

ECOLOGICAL STATUS

R5 Rangeland Plant List

INTRODUCTION

The information in this appendix is intended to provide resource managers with a quick reference to the: (a) most common vegetation types for rangelands found in the Pacific Southwest Region, (b) most common plants associated with those vegetation types, and (c) each plant's assigned seral status, as an overall indicator of ecological state, within each of those vegetative types.

PLANT SPECIES IDENTIFICATION

It is important for resource land manager and their field specialists to be able to identify the important plants within their areas of responsibility. Plants are often indicators of site potential, site history, past management, ecological status, and resource value. As individual plants are identified, they can then be listed collectively to identify plant associations and rangeland cover types.

Range conservationists, wildlife biologists, foresters, hydrologists and other personnel who deal in land management should become familiar with locally important plants through self-training or by attending plant identification training sessions which can be conducted by Regional Office or Forest specialists on a request basis. The Plant List is not intended to be all inclusive, but is intended to cover the most significant rangeland plant species in California.

CURRENT BOTANICAL AND COMMON NAMES

The Plant List includes most species needed for allotment inspections and rangeland analysis in Region 5. Botanical names listed are recognized as valid in *The Jepson Manual, Higher Plants of California* (Hickman 1993). The previous plant list was recognized as valid in *A California Flora* (Munz 1959). All plant symbols linked to an accepted or synonym scientific name were developed by the Natural Resource Conservation Service are listed alphabetically and taken from the listing for *Plants of California* (USDA-SCS 1994).

The vascular plant nomenclature, most phytogeography, and other accompanying data found in *Plants of California* for the plants known to occur within North America were provided under a cooperative agreement by John Kartesz and his staff at the Biota of North America Program (BONAP). Portions of these data are copyrighted (1994) by John Kartesz, Biota of North America Program. The copyright notice must be preserved on all copies. All users of *Plants of California* data are to acknowledge the contribution made by NRCS and BONAP.

Vernacular or common names have been derived from the *Plants of California* database as of January 6, 1994. The integration of vernacular names is still in progress, and the list was incomplete. The incomplete vernacular names were filled in from those found in *A California Flora* (Munz 1959), *Illustrated Flora of the Pacific States* (Abrams 1960), and *Illustrated Manual of California Shrubs* (Mc+Minn 1970).

INDICATORS OF SERAL STATUS

Species are designated as being indicators of a late-seral, mid-seral, and early-seral ecological state for each of the vegetation types as a degree of departure from *Potential Natural Community* for those vegetation types. *Potential Natural Community (PNC)* is a taxonomic unit of vegetation classification. It is defined as the biotic community that would be established under present environmental conditions if all successional sequences, of its ecosystem, were completed without additional human-caused disturbances. Natural disturbance, such as drought, flood, wildfire, grazing by native fauna, insect, and disease are inherent in the development of potential natural communities that may include naturalized, non-native species.

The Forest Service has completed a meadow and riparian plant community classification system for the Sierra Nevada and Southern Cascade regions. In addition, the Region has identified each species in the Region 5 range plant list as being either late-seral (with PNC inclusive), mid-seral or early-seral based on data from the Toiyabe, Plumas, Modoc and Stanislaus National Forests, several literature references, and personal experience.

The assigned seral status of individual plants is being used to make scorecards for determining the ecological status of the existing plant communities. Ecological scorecards for each of the meadow vegetation types have been completed and are available from the Regional Office. Ecological ratings can also be derived by using the *Plant List* in combination with quantified vegetative attributes such as frequency, cover and composition as described in *Chapter 3A. Sampling Vegetation Attributes*.

The following questions were asked in assigning seral status to each plant species:

Is this species typically found in undisturbed communities and does it decrease or maintain low abundance with increased disturbance? If answered "YES", it was designated late seral.

Is this species associated with very disturbed or young communities? Is it a pioneer species? Does it have low abundance in stable communities but invasive, high abundance in unstable communities? If answered "Yes", it was designated early seral.

Does relative abundance of this species increase significantly with increased disturbance? Does it maintain high abundance in recovered, stabilizing communities? If answered "Yes", it was designated mid seral. Species which did not break out strongly as late or early seral were assigned mid seral by default. They are not commonly an early or pioneer species.

Some species, such as Kentucky bluegrass (*Poa pratensis* L. ssp. *pratensis*), can be found in such abundance that they have a significant effect on rating the ecological state of a plant community if only assigned a single seral status. Therefore, these plants were assigned frequency limitations (based on a 10X10 cm sample plot) for associated vegetation types at the given seral stage.

Undoubtly there are many species that may occur across several seral stages. However, it is assumed that they would be in relative low abundance in those community types that they have not been assigned -and- therefore, have little or no effect on an ecological status ratings of the community. The rating of several species, such as Nebraska sedge (*Carex nebrascensis* Dewey), is difficult because they tend to be persistent under widely varied disturbance regimes.

OTHER SYMBOLS

(SE) = R5 Sensitive Species as shown following botanical name.

(PO) = Poisonous as shown following botanical name.

(M) = Mechanically Injurious as shown following botanical name.

(*) = Non-native Taxa as shown for taxa non-native to California in *The Jepson Manual*.

() = Species Suitable for Reseeding** as shown following botanical name.

p. ## = Page numbers in common name column for location of genera in *The Jepson Manual*.

(S) = Post-fire Sprouters; (NS) = Nonsprouters; and (VS) = Variable Sprouters as shown for many shrub and deciduous tree species, following the botanical name (ref. *CA Range Brushlands and Browse Plants*).

VEGETATION TYPES

For National Forests in the State of California, ten general vegetation type subdivisions were used to build the Plant List and facilitate its use. The function of providing vegetative distributions in a botanical reference source is to help the user predict where plant taxa can be expected to grow within our National Forest rangelands. Two hierarchical outlines were used in combination to describe these subdivisions: *Geographic Subdivisions of California* from *The Jepson Manual* (Hickman 1993) and *Habitat Descriptions* from *A Guide to Wildlife Habitats of California*, (Mayer & Laudenslayer 1988). *The Jepson Manual* was also referenced for geographic and elevational distributions of each species throughout the State.

The Plant List vegetation types and corresponding subtypes are as follows:

Montane Meadows

- Wet Meadows
- Moist and Dry Meadows

Sub-Alpine

- Subalpine Conifer
- Subalpine Red Fir (>8000 ft)
- Subalpine Lodgepole Pine (>9000 ft)
- Alpine Dwarf Shrub
- Subalpine Meadows (>8000 ft)

Non-Meadow Riparian

- Montane Riparian
- Valley Foothill Riparian
- Desert Riparian
- Fresh Emergent Wetland
- Vernal Pools

Coast -Scrub Sage

- Coastal scrub

Coast Range

- Closed-Cone-Pine-Cypress
- Montane Hardwood-Conifer
- Montane Hardwood
- Coastal Oak Woodlands
- Douglas Fir
- Coast Redwood

Annual Grassland

Foothill Oak Woodland

- Blue Oak Woodland
- Valley Oak Woodland
- Blue Oak/Gray Pine

Chaparral

Mixed chaparral
 Chamise/Redshank chaparral
 Montane Chaparral

Sagebrush Steppe

Pinyon Juniper
 Juniper
 Low Sage
 Bitterbrush
 Sagebrush
 Desert Scrub
 Alkali Desert Scrub
 Desert Wash

Northern & Sothern Conifer

Red Fir
 Lodgepole Pine
 White Fir
 Eastside Pine
 Sierran Mixed Conifer
 Klamath Mixed Conifer
 Montane Hardwood-Conifer
 Jefferey Pine
 Ponderosa Pine
 Aspen
 Douglas Fir

**NARRATIVE DESCRIPTION
 OF VEGETATION SUBTYPES**

The following vegetation subtype descriptions have been paraphrased from each *Habitat Description* chapter in *A Guide to Wildlife Habitats of California*, (Mayer & Laudenslayer 1988). Contributing authors from the habitat guide are noted in parenthesis.

Wet Meadows (Ratliff) occur throughout virtually every forest type of the Sierra and Pacific Northwest floristic provinces and as inclusions in the northern coastal prairie and sagebrush steppe. Where conditions are favorable, wet meadows occur in the Transverse and Peninsular Ranges of southern California. In the Sierra Nevada and Cascade Ranges, wet meadows usually occur above 3900 ft in the north and above 5900 ft in the south. In the Klamath Mountains, wet meadows occur in the red fir zone at 4600 ft to 6400 ft elevation.

The water table in wet meadows is generally near the surface (within the rooting zone) for most of the growing season. Wet meadows at all elevations generally have a simple structure consisting of a layer of herbaceous plants. Shrub or tree layers are usually absent or very sparse; they may, however, be an important feature of the meadow edge.

Wet meadows occur with a great variety of plant species; therefore, it is not possible to generalize species composition. Species may differ, but several genera are common to wet meadows throughout the State. They include *Carex*, *Juncus*, *Eleocharis*, *Scirpus*, *Agrostis*, and *Salix*. Important grasses and grasslike plants include beaked sedge, Nebraska sedge, long-bracted sedge, small-bracted sedge, tufted hairgrass, pull-up Muhly, few-flowered spikerush, Dombey's spikerush, Baltic rush, Nevada rush, swordleaf rush, pointed rush, and paniced bulrush. Important and

common forbs are alpine aster, Jeffrey shooting star, tinker's penny, primrose monkeyflower, cowbane, mountain bistort, MacCloskey's violet, and mountain clover. Willow and bilberry are the only shrubs found much in abundance.

Wet meadows occur where water is at or near the surface most of the growing season, following spring runoff. Hydrologically, they occupy lotic, sunken concave, and hanging sites. Lotic sites are those with main input flow (other than precipitation) from upstream sources; at least early in the growing season, water flows across them at depths of 10 to 20 cm (4-8 in). They are topographic basins but have a slight slope which permits drainage of surface water. Percolation is nil due to the saturated or slowly permeable nature of underlying materials. Sunken concave sites also receive water from upstream sources, but evapotranspiration is the main output flow. Hanging sites are watered by hydrostatic flow as springs or seeps.

Moist Meadows also occur throughout every forest type of the Sierra and Pacific Northwest floristic provinces and as inclusions in the northern coastal prairie and Sagebrush Steppe. Where conditions are favorable, moist meadows may also occur in the Transverse and Peninsular Ranges of southern California. In the Sierra Nevada and Cascade Ranges, moist meadows usually occur above 3900 ft and in the north and above 5900 ft in the south. In the Klamath Mountains, moist meadows occur in the red fir zone at 4600 ft to 9000 ft.

Moist meadows occur where soils are saturated within the rooting zone early in the growing season, then the water table drops below the rooting zone in the latter half of the growing season. Moist meadows become drier during the later portion of the growing season, but remain moist enough to support a myriad of herbaceous plants similar to wet meadows but occasionally with increased forbs in the composition. Since they occur with a great variety of plant species like wet meadows, it is not possible to generalize species composition. Species may differ from those found in wet meadows, but several genera are common to moist meadows throughout the State. They include *Carex*, *Juncus*, *Eleocharis*, *Scirpus*, *Agrostis*, *Deschampsia*, *Poa*, and *Danthonia*. Important grasses and grasslike plants include Kentucky bluegrass, tufted hairgrass, mountain bent, Idaho bent, alpine timothy, bluejoint reedgrass, California oatgrass, meadow barley, and pull-up muhly. Important grasslike plants include Nebraska sedge, long-bracted sedge, small-winged sedge, Jones sedge, wooley sedge, short-beak sedge, baltic rush, nevada rush, pointed rush, swordleaf rush, straight-leaf rush, few-flowered spikerush, pale spikerush, Dombey's spikerush, Congdon's bulrush, and paniced bulrush. Common forbs are alpine aster, mountain western aster, Mtn. bistort, Jefferey's shooting star, tinker's penny, primrose monkeyflower, mountain clover, carpet clover, bowl clover, and long-stalked clover and cinquefoil.

Dry Meadows are areas where soil moisture is adequately available during the first half or so of the summer to support perennial sod-forming grasses, bunchgrasses, sedges, rushes and forbs. The water table is generally below the rooting zone of these plants for the entire growing season. They become drier during the late portion of the growing season due to lowering water tables and drainage

due to a more coarse substrate of the meadow soils. They occur generally at about 8000 feet or higher in subalpine conditions.

The variety of vegetation is less than in wet meadows, and they support more sod-forming or bunchgrass species. Typical grasses and grasslike plants include Brewer reedgrass, Canada reedgrass, tufted hairgrass, pull-up Muhly, variable bentgrass, Idaho bentgrass, shorthair sedges, Sierra ricegrass, Drummond rush, few-flowered spikerush, Brewer's sedge, threadleaf sedge, Clement's bulrush, and woodrush. Common forbs include alpine aster, alpine shooting star, Parish's yampah, slender cinquefoil, dusky horkelia, Sibbaldia, gentians and clovers.

Subalpine Conifer (Verner & Purcell) is open forest with needle-leaved evergreen trees of low to medium stature. In protected sites at lower elevations, tree height may exceed 100 ft, but trees on exposed sites and windy ridges near tree line are shaped into stunted, mat-like forms. Shrubby vegetation and herbaceous ground cover are generally sparse or lacking. Several species dominate canopies of this type in different localities, either singly or in mixtures of two or more species. These include Englemann spruce, mountain hemlock, red fir, western white pine, lodgepole pine, whitebark pine and limber pine. A shrubby understory may include: Parry manzanita, mahala mat, purple mountain heather, oceanspray and big sagebrush. Low willows, western blueberry, Sierra bilberry and alpine laurel occur on moist sites. Western wheatgrass, California brome, mountain brome, squirreltail, spike trisetum and brewer lupine are common herbaceous ground cover. It is generally distributed at high elevations in all significant mountain ranges of the State. It is well represented in the north from 7000 to 9500 feet; and in the Sierra Nevada from 9000 to 11,000 ft. It is poorly represented in southern California.

Subalpine Red Fir (Barrett) subtype is distributed in an elevational band from about 6,000 to 9,000 feet. It extends from northern Lake County northward through the North Coast Ranges, and from Kern County northward through the Sierra Nevada into the Cascade Ranges of southwestern Oregon. Large expanses of nearly monotypic stands of red fir are common throughout its range. Heavy shade and a thick layer of duff tends to inhibit understory vegetation, especially in dense stands. To the north, red fir gives way to noble fir. Mountain meadows of various sizes, sometimes associated with small lakes are also typical of red fir habitats. At higher elevations, red fir habitats include increasing numbers of mountain hemlock, western white pine, whitebark pine, and a lesser extent, foxtail pine and limber pine.

Subalpine Lodgepole (Bartolome) subtype is scattered throughout the state, but concentrated in the Sierra Cascades. Significant stands, however, occur in the higher mountains of southern California. Typically the lodgepole pine zone is found above red fir and below other subalpine conifer vegetation types. Although the boundaries between lodgepole pine and meadows are dynamic, they are easily differentiated in classification of the existing landscape. It typically forms open stands of similarly sized trees in association with few other species and with a sparse understory. Mature Sierran stands often contain significant seedling and saplings. Occasional associates include aspen

and mountain hemlock. The amount of understory may be virtually absent, consisting of scattered shrubs and herbs, or a rich herbaceous layer at meadow margins. Many stands are associated with meadow edges and streams, where the understory consists of a variety of grass, forbs and sedges. Understory shrubs such as huckleberry, ribes, and mountain heather may be common.

Alpine Dwarf Shrub (Benson) subtype is found only in the highest elevations in California. Toward the north, it is found on the highest peaks of the Klamath Range. It is also found on Mt. Shasta and Mt. Lassen. In the Sierra Nevada it is confined to the highest peaks, from Lake Tahoe to Yosemite, usually above 8500 feet. From that point southward, it is almost continuous along the Sierra Nevada crest to Olancha Peak. In southern California, it is confined to the summit region and adjoining ridgelines above 10000 feet in the San Bernardino, San Gabriel, and San Jacinto Mountains. It is almost continuous along the main ridge of the White Mountains above 11000 feet elevation. It is typically low graminoid and forb communities with an admixture of dwarf shrubs (often cushion plants). The perennial herb or dwarf shrubs comprising these communities are usually less than 18 inches tall. Coverage may reach 100 percent at low elevations and becoming increasingly open as elevations increase. Species composition varies considerably throughout California. The most common shrubs are creambush oceanspray, Greene goldenweed, and white heather. The most common alpine shrub in the White Mountains is the timberline sagebrush. Nonshrub species include Eschscholtz buttercup, primrose, Sibbaldia, buckwheat, rock cress, mountain sorrel, pussypaws, paintbrush, squirreltail, sedges and Scribner's wheatgrass.

Subalpine Meadows occur throughout subalpine forest type of the Sierra and Pacific Northwest floristic provinces at elevations ranging from 8000 to 11500 ft. As with montane meadows (4500 to 8000 ft), subalpine meadows can have wet, moist or dry moisture regimes. High elevation meadows generally have a simple structure consisting of lower herbaceous plants. They occur as openings in the forest canopy, or as broad open meadows at or above timberline. They occur with a great variety of plant species. Species may differ, but several genera are common in wet meadows. They include *Agrostis*, *Carex*, *Danthonia*, *Poa*, *Eleocharis*, *Juncus*, *Calamagrostis*, *Deschampsia*, *Salix* and *Scirpus*. Important grasses include pull-up Muhly, Sierra ricegrass, alpine timothy, tufted hairgrass, mannagrass, and Kentucky bluegrass. Important forbs are: primrose monkeyflower, mountain bistort, shooting stars, tinker's penny, McCloskey's violet, carpet clover and Sierra bilberry.

Montane Riparian (Grenfell) is found in the Klamath, Cascade, Coast and Sierra Nevada Ranges, south to Kern and northern Santa Barbara Counties. It is also found in the Peninsular and Transverse Range of southern California from Santa Barbara to San Diego Counties, and north from San Luis Obispo to Del Norte Counties along the immediate coast. The vegetation of Montane Riparian zones is quite variable and structurally diverse. Usually it occurs as a narrow, often dense grove of broad-leaved, winter deciduous trees up to 98 feet tall with a sparse understory. At high elevations it is usually less than 49 feet high and has more shrubs in the understory. At the high elevation, Montane Riparian may not be well developed or may occur in the shrub stage only. In northwest California along streams west of the Klamath mountains, black cottonwood is a dominant hardwood. In some

areas, it is codominant with bigleaf maple. At higher elevations, black cottonwood occurs with quaking aspen, white alder, and thin-leaf alder.

In northeastern California, black cottonwood, white alder and Sitka alder dominate the montane riparian zone. Oregon ash, willow and high diversity of forbs are common associates. In the Sierra Nevada, the associates include thinleaf alder, aspen, black cottonwood, dogwood, azalea, willow and water birch. In the southern Coast Range as well as the Transverse and Peninsular Ranges, bigleaf maple and California bay are typical dominantes. Fremont cottonwood is the most important cottonwood in the Sierra below 5000 feet; in much of the Coast Range, the Transverse and Peninsular Ranges.

Montane riparian can occur as alder or willow stringers along streams of yearlong seeps. In other situations, an overstory of fremont cottonwood, black cottonwood and/or white alder may be present. The transition between Montane Riparian intergrades with montane chaparral, montane hardwood, montane hardwood conifer, lodgepole pine, red fir, and wet meadow subtypes.

Valley Foothill Riparian (Grenfell) is found in valleys bordered by sloping alluvial fans, slightly dissected terraces, lower foothills and coastal plains. It occurs in the Central Valley, and lower foothills of the Cascade Ranges, Sierra Nevada, and Coast Ranges. It is found in lower slopes at the bases of the Peninsular and Transverse Ranges. A few lower elevation locations are on the desert side of the southern California mountains. Valley Foothill Riparian types range from sea level to 3,000 ft, fingering upward to 5000 ft on south facing slopes. It is generally associated with low velocity flows, flood plains, and gentle topography. Valleys provide deep alluvial soils and a high water table. The substrate is coarse, gravelly or rocky soils more or less permanently moist, but probably well aerated. Average precipitation is 6 to 30 inches, with little or no snow. Coastal areas have more moderate climate than the interior and receive some summer moisture from fog.

Canopy height is approximately 100 ft in a mature riparian forest, with a canopy cover 20 to 80 percent. Most trees are winter deciduous. Dominant species in the canopy layer are cottonwood, California sycamore and valley oak. Subcanopy tree are white alder, California box elder, and Oregon ash. Typical understory shrub layer plants include wild grape, wild rose, California blackberry, wild raspberry, blue elderberry, poison oak, and willows.

The herbaceous layer consists of sedges, rushes, grasses, miner's lettuce, Douglas sagewort, poison hemlock, and nettles. Cottonwood or willow tree habitats close to river channels that receive a good silt infusion, without major disruptive flows tend to be self perpetuating.

Desert Riparian (Laudenslayer) habitats are found along permanent streams and at seeps and springs in the Mojave and Sonoran Deserts and in desert canyons of the Peninsular Range. They are generally found at elevations less than 3000 feet, however, willow thickets may be found well above that level in the mountains. Desert Riparian is characterized as dense groves of low, shrub-like trees

or tall shrubs to woodlands of small to medium-sized trees. It is found adjacent to permanent surface (e.g. streams and springs) or in subirrigated areas. Usually an abrupt transition occurs between this and adjacent shorter and more open desert vegetation.

Dominant canopy species include: tamarisk, velvet ash, mesquite, screwbean mesquite, Fremont cottonwood, and willows such as Gooding's, Hind's, and arroyo willow. The subcanopy includes shorter, smaller individuals of the canopy species as well as quailbush, Mojave seablight, desert lavender, seep willow, and arrowhead.

