

The Cove

Post-fire Survey

Mt. Veeder Road

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Prepared for:

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A follow-up survey of *The Cove* property was conducted in spring of 2018 to look at post-fire response by the indigenous vegetation. A catastrophic fire occurred in October of 2017, burning through the 160 acre property. The *Nun's Fire*, originating near Glen Ellen in Sonoma County, burned 55,556 acres between Carneros Valley and Bennett Valley including nearly 20,000 acres in Napa County. The fire burned through forest, chaparral and wetlands at The Cove, scorching the trunks of trees into the crowns that stood 100 ft. or more in height and leaving charred stumps in the chaparral. The fire created dangerous conditions in the campground area and required the removal of much of the dead timber.

Botanical field surveys for fire-following species took place on March 31, May 29 and June 20 of 2018. These surveys provided an opportunity to reveal the species that have long been resting in the seed bank since the previous fire. It was happenstance that surveys were completed in 2017 to assess the maturing forest and chaparral complex. It had reached a point of development that excluded the growth of many non-woody species. In particular, the Douglas Fir forest was nearly devoid of a herbaceous understory on the steep east facing slopes above the campground.

The March 2018 survey showed very little activity in this habitat with observance of sparsely distributed seedlings. Rainfall came in intermittent concentrations during the winter of 2017-18. The slow appearance of a post-fire response could be attributable to this but more likely was attributable to the eastern exposure and the 2000 plus foot elevation. By May, there was a significant display of herbaceous growth and the resprouting of oaks, hazelnuts, redwoods, nutmegs and bays was well under way. Some species such as Eastwood Manzanita and Chinquapin had resprouted in the chaparral but other obligate seeders (species not capable of resprouting) and shrub seedlings were also in great evidence. The suite of obligate seeders included a number of fire following annuals, perennials and shrubs. These temporary colonizers will fill the void until the pre-fire dominant species again reduce light availability and outcompete with these temporary opportunists for water and nutrients.

The attached vascular plant list indicates 32 additional species (noted in red) that were observed in 2018 and not in 2017. A few of these may have been previously overlooked but the majority are now active solely as a response to the fire. Some species have seeds that were stimulated to germinate by chemicals in the smoke while others were stimulated by a flash of heat from the fire. Only 4 of the 32 new species are non-natives.

Some of the more notable post-fire species include:

Amorpha californica ssp. *napensis* (Napa False Indigo) – a small number of mature shrubs were observed near the upper ridge before the fire. This rare species showed some late season recovery, producing seedlings that were found in locations well beyond the 2017 footprint.

Antirrhinum vexillocalyculatum ssp. *vexillocalyculatum* (Wiry Snapdragon) – A few plants of this species were observed in 2017 on steep talus slopes. An extensive stand of this species was observed in the burned Douglas Fir -California Bay transition to Knobcone Pine Forest.

Clematis lasiantha (Chaparral Virgin's Bower) – This species was not detected in 2017 but numerous vines emerged under burned Douglas Fir and California Bay on the upper slopes below the transition to

Knobcone Forest. This is the first instance of this woody vine being recorded as a post-fire opportunist in Napa County.

Collinsia tinctoria (Sticky Chinese Houses) – This species was not observed in 2017 but came up in sheets on the steep talus under burned Douglas Fir and California Bay. It did not come into bloom until June, late for this species that is infrequently found in Napa County.

Dendromecon rigida (Tree Poppy) – This is a fire following shrub that was observed in 2017 but exploded in numbers after the fire. It will be a prominent species for several years in burned Knobcone Pine Forest and Manzanita Chaparral.

Geranium carolinianum (Carolina Geranium) – This native Geranium was not seen before the fire. It occurred in low numbers in the outer perimeter of the campground area. This is a post-fire opportunist under burned Douglas Fir at The Cove.

