i>	BLMS	Caliente	G, Neutral
Calico monkeyflower <i>Mimulus pictus</i>	BLMS	Caliente	G, Neutral (because the species generally occurs around the base of shrubs such as <i>Ribes quercetorum</i> and around rock outcrops, it is generally out of reach of cattle)
Kelso Creek monkeyflower <i>Mimulus shevockii</i>	PE	Caliente	G, Negative (impacted by trampling on about 10% of its BLM distribution)
Crisp monardella <i>Monardella crispa</i>	BLMS	Caliente	UG

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Piute Mountains navarretia <i>Navarretia setiloba</i>	FC	Caliente	G, ?
Shasta snow-wreath <i>Neviusia cliftonii</i>	BLMS	Redding	UG
San Joaquin Valley orcutt grass <i>Orcuttia inaequalis</i>	PE, CE	Folsom	UG
Slender orcutt grass <i>Orcuttia tenuis</i>	PT, CE	Alturas, Redding	UG
Little ricegrass <i>Oryzopsis exigua</i>	BLMS	Alturas, Eagle Lake	G, Neutral
Ahart's paronychia <i>Paronychia ahartii</i>	BLMS	Redding	G, Neutral (species exists in sizable numbers despite having been grazed continuously since the 1850's; ongoing monitoring inside and outside exclosure should prvide additional information in a few years)
Dwarf lousewort <i>Pedicularis centranthera</i>	BLMS	Eagle Lake	G, Neutral
Closed-throated beardtongue <i>Penstemon personatus</i>	BLMS	Redding	UG
Slender pentachaeta <i>Pentachaeta exilis</i> ssp. <i>aeolica</i>	BLMS	Hollister	G, Negative and Positive
Scott Valley phacelia <i>Phacelia greenei</i>	BLMS	Redding	G, Neutral

Species Common Name <i>Scientific Name</i>	Status	Resource Area(s) of Occurrence	Effects of Livestock Grazing Under Current Management
Mono County phacelia <i>Phacelia monoensis</i>	BLMS	Bishop	G, Negative (impacted by trampling and habitat alteration through invasion of exotic plants; about 30% of its BLM distribution is impacted)
Nine Mile Canyon phacelia <i>Phacelia novenmillensis</i>	BLMS	Caliente	G, Neutral (livestock season of use occurs after the seed set of this annual species)
Profuse-flowered pogogyne <i>Pogogyne floribunda</i>	BLMS	Alturas	G, Neutral
Modoc County knotweed <i>Polygonum polygaloides</i> ssp. <i>esotericum</i>	BLMS	Alturas	G, Neutral
Muir's raillardella <i>Raillardiopsis muirii</i>	BLMS	Caliente	G, Neutral
Sequoia gooseberry <i>Ribes tulareense</i>	BLMS	Caliente	G, Negative (impacted by some trampling and minor browsing on about 50% of its BLM distribution)
Hall's rupertia <i>Rupertia hallii</i>	BLMS	Redding	UG
Sanford's arrowhead <i>Sagittaria sanfordii</i>	BLMS	Redding	UG
Tracy's sanicle <i>Sanicula tracyi</i>	BLMS	Arcata	UG
Holmgren's skullcap <i>Scutellaria holmgreniorum</i>	BLMS	Alturas	G, Neutral
Red Mountain stonecrop <i>Sedum eastwoodiae</i>	FC	Arcata	UG

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Canyon Creek stonecrop <i>Sedum paradisum</i>	BLMS	Redding	G, Neutral
Layne's butterweed <i>Senecio layneae</i>	FT, CR	Folsom	G, Neutral
Owens Valley checker-mallow <i>Sidalcea covillei</i>	FC, CE	Bishop	UG
Butte County checker-mallow <i>Sidalcea robusta</i>	BLMS	Redding	UG
Red Mountain campion <i>Silene campanulata</i> ssp. <i>campanulata</i>	FC, CE	Arcata	UG
Woolly stenotus <i>Stenotus lanuginosus</i>	BLMS	Alturas	G, Neutral
Socrates Mine jewel-flower <i>Streptanthus brachiatus</i> ssp. <i>brachiatus</i>	BLMS	Clear Lake	UG
Freed's jewelflower <i>Streptanthus brachiatus</i> ssp. <i>hoffmanii</i>	BLMS	Clear Lake	UG
Piute Mountains jewel-flower <i>Streptanthus cordatus</i> var. <i>piutensis</i>	BLMS	Caliente	G, Neutral
Three Peaks jewelflower <i>Streptanthus morrisonii</i> ssp. <i>elatus</i>	BLMS	Clear Lake	UG
Kruckeberg's jewelflower <i>Streptanthus morrisonii</i> ssp. <i>kruckebergii</i>	BLMS	Clear Lake	UG
Morrison's jewel-flower <i>Streptanthus morrisonii</i> ssp. <i>morrisonii</i>	BLMS	Clear Lake	UG
Masonic Mountain jewelflower <i>Streptanthus oliganthus</i>	BLMS	Bishop	G, Neutral
Red Hills vervain <i>Verbena californica</i>	PT, CT	Folsom	UG
El Dorado mule ears <i>Wyethia reticulata</i>	BLMS	Folsom	UG