Fresh Emergent Wetland (Kramer) occurs on virtually all exposures and slopes, provided a basin or depression is saturated or at least periodically flooded. However, they are mostly on level to gently rolling topography. It is found in various landscape depressions or at the edge of rivers or lakes. Fresh Emergent Wetland vegetation zones characteristically occur as a series of concentric rings which follow basin contours and reflect relative depth and duration of flooding. Climatic conditions are highly variable and range from the extreme summer heat of Imperial County to the Great Basin climate of Modoc County where winter temperatures are often well below freezing.

Vegetation is characterized by erect, rooted herbaceous hydrophytes. Dominant vegetation is generally perennial monocots up to 6 feet tall. All emergent wetlands are flooded frequently, enough so that the roots of the vegetation prosper in an anerobic environment. Vegetation may vary in size from small clumps to vast areas covering several kilometers. On the upper margins of Fresh Emergent Wetland, saturated or periodically flooded soils support several moist soil plant species including: sedges, Baltic rush, nutgrasses, and on more alkali sites, saltgrass. On wetter sites, common cattail, bulrushes, and arrowhead are potential dominant species.

Vernal Pools are ephemeral wetlands forming in shallow depressions underlain by a substrate near the surface that restricts the percolation of water. They are characterized by a barrier to overland flow that causes water to collect and pond. These depressions fill with rainwater and runoff from adjacent areas during the winter and remain inundated until spring or early summer, sometimes filling and emptying several times during the wet season (CNPS *Vernal Pool Monitoring Guidelines* 1994).

Vernal pools are divided into northern California and southern California sections. Five vernal groups are recognized in northern California: Northern basalt flow vernal pools, Northern claypan vernal pools, Northern hardpan vernal pools, Northern volcanic ashflow vernal pools, and Northern mudflow vernal pools. Three vernal pool groups are recognized in southern California: San Diego Mesa vernal pools, San Jacinto Valley vernal pools, and Santa Rosa Plateau vernal pools (*A Manual of California Vegetation* 1995).

Depending on the location and type of vernal pool you may encounter, several plant genera are common and typical of vernal pools. These include *Juncus*, *Downingia*, *Gratiola*, *Limnanthes*, *Lasthenia*, *Orcuttia*, *Navarretia*, *Eryngium*, *Isoetes*, and *Myosurus*.

Coastal Scrub (de Becker) is described as low to moderate sized shrubs with mesophytic leaves, flexible branches, semiwoody stems growing from a woody base and a shallow root system. It occurs in a narrow strip throughout the length of California. Coastal scrub usually occurs within about 20 miles of the ocean; in Riverside County, it extends at least 50 miles inland. Elevation ranges from sea level to 3000 ft. Structure differs among stands, mostly along a gradient that parallels the Pacific coastline. Two types of northern Coastal scrub are usually recognized. The first type (limited in range) occurs as low growing patches of bush lupine at exposed oceanside sites. The second more common type of northern Coastal scrub usually occurs at less exposed sites. Here, coyotebrush or chaparral broom dominates the overstory. Other common overstory species are blueblossom ceanothus, coffeeberry, salal, bush monkey flower, blackberry, poison oak, and wooley sunflower. Southern sage scrub occurs intermittently over a larger area than the northern Coastal Scrub types and is subdivided into three main types. Differences in composition of the three types correspond mostly to available moisture. A fairly common species in all three types is California sagebrush. The most mesic area from Mt. Diablo to Santa Barbara is dominated by black sage and California buckwheat. In the less mesic region from Santa Barbara south to Orange County, purple sage and California buckwheat join the black sage in importance. Golden yarrow, bush monkey flower and California encelia are typical. Understory herbaceous layer includes annual fescues, bromes, melic grass, wild oats, bluegrass and needlegrass. A variety of annual forbs also occur in this subtype.

Closed-cone Pine-cypress (Jensen) occurs in patches as an interrupted forest along coastal California from southern San Diego County north to Oregon. Inland, the distribution is a few widely scattered locations in the Peninsular and Coast Ranges and in the north and central Sierra Nevada. The closed-cone pine vegetation types are similar to each other and are described separately from Cypress types although some types contain both pine and cypress. Cypress types may reach heights of 20 to 66 feet. The understory is a well-developed shrub layer of chaparral species (chamise and manzanita) on open, well drained sites and a low, dense shrub cover and herbaceous layer on the poorly drained soils. Pine types typically reach heights of 60 to 70 feet and have a shrub layer of chaparral species with a high relative cover (up to 100%) and a sparse herbaceous cover.

Montane Hardwood-conifer (Anderson) occurs throughout California and is somewhat continuous from Santa Cruz County northward through the outer North Coast Range into Oregon, usually some distance inland from the coast. It follows the upper and/or inland margins of the coastal redwood or Douglas fir. It can be found on north facing slopes of the inner North Coast range, Santa Lucia Mountains and small patches extending to Santa Barbara County. It occurs somewhat continuously down the Sierra Nevada to the Transverse Range. Isolated patches can be found throughout the Transverse and Peninsular Ranges of southern California. Montane hardwood-conifer includes a

mix of conifers and hardwoods, often as a closed forest. At least one-third of the trees must be conifer and at least one-third must be broadleaf. This type often occurs in a mosaic-like pattern with small pure stands of conifers interspersed with small stands of broadleaf trees. Common associates are ponderosa pine, Douglas fir, incense cedar, California black oak, tanoak, Pacific madrone, Oregon white oak, and other localized species. Species composition varies among different geographic areas. In the north coast, California black oak, Oregon white oak, golden chinquapin, and canyon live oak are commonly found with white fir, Douglas fir and ponderosa pine. In the Klamath Mountains and North Coast from the Oregon border to Marin County, Oregon white oak, tanoak, Pacific madrone, red alder, Douglas fir, western red cedar, western hemlock, ponderosa pine, sugar pine and knobcone pine are common. In the Central Coast, common associates include coast live oak, bigleaf maple, Pacific madrone, tanoak, canyon live oak, Coulter pine, coastal redwood, and to a lesser extent, California black oak and ponderosa pine.

Montane Hardwood (McDonald) is composed of a pronounced hardwood tree layer, with an infrequent and poorly developed shrub stratum, and a sparse herbaceous layer. In the Coast range and Klamath Mountains, canyon live oak often forms pure stands on steep canyon slopes and rocky ridgetops. Middle elevation associates are Douglas fir, tanoak, Pacific madrone, California laurel, California black oak, knobcone pine and gray pine. Oregon white oak and coast live oak are abundant at lower elevations. Understory vegetation is mostly shrubs and herbaceous vegetation. Herbaceous forage includes: bluegrass, melic grass, soft chess, riggut brome, annual fescues, perennial fescues, wild oats, needlegrasses and a variety of annual forbs. In the Transverse and Peninsular Ranges of southern California, overstory associates at the middle and higher elevations are Jefferey pine, ponderosa pine, sugar pine, incense cedar, white fir, California black oak, and Coulter pine. At lower elevations, plant associates include white alder, coast live oak, big leaf maple, California laurel, gray pine and blue oak. Understory shrubs are manzanita, ceanothus, poison oak, and coffeeberry. Herbaceous cover is composed of bluegrasses, bromes, melic grass, wild oats, annual fescues, wildrye, needlegrass and a wide variety of forbs.

Coastal Oak Woodland (Holland) occur in the coastal foothills and valleys from Trinity and Humboldt Counties south through the coastal regions of the northern and southern Coast Range, Transverse and Peninsular Ranges of southern California. They extend beyond the counties of southern California into coastal Baja California, where they reach their southern limit.

The vegetation is extremely variable. The overstory consists of deciduous and evergreen hardwoods (mostly oak at 15 to 70 ft) sometimes mixed with scattered conifers. In mesic sites, the trees are dense and form a closed canopy. In drier sites, the trees are widely spaced, forming an open woodland or savannah.

Composition of both overstory trees and understory of coastal oak woodland varies and reflects the environmental diversity over which this habitat occurs. In the North Coast Range south to Sonoma County, Oregon white oak is the common deciduous white oak. Under favorable conditions,

California black oak, canyon live oak, madrone, and interior live oak are found mixed with Oregon white oak. Oregon white oak is also found with western juniper in drier volcanic soils of the Cascades. The shrubby and grassland understory is similar in structure and composition to the blue oak/gray pine (foothill woodland) of Central California. Gray pine is common in both subtypes.

From Sonoma County south, the coastal oak woodlands are usually dominated by coast live oak. In many coastal regions, the coast live oak is the only overstory species. In mesic sites, trees characteristic of mixed evergreen forests mix with coast live oak, such as California bay, madrone, tanbark oak, and canyon live oak. On drier, interior sites, coast live oak mixes with valley oak, blue oak, and gray pine.

Typical understory plants in dense coast live oak woodlands are shade tolerant shrubs such as California blackberry, creeping snowberry, toyon, and herbaceous plants such as bracken fern, fiesta flower, and miner's lettuce. In drier sites where coast live oak woodlands intergrade with chaparral, species such as greenleaf manzanita, chamise, gooseberries, currants, and ceanothus species form the understory. Where vegetative types intergrade with coastal scrub, typical understory plants are bush monkeyflower, coyote brush, black sage, and California sagebrush. Herbaceous cover in all areas described includes: bluegrasses, needlegrass, wild oats, slender wild oats, melic grass, bromes, annual fescues, perennial fescues, wildrye, and a variety of perennial and annual forbs.

Douglas Fir (Raphael) in northwest California, forms a complex mosaic of forest expression due to the geologic, topographic, and successional variation typical within its range. Typical aggregations include a lower overstory of dense broad-leaved evergreen trees (tanoak, Pacific madrone) with an irregular, often open, higher overstory of evergreen trees (Douglas fir). A small number of pole and sapling trees occur throughout the stands. On wet sites, shrub layers are well developed, often with 100 percent cover. Cover of herbaceous forage under the shrubs can be up to 10 percent. At higher elevations, the shrubs disappear and the herb layer is often 100 percent. Dry habitats have a greater cover of shrubs and especially grasses which include bluegrasses, melic grass, bromes, annual and perennial fescues, wild oats, wildrye and needlegrass.

Coast Redwood (Mayer) is characterized by even-aged structure with an open parklike appearance. Most of this type is second-growth with occasional old growth stages. Other associates are Sitka spruce, grand fir, red alder, and Douglas fir. Further inland, Douglas fir becomes dominant with tanoak and madrone. Understory composition is diverse and varies along a north-south/east-west gradient. Important species are sword fern, deer fern, chain fern, salal, coast rhododendron, California huckleberry, coast fireweed, creambush oceanspray, salmonberry and poison oak. Herbaceous species include bluegrass, annual and perennial fescues, bromes, melic grass, wildrye, needlegrass, and a variety of annual and perennial forbs.

Annual Grassland (Kie) occurs throughout the central valley of California, in the coastal mountain ranges as far north as Mendocino County, and in scattered locations in southern California. It occurs

from about sea level to about 3,900 feet in elevation. Annual grasslands are open grasslands composed primarily of annual plant species. Many of these species also occur as understory plants in Valley oak woodland and other vegetation types. Structure in annual grassland depends largely on weather patterns and livestock grazing. Introduced, naturalized, annual grasses are the dominant plant species. These include: wild oats, slender wild oats, soft chess, riggut brome, red brome, wild barley and annual fescues. Common forbs include broadleaf filaree, redstem filaree, turkey mullein, true clovers, bur clover, medics, popcorn flower and many other forbs. Perennial grasses, found in moist, lightly grazed areas or relic prairie areas include needlegrass and Idaho fescue.

Vernal pools, found in small depressions with a hardpan soil layer, support *Downingia*, meadow foam, and other species.

Blue Oak Woodland (Ritter) occurs along the western foothills of the Sierra Nevada-Cascade Ranges, the Tehachapi Mountains, and in the eastern foothills of the Coast Range, forming a nearly continuous ring around the Central Valley. It is found in scattered patches in the Transverse and Peninsular Ranges. It has an overstory of scattered trees, mostly blue oaks. The canopy is dominated by broad leaf trees (16 to 50 feet tall), commonly forming open savannah-like stands on dry ridges and gentle slopes. Shrubs are often present, but rarely extensive. Typical understory is composed of an extension to the Annual Grassland subtype.

Valley Oak Woodland (Ritter) patches are found as remnants in the Sacramento Valley from Redding south, in the San Joaquin Valley to the Sierra Nevada foothills, in the Tehachapi Mountains and in the valleys of the Coast Range from Lake County to western Los Angeles County. It varies from savannah-like to forest-like stands with partially closed canopies, comprised mostly of deciduous broad-leaved trees. Denser stands typically grow in valley soils along natural drainages. Tree density decreases with transition from lowlands to less fertile soils of drier uplands. Canopies are dominated almost exclusively by valley oaks. Tree associates include California sycamore, Hind's black walnut, interior live oak, and blue oak. The common understory shrubs consist of poison oak, blue elderberry, California wild grape, toyon, California coffeeberry, and California blackberry. Herbaceous understory is composed of an extension to the Annual Grassland subtype.

Blue Oak-Gray Pine (Verner) generally forms a ring around the foothills of the Central Valley between 500 and 3000 feet in elevation. The Pit River of the Cascade Range and foothills of the Klamath Mountains mark the approximate northern limit. It is nearly continuous in the western foothills of the Sierra Nevada. This distribution extends south into the Liebre Mountains of northern Los Angeles County and the drainages of Piru Creek of Ventura County. It is discontinuous in the Coast Range west of the Central Valley from Ventura to Mendocino Counties. It is typically diverse in structure both vertically and horizontally, with a mix of hardwoods, conifers, shrubs and herbaceous cover. The shrub component is composed of several species that tend to be clumped with interspersed patches or openings of annual grassland. Blue oak and gray pine typically comprise the overstory with blue oak most dominant. In the foothills of the Sierra Nevada, tree

species typically associated with this are interior live oak and California buckeye. At lower elevations, where blue oaks make up most of the canopy, the understory tends to be primarily annual grasses and a variety of forbs. At higher elevations the understory usually includes patches of shrubs in addition to the annual grasses and forbs.

Mixed Chaparral (England) is a floristically rich type that supports approximately 240 species of woody plants. Composition changes between northern and southern California and with precipitation regime, aspect, and soil type. Dominant species include scrub oak, several species of ceanothus and manzanita. Commonly associated shrubs include: chamise, birchleaf mahogany, silk tassel, toyon, yerba santa, California buckeye, poison oak, holly-leaf cherry, chaparral pea, and California fremontia. Understory herbaceous layer includes annual fescues, bromes, melic grass, wild oats, bluegrass and some needlegrass. Many annual forbs occur in this subtype.

Mixed Chaparral generally occurs below 5000 ft on mountain ranges throughout California except in the deserts. It occurs throughout the Transverse, Peninsular, and Central Coast Ranges and the Tehachapi Mountains. In the Sierra Nevada, this type is a broken band in the middle and lower elevations of the western slope. It also occupies large areas in the northern ranges especially on the interior slopes, and is found as large discontinuous patches in the Siskiyou Mountains and Cascade and Klamath Ranges.

Chamise/Redshank Chaparral (England) may consist of nearly pure stands of chamise or redshank, a mixture of both, or with other shrubs. Toyon, sumac, poison oak, redberry, and buckthorn are commonly found in drainage channels and on other relatively mesic exposures. Ceanothus and sugarbush sumac are common associates of redshank. In southern California, white sage, black sage, and California buckwheat are common at lower elevations and on recently disturbed sites. Understory herbaceous layer includes: annual fescues, bromes, melic grasses, wild oats, bluegrasses and needlegrass. A variety of annual forbs occur in this subtype.

This type is usually found below 4000 ft on mountain ranges outside the deserts. Large, nearly pure areas of redshank-dominated chaparral occurs in the interior valleys of the Peninsular Range of Riverside and San Diego Counties; isolated stands are found in the Santa Monica Mountains and in northern Santa Barbara and San Luis Obispo Counties. Chamise is the dominant shrub of this vegetative type throughout the rest of the state. Nearly pure stands of chamise cover large areas in the Peninsular and Transverse Ranges and Tehachapi Mountains of southern California. To the north, chamise more frequently mixes with other shrubs, especially several species of ceanothus. It also covers large areas in the central coast ranges and on the eastern exposures of the north coast ranges; as isolated stands in the Cascade and Klamath Ranges and Siskiyou Mountains; and in a broken band in the western slope of the Sierra Nevada.

Montane Chaparral (Risser & Fry) subtype is associated with mountainous terrain from mid to high elevations (5000 to 10000 feet). It occurs in southern California above 7000 feet in the

Transverse Range of Los Angeles, and in the San Bernardino, Riverside and San Diego Counties; from Siskiyou to Kern Counties in the Cascade and Sierra Nevada Mountains; and is a minor type from Tehama to Lake Counties; and in Del Norte, Siskiyou, Trinity, and Shasta Counties in the north Coast Ranges and Klamath Mountains. Montane chaparral growth form can vary from treelike to prostrate. When mature, it is often impenetrable to large animals. It is characterized by evergreen species, however, deciduous or partly deciduous species may also be present. Species composition changes with elevational and geographical range, soil type and aspect. One or more of the following species usually characterizes the upper montane chaparral communities: whitethorn ceanothus, snowbrush ceanothus, greenleaf manzanita, pinemat manzanita, bittercherry, huckleberry oak, hoary manzanita, Sierra chinquapin, Greene goldenweed, and mountain mahogany. Herbaceous species include wheatgrasses, bentgrasses, mountain brome, reedgrass, timberline bluegrass, squirreltail and needlegrass.

Pinyon-Juniper (Laudenslayer & Boggs) has elevational variation with changes in latitude. It is found from 6000 to 9000 ft in the Sierra Nevada; 4000 to 8000 ft in Mohave Desert; and 3500 to 5000 ft in San Jacinto and Santa Rosa Mountains. Most Pinyon-Juniper is found east of the Sierra Nevada although single-needle pinyon is found in Santa Barbara and Ventura Counties. It typically is an open woodland of low, round crowned, bushy trees. Depending on site suitability, they range from 30 to 50 feet in height. Crowns of individual trees rarely touch and canopy cover is less than 50 percent. Open groves of overstory trees often have dense to open layer of shrubs and a variety of herbaceous grasses and forbs including western wheatgrass, blue grama, Indian ricegrass and cheatgrass. Shrub-size plants in the subcanopy include big sagebrush, blackbrush, narrowleaf goldenbush, curleaf mahogany and rabbitbrush.

Juniper (Laudenslayer) subtypes can be found from sea level to above 10000 feet elevation. The distribution of Juniper in California is described by the range of western juniper south to where pinyon pine becomes an important associate. This area includes northeastern California south and east to northern Inyo County. It is characterized as woodlands of open to dense aggregations of junipers, in the form of aborescent shrubs or trees. Dispersion of junipers ranges from small clumps to widely scattered single plants. Shrub species typically associated with juniper include antelope bitterbrush, California buckwheat, gray horsebrush, green mormon-tea, curleaf mountain mahogany, big sagebrush and black sagebrush. Typical forbs and grasses include bighead clover, Pacific bluegrass, Idaho fescue, one-spike oatgrass, bottlebrush squirreltail and bluebunch wheatgrass.

Low sage (Verner) is generally dominated by either low sagebrush or black sagebrush, often in association with Douglas rabbitbrush, antelope bitterbrush or big sagebrush. Black sagebrush is commonly associated with winterfat and Mormon tea. Western juniper may be sparsely scattered in low sagebrush stands. Utah juniper and singleleaf pinyon are sometimes scattered in stands dominated by black sagebrush. Common grass species include Pacific bluegrass, bluebunch wheatgrass, bottlebrush squirreltail, Thurber's needlegrass, Idaho fescue and a rich variety of forbs.

Low sagebrush communities are generally restricted to elevated arid plains along the eastern flanks of the Sierra Nevada, from Inyo County northward through Modoc and Siskiyou Counties.

Bitterbrush (Neal) has elevational variation with changes in latitude, exposure, soil and precipitation. Two species occur, antelope bitterbrush and desert bitterbrush and is occasionally found in pure stands. Antelope bitterbrush ranges from east of the Cascade and Sierra Nevada crest from Oregon, south to Inyo County. It extends west of the crest in the Transverse Ranges of Shasta and Siskiyou Counties. Desert bitterbrush is found from Inyo and Mono Counties on the north where it mixes with antelope bitterbrush, south into eastern Kern County.

Bitterbrush varies from small, widely spaced shrubs to large, closely spaced shrubs with more than 90 percent canopy cover. Stands usually contain 750 to 3000 plants per hectare (300 to 1200 per acre). It often occurs as a codominant with big sagebrush or rubber rabbitbrush, gray horsebrush, Douglas rabbitbrush, Mormon tea, curlleaf mountain mahogany and desert peach. Overstory species are ponderosa pine, Jeffrey pine, lodgepole pine, or western juniper. Understory herbaceous plants vary and include Idaho fescue, bottlebrush squirreltail, needlegrass, bluebunch wheatgrass, buckwheat and Phlox. Desert bitterbrush is found mixed with big sagebrush, fourwing saltbush, creosote bush, rubber rabbitbrush, Mormon tea, and spiny hopsage. Common understory species are Thurber needlegrass, buckwheat, common snakeweed and big galleta.