Helianthemum scoparium (Common Rush Rose) – This species was not observed in 2017 and has proven to be a strong post-fire player in chaparral communities in 2018. This sub-shrub will persist for a few years, forming a compact ball of slender branches producing numerous small yellow flowers.

Lilium rubescens (Redwood Lily) – This perennial was observed in 2017 but all plants seen were vegetative and did not produce flowers. After a fire, this species blooms vigorously, availing itself of the abundant nutrients and light. At The Cove, it was seen in greater numbers and in locations not found before. Perhaps numbers will continue to increase until the forest recovers.

Phacelia nemoralis (Shade Phacelia) - This species was considered to be rare in Napa County before the 2017 fires. Since then, it has appeared in numerous locations in burned forest. It was seen in limited areas in burned Douglas Fir at The Cove. Seeds of a number of species of this genus have been found to respond to chemicals in smoke. This annual may not reoccur next spring.

Phacelia suaveolens (Sweet Scented Phacelia) – Like the previous species, this species is a fire obligate, dependant on smoke for a wildfire to initiate germination. It came up in large numbers in burned Knobcone Pine Forest and Mixed Manzanita Chaparral. It is unlikely to reoccur next spring.

Triteleia laxa (Ithuriel's Spear) – This is a common species of woodlands and grasslands. It was interesting to see this species come up under burned Douglas Fir on the lower slopes near the campground. This is a bulb-bearing species that was not observed in 2017 and must persist in a dormant state in the mature forest.

Further changes at The Cove are expected in coming years as a result of changing light conditions and as re-vegetation proceeds. Post-fire conditions provide invasive species a temporary opportunity to explode in numbers and contribute significantly to the seed bank. This could influence the long-term stability of the vegetation communities and should be monitored.

Jake Ruygt





Black oak resprouting at base

Burned Douglas Fir at The Cove camp

Burned Knobcone, oak and manzanita
at ridgetop



March 29, 2018

Tree poppy, Ceanothus and Manzanita
seedlings

May 29, 2018



Wiry Snapdragon



Shade Phacelia



Sweet-scented Phacelia in Knobcone Pine Forest



Sticky Chinese Houses on talus in Douglas Fir/Bay Forest – June 20,2018

Vascular Plants Observed at *The Cove*

Scientific Name	Common Name	Life Form	Blooms	Status
<u>Ferns</u>				
Blechnaceae	<i>Deer Fern Family</i>	perennial		
<i>Woodwardia fimbriata</i>	Giant Chain Fern	perennial		
Dennstaedtiaceae	<i>Bracken Family</i>			
<i>Pteridium aquilinum</i>	Bracken Fern	perennial		
Dryopteridaceae	<i>Wood Fern Family</i>			
<i>Dryopteris arguta</i>	California Wood Fern	perennial		
<i>Polystichum imbricans</i> ssp. <i>imbricans</i>	Sword Fern	perennial		
<i>Polystichum minutum</i>	Western Sword Fern	perennial		
Polypodiaceae	<i>Polypody Family</i>			
<i>Polypodium calirhiza</i>	Nested Polypody	perennial		
Pteridaceae	<i>Brake Family</i>			
<i>Adiantum aleuticum</i>	Five-finger Fern	perennial		
<i>Pellaea andromedaefolia</i>	Coffee Fern	perennial		
<i>Pentagramma triangularis</i> ssp. <i>triang.</i>	Goldenback Fern	perennial		
<u>Conifers</u>				
Cupressaceae	<i>Cypress Family</i>			
<i>Sequoia sempervirens</i>	Coast Redwood	tree	Jan-Mar	
Pinaceae	<i>Pine Family</i>			
<i>Pinus attenuata</i>	Knobcone Pine	tree	Mar-May	
<i>Pseudotsuga menziesii</i> var. <i>menziesii</i>	Douglas Fir	tree		
Taxaceae	<i>Yew Family</i>			
<i>Torreya californica</i>	California Nutmeg	tree	Apr-May	
<u>Angiosperms</u>				
<u>Dicots</u>				
Adoxaceae	<i>Muskroot Family</i>			
<i>Sambucus nigra</i> ssp. <i>caerulea</i>	Desert Elderberry	shrub	Mar-Sept	
Anacardiaceae	<i>Sumac Family</i>			
<i>Rhus aromatica</i>	Squaw Brush	shrub	Mar-Apr	
<i>Toxicodendron diversilobum</i>	Poison Oak			
Apiaceae	<i>Carrot Family</i>			
<i>Angelica californica</i>	California Angelica	perennial	Apr-Jun	
<i>Daucus pusillus</i>	Rattlesnake Weed	annual	Apr-Jun	
<i>Heracleum maximum</i>	Cow Parsnip	perennial	Apr-Jul	
<i>Lomatium repostum</i>	Napa Lomatium	perennial	Apr-May	List 4

Scientific Name	Common Name	Life Form	Blooms	Status
<i>Oenanthe sarmentosa</i>	Pacific Oenanthe	perennial	May-Oct	
<i>Osmorhiza berteroi</i>	Mountain Sweet Cicely	perennial	Mar-May	
<i>Sanicula crassicaulis</i>	Pacific Snakeroot	perennial	Mar-May	
<i>Scandix pectinveris</i>	Spanish Needles *	annual	Apr-Jun	
<i>Torilis arvensis</i>	Field Hedge Parsley *	annual	May-Jul	
<i>Yabea microcarpa</i>	California Hedge Parsley	annual	Apr-Jun	
Apocynaceae	<i>Dogbane Family</i>			
<i>Apocynum androsaemifolium</i>	Mountain Dogbane	perennial	May-Aug	
<i>Asclepias cordifolia</i>	Purple Milkweed	perennial	May-Jul	
<i>Vinca major</i>	Large Periwinkle	perennial	Mar-Jul	
Aristolochiaceae	<i>Pipevine Family</i>			
<i>Aristolochia californica</i>	California Pipevine	perennial	Jan-Apr	
Asteraceae	<i>Sunflower Family</i>			
<i>Achillea millefolium</i>	Common Yarrow	perennial	Mar-Jun	
<i>Adenocaulon bicolor</i>	Trail Plant	perennial	May-Jul	
<i>Agoseria grandiflora</i> var. <i>garndiflora</i>	Grand Mountain Dandelion	perennial	May-Jul	
<i>Arnica discoidea</i>	Rayless Arnica	perennial	May-Aug	
<i>Baccharis pilularis</i> ssp. <i>consanguinea</i>	Coyote Brush	shrub	Oct-Jan	
<i>Bellis perennis</i>	English Daisy *	perennial	Mar-Sept	
<i>Carduus pycnocephalus</i> ssp. <i>pycnocephalus</i>	Italian Thistle *	annual	May-Jul	
<i>Centaurea melitensis</i>	Maltese Star Thistle *	annual	May-Jun	
<i>Cirsium occidentale</i> var. <i>venustum</i>	Red Thistle	perennial	May-Jul	
<i>Erigeron bioletti</i>	Streamside Daisy	perennial	Jun-Sept	List 3
<i>Erigeron sumatrensis</i> *	Asthma Weed	annual	Aug-Oct.	
<i>Eriophyllum lanatum</i> var. <i>achillaeoides</i>	Woolly Sunflower	perennial	May-Jul	
<i>Eurybia radulina</i>	Rough Aster	perennial	Jun-Sept	
<i>Helianthella californica</i>	California Helianthella	perennial	Apr-Jun	
<i>Helminthotheca echioides</i> *	Bristly Ox-tongue	biennial	Jun-Dec	
<i>Hieracium albiflorum</i>	White-flowered Hawkweed	perennial	May-Aug	
<i>Hypochaeris glabra</i>	Smooth Cat's Ear *	annual	Mar-Jun	
<i>Hypochaeris radicata</i>	Hairy Cat's Ear *	perennial	May-Nov	
<i>Logfia gallica</i>	Narrow-leaved Logfia *	annual	May-Jun	
<i>Madia elegans</i>	Common Madia	annual	Jun-Oct	
<i>Madia gracilis</i>	Slender Tarweed	annual	Apr-Aug	
<i>Pseudognaphalium microcephalum</i>	White Everlasting	perennial	Jul-Oct	
<i>Rhagadiolus stellatus</i>	Endive Daisy *	annual	Apr-May	
<i>Solidago velutina</i> ssp. <i>californica</i>	California Goldenrod	perennial	Jun-Oct	
<i>Sonchus oleraceus</i>	Common Sow Thistle	annual	Jan-Nov	
<i>Stephanomeria</i> sp.	Wire Lettuce	annual	July-Oct.	
Betulaceae	<i>Birch Family</i>			
<i>Corylus cornuta</i> ssp. <i>californica</i>	California Hazelnut	shrub	Jan-Apr	