Sagebrush (Neal, Weixelman) is a continuous strip along the east and northeast borders of California south into Inyo County. It occupies dry slopes and flats from about 1600 to 10500 ft in elevation. It occurs typically in large, open, discontinuous stands with fairly uniform height. Density ranges from open, widely-spaced small plants to large, closely-spaced plants with canopies touching. Many stands include other species of sagebrush, rabbitbrush, horsebrush, gooseberry, western chokecherry, curlleaf mountain mahogany and bitterbrush. Several species and subspecies of sagebrush occur in California. As topography, soil moisture, and soil composition change through the sagebrush type, the dominant species of sagebrush changes. On alluvial bottoms with deep soils, basin big sagebrush (*Artemisia tridentata* ssp. *tridentata*) is common. On lower slopes and alluvial fans, Wyoming sagebrush (*Artemisia wyomingensis*) dominates. At higher elevations, mountain big sagebrush (*Artemisia tridentata* ssp. *vaseyana*) dominates the slopes. On low flats with shallow soils and restricted drainage, low sagebrush (*Artemisia arbuscula*) is dominant. Where soil remains saturated throughout the spring, silver sagebrush (*Artemisia cana*) dominates. Black sagebrush dominates sites with soils high in gravel and carbonates. Various amounts of herbaceous understory are found such as: needlegrass, squirreltail, Pacific bluegrass, and Great Basin wildrye. After disturbance and during years with excess moisture, annual grasses such as cheatgrass and medusahead invade sagebrush stands. At higher elevations, sagebrush may occur as an understory with mountain mahogany, pinyon-juniper and ponderosa pine.

Desert Scrub (Laudenslayer) is the most widespread habitat in the California deserts. It occurs in California throughout the Mohave and Sonoran Deserts at suitable elevations. Desert Scrub

typically are open, scattered assemblages of broad-leaved evergreens or deciduous microphyll shrubs. Canopy cover is generally less than 50 percent; usually much less. Bare ground is often between shrub interspaces. Desert Scrub generally has low species diversity. Associated species include catclaw acacia, desert agave, coastal bladderpod, bitterbrush, burrobush, white bursage, barrel and hedgehog cactus, cholla, Wiggen's croton, desert globe mallow, Douglas and rubber rabbitbrush. Forbs and grasses are sparse.

Alkali Desert Scrub (Rowlands) occurs in California throughout the Mojave Desert, within the Great Basin portion of northeastern California and in the southern San Joaquin Valley. It can generally be found surrounding the receding shores of large prehistoric lakes and alkali playas that mark the location of dry lake beds. At sites where the halophytic phase predominates, the available ground water is usually at or very close to the surface and is heavily mineralized. Alkali scrub occurs from below sea level in Death valley to over 5900 feet in some Great Basin locations.

Some primary perennial plant species of the xerophytic phase include various species of shrubby saltbushes, and other important shrubs such as bud sagebrush, white bursage, creosote bush, fremont Dalea, Nevada ephedra, spiny hopsage, spiny menodora and winterfat. Subshrubs include cheesebush, desert alyssum, desert prince's plume, alkali goldenbush and snakeweed. The diversity of cactuses and other succulents in the Alkali scrub is relatively low. Forbs and grasses known only from this type of vegetation include Torrey blazingstar, buckwheats, cleomella, desert sunbonnet, Booth evening primrose, desert globe mallow, Nevada goosefoot, desert pepperweed, spurge, sand dropseed, galletgrass, Indian ricegrass and King's eyelash grass.

Some primary perennial shrub and subshrub species of the halophytic phase include arrow-weed, black greasewood, alkali goldenbush, alkali rubber rabbitbrush, alkali blite, species of saltbush and salt cedar. Forbs and grasses include alkali heath, common glasswort, heliotrope, various species of annual saltbushes, wirerush, yerba mansa, aparejogress, alkali Muhly, alkali sacaton and saltgrass.

At lower middle elevation, Alkali Desert Scrub may interface with Joshua tree; and at middle elevations with Juniper, Pinyon-Juniper, Sagebrush, Low Sagebrush, and Bitterbrush. Throughout the Alkali Desert Scrub range, Desert Wash and Desert Riparian may occur as inclusions. In the San Joaquin Valley, Alkali Desert Scrub borders the Annual Grassland.

Desert Wash (Laudenslayer) is characterized by the presence of aborescent often spiny shrubs generally associated with intermittent streams (washes) or drier bajadas (alluvial deposits adjacent to washes), especially in the Sonoran Desert. Plants are generally taller than those of the surrounding desert habitats. Heights of Desert Wash plants usually do not exceed 15 ft. However, some mesquite stands are as tall as 30 ft.

Soils tend to be sandy or gravelly; some wash plants may be found in a variety of soils. This type is often found in association with canyons, arroyos, washes, and other features that contain water for at

least part of the year. Presence of water during part of the year appears to be essential for the habitat to exist.

Red Fir (Barrett) subtype is distributed in an elevational band from about 6000 to 9000 feet in elevation. It extends from northern Lake County northward through the north Coast Range and from Kern County northward through the Sierra Nevada into the Cascade Range of southwestern Oregon. Red fir is typified by even-aged groups of trees that cover several thousands of square meters. Mature red fir stands normally are monotypic, with very few other species in any layer. Heavy shade and a thick layer of duff tends to inhibit understory vegetation, especially in dense stands. In the Klamath Mountains, red fir gives way to noble fir.

Lodgepole Pine (Bartolome) subtypes are scattered throughout the State, but concentrated in the Sierra Nevada and southern Cascades. Significant stands, however, occur in the higher mountains of southern California. Lodgepole pine typically forms open stands of similarly sized individuals in association with few other species and with sparse understory. Mature Sierran stands often contain significant seedlings and saplings. Lodgepole pine dominates the type. Occasional associates include aspen and mountain hemlock. The amount of understory may be absent or sparse, consisting of scattered shrubs and herbs, or a rich herbaceous layer at meadow margins or stringer meadows. Many lodgepole pine stands are associated with meadow edges and streams, where the understory consists of grasses, forbs and sedges. In the southern Sierra, the understory may consist of huckleberry and mountain heather.

White Fir (Shimamoto) subtype is characterized by nearly monotypic even-aged overstory. Elevational range for white fir varies with latitude. In the Klamath Mountains of Trinity and Siskiyou Counties it is found 4500 to 5500 feet; from 5000 to 6000 feet in the Cascade and Warner Mountains; from 5500 to 10000 feet in the central and southern Sierra Nevada; above 6000 feet throughout the Transverse and Penninsular Ranges; and between 6000 to 7000 feet in the southern interior ranges. Shade and downed woody material tend to inhibit understory species. In the Klamath Mountains, canyon live oak and chinquapin are the predominant understory species. Jefferey pine is an associate in the Warner and Cascade Mountain ranges with greenleaf manzanita and currant as understory shrubs. Tree associates in the southern Sierra Nevada include sugar pine, incense cedar, and red fir. Pipssissewa, wintergreen, and currant are understory species.

Eastside Pine (Fitzhugh) occurs from about 4000 to 6500 feet elevation approximately east of a line drawn from Lake Tahoe to Hilt, California. Small scattered stands occur south of Lake Tahoe through the northern half of Inyo County. Eastside pine is characterized by short to moderate height at maturity. Oak or juniper may form an understory. Ponderosa pine is the dominant tree with less representation by Jefferey pine, lodgepole pine, white fir, incense cedar, Douglas fir, California black oak and western juniper. Undergrowth varies, depending on site condition, but typically include one or more of the following shrubs: big sagebrush, antelope bitterbrush, manzanita, ceanothus, rubber rabbitbrush, mountain mahogany, creambush oceanspray and snowberry.

Herbaceous plants include mule ears, arrowleaf balsamroot, Idaho fescue, bluegrass, bluebunch wheatgrass, and bottlebrush squirreltail.

Sierran Mixed Conifer (Allen) generally forms a vegetation band ranging from 2500 feet to 4000 ft in the north; and 4000 to 10000 feet in the southern Sierra Nevada. The Sierra Nevada mixed conifer forest occupies between 4.5 to 7.8 million acres in southern Oregon and California, dominating western middle elevation slopes of the Sierra Nevada. Disjunct populations are found in the Peninsular, Transverse and Coast Ranges of California. It is an assemblage of conifer and hardwood species that form a multi-layered forest. Historically, burning and logging have caused wide variability in stand structure, resulting in both even-aged and uneven-aged stands. Five conifers and one hardwood typify the mixed conifer forest - white fir, Douglas fir, ponderosa pine, sugar pine, incense cedar, and California black oak. Douglas fir dominates the species mix in the north, but is absent south of the Merced River. Ponderosa pine dominates at lower elevations and on south slopes. Jeffrey pine commonly replaces ponderosa pine at high elevations, on cold sites or on serpentine-like soils. Red fir is a minor associate at highest elevations. Sugar pine is found throughout the mixed conifer. Black oak is a minor, but widespread component. Deerbrush, manzanita, chinquapin, tan oak, bitter cherry, mahala mat, mountain whitethorn, gooseberry, wild rose and mountain misery (Bear Clover) are common shrub species in this vegetation type. Grasses and forbs associated with this type include mountain brome, California brome, needlegrass, bluegrass, blue wildrye, sedges, rushes, thistles and Gayophytum.

Klamath Mixed Conifer (Benson) is located within the Klamath Region, a geologically defined area in northwestern California comprised of a complex of mountain ranges including the Scott, Salmon, Marble and southern Siskiyou Mountains and Trinity Alps. It is typically tall, dense to moderately open, needle-leaved evergreen forest with patches of broad-leaved evergreen and deciduous low tree and shrubs. The overstory layer is characterized by a mixture of conifers. Dominant conifers in the western portion are white fir and Douglas fir. In the eastern portion, dominant conifers are white fir, Douglas fir, ponderosa pine, incense cedar and sugar pine. Other conifers in the overstory layer include Shasta red fir, lodgepole pine, mountain hemlock, western white pine, knobcone pine, Jeffrey pine and Brewer spruce. Occasionally broadleaf trees include canyon live oak and California black oak. Dense forest have a very rich shrub layer which can include Sierra laurel, Sadler oak, dwarf rose or western thimbleberry. The shrub layer in open to moderately dense forests include bittercherry, Sierra chinquapin, pinemat manzanita, mahala mat, huckleberry oak, Oregon grape, greenleaf manzanita, wild rose, snowberry, and Juneberry. A variety of forbs and grasses make up a well developed herbaceous layer.

Montane Hardwood-Conifer (Anderson) occurs throughout California, is somewhat continuous from Santa Cruz County northward through the outer Coast Range into Oregon usually some distance inland from the coast. It is found on the north facing slopes of the inner Coast Range, the Santa Lucia Mountains, as well as small patches extending to Santa Barbara County. It occurs almost continuously down the Sierra Nevada to the Transverse Range and Peninsular Range of

southern California. It includes both conifers and hardwoods, often as a close forest. It often occurs in a mosaic-like pattern with small pure stands of conifers interspersed in small stands of broad-leaved trees. Common associates are ponderosa pine, Douglas fir, incense cedar, California black oak, tanoak, Pacific madrone, Oregon white oak and other localized species. These localized species vary throughout the State and include: red alder, western red cedar, western hemlock, bigleaf maple, white alder, dogwood, black cottonwood, canyon live oak. The shrub and herbaceous layer is varied depending on soils, moisture, aspect and site conditions. Common grasses include bromes, fescues, needlegrass, bluegrass, melic grass and wildrye.

Jefferey Pine (McBride) subtype ranges from 500 feet to 9500 feet, the actual range depending on latitude. This type covers extensive areas in the Klamath Mountains, North Coast Range, Cascade Range, Modoc Plateau, Sierra Nevada (mostly eastside), Transverse Range, and the Peninsular Range in California. The structure varies over its distribution. A single tree layer is characteristic on moderately dry sites. On moist and mesic sites a second tree layer exists which is composed of deciduous hardwood species. It is the dominant species in the upper tree layer. It usually forms pure stands but may have as its associates, ponderosa pine, Coulter pine, sugar pine, lodgepole pine, white fir, red fir, incense cedar and black cottonwood. Dominant species composition of the second tree layer consists of aspen in moist sites and California black oak on mesic sites, and pinyon pine and western juniper on dry sites. Shrub species composition varies between geographical regions. In the Klamath Mountains, huckleberry, scrub oak, manzanita, Fremont silktassel and coffeeberry dominate the shrub layer. On the western slope of the Sierra Nevada, huckleberry oak, manzanita and bear clover dominate. East of the Sierra-Cascade crest the dominant shrub layer species included wax currant, snowberry and greenleaf manzanita at higher elevations and antelope bitterbrush, rabbitbrush, and sagebrush at lower elevations. Herbaceous layer includes rockcress, buckwheat, Ivesia, lupine, melic grass, Bridge's penstemon and needlegrass. East slope species include: squirreltail, blue wildrye, slender hairgrass, western needlegrass and wooley wyethia.

Ponderosa Pine (Fitzhugh) subtype is found on suitable mountain and foothill sites throughout California except in the immediate area of San Francisco Bay, in the north coast area, south of Kern County in the Sierra Nevada and east of the Sierra Nevada crest. It occurs in isolated groups and Riverside San Bernardino, Los Angeles, Ventura and Santa Barbara Counties. Tree-spacing varies from open patchy to extremely close. This type includes pure stands as well as stands of mixed species in which at least 50% of the canopy is ponderosa pine. Typical tree associates include white fir, incense cedar, coulter pine, Jefferey pine, sugar pine, Douglas fir, bigcone Douglas fir, canyon live oak, California black oak, Oregon white oak, Pacific madrone and tanoak. Associated shrubs include manzanita, ceanothus, bear clover, Pacific dogwood, yerba santa, silktassel, bitter cherry, California buckthorn, poison oak, and Sierra gooseberry. Grasses and forbs include California brome, mountain brome, melic grasses, bluegrasses, blue wildrye, beardless wildrye, squirreltail, needlegrasses, fescues, bedstraw, brakenfern, Clarkia, Gilias, Sierra iris, lupines, nightshade, streptanthus and violets.

Aspen (Verner, Weixelman) habitats in California generally occur from the Sierra Nevada Range in Tulare County north into Trinity and Siskiyou Counties, and Modoc Plateau. The southern limit is an isolated population in the San Bernardino Mountains. Mature stands usually have relatively open canopies, often shared with other deciduous trees and few conifer species, typically pines. Aspen represent an early to mid successional stage and will generally be encroached upon by conifer species in the later successional stages in the absence of fire or other disturbance. Aspen stands are usually composed of clones representing one or more genetic lines. They vary from few stems per acre to many stems per acre. Associated subdominant tree species may include willow, alder, black cottonwood, lodgepole pine, Jeffrey pine, ponderosa pine, red fir, white fir, Douglas fir, and Engleman Spruce. Important understory shrubs include sagebrush, roses, snowberry, western chokeberry, and western serviceberry. Forbs are usually more abundant than grasses or sedges. Grasses include alpine timothy, blue wildrye, geyer wildrye, bluegrasses, bentgrass, reedgrass, bromes, fescues, velvetgrass, and wild barley.

Douglas Fir (Raphael) type occurs in the north Coast Range from Sonoma County north to the Oregon border and in the Klamath Mountains of California and Oregon. In the Sierra Nevada it occurs from Fresno County, along the west slope north to Shasta County. Overstory composition varies with soil parent material, moisture, topography, and disturbance history. Less rocky, dry soils support Douglas fir, tanoak and Pacific Madrone in associated with sugar pine, ponderosa pine, California black oak and canyon live oak. Wettest sites include Pacific yew and Port-Oxford cedar. The shrub layer is typically composed of canyon live oak, Oregon grape, California blackberry, dwarf rose, and poison oak. Mesic sites support vine maple, California hazel, salal, and Pacific rhododendron. Forbs and grasses included Pacific trillium, western swordfern, insideout-flower, broadleaf starflower, deervetch, American deervetch, common whipplea, California honeysuckle, American trailplant and bracken fern.

REFERENCED INFORMATION

- Abrams, L. and R.S. Ferris, 1960. *Illustrated Flora of the Pacific States*. Stanford University Press
Stanford, CA.
- Hickman, J.C. 1993. *The Jepson Manual, Higher Plants of California*. University of California
Press. Berkeley, CA.
- Humboldt-Toiyabe National Forests. *FS 2060 Ecosystem Classification for Eastern Sierra
Nevada, Central and Eastern Nevada* (database). US Forest Service. Sparks, NV.
- Kartesz, J. 1994. *Plants of California* (database from Biota of North America Program)
US Soil Conservation Service. Sacramento, CA.
- Manning, M.E. & W.G. Padgett. 1995. *Riparian Community Type Classification for Humbolt &
Toiyabe National Forest, Nevada and Eastern California*. U.S. Forest Service. Ogden, UT.
- Mayer, K.E. & W.F. Laudenslayer. 1988. *A Guide to Wildlife Habitats of California*.
California Department of Forestry & Fire Protection. Sacramento, CA.
- McMinn, H.E. 1970. *An Illustrated Manual of California Shrubs*. University of California Press.
Berkeley, CA.
- Modoc National Forest. *FS 2060 Ecosystem Classification for Sierra-Cascade Province*
(database). US Forest Service. Alturas, CA.
- Munz, P.A. 1959. *A California Flora*. University of California Press. Berkeley, CA.
- Plumas National Forest. *FS 2060 Ecosystem Classification* (database).
US Forest Service. Quincy, CA.
- Ratliff, R.D. 1984. *Meadows in the Sierra Nevada of California: state of knowledge*. Pacific
Southwest Forest & Range Experiment Station. Berkeley, CA.
- Reed, P.B. 1988. *National List of Plant Species That Occur in Wetlands: CA & Intermountain*.
US Fish & Wildlife Service Research & Development. Washington, DC.

- Sampson, A.W. & B.S. Jespersen. 1963. *California Range Brushlands and Browse Plants*. California Agricultural Experiment Station Extension Service Manual 33.
- Sprague, G.L. 1998. *FS 2670 Sensitive Species List 1998*. U.S. Forest Service. San Francisco, CA.
- Stanislaus National Forest. *FS 2060 Ecosystem Classification Data base for Southern Sierra Province* (database). US Forest Service. Sonora, CA.
- Technical Riparian Work Group. 1992. *Integrated Riparian Evaluation Guide*, U.S. Forest Service. Ogden, UT.
- US Forest Service R4-ECOL-96-01. 1996. *Central Nevada Riparian Field Guide*. U.S. Forest Service Intermountain Region. Ogden, UT.
- US Forest Service R5-ECOL-TP-003. 1994. *Guide to Forested Communities of Upper Montane in the Central and Southern Sierra Nevada*. Pacific Southwest Region. San Francisco, CA.
- US Forest Service R5-ECOL-TP-001. 1993. *Ecological Guide to Mixed Conifer Plant Associations, Northern Sierra Nevada and Southern Cascade*. US Forest Service. Pacific Southwest Region. San Francisco, CA.
- Wildland Resources Center Report No. 38. 1996. *Status of the Sierra Nevada, Sierra Nevada Ecosystem Project, Final Report to Congress*. University of CA, Davis.

R5 Rangeland Plant List

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			WET	MOIST	DRY									
GRASSES	PAGE NO.													
<i>ACHNATHERUM (STIPA)</i>	NEEDLEGRASS p.1225													
<i>coronatum</i>	Giant needlegrass	ACCO						L	L					
<i>hymenoides</i>	Indian ricegrass	ACHY				L							L	
<i>latiglumis</i>	Sierra needlegrass	ACLA-3												L
<i>temmonii</i>	Temmon's needlegrass	ACLE				L			L				L	L
<i>lettermanii</i>	Letterman's needlegrass	ACLE-2		E	E								M	M
<i>nelsonii ssp. dorii</i>	Nelson's needlegrass	ACNED		M									L	L
<i>occidentalis ssp. californica</i>	California needlegrass	ACOCC			M	L			L				L	L
<i>occidentalis ssp. pubescens</i>	Western hairy needlegrass	ACOCP				L							L	L
<i>occidentalis ssp. occidentalis</i>	Western needlegrass	ACOCO		M	M								L	L
<i>pinetorum</i>	Pine needlegrass	ACPI				L							L	L
<i>speciosum</i>	Desert needlegrass	ACSP				L		L	L		L	L	L	
<i>stillmanii</i>	Stillman needlegrass	ACST												L
<i>thurberianum</i>	Thurber's needlegrass	ACTH											L	L
<i>webberi</i>	Webber needlegrass	ACWE				L							L	L
<i>AEGILOPS</i>	GOATGRASS p. 1227													
<i>triuncialis* (M)</i>	Barbed goatgrass	AETR								E				
<i>AGROPYRON</i>	WHEATGRASS p.1227													
<i>cristatum*</i>	Fairway crested wheatgrass	AGCR		E**									E**	E**
<i>desertorum*</i>	Standard c.w., Desert c.w.	AGDE-2											E**	E**
<i>AGROSTIS</i>	BENTGRASS p. 1227													
<i>exarata</i>	Spike redtop	AGEX	E	E						E				E
<i>gigantea*</i>	Large bentgrass	AGGI-2	E**	E**										E**
<i>idahoensis</i>	Idaho bentgrass	AGID		L	L	L	L		L					L
<i>oregonensis</i>	Oregon bentgrass	AGOR	L	L					L					L
<i>pallens</i>	Leafy bentgrass	AGPA-8	L	L		L	L		L					L
<i>scabra</i>	Ticklegrass	AGSC-5	E	E	E	E	E		E					E
<i>stolonifera*</i>	Creeping bentgrass	AGST-8	E	E	E		E							E
<i>thurberiana</i>	Thurber bentgrass	AGTH-2		L		L			L					L
<i>variabilis</i>	Mountain bentgrass	AGVA	L	L	L	L			L					L
<i>AIRA</i>	HAIRGRASS p.1230													
<i>caryophyllea*</i>	Silver hairgrass	AICA						E	E	E	E			E
<i>ALOPECURUS</i>	FOXTAIL p.1232													
<i>aequalis</i>	Shortawn foxtail	ALAE	E	E				M	M					M
<i>geniculatus</i>	Water foxtail	ALGE-2	M	M			M							
<i>pratensis*</i>	Meadow foxtail	ALPR-1	E	E					E					E
<i>ANTHOXANTHUM</i>	VERNALGRASS p.1233													
<i>odoratum*</i>	Sweet vernalgrass	ANOD		E					E		E			
<i>APERA</i>	SILKY BENT p.1233													
<i>interrupta</i>	Dense silky bent	APIN			E								E	

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			WET	MOIST	DRY									
GRASSES	PAGE NO.													
<i>ARISTIDA</i>	THREE AWN p.1234													
<i>oligantha</i>	Old field three-awn	AROL						E	E	E	E	E		
<i>temipes var. hamulosa</i>	Hook three-awn	ARTEH						M	M	M	M	M		
ARRHENATHERUM	TALL OATGRASS p.1235													
<i>elatius *</i>	Tall oatgrass	AREL-3			E**			E**	E**	E**	E**			
AVENA	OAT p.1235													
<i>barbata *</i>	Slender wild oat	AVBA						E	E	E	E	E		
<i>fatua *</i>	Common wild oat	AVFA						E	E	E	E	E		
BECKMANNIA	SLOUGH GRASS p.1236													
<i>syzigachne</i>	American sloughgrass	BESY	L	L										
BOUPELLOIA	GRAMAGRASS p.1238													
<i>eripoda</i>	Black grama	BOER-4										L		
<i>gracilis</i>	Blue grama	BOGR-2										L		
BRIZA	QUAKINGGRASS p.1239													
<i>maxima *</i>	Big quakinggrass	BRMA							E	E	E			
<i>minor *</i>	Little quakinggrass	BRMI-2							E	E	E			
BROMUS	BROMEGRASS p.1239													
<i>anomalus</i>	Nodding brome	BRAN				L							L	
<i>arenarius *</i>	Australian chess	BRAR-3						E	E	E	E	E		
<i>briziformis *</i>	Rattlesnake chess	BRBR-7						E	E	E	E	E		
<i>carinatus</i>	California brome	BRCA-5		M		M			M		M	M		
<i>carinatus var. carinatus</i>	Mountain brome	BRCAC-2		M		L			L				L	
<i>diandrus * (M)</i>	Rippgut	BRDI-3						E	E	E	E	E		
<i>hordaceus</i>	Soft chess	BRHO-2						E	E	E	E	E		
<i>inermis ssp. inermis *</i>	Smooth brome	BRINI	E**	E**	E**			E**	E**		E**	E**		
<i>laevipes</i>	Woodland brome	BRLA-3							M		M		M	
<i>madritensis ssp. rubens</i>	Red brome	BRMAR						E	E	E	E	E		
<i>orcuttianus</i>	Orcutt's brome	BROR-2				L			L			L	L	
<i>sterilis *</i>	Poverty brome	BRST-2			E			E	E	E	E	E		
<i>suksdorfii</i>	Suksdorf's brome	BRSU-2		E		M			M		M	M	M	
<i>tectorum * (M)</i>	Downy brome, Cheatgrass	BRTE			E			E	E	E	E	E	E	
<i>vulgaris</i>	Columbian brome	BRVU					L		L				L	
CALAMAGROSTIS	REEDGRASS p.1243													
<i>breweri</i>	Brewer reedgrass	CABR	L	L	L	L	L						L	
<i>canadensis</i>	Bluejoint reedgrass	CACA-4	L	L		L	L						L	
<i>koelerioides</i>	Cuyamaca reedgrass	CAKO							L					
<i>purpurascens</i>	Purple reedgrass	CAPU				L							L	
<i>rubescens</i>	Pinegrass	CARU							L				L	
CINNA	WOODREED p.1247													
<i>bolanderi</i>	Scribner woodreed	CIBO	L	L			L						L	
<i>latifolia</i>	Drooping woodreed	CILA-2	L	L		L	L		L				L	

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			WET	MOIST	DRY									
GRASSES	PAGE NO.													
<i>CYNODON dactylon</i> *	BERMUDA GRASS p. 1248	CYDA						E	E	E	E		E	
<i>CYNOSURUS cristatus</i> *	DOGTAIL p.1248	CYCR						E	E	E	E			
<i>echinatus</i> *	Annual dogtail	CYEC						E	E	E	E	E		
<i>DACTYLIS glomerata</i> *	ORCHARD GRASS p.1249	DAGL			E**			E**	E**	E**	E**	E**	E**	
<i>DANTHONIA californica</i>	OATGRASS p. 1249	DACA-3		M	M				M		M		M	
<i>intermedia</i>	California oatgrass	DAIN	M	M		M			M				M	
<i>unispicata</i>	Timber oatgrass	DAUN			M	M			M				M	
<i>DESCHAMPSIA atropurpurea</i>	HAIRGRASS p.1249	DEAT-2	L	L						L				
<i>cespitosa</i>	Mountain hairgrass	DECE	M	L		L			L				L	
<i>danthonoides</i>	Tufted hairgrass	DEDA	E	E	E	E	E	E	E	E	E		E	
<i>elongata</i>	Annual hairgrass	DEEL	E	E		E	E	E	E				E	
<i>DIGITARIA sanguinalis</i> *	CRABGRASS p.1250	DISA							E	E	E			
<i>DISTICHLIS spicata</i>	SALTGRASS p.1252	DISP		E	M			E	E	E			L	
<i>ECHINOCHLOA crusgalli</i> *	BARNYARDGRASS p.1252	ECCR							E	E	E			
<i>EHRHARTA calycina</i> *	VELDTGRASS p.1253	EHCA							E	E				
<i>erecta</i> *	Mission veldtgrass	EHER							E	E				
<i>ELYMUS canadensis</i> *	WILDRYE p.1253	ELCA-4						L	L					
<i>elymoides</i>	Canada wildrye	ELEL-5				L			L				M	
<i>elymoides ssp. hordeoides</i>	Bottlebrush squirreltail	ELELH											M	
<i>glaucus</i>	Hoary squirreltail	ELGL		M	M		L		M		M	M	L	
<i>lanceolatus ssp. lanceolatus</i>	Blue wildrye	ELLAL											M	
<i>multisetus</i>	Thickstem wheatgrass	ELMU-3				M							M	
<i>sierrae</i>	Big squirreltail	ELSI-4				M							M	
<i>trachycaulus ssp. subsecundus</i>	Subalpine wheatgrass	ELTRS		E**	E**	E**							E**	
<i>trachycaulus ssp. trachycaulus</i>	Bearded wheatgrass	ELTRT		E**	E**	E**		E**	E**		E**		E**	
<i>ELYTRIGIA (AGROPYRON) elongata</i> *	WHEATGRASS p.1253	ELEL-6											E	
<i>intermedia ssp. intermedia</i> *	Tall wheatgrass	ELINI						E**	E**		E		E	
<i>repens</i>	Intermediate wheatgrass	ELRE-3						E	E	E	E	E	E**	
	Quackgrass													

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			WET	MOIST	DRY									
GRASSES	PAGE NO.													
<i>ERAGROSTIS</i>	LOVEGRASS p.1257													
<i>hypnoides</i>	Teal lovegrass	ERHY					E				E		E	
<i>pectinacea var. pectinacea</i>	Purple lovegrass	ERPEP-2									E		E	
<i>FESTUCA</i>	FESCUE p.1259													
(see <i>VULPIA</i> for annuals)														
<i>arundinacea *</i>	Tall fescue	FEAR-3	E**	E**			E**		E**		E**			
<i>brachyphylla ssp. breviculmis</i>	Alpine fescue	FEBRB				L								L
<i>californica</i>	California fescue	FECA							L		L	L		L
<i>idahoensis</i>	Idaho fescue	FEID							L				L	L
<i>kingii</i>	Kings fescue	FEKI-2				L							L	L
<i>occidentalis</i>	Western fescue	FEOC							M				M	M
<i>pratensis *</i>	Meadow fescue	FEPR	E	E					E					
<i>rubra</i>	Red fescue	FERU-2		M	M	L			L		L			L
<i>subulata</i>	Bearded fescue	FESU					L		L					L
<i>viridula</i>	Greenleaf fescue	FEVI		M	M	L								L
<i>GASTRIDIMUM</i>	NITGRASS p. 1262													
<i>ventricosum *</i>	Nitgrass	GAVE-3							E	E	E	E		E
<i>GLYCERIA</i>	MANNAGRASS p. 1262													
<i>borealis</i>	Northern mannagrass	GLBO	L	L			L							L
<i>elata</i>	Tall mannagrass	GLEL	L	L			L		L					L
<i>striata</i>	Fowl mannagrass	GLST	L	L			L		L				L	L
<i>HESPEROSTIPA (STIPA)</i>	NEEDLEGRASS p.1263													
<i>comata</i>	Needle and thread	HECO							L				L	L
<i>HOLCUS</i>	VELVETGRASS p. 1264													
<i>lanatus *</i>	Velvetgrass	HOLA	E	E			E		E		E			E
<i>HORDEUM</i>	BARLEY p.1264													
<i>brachyantherum</i>	Meadow barley	HOBR	E	M	M	M	M						M	M
<i>brachyantherum ssp. californicum</i>	California barley	HOBR C							M	M	M	M	M	M
<i>jubatum</i>	Foxtail barley	HOJQ			E		E		E	E	E	E	E	E
<i>marinum ssp. gussoneanum</i>	Mediterranean barley	HOMAG							E	E	E	E	E	E
<i>murinum ssp. glaucum *</i>	Smooth barley	HOMUG							E	E	E	E	E	E
<i>murinum ssp. teporinum</i>	Mouse barley	HOMUL							E	E	E	E	E	E
<i>vulgare *</i>	Cultivated barley	HOVU							E**	E**	E**	E**	E**	E**
<i>KOELARIA</i>	JUNEGRASS p. 1267													
<i>macrantha</i>	Junegrass	KOMA		M	M	L			L				L	L
<i>LAMARCKIA</i>	GOLDEN-TOP p. 1267													
<i>aurea *</i>	Goldentop	LA AU							E	E	E	E		
<i>LEYMUS (ELYMUS)</i>	WILD RYE p.1268													
<i>cinereus</i>	Great-basin wildrye	LECI-4			L								L	
<i>condensatus</i>	Giant wildrye	LECO-12							L	L			L	

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			WET	MOIST	DRY									
GRASSES	PAGE NO.													
<i>LEYMUS (ELYMUS) (Contd.)</i>	WILD RYE p.1268													
<i>triticoides</i>	Beardless wildrye	LETR-5		M	M		M		M	M	M			
LOLIUM	RYEGRASS p.1268													
<i>multiflorum *</i>	Italian ryegrass	LOMU						E**	E**	E**	E**	E**	E**	
<i>perenne *</i>	Perennial ryegrass	LOPE		E**					E**	E**			E**	
MELICA	MELIC - ONIONGRASS p.1271													
<i>aristata</i>	Awne melic	MEAR-3				M			M				M	
<i>bulbosa</i>	Big oniongrass	MEBU			E	L			M				L	
<i>californica</i>	California melic	MECA-2					L	L			L		L	
<i>fugax</i>	Little oniongrass	MEFU										L	L	
<i>geyeri</i>	Geyer oniongrass	MEGE							L				L	
<i>harfordii</i>	Harford's melic	MEHA-2							L		L		L	
<i>imperfecta</i>	Small-flowered melic	MEIM					M	M			M	M		
<i>stricta</i>	Nodding melic	MEST				L		L			L	L		
MUHLENBERGIA	MUHLY p.1272													
<i>andina</i>	Foxtail muhly	MUAN				L	L		L			L	L	
<i>asperifolia</i>	Scratchgrass	MUAS		E			L		L		L		L	
<i>californica</i>	California muhly	MUCA					M	M						
<i>filiformis</i>	Pull-up muhly, Slender muhly	MUFI-2	M	M	M	M	M					M	M	
<i>jonesii</i>	Modoc muhly	MUJO				L							L	
<i>montana</i>	Mountain muhly	MUMO			M	L							L	
<i>richardsonis</i>	Mat muhly	MURI		M	M	M	M		M			M	M	
<i>rigens</i>	Deergrass	MURI-2		L	L		L		L	L	L		L	
NASELLA (STIPA)	NEEDLEGRASS p.1274													
<i>cernua</i>	Nodding needlegrass	NACE						L	L		L	L		
<i>lepida</i>	Foothill needlegrass	NALE-2						L	L	L	L	L		
<i>pulchra</i>	Purple needlegrass	NAPU-4						L	L		L	L		
PANICUM	PANICGRASS p.1277													
<i>accuminatum</i>	Western panicgrass	PAAC		M			M		M	M	M		M	
<i>accuminatum ssp. accuminatum</i>	Pacific panicgrass	PAACA		M			M		M	M	M		M	
<i>oligosanthes v. scribnerianum</i>	Scribner's panicgrass	PAOLS		M					M		M		M	
PASCOPYRUM	WHEATGRASS p.1280													
(AGROPYRON)														
<i>smithii</i>	Western wheatgrass	PASM			E**							E**		
PASPALUM	DALLISGRASS p.1280													
<i>dilatatum *</i>	Dallisgrass	PADI-3					E**	E**	E**		E**			
PHALARIS	CANARYGRASS p.1281													
<i>aquatica *</i>	Hardinggrass	PHAQ	E**	E**	E**			E**	E**	E**	E**	E**	E**	
<i>arundinacea</i>	Reed canarygrass	PHAR-3	E**	E**				E**	E**	E**	E**	E**	E**	
<i>canariensis</i>	Canarygrass	PHCA-5						E**	E**	E**	E**			

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GRASSES	PAGE NO.													
<i>PHLEUM alpinum</i>	TIMOTHY p.1282 Alpine timothy	PHAL-2	L	L		L	L		L					L
<i>pratense</i> *	Timothy	PHPR-3	E**	E**		E**	E**		E**		E**		E**	E**
<i>PLEURAPHIS jamesii</i>	GALLETGRASS p. 1283 Galletgrass	PLJA											L	
<i>rigida</i>	Big galletgrass	PLRI											L	
<i>PLEUROPOGON (SP.)</i>	SEMAPHORE GRASS p 1283								E		E			
<i>PIPTATHERUM (ORYZOPSIS) miliaceum</i> *	SMILO GRASS p. 1282 Smilo grass	PIMI-3						E**	E**	E**	E**	E**		E**
<i>POA annua</i> *	BLUEGRASS p.1284 Annual bluegrass	POAN		E				E	E	E	E	E	E	E
<i>bolanderi</i>	Bolander's bluegrass	POBO				E			E					E
<i>bulbosa</i> *	Bulbous bluegrass	POBU			E				E	E	E	E	E	E
<i>compressa</i> *	Canada bluegrass	POCO		E**					E**		E**		E**	E**
<i>cusickii</i>	Cusick bluegrass	POCU-3		L	L	M							M	M
<i>cusickii ssp. epilis</i>	Skyline bluegrass	POCUE-2		L	L	L								L
<i>fendleriana ssp. longiligula</i>	Mutton bluegrass	POFEL				L							L	L
<i>glauca ssp. rupicola</i>	Timberline bluegrass	POGLR-2				L								
<i>keckii</i>	Keck's bluegrass	POKE				L								L
<i>tettermanii</i>	Letterman's bluegrass	POLE-3				L								
<i>palustris</i>	Fowl bluegrass	POPA-2	E	M	M		M						M	
<i>pratensis ssp. pratensis</i> *	Kentucky bluegrass	POPRP	M	M	L	M	M	M	M		M		M	M
<i>pringlei</i>	Pringle's bluegrass	POPR-2				L								
<i>secunda ssp. juncifolia</i>	Big bluegrass, Nevada b.g.	POSEJ		L	L	L					M		L	L
<i>secunda ssp. secunda</i>	Pacific bluegrass, Canby b.g.	POSES			L	L		L	L		L		L	L
<i>stebbinsii</i>	Hansen's bluegrass	POST-11		L		L								
<i>wheeleri</i>	Wheeler bluegrass	POWH-2				L							L	L
<i>POLYPOGON monspeliensis</i> *	BEARD GRASS p.1290 Rabbitsfoot grass	POMO-5		E			E		E	E	E	E	E	E
<i>PSEUDOEGNERIA (AGROPYRON) spicata var. spicata</i>	WHEATGRASS p.1290 Bluebunch wheatgrass	PSSPS							L				L	
<i>PTILAGROSTIS (ORYZOPSIS) kingii</i>	RICEGRASS p. 1292 King ricegrass, Sierra ricegrass	PTKI		L	L	L								
<i>PUCCINELLIA nuttalliana</i>	ALKALIGRASS p.1292 Nuttall's alkaligrass	PUNU-2			M								M	M
<i>lemmonii</i>	Lemmon's alkaligrass	PULE											M	
<i>SPOROBOLUS airoides</i>	DROPSEED p. 1297 Alkali sacaton	SPAI						L	L				L	

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R5 Rangeland Plant List

BOTANICAL NAME	COMMON NAME	SYMBOL	MEADOW			SUB AL- PINE	NON MDW RIP	CSTL SCRUB	CSTL RNGE	ANN GRSS	FTHL OAK WDLT	CHAP	SAGE- BRSH STEPPE	CON FOR
			WET	MOIST	DRY									
GRASSES	PAGE NO.													
<i>SPOROBOLUS</i> (Contd.)	DROPSEED p. 1297													
<i>cryptandrus</i>	Sand dropseed	SPCR												
<i>TAENIATHERUM</i>	MEDUSA-HEAD p.1299											L		
<i>caput-medusae</i> *	Medusa-head (M) (NOX)	TACA						E	E	E	E	E		
<i>TORREYOCHLOA</i>	POND GRASS p.1299													
(<i>PUCCINELLIA</i>)														
<i>erecta</i>	Erect pondgrass	TOER		L		L	L						L	
<i>pallida</i> var. <i>pauciflora</i>	Few-flowered pondgrass	TOPAP-3	L			L		L	L		L		L	
<i>TRisetum</i>	TRisetum p. 1300											L	L	
<i>canescens</i>	Nodding oatgrass	TRCA-2		L	L				L			L	L	
<i>cenuum</i>	Nodding trisetum	TRCE-2							L				L	
<i>spicatum</i>	Spike trisetum	TRSP-2		L	L	L	L		L				L	
<i>wolfii</i>	Wolf trisetum	TRWO-3		L	L	L	L						L	
<i>VULPIA</i>	ANNUAL FESCUE p.1302													
(See <i>FESTUCA</i> for perennials)														
<i>bromoides</i> *	Brome fescue	VUBR						E	E	E		E		
<i>microstachys</i>	Reflexed annual fescue	VUMI						E	E	E	E	E		
<i>myuros</i> *	Rattail fescue	VUMY						E	E	E	E	E		
<i>octoflora</i>	Six-weeks fescue	VUOC						E	E	E	E	E		

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			WET	MOIST	DRY									
GRASSLIKES	PAGE NO.													
<i>BULBOSTYLIS</i>	BULBOSTYLIS p.1107													
(<i>FIMBRISTYLIS</i>)														
<i>capillaris</i>	Slender bulbostylis	BUCA	L	L										L
<i>CAREX</i>	SEDGE p.1107													
<i>abrupta</i>	Abruptbeak sedge	CAAB-2		L		L	L		L					L
<i>amplifolia</i>	Ample-leaved sedge	CAAM-10	L				L		L					L
<i>angustata</i>	Widefruit sedge	CAAN-15	L			L	L						L	L
<i>aurea</i>	Golden sedge	CAAU-3	L			L	L		L				L	
<i>aquatilis</i>	Water sedge	CAAQ	L	L		L			L					L
<i>arcta</i>	Northern clustered sedge	CAAR-2	L	L			L		L					
<i>athrostachya</i>	Long-bracted sedge	CAAT-3	L	L		L			L				L	L
<i>bolanderi</i>	Bolander's sedge	CABO	L	L					L					L
<i>brainerdii</i>	Brainerd's sedge	CABR-7				L			L					L
<i>breweri</i> var. <i>breweri</i>	Brewer's sedge	CABRB		L	L	L								L
<i>canescens</i>	Silvery sedge	CACA-11	L	L		L			L					
<i>capitata</i>	Capitate sedge	CACA-13	L	L		L								
<i>cusickii</i>	Cusick's sedge	CACU-5		L			L		L					
<i>densa</i>	Dense sedge	CADE-8	L	L					L	L	L		L	L
<i>deweyana</i> ssp. <i>leptopoda</i>	Dewey's sedge	CADEL	L	L		L			L					L
<i>douglasii</i>	Douglas sedge	CADO-2		E	M	M			M	M			M	
<i>echinata</i>	Prickley sedge	CAEC	L	L		L	L		L					
<i>echinata</i> ssp. <i>echinata</i>	Stellate sedge, Star of David sedge	CAECE	L	L		L			L					L
<i>echinata</i> ssp. <i>phyllomanica</i>	Coastal stellate sedge	CAECP					L		L					
<i>feta</i>	Western sedge	CAFE-4		L	L	L			L		L		L	L
<i>filifolia</i>	Threadleaf sedge	CAFI				L	L							
<i>filifolia</i> var. <i>erostrata</i>	Shorthair sedge	CAFIE				L	L							
<i>fissuricola</i>	Sheath sedge	CAFI-2	L	L		L	L							L
<i>fracta</i>	Fragile-sheathed sedge	CAFR-2		L	L	L			L					L
<i>geyeri</i>	Elk sedge	CAGE-2				L			L				L	L
<i>gigas</i>	Siskiyou sedge	CAGI-5	L	L		L								
<i>globosa</i>	Roundfruit sedge	CAGL-7		L					L					
<i>hassei</i>	Hass sedge	CAHA-5	L	L		L			L					L
<i>heteroneura</i>	Variable-nerved sedge	CAHE-8	L	L		L			L					L
<i>hoodii</i>	Hood's sedge	CAHO-5				L			L					L
<i>illota</i>	Small-head sedge, Sheep's sedge	CAIL	L	L		L	L							L
<i>inops</i> ssp. <i>inops</i>	Long-stolon sedge	CAINI-3												L
<i>integra</i>	Smoothbeak sedge	CAIN-10		M	M	M			M				M	M
<i>interior</i>	Interior sedge, Inland sedge	CAIN-11	L			L	L							
<i>jonesii</i>	Jones' sedge	CAJO	L	L		L	L		L					L
<i>lanuginosa</i>	Wooley sedge	CALA-30	L	L		L	L		L				L	L
<i>lemmonii</i>	Lemmon sedge	CALE-7	L	L		L	L		L					L