Scientific Name	Common Name	Life Form	Blooms	Status
Boraginaceae	<i>Borage Family</i>			
<i>Cynoglossum grande</i>	Grande Hound's Tongue	perennial	Mar-Jun	
<i>Nemophila heterophila</i>	Woodland Nemophila	annual	Mar-Jun	
<i>Nemophila parviflora</i> var. <i>parviflora</i>	Small-flowered Nemophila	annual	Apr-Jun	
<i>Phacelia distans</i>	Common Phacelia	annual	Apr-Jun	
<i>Phacelia imbricata</i> ssp. <i>imbricata</i>	Imbricate Phacelia	perennial	Mar-Jun	
<i>Phacelia nemoralis</i> ssp. <i>nemoralis</i>	Shade Phacelia	annual	May-Jul	
<i>Phacelia suaveolens</i>	Sweet-scented Phacelia	annual	May-Jul	
<i>Plagiobothrys nothofulvus</i>	Rusty Popcornflower	annual	Mar-May	
Brassicaceae	<i>Mustard Family</i>			
<i>Cardamine californica</i> var. <i>californica</i>	California Milkmaids	perennial	Jan-May	
<i>Cardamine oligosperma</i>	Few-seeded Bitter Cress	annual	Feb-May	
<i>Lunaria annua</i>	Moonwort *	annual	Apr-May	
<i>Thysanocarpus curvipes</i>	Lace Pod	annual	Mar-May	
Calycanthaceae	<i>Calycanthus Family</i>			
<i>Calycanthus occidentalis</i>	Spicebush	shrub	Apr-Aug	
Campanulaceae				
<i>Githopsis diffusa</i> ssp. <i>robusta</i>	San Gabriel Blue-cup	annual	Apr-May	
Caprifoliaceae	<i>Honeysuckle Family</i>			
<i>Lonicera hispidula</i>	Hairy Honeysuckle	shrub	Apr-Jul	
Caryophyllaceae	<i>Pink Family</i>			
<i>Cerastium glomeratum</i>	Mouse-ear Chickweed *	annual	Feb-May	
<i>Scleranthus annuus</i> ssp. <i>annuus</i>	German Knotgrass *	annual	Mar-Jun	
<i>Silene antirrhina</i>	Snapdragon Catchfly	annual	Apr-Jun	
<i>Silene gallica</i>	Windmill Pink *	annual	Feb-Jun	
<i>Silene laciniata</i> ssp. <i>californica</i>	California Indian Pink	perennial	Jun-Aug	
<i>Stellaria media</i>	Common Chickweed *	annual	Feb-Sept	
Cistaceae	<i>Rock-rose Family</i>			
<i>Helianthemum scoparium</i>	Common Rush Rose	perennial	Jun-Jul	
Convolvulaceae	<i>Morning Glory Family</i>			
<i>Calystegia occidentalis</i> ssp. <i>occidentalis</i>	Modoc Morning Glory	perennial	Apr-Jul	
<i>Cuscuta</i> sp.	Dodder	annual	July?	
Cornaceae	<i>Dogwood Family</i>			
<i>Cornus glabrata</i>	Creek Dogwood	shrub	May-Jun	
Cucurbitaceae	<i>Gourd Family</i>			
<i>Marah fabacea</i>	California Manroot	perennial	Feb-May	