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R5 Rangeland Plant List

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			WET	MOIST	DRY									
CAREX (Contd.)	SEDGE	p.1107												
<i>lenticularis</i>	Lens sedge	CALE-8	L	L		L	L		L					
<i>leporinella</i>	Sierran hare sedge	CALE-9		L		L								
<i>luzulaifolia</i>	Luzula-leaved sedge	CALU-6	L	L		L							L	
<i>luzlina</i>	Woodrush sedge	CALU-7	L	L			L		L					
<i>mariposana</i>	Mariposa sedge	CAMA-13	L	L		L							L	
<i>microptera</i>	Small-winged sedge	CAMI-7	M	M	M	M			M			M	M	
<i>multicaulis</i>	Many-stemmed sedge	CAMU-5				L			L			L	L	
<i>nebrascensis</i>	Nebraska sedge, No. CA	CANE-2	M	L		L	L		L			L	L	
<i>nebrascensis</i>	Nebraska sedge, C. & So. CA	CANE-2	L	L		L	L		L			L	L	
<i>nervina</i>	Sierran sedge	CANE-5	L	L		L	L		L					
<i>nigricans</i>	Black alpine sedge	CANI-2	L	L		L							L	
<i>nudata</i>	Torrent sedge, Naked sedge	CANU-5					L		L		L			
<i>pachystachya</i>	Chamisso's sedge	CAPA-14			L	L			L					
<i>praegracilis</i>	Clustered sedge	CAPR-5		L	L	L		L	L		L		L	
<i>pratensis</i>	Meadow sedge	CAPR-7	L	L		L			L				L	
<i>raynoldsii</i>	Raynold's sedge	CARA-6		L		L	L						L	
<i>rossii</i>	Ross' sedge	CARO-5			L	L			L			L	L	
<i>scirpoidea</i>	Downy sedge, Single spike sedge	CASCP-2				L	L							
<i>var.pseudoscirpoidea</i>														
<i>scopulorum var. bracteosa</i>	Mountain sedge	CASCB	L			L	L		L				L	
<i>sentata</i>	Western rough sedge	CASE	L	L		L	L		L			L		
<i>sheldonii</i>	Sheldon's sedge	CASH	L				L					L		
<i>simulata</i>	Shortbeak sedge	CASI-2	L	L		L			L			L	L	
<i>spectabilis</i>	Showy sedge	CASP-5	L	L		L	L						L	
<i>stramineiformis</i>	Shasta sedge, Straw sedge	CAST-7			L		L		L			L		
<i>subfusca</i>	Rusty sedge	CASU-6	L	L	L	L			L				L	
<i>subnigricans</i>	Engelmann's sedge	CASU-7		L	L	L							L	
<i>tumulicola</i>	Foothill sedge	CATU-3							L		L			
<i>utriculata</i>	Beaked sedge	CAUT	L	L		L	L		L			L	L	
<i>vallicola</i>	Valley sedge	CAVA-3									L			
<i>vernacula</i>	Native sedge	CAVE-5	L	L		L								
<i>vesicaria</i>	B blister sedge	CAVE-6	L	L		L	L	L	L			L	L	
<i>whitneyi</i>	Whitney's sedge	CAWH			M	M						M	M	
CYPERUS	FLATSEGE	p. 1138												
<i>eragrostis</i>	Tall flatsedge	CYER	L	L					L	L				
<i>niger</i>	Black flatsedge	CYNI-2						L	L			L		
<i>squarrosa</i>	Umbrella sedge	CYSQ	L	L					L			L	L	
ELEOCHARIS	SPIKERUSH	p. 1140												
<i>acicularis var.acicularis (per)</i>	Needle or Slender spikerush	ELACA	M	M		M	M							
<i>acicularis var. bella (ann)</i>	Beautiful spikerush	ELACB	E	M		M	M		M			M		

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			WET	MOIST	DRY									
GRASSLIKES	PAGE NO.													
<i>ELEOCHARIS (Contd.)</i>	SPIKERUSH p. 1140													
<i>bolanderi</i>	Bolander's spikerush	ELBO	L	L										
<i>macrostachya</i>	Pale spikerush	ELMA-5	M	M									L	
<i>montevicensis</i>	Dombey's spikerush	ELMO-2	L	L				M		M			M	
<i>obtusa var. engelmanni</i>	Engelmann spikerush	ELOBE	L	L				L					L	
<i>pachycarpa*</i>	Black sand spikerush	ELPA						L				L	L	
<i>parishii</i>	Parish's spikerush	ELPA-4		L				L		L				
<i>pauciflora</i>	Few-flowered spikerush	ELPA-6	M	M	M	M	M	L					L	
ERIOPHORUM	COTTONGRASS p.1143											M		
<i>criniger</i>	Sierra cottongrass	ERCR-4	L	L		L	L							
<i>gracile</i>	Slender cottongrass	ERGR-8	L			L	L	L					L	
JUNCUS	RUSH - WIREGRASS p.1157													
<i>acuminatus</i>	Tapertip rush	JUAC	L											
<i>balticus</i>	Baltic rush	JUBA	M	M	M		L	L						
<i>bufonius</i>	Toad rush	JUBU	E	E			E	E	E	E		E	E	
<i>confusus</i>	Colorado rush	JUCO-2		M		L	L					E	E	
<i>drummondii</i>	Drummond rush	JUDR			L	L		L					L	
<i>dubius</i>	Mariposa rush	JUDU	L	L						L			L	
<i>effusus</i>	Bog rush	JUEF	L	L				L		L			L	
<i>ensifolius</i>	Swordleaf rush	JUEN	L	M		L	L	L					L	
<i>howellii</i>	Howell's rush	JUHO	L	L		L	L	M					M	
<i>longistylis</i>	Long - styled rush	JULO				L	L							
<i>macrandus</i>	Long - anthered rush	JUMA-2	L	L		L	L	L					L	
<i>mertensianus</i>	Merten's rush	JUME-3	L	L		L	L	L					L	
<i>mexicanus</i>	Mexican rush	JUME-4	M	M	M	M	M					L	L	
<i>nevadensis</i>	Sierra rush	JUNE	L	M		L	L	L				M	M	
<i>orthophyllus</i>	Straightleaf rush	JUOR	M	M		L	L	L				L	L	
<i>oxymeris</i>	Pointed rush	JUOX	L	L		L	L						L	
<i>parryi</i>	Parry's rush	JUPA			M	M							L	
<i>saximontanus</i>	Rocky Mountain rush	JUSA	L	L		L	L	M					L	
<i>tenuis</i>	Poverty rush	JUTE		L									L	
<i>xiphioides</i>	Iris-leaf rush	JUXI	L	L			L	L					L	
LUZULA	WOODRUSH p.1165													
<i>comosa</i>	Common woodrush	LUCO-6	L	L		L	L							
<i>divaricata</i>	Forked woodrush	LUDI				L	L	L				L	L	
<i>orestera</i>	Alpine woodrush	LUOR-4	L	L		L	L							
<i>parviflora</i>	Small-flower woodrush	LUPA-4				L	L							
<i>spicata</i>	Spike woodrush	LUSP-4				L	L	L					L	
<i>subcongesta</i>	Mountain woodrush	LUSU-7		L		L	L						L	

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GRASSLIKES	PAGE NO.													
<i>SCIRPUS</i>	BULRUSH - TULE p. 1146													
<i>acutus var. occidentalis</i>	Hard bulrush, Tule	SCACO	L				L							
<i>americanus</i>	American bulrush	SCAM-2	L				L		L					
<i>clementis</i>	Yosemite bulrush	SCCL	L	L	L	L	L		L	L		L		
<i>congdonii</i>	Congdon's bulrush	SCCO	L	M		M	M		M					
<i>microcarpus</i>	Panicled bulrush	SCMI-2	L	M		L	L		M			M		
<i>nevadensis</i>	Nevada bulrush	SCNE		M			M		M			L	M	
<i>robustus</i>	Alkali bulrush	SCRO					M		M			M		
<i>TRIGLOCHIN</i>	ARROW-GRASS p. 1168													
<i>concinna (PO)</i>	Arrow-grass	TRCO-4		L		L	L		L			L		
<i>TYPHA</i>	CATTAIL p.1309													
<i>angustifolia</i>	Slender-leaf cattail	TYAN	E				E		E	E		E		E
<i>latifolia</i>	Common cattail	TYLA	L				E		E	E		E		E

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FORBS	PAGE NO.													
<i>ACHILLEA</i>	YARROW p.189													
<i>millefolia</i>	Common yarrow	ACMI-2	E	E	E	E	E		E		E	E	E	E
<i>ACONITUM</i>	MONKSHOOD p.912													
<i>columbianum (PO)</i>	Columbia monkshood	ACCO-4	L	L			L		L					L
<i>ACTAEA</i>	BANE BERRY p.912													
<i>rubra (PO)</i>	Baneberry	ACRU					L		L					L
<i>ADENOCAULON</i>	TRAIL PLANT p.189													
<i>bicolor</i>	Trail plant	ADBI					L		L					L
<i>AGASTACHE</i>	HORSEMINT p.713													
<i>parvifolia</i>	Small-leaved horsemint	AGPA-2					M		M		M		M	L
<i>urticifolia</i>	Horsemint	AGUR		M		M	M		L		M			L
<i>AGOSERIS</i>	AGOSERIS p.190													
<i>aurantiaca</i>	Orange-flowered agoseris	AGAU-2		M		M	M		M				M	M
<i>glauca</i>	Short-beaked agoseris	AGGL		E	E	M	E						M	M
<i>glauca var. laciniata</i>	False agoseris	AGGLL				M	M						M	M
<i>glauca var. monticola</i>	Mountain agoseris	AGGLM		M		M	M						M	M
<i>grandiflora</i>	Large-flowered agoseris	AGGR							M		M			M
<i>heterophylla</i>	Annual agoseris	AGHE-2							M	M	M			
<i>retorsa</i>	Spear-leaved agoseris	AGRE							M		M		M	M
<i>ALLIUM</i>	WILD ONION p.1172													
<i>validum</i>	Swamp onion	ALVA	L			L	L		L					
<i>(others)</i>	Wild onions			M	L	L		L	L	L	L	L	L	L
<i>AMARANTHUS</i>	PIGWEEED p.131													
<i>albus</i>	Tumbleweed	AMAL							E	E	E		E	
<i>blitoides</i>	Mat amaranth	AMBL							E	E			E	
<i>californicus</i>	Calif. amaranth	AMCA					E		E	E			E	E
<i>AMBROSIA (FRANSERIA)</i>	RAGWEED, BUR SAGE p.193													
<i>acanthicarpa</i>	Annual bur-sage	AMAC-2					E		E		E		E	
<i>AMSINCKIA SP. (PO)</i>	FIDDLENECK p.367								E	E	E		E	
<i>ANAGALLIS (PO)</i>	PIMPERNEL p.905													
<i>arvensis</i>	Scarlet pimpernel	ANAR							E	E				
<i>ANAPHALIS</i>	EVERLASTING p.194													E
<i>margaritacea</i>	Pearly everlasting	ANMA					E		E		E		E	E
<i>ANEMONE (PO)</i>	ANEMONE-WINDFLOWER p.912													
<i>deltoidea</i>	Columbian windflower	ANDE-3							M		M			M
<i>drummondii</i>	Drummond's anemone	ANDR				M								M
<i>multifida</i>	Globe anemone	ANMU				L								L
<i>occidentalis</i>	Pasque flower	ANOC-6				L								L
<i>oregana</i>	Sierra anemone	ANOR							M					M
<i>ANGELICA</i>	ANGELICA p.140													
<i>arguta</i>	Angelica	ANAR-3												M

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FORBS	PAGE NO.													
<i>ANGELICA (Contd.)</i>	ANGELICA p.140													
<i>breweri</i>	Western angelica	ANBR-5				M	M							
<i>linearloba</i>	Sierra angelica	ANLI-2				M								M
<i>tomentosa</i>	Woolly angelica	ANTO												M
ANTENNARIA	PUSSYTOES p.196								M					M
<i>argentea</i>	Silver pussytoes	ANAR-5												
<i>corymbosa</i>	Flattop pussytoes	ANCO		E		E	E		E			E	E	
<i>dimorpha</i>	Low pussytoes	ANDI-2			E	L			L					E
<i>geyeri</i>	Pinewoods pussytoes	ANGE-3				M			E			E	L	
<i>luzuloides</i>	Rush pussytoes	ANLU-2									E		M	M
<i>media</i>	Alpine pussytoes	ANME-2		L		L							L	
<i>rosea</i>	Rose pussytoes	ANRO-2		E	E	E								
APOCYNUM (PO)	HEMP-DOGBANE p. 168												M	M
<i>androsaemifolium</i>	Bitter dogbane	APAN-2												
<i>cannabinum (PO)</i>	Indian hemp	APCA							M				M	M
AQUILEGIA	COLUMBINE p.913										M		M	M
<i>exima</i>	Van Houtte's columbine	AQEX												
<i>formosa</i>	Crimson columbine	AQFO	L	L		L	M		M					
<i>pubescens</i>	Covilles columbine	AQPU				L	L		L		L	L	L	L
ARABIS	ROCKCRESS p.396													
<i>glabra</i>	Tower rockcress	ARGL												
ARENARIA	SANDWORT p.478								E	E	E		E	
<i>congesta</i>	Capitate sandwort	ARCO-5												
<i>serpyphyllifolia</i>	Annual sandwort	ARSES				L							L	L
<i>ssp. serpyphyllifolia *</i>									E	E	E			
ARGEMONE	PRICKLY POPPY p.811													
<i>corymbosa</i>	Prickly poppy	ARCO-6												
<i>munita</i>	Chilacote	ARMU											E	
ARNICA	ARNICA p.200								E				E	
<i>amplexicaulis</i>	Clasping or Streambank arnica	ARAM-2												
<i>chamissonis ssp. foliosa</i>	Meadow arnica	ARCHF	E	E		M	M							M
<i>cordifolia</i>	Heartleaf arnica	ARCO-9				E	M						M	M
<i>discoidea</i>	Rayless arnica	ARDI-6				L			L				L	L
<i>latifolia</i>	Mtn. arnica, Broadleaf arnica	ARLA-8		M					L		L			
<i>longifolia</i>	Spear-leaf arnica	ARLO-6	M	M		M	M		M				M	M
<i>mollis</i>	Cordilleran arnica	ARMO-4		M		M	M						M	M
<i>nevadensis</i>	Sierra arnica	ARNE	M	M		M								
ARTEMISIA	MUGWORT, WORMWOOD p.202													M
<i>dracunculoides</i>	Dragon sagewort, Tarragon	ARDR-4		M										
<i>douglasiana</i>	Douglas mugwort	ARDO-3		M	M				M					M
<i>ludoviciana ssp. incompta</i>	Western mugwort, Silver wormwood	ARLUI		E	E		M		M		L		M	M

R5 Rangeland Plant List

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			WET	MOIST	DRY									
FORBS	PAGE NO.													
ASCLEPIAS SP. (PO)	MILKWEED p.171						E	E	E	E	E		E	E
ASTER	ASTER p.209													
<i>ascendens</i>	Long-leaved aster	ASAD-6		E	E		E						E	E
<i>alpigenus ssp. andersonii</i>	Alpine aster	ASALA		E		E	E		E					E
<i>breweri</i>	Brewer's golden aster	ASBR-12				L								L
<i>campestris</i>	Western meadow aster	ASCA-6			M								M	
<i>chilensis</i>	California aster	ASCH-2					L	M	L	L	L			
<i>foliaceus var. parryi</i>	Parry's aster	ASFOP		E	E	E	E		E					E
<i>integrifolius</i>	Entire-leaved aster	ASIN-3			E	E								E
<i>ledophyllus</i>	Cascade aster	ASLE-3		M					M					M
<i>occidentalis</i>	Western Mountain aster	ASOC	E	E	E	E	E		E				E	E
<i>oregonensis</i>	Oregon white aster	ASOR							L					L
<i>peirsonii</i>	Peirson's aster	ASPE				M			M					M
ASTRAGALUS SP. (PO)	LOCOWEED, MILKVETCH p.583				M	E			E	E	E		E	E
ATRIPLEX SP.	SALTBUSH p.501				E		E	E	E	E			E	E
BAERIA (SEE LASTHENIA)	GOLDFIELDS													
BALSAMORHIZA	BALSAMROOT p.212													
<i>deltoidea</i>	Deltoid balsamroot	BADE-2							L		L		L	L
<i>hirsuta</i>	Hirsute balsamroot	BAHI											L	
<i>hookeri var. lanata</i>	Hooker's balsamroot	BOHAL											L	L
<i>sagittata</i>	Arrow-leaf balsamroot	BASA-1				L							L	L
<i>serrata</i>	Serrate balsamroot	BASE-2											L	
BIDENS	STICKTIGHT p. 213													
<i>cernua var. cernua</i>	Nodding bur-marigold	BICEC					L		E				E	
<i>frondosa</i>	Sticktight	BIFR					L		E				E	
BOTRYCHIUM SP.	GRAPEFERN, MOONWORT p.98		L			L	L		L				L	
BOYKINIA	BOYKINIA p.1003													
<i>major</i>	Large boykinia	BOMA-3		M			M		M					
BRASSICA	MUSTARD p.406													
<i>rapa</i>	Yellow mustard	BRRR						E	E	E	E	E	E	
<i>nigra</i>	Black mustard	BRNI						E	E	E	E	E	E	
BRODIAEA	BRODIAEA p.1180													
(Also see TRITELEIA & DICHELOSTEMMA)														
<i>coronaria</i>	Crown brodiaea	BRCO-3						L	L	L	L			
<i>coronaria var. rosea (SE)</i>	Indian Valley brodiaea	BRCOR							L					
<i>elegans</i>	Harvest brodiaea	BREL						L	L	L	L			L
<i>jolonensis</i>	Chaparral clusterlilly	BRJO							L					
<i>filifolia (SE)</i>	Narrow-leaf brodiaea	BRFI						L	L					
<i>purdyi</i>	Purdy's brodiaea	BRPU-2					L		L	L	L			

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			WET	MOIST	DRY									
FORBS	PAGE NO.													
<i>CALANDRINIA breweri</i>	REDMAIDS p.895	CABR-3						M	M					
<i>ciliata</i>	Brewer redmaids	CACI-1								M	M			
<i>CALOCHORTUS</i>	MARIPOSA LILY p.1183												M	
(Many species)														
<i>longibarbatius</i>	Long-hair star-tulip	CALOL		L		L	M	L	L	L	L	L	L	L
var. <i>longibarbatius</i> (SE)													L	
<i>CALTHA leptosepala</i> var. <i>biflora</i>	MARSH MARIGOLD p.914	CALEB-2	L			L	L	L						
<i>CALYSTEGIA SP.</i>	MORNING GLORY p.517												L	L
<i>CALYPTRIDIDIUM monospermum</i>	PUSSYPAWS p.896	CAMO-6						M	L	M	L	M	L	L
<i>pygmaeum</i>	One-seed pussypaws	CAPY				E			E					E
<i>roseum</i>	Dwarf calyptidium	CARO				E								E
<i>umbellatum</i>	Rosy pussypaws	CAUM-3			E	E							E	E
<i>CAMASSIA quamash</i>	PUSSYPAWS p.896				E	M								M
Common camas		CAQU-2	L	L										
<i>CAMISONIA SP.</i>	CAMAS p.1189						L		L				L	L
<i>CAMPANULA prenanthoides</i>	SUNCUP p.778					E		E	E	E	E	E	E	E
<i>scouleri</i>	HAREBELLS p.459	CAPR-15												
<i>CAPSELLA bursa-pastoris</i> *	California harebell	CASC-7							M					M
<i>CARDAMINE breweri</i>	Scouler's harebell	CABU-2												
<i>CARDUUS SP.</i>	SHEPHERD'S PURSE p.407													
<i>CASTILLEJA affinis</i>	Shepherd's purse	CABR-6	E	E		E	E							E
<i>aplegatei</i>	BITTER-CRESS p.407													
<i>arachnoidea</i>	Brewer's bittercress	CAAF												
<i>attenuata</i>	PLUMELESS THISTLE p.220	CAAPD			E	L			M			M		
<i>campestris</i> var. <i>campestris</i>	PAINTBRUSH p.1016	CAAR-11				L							L	L
<i>exserta</i> ssp. <i>exserta</i>	Indian paintbrush	CAAT-25											L	L
<i>lemmonii</i>	Eastwood's Indian paintbrush	CACAC-14								L	L			
<i>linariaefolia</i>	Cobwebby paintbrush	CAEXE								M	L		M	
<i>miniata</i>	Valley tassels	CALE-18		L		L	L			L	L		L	
<i>rubicundula</i> ssp. <i>lithospermoides</i>	Field-owl's clover	CALI-4												
<i>subinclusa</i>	Purple owls-clover	CAMI-12	M	M		M	M			M	M		L	L
<i>tenuis</i>	Lemmon's paintbrush	CARUL								M	M		M	M
<i>CAULANTHUS (SP)</i>	Wyoming paintbrush	CASU-10												
	Scarlet Indian paintbrush	CATE-26			E	M	M							
	Cream sacs													
	Long-leaf Indian paintbrush													
	Indian paintbrush			M	E	M	M							
	JEWELFLOWER p.410					E							M	M
								E	E	E	E	E	E	