Scientific Name	Common Name	Life Form	Blooms	Status
Ericaceae	<i>Heath Family</i>			
<i>Arbutus menziesii</i>	Pacific Madrone	tree	Mar-May	
<i>Arctostaphylos manzanita</i> ssp. <i>manzanita</i>	Common Manzanita	shrub	Jan-Apr	
<i>Arctostaphylos canescens</i>	Hoary Manzanita	shrub	Jan-Apr	
<i>Arctostaphylos glandulosa</i> ssp. <i>cushingiana</i>	Cushing Manzanita	shrub	Jan-Apr	
<i>Arctostaphylos stanfordiana</i> ssp. <i>stanfordiana</i>	Stanford Manzanita	shrub	Feb-Apr	
Fabaceae	<i>Pea Family</i>			
<i>Acmispon americanus</i> var. <i>americanus</i>	American Trefoil	annual	Jun-Oct.	
<i>Acmispon brachycarpus</i>	Hillside Trefoil	annual	Mar-Jun	
<i>Acmispon micranthus</i>	San Diego Trefoil	annual	Mar-May	
<i>Amorpha californica</i> ssp. <i>napensis</i>	Napa False Indigo	shrub	May-Jul	List 1B
<i>Astragalus gambelianus</i>	Gambel's Locoweed	annual	Mar-Jun	
<i>Lathyrus latifolius</i>	Everlasting Pea *	perennial	May-Sep	
<i>Lathyrus vestitus</i> var. <i>vestitus</i>	Common Pacific Pea	perennial	Apr-Jun	
<i>Lupinus albifrons</i> var. <i>albifrons</i>	Silver Lupine	shrub	Apr-Jun	
<i>Lupinus bicolor</i>	Miniature Lupine	annual	Apr-May	
<i>Lupinus pachylobus</i> ?	Mount Diablo Lupine	annual	Mar-Apr	
<i>Rupertia physodes</i>	California Tea	perennial	Apr-Jun	
<i>Trifolium ciliolatum</i>	Tree Clover	annual	Mar-Jun	
<i>Trifolium oliganthum</i>	Few-flowered Clover	annual	Apr-May	
<i>Trifolium microcephalum</i>	Maiden Clover	annual	Apr-Jun	
<i>Trifolium wildenovii</i>	Tomcat Clover	annual	May-Jun	
<i>Vicia americana</i> ssp. <i>americana</i>	American Vetch	perennial	Apr-Jun	
<i>Vicia sativa</i> ssp. <i>nigra</i>	Common Vetch	annual	Apr-Jun	
<i>Vicia villosa</i> ssp. <i>varia</i>	Woolly-podded Vetch	annual	Apr-Jun	
Fagaceae	<i>Oak Family</i>			
<i>Chrysolepis chrysophylla</i> var. <i>minor</i>	Chinquapin	shrub	Jun-Sep	
<i>Quercus agrifolia</i> var. <i>agrifolia</i>	Coast Live Oak	tree	Jan-Apr	
<i>Quercus berberidifolia</i>	Scrub Oak	shrub	Mar-May	
<i>Quercus chrysolepis</i>	Canyon Oak	tree	Apr-May	
<i>Quercus kelloggii</i>	Black Oak	tree	Apr-May	
<i>Quercus wislizenii</i> var. <i>frutescens</i>	Scrub Interior Live Oak	shrub	Mar-May	
<i>Quercus X chasei</i>	Chase's Oak	tree		
Geraniaceae	<i>Geranium Family</i>			
<i>Erodium cicutarium</i>	Redstem Filaree *	annual	Feb-May	
<i>Geranium carolinianum</i>	Carolina Geranium	annual	May-Jul	
<i>Geranium molle</i>	Dove Geranium *	annual	Apr-Jun	
<i>Geranium purpureum</i>	Purple Geranium *	annual	Mar-Jun	
Grossulariaceae	<i>Currant Family</i>			
<i>Ribes roezlii</i> var. <i>cruentum</i>	Coast Range Gooseberry	shrub	Feb-May	

Scientific Name	Common Name	Life Form	Blooms	Status
Hydrangeaceae	<i>Hydrangea</i> Family			
<i>Whipplea modesta</i>	Modesty	perennial	Apr-Jun	
Hypericaceae	<i>St. John's Wort</i> Family			
<i>Hypericum concinnum</i>	Gold Wire	perennial	May-Jul	
Lamiaceae	<i>Mint</i> Family			
<i>Melissa officianalis</i>	Lemon Balm *	perennial	Jun-Sep	
<i>Monardella villosa</i> ssp. <i>villosa</i>	Common Coyote Mint	shrub	Jun-Aug	
<i>Monardella viridis</i>	Green Coyote Mint	shrub	Jun-Sep	List 4
<i>Scutellaria californica</i> ?	California Skullcap	perennial	Jun-Jul	
<i>Stachys rigida</i> var. <i>quecetorum</i>	Rigid Hedge Nettle	perennial	Apr-Aug	
<i>Stachy stricta</i>	Sonoma Hedge Nettle	perennial	May-Aug	
Lauraceae	<i>Laurel</i> Family			
<i>Umbellularia californica</i>	California Bay	tree	Nov-May	
Montiaceae	<i>Miner's Lettuce</i> Family			
<i>Claytonia parviflora</i> ssp. <i>parviflora</i>	Narrow-leaved Miner's Lettuce	annual	Feb-May	
<i>Claytonia perfoliata</i> ssp. <i>perfoliata</i>	Miner's Lettuce	annual	Feb-May	
Myrsinaceae				
<i>Trientalis latifolia</i>	Pacific Starflower	perennial	May-July	
Onagraceae	<i>Evening Primrose</i> Family			
<i>Clarkia concinna</i> ?	Red Ribbons	annual	May-Jul	
<i>Clarkia purpurea</i> ssp. <i>quadrivulnera</i>	Winecup Clarkia	annual	May-Jul	
<i>Epilobium brachycarpum</i>	Paniced Willow Herb	annual	May-Oct	
Orobanchaceae	<i>Broomrape</i> Family			
<i>Pedicularis densiflora</i>	Indian Warrior	perennial	Jan-Jun	
Papaveraceae	<i>Poppy</i> Family			
<i>Dendromecon rigida</i>	Tree Poppy	shrub	Apr-Jun	
Phrymaceae	<i>Lopseed</i> Family			
<i>Mimulus aurantiacus</i>	Sticky Monkeyflower	shrub	Mar-Aug	
Plantaginaceae	<i>Plantain</i> Family			
<i>Antirrhinum vexillocalyculatum</i> ssp. <i>vex.</i>	Wiry Snapdragon	annual	May-Jul	
<i>Collinsia tinctoria</i>	Sticky Chinese Houses	annual	June- July	
Polemoniaceae	<i>Phlox</i> Family			
<i>Collomia heterophylla</i>	Vari-leaved Collomia	annual	Apr-Jun	
<i>Gilia capitata</i> ssp. <i>capitata</i>	Globe Gilia	annual	Apr-Jul	