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			WET	MOIST	DRY									
<i>CENTAUREA</i>	STAR THISTLE p.222													
<i>melitensis* (M)</i>	Tocalote, Napa star thistle	CEME-2						E	E	E			E	
<i>solstitialis*(M)</i>	Yellow star thistle	CESO-3			E			E	E	E			E	
<i>CENTAURIUM</i>	CENTAURY p.667													
<i>exaltatum</i>	Great Basin centaury	CEEX							L				L	
<i>muehlenbergii</i>	June centaury	CEMU-2							L	L			L	
<i>venustum</i>	Canchalagua	CEVE-3						L	L	L			L	L
<i>CERASTIUM</i>	CHICKWEED p.480													
<i>arvense</i>	Field chickweed	CEAR-4		E			M	M	M	M				
<i>beeringianum var. capillare</i>	Alpine chickweed	CEBEC		E		M								
<i>fontanum ssp. vulgare*</i>	Big chickweed	CEFOV-2		E					E	E		E		
<i>glomeratum*</i>	Mouse-eared chickweed	CEGL-2						E	E	E		E		
<i>CHAENACTIS</i>	PINCUSHION p.223													
<i>douglasii var. douglasii</i>	Douglas dusty maidens	CHDOD				M							M	M
<i>fremontii</i>	Desert pincushion flower	CHFR							E				M	
<i>stevioides</i>	Steve's dusty maidens	CHST							E				E	
<i>CHAMAESYCE</i>	PROSTRATE SPURGE p.568													
<i>serpyllifolia</i>	Thyme-leaf spurge	CHSE-6							E	E			E	
<i>CHAMOMILLA (MATRICARIA)</i>	CHAMOMILLE p.226													
<i>occidentalis</i>	Chamomille	CHOC-3			E		E		E	E			E	
<i>suaveolens*</i>	Pineapple weed	CHSU-5			E		E	E	E	E		E	E	
<i>CHENOPODIUM</i>	LAMBSQUARTERS p.506													
<i>album*</i>	Lambs quarter	CHAL-7						E	E	E			E	
<i>dessicatum</i>	Narrow-leaved pigweed	CHDE											E	E
<i>incognitum</i>	Unrecognized pigweed	CHIN-3							E				E	E
<i>fremontii</i>	Fremont pigweed	CHFR-3											E	E
<i>CHLOROGALUM</i>	AMOLE-SOAPROOT p.1189													
<i>grandiflorum</i>	Red Hills soaproot	CHGR-3								L			L	
<i>pomeridianum</i>	Wavy-leaf soaproot	CHPO-3						L	L	L			L	
<i>purpureum</i>	Purple amole	CHPU-2							L					
<i>CHORIZANTHE SP.</i>	SPINEFLOWER p.856							M	M	M		M	M	
<i>CICUTA (PO)</i>	WATER HEMLOCK p.142													
<i>douglasii (PO)</i>	Western water hemlock	CIDO	M	M			M				M		M	M
<i>maculata (PO)</i>	Spotted water hemlock	CIMA-2		M			M				M		M	M
<i>CIRCAEA</i>	ENCHANTER'S NIGHTSHADE p.786													
<i>alpina ssp. pacifica</i>	Enchanter's nightshade	CIALP-2				L	L						L	L
<i>CIRSIUM</i>	THISTLE p.232													
<i>andersonii</i>	Anderson's thistle	CIAN-1				M				M				M
<i>arvense*</i>	Canada thistle	CIAR							E				E	E
<i>brevistylum</i>	Indian thistle	CIBR-1					E	M	M					
<i>occidentale var. californica</i>	California thistle	CIOCC						M	M	M			M	M

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			WET	MOIST	DRY									
FORBS	PAGE NO.													
<i>CIRSIUM (Contd.)</i>	THISTLE p.232													
<i>occidentale</i> var. <i>candidissimum</i>	Snowy thistle	CIOCC-1							M					
<i>ochrocentrum*</i>	Inyo thistle	CIOC-2				E			E				M	M
<i>scariosum</i>	Elk thistle	CISC		M	M	M	M		M				E	E
<i>vulgare*</i>	Bull thistle	CIVU		E	E		E		E	E	E		M	M
CLARKIA SP.	CLARKIA p.786												E	E
CLAYTONIA	CLAYTONIA p.898												E	E
<i>cordifolia</i>	Heartleaf claytonia	CLCO	L	L			L							
<i>lanceolata (SE)</i>	Western spring beauty	CLLA-1		M		M	L		L					
<i>megarrhiza</i>	Fell's fields claytonia	CLME				M	M		M				M	M
<i>nevadensis</i>	Sierra spring beauty	CLNE		M		L	L							
<i>palustris</i>	Marsh claytonia	CLPA-10	L	L		L	L							
<i>parviflora</i>	Streambank spring beauty	CLPA-5					L							
<i>perfoliata</i>	Miner's lettuce	CLPE		E	E		E		L		L		L	L
<i>rubra</i>	Redstem spring beauty	CLRU-2				L	L		M		M		M	M
COLLINSIA	COLLINSIA p.1024								L				L	L
<i>childii</i>	Child's blue-eyed mary	COCH												
<i>concolor</i>	Bluelips	COCO							M	M	M			M
<i>grandiflora</i>	Large-flowered collinsia	COGR-2						M		M	M	M		
<i>heterophylla</i>	Chinese houses	COHE							L					
<i>parviflora</i>	Small-fl. blue-eyed mary	COPA		E	E	E	M	L	L	L	L			L
<i>sparsiflora</i> var. <i>sparsiflora</i>	Few-fl. blue eyed mary	COSPC							E	M	E		E	E
<i>tinctoria</i>	Tincture plant	COTI							M	M	M	M		
<i>torreyi</i>	Torrey's collinsia	COTO							M		M			M
<i>torreyi</i> var. <i>wrightii</i>	Wright's collinsia	COTOW				M			M					M
COLLOMIA	COLLOMIA p.825								M					M
<i>diversifolia</i>	Serpentine collomia	CODI-2												
<i>grandiflora</i>	Large-flowered collomia	COGR-4			E				L					
<i>linearis</i>	Slender-leaf collomia	COLI-2		E	E	E			M	M	E	E		M
<i>Rawsoniana (SE)</i>	Flaming trumpet	CORA-3									E		E	E
<i>tinctoria</i>	Yellow-staining collomia	COTI-2				M								L
CONIUM	POISON HEMLOCK p.144								M		M		M	M
<i>maculatum* (PO)</i>	Poison hemlock	COMA-2		E	E		E		L	L	L			
CORDYLANTHUS SP.	BIRDBEAK p.1027					M	M	M	M	M	M		M	M
CREPIS	HAWKSBEARD p.242													
<i>acuminata</i>	Tapertip hawksbeard	CRAC-2												
<i>bakeri</i>	Baker's hawksbeard	CRBA-2			E	E			E				E	E
<i>capillaris*</i>	Smooth hawksbeard	CRCA-3											M	M
<i>intermedia</i>	Intermediate hawksbeard	CRIN-4							E	E	E			
<i>modocensis</i>	Modoc hawksbeard	CRMO-4				L			M		L		L	L

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FORBS	PAGE NO.													
<i>CREPIS (Contd.)</i>	HAWKSBEARD p.242													
<i>monticola</i>	Mountain hawksbeard	CRMO-5							L					L
<i>occidentalis</i>	Western hawksbeard	CROC				E			E			E		E
<i>pleurocarpa</i>	Many-seeded hawksbeard	CRPL							L					L
<i>CRYPTANTHA SP.</i>	POPCORN FLOWER p.369													
(Many species)						E		E	E	E	E	E		
<i>CYNOGLOSSUM</i>	HOUNDSTONGUE p.377													
<i>grande</i>	Large houndstongue	CYGR							E		E	E		
<i>occidentale</i>	Western houndstongue	CYOC					E		E			E		
<i>DAUCUS</i>	CARROT p.146													
<i>carota</i>	Carrot, Queen Anne's lace	DACA-6							M	M	M			
<i>pusillus</i>	American wild carrot	DAPU-3							E	E	E			
<i>DELPHINEUM (PO)</i>	LARKSPUR p.916													
<i>andersonii (PO)</i>	Anderson's larkspur	DEAN				M							M	M
<i>cardinale (PO)</i>	Scarlet larkspur	DECA-3										L	L	
<i>decorum(PO)</i>	Coast larkspur	DEDE-1						L	L					
<i>depauperatum (PO)</i>	Dwarf larkspur	DEDE-2		M									M	M
<i>glaucum (PO)</i>	Mountain larkspur	DEGL	M			L	M							M
<i>gracilentum(PO)</i>	Forest larkspur	DEGR										M		L
<i>hansenii (PO)</i>	Hansen's larkspur	DEHA-1							L	L		L	L	
<i>hesperium</i>	Western or Foothill larkspur	DEHE							M			M		
<i>inopinum (PO) (SE)</i>	Unexpected larkspur	DEIN				L								L
<i>nudicale (PO)</i>	Red larkspur	DENU-1							L			L	L	L
<i>nuttallianum (PO)</i>	Nuttall's larkspur	DENU-2		M	M	M	M					M	M	M
<i>parryi</i>	Parry's larkspur	DEPA-2						M	M			M	M	
<i>variegatum (PO)</i>	Royal larkspur	DEVA					M		M	M		M		
<i>DESCURIANA</i>	TANSY-MUSTARD p.413													
<i>californica</i>	Calif. tansy mustard	DECA-6				L							E	L
<i>incana</i>	Mtn. tansy mustard	DEIN-5			E	M	M						M	M
<i>incisa spp. filipes</i>	Tansy mustard	DEINF											M	L
<i>pinnata</i>	Western tansy mustard	DEPI		E	E	E			E	E			E	E
<i>sophia*</i>	Herb sophia	DESO-2			E				E	E	E		E	
<i>DICENTRA</i>	BLEEDING HEARTS p.812													
<i>chrysantha (PO)</i>	Golden ear-drops	DICH							L			L		
<i>formosa</i>	Bleeding heart	DIFO				L	L		L					L
<i>nevadensis</i>	Sierra bleeding heart	DINE				L	L							L
<i>pauciflora</i>	Few-flowered bleeding heart	DIPA				L								L
<i>uniflora</i>	Steer's head	DIUN				L			L					L
<i>DICHELOSTEMMA</i>	SAITUS, BLUE DICKS p.1190													
<i>capitatum</i>	Blue dicks	DICA-14							L	L	L		L	
<i>congestum</i>	Ookow	DICO							L	L	L			

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FORBS	PAGE NO.													
<i>DICHELOSTEMMA (Contd.)</i>	SAITUS, BLUE DICKS p.1190													
<i>ida-maia</i>	Firecracker flower	DIID												
<i>multiflorum</i>	Wild hyacinth	DIMU-5						L	L					
<i>volubile</i>	Snakelly, Twining brodiaea	DIVO						L	L					
DODECATHEON	SHOOTING STAR p.906								L	L				
<i>alpinum</i>	Alpine shooting star	DOAL	L	L		L	L							
<i>clevelandii</i>	Padre shooting star	DOCL						L	L				L	
<i>conjugens</i>	Bonneville shooting star	DOCO	M	M					L	L				
<i>hendersonii</i>	Henderson's shooting star	DOHE										M		
<i>jeffreyi</i>	Jeffrey shooting star	DOJE	M	M		M	L		L	L				
<i>redolens</i>	Mountaineer shooting star	DORE	M	M		L	L						L	
<i>subalpinum</i>	Sierra shooting star	DOSU	M			M							L	
DOWNINGIA SP.	DOWNINGIA p.460		E	E									M	
DRABA	WHITLOW GRASS p.416							E	E	E		E		
<i>albertina</i>	Slender Whitlow grass	DRAL-4		E		E	E							
<i>verna</i>	Whitlow grass	DRVE							E	E	E	E		
DUGALDIA (HELENIUM)	SNEEZEWEED p.246								E	E	E	E		
<i>hoopesii (PO)</i>	Tall Mtn. sneezeweed	DUHO		E	E	E								
EPILOBIUM	WILLOW HERB p.793													
<i>anagallidifolium</i>	Alpine willow-herb	EPAN-4	M	M		M	M							
<i>angustifolium ssp. Circumvagum</i>	Fireweed	EPANC				E	E							
<i>ciliatum ssp. ciliatum</i>	Fringed willow-herb	EPCIC	M	M		E	M		E				E	
<i>ciliatum ssp. glandulosum</i>	Glandular willow-herb	EPCIG	M	E		M	M		E			E	M	
<i>glaberrimum</i>	Glaucous willow-herb	EPGL	M	E		M	M		M				M	
<i>halleanum</i>	Hall's willow-herb	EPHA	M	E		M	M		M				M	
<i>homemannii ssp. homemannii</i>	Hornemann's willow-herb	EPHOH		E		E	E		E			M	M	
<i>lactiflorum</i>	Milk-flower willow herb	EPLA-3		M		M	E							
<i>latifolium</i>	Broad-leaved willow-herb	EPLA		E		E	E							
<i>minutum</i>	Small-flower willow herb	EPMI											E	
<i>obcordatum</i>	Rock fringe	EPOB							E		E			
<i>oreganum</i>	Oregon fireweed	EPOR				M						E		
<i>oregonense</i>	Oregon willow-herb	EPOR-2	M	M	E	E	E		E				E	
EQUISETUM	HORSETAIL RUSH p.95								E	E			E	
<i>arvense</i>	Common horsetail	EQAR	E	E										
<i>hymale ssp. affine</i>	Common scouring rush	EQHYA	E	E					E		E	E	E	
<i>laevigatum</i>	Smooth scouring rush	EQLA	E	E					E		E	E	E	
EREMOCARPUS	DOVE WEED p.573								E		E	E	E	
<i>setigerus</i>	Turkey mullein	ERSE												
ERIGERON	DAISY, FLEABANE p.253							E	E	E	E	E		
<i>algidus</i>	Sierra daisy	ERAL-18		M	M	L	M							
<i>aliceae</i>	Alice eastwood fleabane	ERAL-3		M								M		

R5 Rangeland Plant List

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			WET	MOIST	DRY									
FORBS	PAGE NO.													
<i>ERIGERON (Contd.)</i>	DAISY, FLEABANE p.253													
<i>bloomeri</i>	Scabland fleabane	ERBL		M										
<i>breweri</i> var. <i>breweri</i>	Brewer's daisy	ERBRB				L							L	
<i>coulteri</i>	Coulter's daisy	ERCO-6	M	M		L	M				L		L	
<i>filifolius</i> var. <i>filifolius</i>	Threadleaf fleabane	ERFIF												L
<i>foliosus</i>	Leafy fleabane	ERFO-2											L	L
<i>inornatus</i>	California rayless fleabane	ERIN-2						L	L		L	L	M	M
<i>linearis</i>	Desert yellow fleabane	ERLI				L					L		L	
<i>peregrinus</i>	Wandering daisy	ERPE-3	M	M		L	M						L	
<i>petrophyllus</i>	Cliff fleabane	ERPE-5												L
<i>ERIOGONUM SP.</i>	BUCKWHEAT p.860								L		L			L
Annuals														
Perennials								E	E	E	E	E	E	E
<i>ERIOPHYLLUM</i>	WOOLLY SUNFLOWER p.261					M		M	M	M	M	M	M	M
<i>lanatum</i> & <i>ssp</i>	Woolly eriophyllum	ERLA-6				E								
<i>ERODIUM</i>	FILAREE, CRANEBILL p.672								E		E	E	E	E
<i>botrys</i> *	Long-beaked storkbill	ERBO												
<i>brachycarpum</i> *	Short-fruit storkbill	ERBR-14						E	E	E	E			
<i>cicutarium</i> *	Red-stem filaree	ERCI-6						E	E	E	E			
<i>moschatum</i> *	White-stem filaree	ERMO-7					E	E	E	E	E		E	
<i>ERYNGIUM</i>	ERYNGO p.146							E	E	E	E		E	
<i>aristulatum</i>	Cal. eryngo, Jepson eryngo	ERAR					E							
<i>ERYSIMUM</i>	WALLFLOWER p.421								E					
<i>capitatum</i>	Western wallflower	ERCA-14				M		M	M	M	M		M	M
<i>ESCHSCHOLTZIA</i>	POPPY p.813													
<i>californica</i>	California poppy	ESCA-2						L	L	L	L		L	
<i>FRAGARIA</i>	WILD STRAWBERRY p.952													
<i>vesca</i>	Wood strawberry	FRVE												
<i>virginiana</i>	Mountain strawberry	FRVI		E		E	E		L		L			L
<i>FRITILLARIA</i>	FRITILLARY p.1194												E	E
<i>autropurpurea</i>	Spotted mission bells	FRAT				L								
<i>pudica</i>	Yellow fritillary	FRPU-2											L	L
<i>GALIUM</i>	BEDSTRAW p.978										L		L	L
<i>aparine</i>	Goosegrass	GAAP												
<i>bifolium</i>	Low mountain bedstraw	GABI		M		M	M	E	E	E	E	E		
<i>trifidum</i>	Trifid bedstraw	GATR-2	M	M									M	M
<i>triflorum</i>	Fragrant bedstraw	GATR-3	M	M					M		M			
<i>GAYOPHYTUM</i>	GROUNDSMOKE p.799								M		M		M	M
<i>decepiens</i>	Deceptive gayophytum	GADE-2												
<i>diffusum</i>	Spreading groundsmoke	GADI-2				E							E	
<i>diffusum</i> var. <i>parviflorum</i>	Diffuse groundsmoke	GADIP				E			E				E	E
									E				E	E

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			WET	MOIST	DRY									
FORBS	PAGE NO.													
<i>GAYOPHYTUM (Contd.)</i>	GROUNDSTOKE p.799													
<i>humile</i>	Low smokeweed	GAHU-2				E	E		E					E
<i>racemosum</i>	Black-foot gayophytum	GARA-1	E	E	E	E	E							E
<i>ramosissimum</i>	Many-flowed smokeweed	GARA-2											E	E
<i>GENTIANA</i>	GENTIAN p.668													
<i>calycosa</i>	Explorers gentian	GECA	M	M		M	M							
<i>fremontii</i>	Moss gentian	GEFR	M	M		M								
<i>newberryi</i>	Alpine gentian	GENE	M	M		M	M							
<i>setigera</i>	Mendocino gentian	GESE-2						M						
<i>GENTIANELLA</i>	GENTIAN, FELWORT p.669													
<i>amarella ssp. acuta</i>	Annual gentian, Felwort	GEAM-3	M	M		M	M							
<i>tenella ssp. tenella</i>	Lapland gentian	GETET	M	M		M	M							
<i>GENTIANOPSIS</i>	FRINGED GENTIAN p.669													
<i>holopetala</i>	Sierra gentian	GEHO-3	M	M		M								
<i>simplex</i>	Hiker's gentian	GESI-3	M	M		M								
<i>GERANIUM</i>	GERANIUM p.673													
<i>bicknellii</i>	Bicknell's geranium	GEBI-2					M		L					L
<i>californicum</i>	California geranium	GECA-4		E		E	E		E					E
<i>carolinianum</i>	Carolina geranium	GECA-5						M	M	M	M		M	
<i>dissectum*</i>	Cut-leaf geranium	GEDI						E	E	E	E			
<i>molle*</i>	Dovefoot geranium	GEMO							E	E		E		
<i>oreganum</i>	Oregon geranium	GEOR-2		M	M		M		L					M
<i>richardsonii</i>	Richardson's geranium	GERI		M		M	M		M					M
<i>viscosissimum</i>	Sticky geranium	GEVI-2		M			M						M	
<i>GEUM</i>	AVENS, GEUM p.952													
<i>macrophyllum</i>	Large-leaved avens	GEMA-4	E	M		M	M		M				M	
<i>triflorum</i>	Old man's whiskers	GETR		M	M	M	M						M	
<i>GILIA</i>	GILIA p.828													
<i>cana</i>	Cobwebby gilia	GICA-3					E						M	M
<i>capillaris</i>	Smooth-leaved gilia	GICA-4		E	E	E	E		E					E
<i>capitata ssp. mediomontana</i>	Mountain globe gilia	GICAM												M
<i>capitata ssp. pediomonta</i>	Foothill globe gilia	GICAP-2								M	M			
<i>leptalea</i>	Bridge's gilia	GILE			E				E		E			E
<i>tricolor</i>	Bird's-eye gilia	GITR-2							M	M	M			
<i>GNAPHALIUM</i>	CUDWEED p.270													
<i>palustre</i>	Western marsh cudweed	GNPA		E	E		E		E		E			E
<i>GOODYERA</i>	RATTLESNAKE PLANTAIN p.1214													
<i>oblongifolia</i>	Rattlesnake plantain	GOOB-2							L				L	L
<i>GRINDELLIA</i>	GUMPLANT p.271													
<i>camphorum</i>	Great valley gumweed	GRCA							M	M	M			