Scientific Name	Common Name	Life Form	Blooms	Status
<i>Leptosiphon ciliatus</i>	Whisker Brush	annual	Apr-Jul	
Polygalaceae	<i>Milkwort Family</i>			
<i>Polygala californica</i>	California Milkwort	perennial	Mar-Jul	
Polygonaceae	<i>Buckwheat Family</i>			
<i>Chrorizanthe membranacea</i>	Pink Spineflower	annual	Apr-Jul	
<i>Eriogonum nudum</i> var.	Nudestem Buckwheat	perennial	May-Oct	
Ranunculaceae	<i>Buttercup Family</i>			
<i>Aquilegia formosa</i>	Crimson Columbine	perennial	Apr-Aug	
<i>Clematis lasiantha</i>	Chaparral Virgin's Bower	vine	Apr-Jun	
<i>Delphinium nudicaule</i>	Red Larkspur	perennial	Mar-Jun	
<i>Ranunculus californicus</i> var. <i>californicus</i>	California Buttercup	perennial	Feb-May	
Rhamnaceae	<i>Buckthorn Family</i>			
<i>Ceanothus foliosus</i> var. <i>foliosus</i>	Wavy-leaf Ceanothus	shrub	Mar-May	
<i>Ceanothus sonomensis</i>	Sonoma Ceanothus	shrub	Feb-Apr	List 1B
<i>Frangula californica</i> var. <i>californica</i>	California Coffeeberry	shrub	May-Jul	
Rosaceae	<i>Rose Family</i>			
<i>Adenostoma fasciculatum</i> var. <i>fasciculatum</i>	Chamise	shrub	May-Jun	
<i>Aphanes occidentalis</i>	Western Dew-drop	annual	Mar-May	
<i>Fragaria vesca</i>	Woodland Strawberry	perennial	Mar-Jun	
<i>Holodiscus discolor</i>	Ocean Spray	perennial	May-Aug	
<i>Prunus cerasifera</i>	Cherry Plum *	tree	Mar-Apr	
<i>Rosa gymnocarpa</i>	Woodland Rose	shrub	Apr-Jul	
<i>Rosa spithamea</i>	Ground Rose	shrub	May-Aug	
<i>Rubus ursinus</i>	California Blackberry	shrub	Mar-Jul	
Rubiaceae	<i>Bedstraw Family</i>			
<i>Galium aparine</i>	Cleavers	annual	Mar-Jun	
<i>Galium californicum</i> ssp. <i>californicum</i>	California Bedstraw	perennial	Mar-Jul	
<i>Galium parisiense</i>	Wall Bedstraw *	annual	Apr-Aug	
<i>Galium porrigens</i> var. <i>porrigens</i>	Climbing Bedstraw	perennial	Mar-Jun	
<i>Galium triflorum</i>	Fragrant Bedstraw	perennial	May-Jul	
<i>Sherardia arvensis</i>	Field Madder *	annual	Jan-Jun	
Sapindaceae	<i>Soapberry Family</i>			
<i>Acer macrophyllum</i>	Big-leaf Maple	tree	Mar-May	
Saxifragaceae	<i>Saxifrage Family</i>			
<i>Lithophragma bolanderi</i>	Bolanders' Woodland Star	perennial	Mar-Jun	
<i>Lithophragma heterophyllum</i>	Hill Star	perennial	Mar-Jun	
<i>Lithophragma parviflorum</i> var. <i>parviflorum</i>	Small-flower Woodland Star	perennial	Apr-May	

Scientific Name	Common Name	Life Form	Blooms	Status
Scrophulariaceae	Figwort Family			
<i>Scrophularia californica</i>	California Figwort	perennial	Apr-Jul	
Solanaceae	Night-shade Family			
<i>Solanum xanthii</i>	Purple Nightshade	shrub	Feb-Jul	
Violaceae	Violet Family			
<i>Viola lobata</i> ssp. <i>lobata</i>	Pine Violet	perennial	Apr-Jul	
<i>Viola ocellata</i>	Two-eyed Violet	perennial	Mar-Jun	
Monocots				
Agavaceae	Century Plant Family			
<i>Chlorogalum pomeridianum</i> var. <i>pomeridianum</i>	Indian Soap	perennial	May-Aug	
Cyperaceae	Sedge Family			
<i>Carex amplifolia</i>	Ample-leaved Sedge	perennial	Apr-Jun	
<i>Carex densa</i>	Dense Sedge	perennial	Mar-Jun	
<i>Carex leptopoda</i>	Short-scaled Sedge	perennial	Feb-Jun	
<i>Carex multicaulis</i>	Many-stemmed Sedge	perennial	Mar-Apr	
<i>Carex tumulicola</i> ?	Foothill Sedge	perennial	Apr-Jun	
Iridaceae	Iris Family			
<i>Iris fernaldii</i>	Fernald's Iris	perennial	Apr-May	
<i>Iris macrosiphon</i>	Bowl-tubed Iris	perennial	Apr-May	
Juncaceae	Rush Family			
<i>Juncus balticus</i> ssp. <i>ater</i>	Baltic Rush	perennial	Apr-Aug	
<i>Juncus patens</i>	Spreading Rush	perennial	Jun-Jul	
Liliaceae	Lily Family			
<i>Calochortus amabilis</i>	Golden Fairy Lantern	perennial	Apr-Jun	
<i>Fritillaria affinis</i>	Mission Bells	perennial	Feb-May	
<i>Lilium pardalinum</i>	Chaparral Lily	perennial	Jun-Jul	List 4
<i>Prosartes hookeri</i>	Hooker's Fairy Bells	perennial	Mar-May	
Melanthiaceae	False Helebores Family			
<i>Trillium albidum</i>	Giant White Wakerobin	perennial	Mar-Apr	
Melanthiaceae	False Helebores Family			
<i>Toxicoscordion fremontii</i>	Fremont's Star Lily	perennial	Feb-May	
Orchidaceae	Orchid Family			
<i>Calypso bulbosa</i> (absent in 2017)	Fairy Slipper	perennial	Mar-Apr	
<i>Corallorhiza maculata</i>	Spotted Coral Root	perennial	Apr-Jun	
<i>Piperia</i> sp.	Ladies Tresses	perennial	May-Jul	

Scientific Name	Common Name	Life Form	Blooms	Status
Poaceae	<i>Grass Family</i>			
<i>Aira caryophyllea</i>	Hair Grass *	annual	Apr-Jun	
<i>Agrostis pallens</i>	Leafy Bentgrass	perennial	June-July	
<i>Avena barbata</i>	Wild Oats *	annual	Mar-Jun	
<i>Bromus carinatus</i> var. <i>carinatus</i>	California Brome	perennial	Apr-Aug	
<i>Bromus hordeaceus</i>	Soft Cheat *	annual	Apr-Jul	
<i>Bromus tectorum</i>	Downy Brome *	annual	Apr-Jun	
<i>Bromus vulgaris</i>	Narrow-flowered Brome	perennial	May-Aug	
<i>Cynosurus echinatus</i> *	Annual Dogtail Grass	annual	Apr-Jul	
<i>Elymus glaucus</i> ssp. <i>glaucus</i>	Western Rye Grass	perennial	May-Aug	
<i>Festuca bromoides</i> *	Brome Fescue	annual	Mar-Jun	
<i>Festuca californica</i>	California Fescue	perennial	Apr-Jul	
<i>Gastridium phleoides</i>	Nit Grass *	annual	May-Sep	
<i>Melica californica</i>	California Melic	perennial	Mar-May	
<i>Melica geyeri</i>	Geyer's Onion Grass	perennial	Apr-Jul	
<i>Melica torreyana</i>	Torrey's Melic	perennial	Mar-Jun	
<i>Poa howellii</i>	Howell's Bluegrass	annual	Apr-Jun	
<i>Stipa pulchra</i>	Purple Needlegrass	perennial	Mar-May	
Themidaceae	<i>Brodiaea Family</i>			
<i>Dichelostemma congestum</i>	Ookow	perennial	Apr-Jun	
<i>Triteleia laxa</i>	Ithuriel's Spear	perennial	Apr-Jun	
* non-native				