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			WET	MOIST	DRY									
FORBS	PAGE NO.													
<i>GRINDELLIA (Contd.)</i>	GUMPLANT p.271													
<i>nana</i>	Idaho gumweed	GRNA						E				E	E	
<i>squarrosa var. serulata</i>	Curlycup gumweed	GRSQS					E	E				E	E	
<i>HACKELIA</i>	STICKSEED p.378													
<i>amethystina</i>	Amethyst stickseed	HAAM		E				E						E
<i>bella</i>	Showy stickseed	HABE					E	M						M
<i>californica</i>	California stickseed	HACA		E				M						M
<i>cusickii</i>	Cusick's stickseed	HACU											M	
<i>floribunda</i>	Many-flowered stickseed	HAFL-2		E					E				M	M
<i>micrantha</i>	Jessica's stickseed	HAMI		E		M	M		M				E	M
<i>nervosa</i>	Sierra stickseed	HANE				M	M							M
<i>setosa</i>	Bristly stickseed	HASE							M					M
<i>velutina</i>	Velvet stickseed	HAVE												M
<i>HALOGETON</i>	HALOGETON p.511													
<i>glomeratus* (PO)</i>	Halogeton	HAGL											E	
<i>HASTINGSIA</i>	RUSH LILLY p.1196													
<i>alba</i>	White rush lilly	HAAL-2	L	L		L	L		L					
<i>HELENIUM (PO)</i>	SNEEZEWEED p.276													
<i>bigloveli (PO)</i>	Biglow sneezeweed	HEBI	M	E		E	E		E					E
<i>puberulum (PO)</i>	Rosilla	HEPU-1	M	E			E		E	E	E			
<i>HELIANTHELLA</i>	SMALL SUNFLOWER p.277													
<i>californica var. nevadensis</i>	Sierra helianthella	HECAN						M	M	M			M	M
<i>californica var. shastensis</i>	Siskiyou helianthella	HECAS-2						L						L
<i>HELIANTHUS</i>	SUNFLOWER p.277													
<i>annuus</i>	Common sunflower	HEAN-3						E	E	E	E		E	
<i>bolanderi</i>	Bolander's sunflower	HEBO-3						E	E	E	E	E		
<i>californicus</i>	California sunflower	HECA-5					E		E	E				
<i>cusickii</i>	Cusick's sunflower	HECU-2											E	
<i>gracilentus</i>	San Diego sunflower	HEGR-3						E	E	E				
<i>HEMIZONIA SP.</i>	TARWEED p.280							E	E	E	E		E	
<i>HERACLEUM</i>	COW PARSNIP p.148													
<i>lanatum</i>	Cow parsnip	HELA-4	L	L			L		L		L		L	L
<i>HESPEROCHIRON</i>	HESPEROCHIRON p.686													
<i>californicus</i>	California hesperochiron	HECA-7		E		E	E						E	E
<i>pumilus</i>	Dwarf hesperochiron	HEPU-6		E		E	E		E				E	E
<i>HETEROTHECA</i>	GOLDEN ASTER p.286													
<i>(CHRYSOPSIS)</i>														
<i>grandiflora</i>	Telegraphweed	HEGR-7						E	E	E	E			
<i>oregana var. compacta</i>	Oregon golden aster	HEORC					M				M	M		
<i>villosa var. hispida</i>	Shaggy golden aster	HEVIH				M							M	

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			WET	MOIST	DRY									
FORBS	PAGE NO.													
<i>HEUCHERA micrantha</i>	ALUMROOT p.1003	HEMI												
<i>rubescens</i>	Small-flowered alumroot	HERU				L	L	L						
<i>HIERACIUM albiflorum</i>	HAWKWEED p.287	HIAL-2				M		L				L		
<i>argutum</i>	White-flowered hawkweed	HIAR-2						M			M			M
<i>bolanderi</i>	Southern Calif. hawkweed	HIBO						M			M			
<i>gracile</i>	Boland's hawkweed	HIGR		M		M		M						M
<i>greenei</i>	Subalpine hawkweed	HIGR-2				M		M						M
<i>horridum</i>	Greene hawkweed	HIHO				E								M
<i>scouleri</i>	Shaggy hawkweed	HISC-2						E			E	E	E	M
<i>HOLOCARPHA heermannii</i>	TARWEED p.288	HOHE											E	E
<i>obconica</i>	Heermann's tarweed	HOOB						E	E	E	E			
<i>virgata</i>	San Joaquin tarweed	HOVI							E	E	E			
<i>HORKELIA bolanderi</i>	HORKELIA p.953	HOB0-2						E	E	E	E			
<i>californica ssp. dissita</i>	Bolander's horkelia	HOCAD					M		M					M
<i>clevelandii</i>	Tall horkelia	HOCL		E				M			M			M
<i>daucifolia</i>	Cleveland horkelia	HODA						M						M
<i>fusca</i>	Carrot-leaved horkelia	HOFU		E	E			M						M
<i>fusca ssp. parviflora</i>	Dusky horkelia	HOFUP-2		E		M							M	M
<i>fusca ssp. tenella</i>	Small-flowered dusky horkelia	HOFUT											M	M
<i>rydbergii</i>	Dusky horkelia	HORY		E										M
<i>tridentata</i>	Rydberg's horkelia	HOTR					E		E					E
<i>wilderae (SE)</i>	Three toothed horkelia	HOWI						M					M	M
<i>HYDROPHYLLUM capitatum var. alpinum</i>	WATERLEAF p.686	HYCAA		M										M
<i>fendleri var. albifrons</i>	Alpine waterleaf	HYFEA					L						L	L
<i>occidentale</i>	Fendler's waterleaf	HYOC		M		M	L	L						L
<i>HYPERICUM anagaloides</i>	ST. JOHNS WORT p.708	HYAN-2	M	M		M	L	L						M
<i>concinnum</i>	Tinker's penny	HYCO-3						M	M					M
<i>formosum var. scouleri</i>	Gold-wire	HYFOS	M	M				M	M		M	M		M
<i>perforatum* (PO)</i>	Scouler's St. Johns wort	HYPE						E	E		E	E		M
<i>HYPOCHAERIS glabra*</i>	CAT'S EAR p.294	HYGL-2									E	E		E
<i>radicata*</i>	Smooth cat's ear	HYRA-3						E	E		E	E		
<i>IPOMOPSIS aggregata</i>	SCARLET GILIA p.836	IPAG						E	E		E	E		
<i>polycladon</i>	Skyrocket gilia	IPPO-2				L		L					L	L
	Many-branched gilia												E	

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FORBS	PAGE NO.													
<i>IRIS</i>	<i>IRIS</i> p.1153													
<i>douglasiana</i>	Douglas Iris	IRDO						L						
<i>hartwegii ssp. hartwegii</i>	Hartweg's Iris	IRHAH			E	E								E
<i>hartwegii ssp. australis</i>	San Bernardino Iris	IRHAA						L						L
<i>hartwegii ssp. columbiana</i>	Tuolumne Iris	IRHAC									L			L
<i>hartwegii ssp. pinetorum</i>	Rainbow Iris	IRHAP									L			L
<i>macrosiphon</i>	Slender-tubed iris	IRMA						L			L			
<i>missouriensis</i>	Western blueflag	IRMI	E	E	E	E	E	E					E	E
<i>purdyi</i>	Purdy's blue Iris	IRPU						L						L
<i>tenax ssp. Klamathensis</i>	Klamath Iris	IRTEK-2						L						
<i>tenuissima</i>	Clackamas Iris	IRTE-3						L			L			L
IVESIA	IVESIA p.957													
<i>aperta</i>	Sierra valley mousetail	IVAP			M	L		L					L	L
<i>argyrocoma</i>	Silver-haired Ivesia	IVAR				L		L						
<i>campestris</i>	Field Ivesia	IVCA-2		E	E	M	E							
<i>lycopodiodes</i>	Club moss Ivesia	IVLY		M		M	M							
<i>lycopodiodes v. megalopetala</i>	Large-petaled Ivesia	IVLYM	L	L		L	L							
<i>muirii</i>	Muir's Ivesia	IVMU				L								
<i>santolinoides</i>	Mouse-tail Ivesia	IVSA-2				L								
<i>sericoleuca</i>	Plumas Ivesia	IVSE		M	M		M						M	
<i>unquiculata (SE)</i>	Yosemite Ivesia	IVUN		E	E									
LACTUCA	LETTUCE p.297													
<i>serriola*</i>	Prickly lettuce	LASE			E		E	E	E	E	E	E	E	E
LAPPULA	STICKSEED p.381													
<i>redowski</i>	Western stickseed	LARE			E	E							E	E
LASTHENIA	GOLDFIELDS p.298													
<i>californica</i>	California goldfields	LACA-7						M	M	M	M			
<i>debilis</i>	Weak-stemmed goldfields	LADE-8								E	E			
<i>glaberrima</i>	Smooth goldfields	LAGL-3					E		M	M			M	
<i>minor</i>	Wooley goldfields	LAMI-5							M	M	M			
LATHYRUS	WILD PEA p.610													
<i>brownii</i>	Mountain sweet pea	LABR-2					M		M					M
<i>delnorticus</i>	Del Norte pea	LADE-3					L		M					M
<i>jepsonii var. californicus</i>	Jepson pea	LAJEC					M		M			M		
<i>lanzwertii</i>	Nevada pea	LALA-3			M		M	M	M				M	M
<i>nevadensis var. nevadensis</i>	Sierra Nevada pea	LANEN			M		M	M	M		M			M
<i>sulphureus</i>	Sulphur pea	LASU						M	M		M			M
LAYIA SP.	LAYIA p.300							E	E	E	E	E	E	
LEPIDIUM	PEPPERGRASS p.426													
<i>campestre*</i>	Cow cress	LECA-5						E	E	E	E			
<i>densiflorum</i>	Common peppergrass	LEDE							E	E	E		E	

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FORBS	PAGE NO.													
<i>LEPIDIUM (Contd.)</i>	PEPPERGRASS p.426													
<i>montanum var. canescens</i>	Mountain peppergrass	LEMOC											M	
<i>nitidum</i>	Shining peppergrass	LENI						E	E	E	E	E	M	
<i>perfoliatum*</i>	Shieldgrass (Lace pod)	LEPE-2						E	E	E	E	E	E	
<i>virginicum var. pubescens</i>	Wild peppergrass	LEVIP						E	E	E	E	E	E	
<i>LEPTODACTYLON</i>	FALSE PHLOX p.840													
<i>californicum</i>	Prickly phlox	LECA-7						L	L					
<i>jaegeri (SE)</i>	San Jacinto gilia	LEJA-2												L
<i>pungens</i>	Granite gilia	LEPU				L							L	L
<i>LEWISIA</i>	LEWISIA p.900													
<i>glanudulosa</i>	Glandular lewisia	LEGL-4		L		L	L							
<i>nevadensis</i>	Sierra lewisia	LENE-5		L		L	L		L					
<i>rediviva</i>	Bitterroot	LERE-7							L				L	
<i>tryphylla</i>	Three-leaved lewisia	LETR-2		L		L			L					M
<i>LIGUSTICUM SP.</i>	LOVEAGE p.150			M		M	M	M	M		M	M		
<i>LILIUM SP.</i>	WILD LILY p.1198		L	L		L	L				L		L	L
<i>LIMNANTHES</i>	MEADOW FOAM p.738													
<i>douglasii</i>	Douglas meadow foam	LIDO-2	E	E				E			E			
<i>LIMOSELLA</i>	MUDWORT p.1034													
<i>acaulis</i>	Southern mudwort	LIAC-2				E	E			E			E	
<i>aquatica</i>	Northern mudwort	LIAQ				E	E		E				E	
<i>LINANTHUS SP.</i>	LINANTHUS p.840							E	E	E	E	E	E	E
<i>LINUM</i>	FLAX p.740													
<i>biene</i>	Pale flax	LIBI-5							M	M	M			
<i>lewisii</i>	Blue flax	LILE-3				M			M				M	M
<i>LITHOPHRAGMA</i>	WOODLAND STAR p.1005													
<i>affine</i>	Woodland Star	LIAF							L			L		
<i>bolanderi</i>	Sierra Star	LIBO-5							L			L		
<i>campanulatum</i>	Siskiyou Mtn. Woodland star	LICA-21							L			L		L
<i>cymbalaria</i>	Mission Star	LICY-3						M	L			L	L	
<i>glabrum</i>	Rock Star	LIGL-2				L			L				L	L
<i>heterophyllum</i>	Hill Star	LIHE							L					
<i>parviflorum</i>	Small-fl. lithophragma	LIPA-5							L				L	L
<i>tenellum</i>	Modoc lithophragma	LITE-4							L				L	
<i>LOBELIA</i>	CARDINAL FLOWER p.465													
<i>cardinalis v. pseudosplendens</i>	Cardinal flower	LOCAP-4								M				
<i>LOEFLINGIA</i>	LOEFLINGIA p.482													
<i>squarrosa</i>	Bristlewort	LOSQ						E		E	E		E	
<i>LOMATIUM SP.</i>	LOMATIUM p.150					M			M	M	M	M	M	M
<i>LOTUS</i>	TREFOIL p.616													
<i>argophyllus</i>	Silver lotus	LOAR-3							L	L		L	L	M

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R5 Rangeland Plant List

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			WET	MOIST	DRY									
FORBS	PAGE NO.													
<i>LOTUS (Contd.)</i>	TREFOIL p.616													
<i>corniculatus*</i>	Birdfoot trefoil	LOCO-6		E										
<i>crassifolius</i>	Big deerweed	LOCR							E		E	E		
<i>denticulatus</i>	Riverbar birdfoot trefoil	LODE		E					M		M		M	
<i>grandiflorus</i>	Large-flowered lotus	LOGR-3							E		E	E		
<i>humistratus</i>	Hill lotus	LOHU-2							L		L		M	
<i>incanus</i>	Woolley lotus	LOIN-6						M	M	M	M	M		
<i>micranthus</i>	Small-flowered lotus	LOMI									L			L
<i>nevadensis</i>	Sierra Nevada lotus	LONE-4		E				E	E	E	E	E	E	E
<i>oblongifolius</i>	Narrow-leaved lotus	LOOB-2	E	E					M		M		M	M
<i>oblongifolius var. cupreus</i>	Copper-flowered lotus	LOOBC		E					E		M		E	M
<i>purshianus var. purshianus</i>	Spanish lotus	LOPUP		E	E	M			E					M
<i>strigosus</i>	Strigose lotus	LOST-4							M		M			M
<i>wrangelianus</i>	Wrangel lotus	LOWR-2							M		M	M	M	M
LUPINUS (Most PO)	LUPINE p.622								M	M	M	M	M	
<i>albicaulis</i>	Sickle-keel lupine	LUAL-3												
<i>albifrons</i>	Silver bush lupine	LUAL-4				M					M			M
<i>andersonii</i>	Anderson's lupine	LUAN-2						M			M			
<i>arbustus</i>	Spur lupine	LUAR-6									M			M
<i>argenteus (PO)</i>	Silvery lupine	LUAR-3							L				L	M
<i>bicolor</i>	Bicolor annual lupine	LUBI							M				M	M
<i>breweri</i>	Brewer's lupine	LUBR-3						E	E	E	E			
<i>covillei</i>	Coville's lupine	LUCO-4									L			L
<i>formosus</i>	Summer lupine	LUFO-2												L
<i>latifolius (PO)</i>	Broad-leaf lupine	LULA-4		M	M	M	M	M		E	E			
<i>lepidus var. confertus</i>	Sierra lupine	LULEC		M	M	M	M	M						M
<i>lepidus var. lobbii</i>	Alpine lupine	LULEL-3											M	M
<i>lepidus var. sellulus</i>	Torrey's lupine	LULES-2												M
<i>nanus (PO)</i>	Sky lupine	LUNA-3											M	M
<i>nevadensis</i>	Nevada lupine	LUNE								E	E	E		
<i>polyphyllus var. burkei (PO)</i>	Large-leaf lupine	LUPOB-1	M	M	M		E						L	
<i>pratensis</i>	Inyo meadow lupine	LUPR		M									M	E
<i>succulentus</i>	Succulent annual lupine	LUSU-3											M	M
MACHAERANTHERA	TANSY ASTER p.308										E	E	E	
<i>canescens</i>	Hoary aster	MACA-2												
MADIA	TARWEED p.310													
<i>bolanderi</i>	Bolander's madia	MABO												
<i>elegans</i>	Common madia	MAEL		E	E	E	E							E
<i>exigua</i>	Small tarweed	MAEX								E	E	E	E	E
<i>glomerata</i>	Mountain tarweed	MAGL-2								E	E	E		
<i>gracilis</i>	Slender tarweed	MAGR-3											E	E
									E	E	E	E	E	E

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			WET	MOIST	DRY									
FORBS	PAGE NO.													
<i>MADIA (Contd.)</i>	TARWEED p.310													
<i>madiodes</i>	Woodland tarweed	MAMA						E						E
<i>minima</i>	Dwarf madia	MAMI						E			E	E		E
<i>sativa</i>	Coast tarweed	MASA						E	E		E			
<i>yosemitana</i>	Yosemite madia	MAYO			E									E
MALVA	p.754													
<i>parviflora*</i>	Cheeseweed	MAPA-5						E	E	E	E	E	E	
<i>neglecta*</i>	Common mallow	MANE						E	E	E	E	E	E	
MARAH SP.	WILD CUCUMBER p.536										M	M		
MARRUBIUM	HOREHOUND p.715													
<i>vulgare*</i>	Common horehound	MAVU						E	E	E	E	E	E	
MEDICAGO	MEDICK, BURCLOVER p.637													
<i>arabica*</i>	Spotted medick	MEAR						E	E	E	E			
<i>lupulina*</i>	Black medick	MELU		E				E	E	E	E		M	E
<i>polymorpha*</i>	California burclover	MEPO-3						E	E	E	E		E	
<i>sativa*</i>	Alfalfa	MESA						E**	E**	E**	E**			
MELILOTUS	SWEET CLOVER p. 637													
<i>alba*</i>	White sweet clover	MEAL-2						E**	E**	E**	E**	E**		E**
<i>officinalis*</i>	Yellow sweet clover	MEOF						E**	E**	E**	E**	E**		E**
MENTHA	MINT p.716													
<i>arvensis</i>	Wild mint, Field mint	MEAR-4	E	E							M		M	E
<i>piperita*</i>	Peppermint	MEPI									M		M	M
<i>pulegium*</i>	Pennyroyal	MEPU								M	M		M	M
<i>spicata var. spicata*</i>	Spearmint	MESPS								M	M		M	M
MENTZELIA	BLAZING STAR p.741													
<i>albicaulis</i>	Whitestem blazing star	MEAL-6				E			E		E	E	E	E
<i>lindleyi</i>	Lindley's blazing star	MELI-4						E	E	E	E			
MERTENSIA	BLUEBELLS p.382													
<i>ciliata</i>	Streamside bluebells	MECI-3	M	M	M	M	M						M	M
<i>oblongifolia</i>	Sagebrush bluebells	MEOB		E	M								L	L
MICROPUS	MICROPUS p.316													
<i>californicus</i>	Micropus, Slender cottonweed	MICA						E	E	E	E	E		
MICROSERIS	SILVERPUFFS p.316													
<i>nutans</i>	Nodding microseris	MINU		E		E			E				E	E
MIMULUS	MONKEY FLOWER p.1037													
<i>cardinalis</i>	Scarlet monkey flower	MICA-3					L		L		L			L
<i>guttatus</i>	Monkey flower	MIGU	M	M		E	E	E	E	E	E	E	E	E
<i>moschatus</i>	Musk monkey flower	MIMO-3	M	M			E	M	M		M		E	E
<i>primuloides</i>	Primrose monkey flower	MIPR	M	M		E	E		E				E	E
<i>pygmaeus</i>	Egg Lake monkey flower	MIPY	E	E									E	
<i>tilingii</i>	Mountain monkey flower	MITI	M	M		L	M							

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			WET	MOIST	DRY									
FORBS	PAGE NO.													
<i>MINUARTIA (ARENARIA)</i>	SANDWORT p.482													
<i>douglasii</i>	Douglas sandwort	MIDO-3							E		E	E	E	E
<i>obtusiloba</i>	Alpine sandwort	MIOB-2				M	M							
<i>rubella</i>	Red sandwort	MIRU-3				M								
<i>stricta</i>	Ross' sandwort	MIST				M								
<i>MOEHRINGIA (ARENARIA)</i>	SANDWORT p.485													
<i>macrophylla</i>	Large-flowered sandwort	MOMA-3							M					M
<i>MONARDELLA</i>	MONARDELLA p.718													
<i>candicans</i>	Sierra coyote mint	MOCA-3									E			
<i>lanceolata</i>	Mustang mint	MOLA-2							E		E	E		
<i>macrantha</i>	Large-flowered monardella	MOMA						M	M		M	M		E
<i>odoratissima</i>	Mountain monardella	MOOD				M							M	E
<i>purpurea</i>	Siskiyou monardella	MOPU-2							M		M		M	M
<i>sheltonii</i>	Shelton's Mtn. pennyroyal	MOSH							M	M	M	M		M
<i>villosa</i>	Coyote mint	MOVI-2							M	M	M			M
<i>villosa ssp. villosa</i>	Hairy Mtn. pennyroyal	MOVIV							M	M	M			M
<i>MONTIA</i>	MINER'S LETTUCE p.904													
<i>chamissoi</i>	Toad lily	MOCH	M	M		M	M		M				M	M
<i>fontana</i>	Water chickweed	MOFO				M	M		M		M			
<i>linearis</i>	Linear-leaved montia	MOLI-4	M	M			M		M		M		M	M
<i>parvifolia</i>	Small-leaved montia	MOPA-5		M			M		M		M			E
<i>MYOSURUS SP.</i>	MOUSETAIL p.923						E		E	E			E	
<i>NAMA SP.</i>	PURPLE MAT p.687					E			E	E			E	E
<i>NAVARRETTIA SP.</i>	NAVARRETTIA p.844			E	E	E	E		E	E	E	E	E	E
<i>NEMOPHILA</i>	NEMOPHILA p.690													
<i>breviflora</i>	Modoc nemophila	NEBR		E	E		E						E	
<i>heterophylla</i>	Small white nemophila	NEHE					E		E		E	E		E
<i>maculata</i>	Fivespot	NEMA		E			E			E	E			
<i>menziesii</i>	Baby blue-eyes	NEME						E	E	E	E	E	E	
<i>parviflora (and ssp.)</i>	Small-flowered nemophila	NEPA		E				E		E			E	E
<i>pedunculata</i>	Meadow nemophila	NEPE		E				E	E	E	E		E	E
<i>spatulata</i>	Sierra nemophila	NESP				E	E				E			E
<i>NICOTIANA (PO)</i>	TOBACCO p.1072													
<i>accuminata var. multiflora*</i>	Many-flowered tobacco	NIACM					E		E	E	E		E	
<i>attenuata</i>	Coyote tobacco	NIAT								E	E		E	
<i>quadrivalis</i>	Desert tobacco, Indian tobacco	NIQU							E	E	E	E	E	
<i>OENOTHERA SP.</i>	EVENING PRIMROSE p.800			E	E	E	E		E	E	E	E	E	E
<i>ORTHOCARPUS</i>	OWLS CLOVER p.1048													
<i>bracteosus</i>	Rosy owls' clover	ORBR		M	M								M	
<i>cuspidatus</i>	Siskiyou Mtn. owls clover	ORCU				E			E				M	E
<i>cuspidatus ssp. cryptanthus</i>	Short-flowered owls' clover	ORCUC-1											E	E

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FORBS	PAGE NO.													
<i>ORTHOCARPUS (Contd.)</i>	OWLS CLOVER p.1048													
<i>cuspidatus ssp. copelandii</i>	Copeland's owls' clover	ORCOC-2												
<i>imbricatus</i>	Mountain owls' clover	ORIM		M	M						E		E	
<i>luteus</i>	Yellow owl's clover	ORLU-2		M									M	
<i>OSMORHIZA</i>	SWEET-CICELY p.158													
<i>brachypoda</i>	California sweet-cicely	OSBR												
<i>chilensis</i>	Mountain sweet-cicely	OSCH						M					M	
<i>occidentalis</i>	Western sweet-cicely	OSOC						M					M	
<i>purpurea</i>	Purple sweet-cicely	OSPU						M					M	
<i>OXYPOLIS</i>	COWBANE p.159													
<i>occidentalis</i>	Western cowbane	OXOC	L	L										
<i>OXYTROPIS (PO)</i>	LOCOWEED p.638													
<i>borealis var. viscida</i>	Sticky locoweed	OXBOV												
<i>oreophila</i>	Alpine locoweed	OXOR-2					M		M					
<i>parryi</i>	Parry's locoweed	OXPA-2					M							
<i>PAPAVER</i>	POPPY p.815													
<i>argemone</i>	Pricklyhead poppy	PAAR-3												
<i>californicum</i>	Fire poppy	PACA-9								E	E	E	E	
<i>PEDICULARIS</i>	LOUSEWORT p.1049									E	E	E	E	
<i>attolens</i>	Little elephant heads	PEAT	L	M										
<i>densiflora</i>	Indian warrior	PEDE					L		M					
<i>groenlandica</i>	Elephant heads	PEGR-2	L	M									M	
<i>racemosa</i>	Leafy lousewort	PERA								L			L	
<i>semibarbata</i>	Pine-woods lousewort	PESE-2								L			L	
<i>PENSTEMON</i>	PENSTEMON, BEARDTONGUE p.1050									L			L	
<i>anguineus</i>	Siskiyou penstemon	PEAN-3												
<i>azureus</i>	Azure penstemon	PEAZ								M				
<i>centranthifolius</i>	Scarlet bugler	PECE-2								L			M	
<i>deustus</i>	Hotrock beardtongue	PEDE-4								L		L		
<i>gracilentus</i>	Slender beardtongue	PEGR-4					L						L	
<i>heterodoxus</i>	Sierra beardtongue	PEHE-2					L						L	
<i>heterophyllus</i>	Foothill or Chaparral penstemon	PEHE-3		M			M		M					
<i>laetus</i>	Western gray beardtongue	PELA-7								M			M	
<i>newberryi var. newberryi</i>	Mountain pride	PENEN											M	
<i>palmeri</i>	Palmer's beardtongue	PEPA-9					L			L			L	
<i>papillatus</i>	Papillate beardtongue	PEPA											L	
<i>parvulus</i>	Small-azure beardtongue	PEPA-11					L						L	
<i>patens</i>	Inyo beardtongue	PEPA-27					L						L	
<i>rostriflorus</i>	Bridge's or Beaked penst.	PERO-10					L						L	
<i>rydbergii var. oreocharis</i>	Rydberg's Mdw. penstemon	PERYO	M	M	M		L						L	
<i>speciosus</i>	Showy beardtongue	PESP-1					L						M	

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FORBS	PAGE NO.													
<i>PAEONIA brownii</i>	PEONY p.810 Brown's peony	PABR				M								
<i>PERIDERIDIA bolanderi</i>	YAMPAH p.159 Bolander's yampah	PEBO-2		M	M	M		L				L		
<i>gairdneri</i>	Yampah	PEGA-3		E	E	E		M		M		M	M	
<i>howellii</i>	Howell's yampah	PEHO-5		E				L					E	
<i>kelloggii</i>	Kellogg's yampah	PEKE						E					E	
<i>oregana</i>	Oregon yampah	PEOR-6		E	E			L						
<i>parishii</i>	Parish's yampah	PEPA-21	E	E	M	E		M				M	M	
<i>pringlei</i>	Pringle's yampah	PEPR-5						E					E	
PHACELIA	p.691							M	M		M	M		
<i>bicolor var. bicolor</i>	Two-color phacelia	PHBIB				E								
<i>californica</i>	California phacelia	PHCA						M	M			E		
<i>cicutaria</i>	Caterpillar phacelia	PHCI							E	E	M	M		
<i>crenulata</i>	Heliotrope phacelia	PHCR									E	E		
<i>egena</i>	Rock or Kaweah phacelia	PHEG						E				E		
<i>hastata</i>	Hastate-leaf phacelia	PHHA						E		E	E	E	E	
<i>heterophylla ssp. virgata</i>	Virgate phacelia	PHHEV				E						E		
<i>inundata</i>	Playa phacelia	PHIN-4							M			E	M	
<i>linearis</i>	Threadleaf phacelia	PHLI							E				E	
<i>ramosissima</i>	Branching phacelia	PHRA-2							E			E	E	
PHALACROSERIS	BOLANDER DANDELION p.326					M	M		M	M	M	M	M	
<i>bolanderi</i>	Bolander's dandelion	PHBO-2	M	M		M	M							
PHLOX	p.849												M	
<i>adsurgens</i>	Northern phlox	PHAD-2												
<i>douglasii ssp. rigida</i>	Stiff phlox	PHDOR							M				M	
<i>gracilis</i>	Slender phlox	PHGR-16		E		E	E	M	M		M		E	
<i>hoodii ssp. canescens</i>	Carpet phlox	PHHOC							M	E	E	E	E	
<i>speciosa</i>	Showy phlox	PHSP										M		
PLAGIOBOTHRYIS SP.	POPCORN FLOWER p.386			E	E	E	E	E	E	E	E	E	E	
PLANTAGO	p.820													
<i>elongata</i>	Longleaf plantain	PLEL												
<i>erecta</i>	Dwarf plantain	PLER-3						E	E	E				
<i>lanceolata*</i>	English plantain	PLLA						E	E	E	E			
<i>major</i>	Common plantain	PLMA-2						E	E	E	E			
PLATANThERA	BOG ORCHID p.1216							E	E	E	E	E		
<i>hyperborea</i>	Green-flowered bog orchid	PLHY	L	L										
<i>leucostachys</i>	White-flowered bog orchid	PLLE	L	L		L	L						L	
<i>sparsiflora</i>	Sparse-flowered bog orchid	PLSP	L	L		L	L	L	L			L	L	
<i>stricta</i>	Slender bog orchid	PLST	L	L		L	L	L	L			L	L	

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FORBS	PAGE NO.													
<i>PLATYSTEMON californicus</i>	CREAM CUPS p.815 California cream cups	PLCA-5							E	E				
<i>PLECTRITIS SP.</i>	SEABLUSH, PLECTRITIS p.1084								E	E			E	
<i>POLYGONUM arenastrum*</i>	KNOTWEED p.886 Common knotweed	POAR		E					E				E	
<i>bistortoides californicum</i>	Mtn. Bistort, Snakeweed California knotweed	POBI-6 POCA-7	M/10%	M/10%	M	E	E		E			E	M	E
<i>davisiae douglasii</i>	Davis knotweed Douglas knotweed	PODA PODO-4				M			M					
<i>minimum</i>	Leafy dwarf knotweed	POMI-2		E	E	E	E		E					E
<i>parryi persicaria*</i>	Parry's knotweed Lady's thumb	POPA-8 POPE							E	E				
<i>phytolaccifolium polygaloides ssp. kelloggii</i>	Alpine knotweed Kellogg's knotweed	POPH POPOK	E	E		M	E		M				M	M
POTENTILLA	CINQUEFOIL p.964													
<i>anserina diversifolia var. diversifolia</i>	Silverweed Diverse-leaved cinquefoil	POAN-5 PODID	E	E		E	E		E				E	E
<i>drummondii drummondii var. breweri</i>	Drummond cinquefoil Brewer's cinquefoil	PODR PODRB		M		M	M		M				M	M
<i>flabellifolia glandulosa</i>	Fan-leaf cinquefoil Sticky cinquefoil	POFL-3 POGL-9		M		M			M				M	M
<i>gracilis millefolia</i>	Slender cinquefoil Cut-leaf cinquefoil	POGR-9 POMI-4	E	E	E	M	E		M		M		M	M
<i>palustris wheeleri</i>	Purple cinquefoil Kem cinquefoil	POPA-14 POWH	E	E			E		E					E
PRUNELLA	SELF-HEAL p.725													
<i>vulgaris var. lanceolata</i>	Mtn. self-heal	PRVUL-2	M	M			M		M		M		M	M
PSEUDOSTELLARIA	STARWORT p.486													
<i>jamesiana</i>	Tuber starwort	PSJA-2	M	L	E	M	M		M				M	M
PSILOCARPHUS	WOOLEY-HEADS p.329													
<i>brevissimus</i>	Wooley-heads	PSBR					E		E				E	
PTERIDIUM (PO)	BRACKEN FERN p.90													
<i>aquilinum var. pubescens</i>	Bracken fern	PTAQP-2		E		E	E	E	E		E		E	E
RAFINESQUIA	CHICORY p.331													
<i>californica</i>	California chicory	RACA							E	E		E	E	
RANUNCULUS	BUTTERCUP p.923													
<i>alismifolius aquatilis</i>	Water plantain buttercup Water buttercup	RAAL RAAQ	E	E		E	E		E				E	E
<i>californicus cymbalaria ssp. saxmontanus</i>	California buttercup Rocky Mtn. buttercup	RACA-2 RACYS						M	M	M	M			M
<i>flabellaris</i>	Yellow water buttercup	RAFL	E	E			E		E		E		E	E

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R5 Rangeland Plant List

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			WET	MOIST	DRY									
FORBS	PAGE NO.													
<i>RANUNCULUS (Contd.)</i>	BUTTERCUP p.923													
<i>filamula</i>	Creeping buttercup	RAFL-2	E	E										
<i>glaberrimus ssp. ellipticus</i>	Sagebrush buttercup	RAGLE		E					E					E
<i>occidentalis</i>	Western buttercup	RAOC	E	E		E							E	E
<i>orthorhynchus</i>	Straight-beak buttercup	RAOR-3		E	E				E					E
<i>sceleratus (PO)</i>	Celeryleaf buttercup	RASC-3	M	M									E	E
<i>RAPHANUS</i>	RADISH p.432									M			M	
<i>sativus*</i>	Wild radish	RASA-2												
<i>RORRIPA</i>	YELLOWCRESS p.434							E	E	E			E	
<i>curvisiliqua</i>	Sickle-pod yellowcress	ROCU	E	E										
<i>palustris var. occidentalis</i>	Western bog yellowcress	ROPAO	E						E				E	
<i>nasturtium-aquaticum*</i>	Watercress	RONA-2	E						E				E	E
<i>RUDBECKIA</i>	CONE FLOWER p.334													
<i>californica</i>	California coneflower	RUCA-3												
<i>hirta ssp. pulcherrima*</i>	Black-eyed susan	RVHIP		M		M			M					
<i>occidentalis v. occidentalis</i>	Black heads	RUOCO		E									E	
<i>RUMEX</i>	DOCK, SORREL p.892													M
<i>acetosella* (PO)</i>	Sheep sorrel	RUAC-3		E										
<i>crispus*</i>	Curly dock	RUCR		E	E		E	E	E	E	E	E		E
<i>paucifolius</i>	Alpine sheep sorrel	RUPA-6	E				E	E	E	E	E	E	E	
<i>salicifolius v. salicifolius</i>	Willow dock	RUSAS		E			E						E	E
<i>salicifolius v. triangulivalvis</i>	Triangle-fruited dock	RUSAT-2		E					E				E	E
<i>SAGINA</i>	PEARLWORT p.487												E	E
<i>apetala</i>	Annual dwarf pearlwort	SAAP												
<i>decumbens ssp. occidentalis</i>	Western pearlwort	SADEO							E	E				
<i>saginoidea</i>	Arctic pearlwort	SASA					E		E	E	E	E		
<i>SALSOLA</i>	RUSSIAN THISTLE p.514												E	E
<i>paulsenii*</i>	Barbwire Russian thistle	SAPA-8												
<i>ragus* (NOX)</i>	Tumbleweed, Russian thistle	SATR							E	E	E	E	E	E
<i>SALVIA</i>	SAGE p.725							E	E	E	E	E	E	
<i>carduacea</i>	Thistle sage	SACA-8												
<i>columbariae</i>	Chia	SACO-6						E	E	E				
<i>spathacea</i>	Pitcher sage, Crimson sage	SASP-3						E	E	E	E	E		
<i>SANGUISORBA</i>	BURNET p.975							L	L		L	L		
<i>occidentalis</i>	Western burnet	SAOC-2												
<i>SANICULA</i>	SANICLE p.162												E	
<i>arctopoides</i>	Yellowmats	SAAR-9												
<i>bipinnata</i>	Poison sanicle	SABI-2						M	M					
<i>bipinnatifida</i>	Purple sanicle	SABI-3							M	M	M	M		
<i>crassicaulis</i>	Pacific sanicle	SACR-2						M	M	M	M	M		

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			WET	MOIST	DRY									
FORBS	PAGE NO.													
<i>SANICULA (Contd.)</i>	SANICLE p.162													
<i>graveolens</i>	Sierra sanicle	SAGR-5												
<i>tuberosa</i>	Tuberous sanicle	SATU			E				E					M
SAXIFRAGA	SAXIFRAGE p.1009													M
<i>aprica</i>	Sierra saxifrage	SAAP-3	L	L		L	L							
<i>bryophora</i>	Moss saxifrage	SABR-7	L	L		L	L							M
<i>californica</i>	California saxifrage	SACA-5						M	M					M
<i>mertensiana</i>	Woods saxifrage	SAME-7						M	M		M			M
<i>nidifica</i> var. <i>nidifica</i>	Peak saxifrage	SANIN	M	M		M		M					M	M
<i>oregana</i>	Oregon saxifrage	SAOR-2	M	M		M	M						M	M
<i>odontoloma</i>	Brook saxifrage	SAOD-2	M			M	M		M					M
<i>tolmiei</i>	Alpine saxifrage	SATO-2				M	M		M					M
SCUTELLARIA	SCULL-CAP p.729													
<i>bolanderi</i>	Bolander's scull-cap	SCBO-2												
<i>californica</i>	California scull-cap	SCCA-3					M		M		M		M	
<i>nana</i>	Dwarf scull-cap	SCNA							M					M
<i>siphocampyloides</i>	Gray-leaved scull-cap	SCSI											M	
<i>tuberosa</i>	Blue scull-cap	SCTU-2					M		M		M			M
SEDUM SP.	STONECROP p.531													M
SENECIO (PO)	GROUNDSEL, RAGWORT p.336													
<i>aronicoides</i>	California ragwort	SEAR-4												
<i>canus</i>	Woolly ragwort	SECA-2				L					E			E
<i>clarkianus</i>	Clark's ragwort	SECL		M									L	L
<i>cymbalaroides</i>	Alpine meadow ragwort	SECY				L	M						L	
<i>hydrophyllus</i>	Water groundsel	SEHY-2		M			E						M	
<i>integerrimus</i>	Single-stem ragwort, Lambstongue groundsel	SEIN-2				M			M				M	
<i>multilobatus</i>	Cutleaf ragwort	SEMU-3				M							L	M
<i>scorzonella</i>	Sierra ragwort	SESC		E		E							M	
<i>serra</i> var. <i>serra</i>	Tall ragwort	SESES		E		L	E							E
<i>triangularis</i>	Arrow-leaved ragwort	SETR	M	M		M	M						L	L
<i>wemeriaefolius</i>	Hoary groundsel	SEWE-2			M	M							M	M
SIBBALDIA	SIBBALDIA p.975													
<i>procumbens</i>	Sibbaldia	SIPR		L	L	L								
SIDALCEA	CHECKERMALLOW p.755													
<i>calycosa</i> ssp. <i>calycosa</i>	Annual checkermallow	SICAC-3												
<i>glaucescens</i>	Glaucus sidalcea	SIGL-2		E	E	E	M		M		M			
<i>hartwegii</i>	Hartweg's sidalcea	SIHA					E							E
<i>malvaeflora</i> and ssp.	Checker bloom	SIMA-2		E					E	E	E	M		
<i>oregana</i> ssp. <i>spicata</i>	Oregon checker, Spicate checkerbloom	SIORS	E	E				E	E	E	E		E	M

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			WET	MOIST	DRY									
<i>SIDALCEA (Contd.)</i>	CHECKERMALLOW	p.755												
<i>ranunculacea</i>	Marsh checker	SIRA	E	E		L								
<i>reptans</i>	Creeping or Sierran checkermallow	SIRE	E	E										L
<i>SILENE</i>	CATCHFLY, CAMPION	p.488												M
<i>bernardina</i>	Palmer's catchfly	SIBE-4				M								
<i>californica</i>	Indian pink	SICA-4						M	M				M	M
<i>douglasii</i>	Douglas's campion	SIDO							M					M
<i>invisa (SE)</i>	Short-petal catchfly	SIIN							M				M	M
<i>laciniata ssp. major</i>	Cardinal catchfly	SILAM						M	M					M
<i>menziesii</i>	Menzies campion	SIME				M					M			
<i>occidentalis</i>	Western catchfly	SIOC				M			M				M	M
<i>oregana</i>	Oregon catchfly	SIOR-3											M	M
<i>SILYBUM</i>	MILK THISTLE	p.342											M	
<i>marianum*</i>	Milk thistle	SIMA-3												
<i>SISYMBRIUM</i>	SISYMBRIUM	p.436						E	E	E	E			
<i>altissimum*</i>	Tumble mustard	SIAL-2												
<i>SISYRINCHIUM</i>	BLUE-EYED GRASS	p.1155						E	E	E	E	E	E	
<i>bellum</i>	Blue-eyed grass	SIBE		M	M									
<i>douglasii var. douglasii</i>	Purple-eyed grass	SIDOD		M				L	L	L	L			
<i>elmeri</i>	Elmer's yellow-eyed grass	SIEL-3	E	M				L	L		L		M	
<i>idahoense</i>	Idaho blue-eyed grass	SIID		M		M								M
<i>SMILACINA</i>	FALSE SOLOMON SEA	p.1204											M	M
<i>racemosa</i>	Fat solomon	SMRA												
<i>stellata</i>	Slim solomon	SMST							L					L
<i>SOLANUM (PO)</i>	NIGHTSHADE	p.1074							L		L	L	L	L
<i>douglasii</i>	Douglas nightshade	SODO												
<i>nigrum* (PO)</i>	Black nightshade	SONI						M	M			M		
<i>parishii</i>	Parish nightshade	SOPA						E	E	E	E	E		
<i>umbelliferum</i>	Bluewitch	SOUT							M			M	M	M
<i>xantii (PO)</i>	Purple nightshade	SOXA						M	M			M	M	M
<i>SOLIDAGO (PO)</i>	GOLDENROD	p.342						M	M			M	M	M
<i>californica</i>	California goldenrod	SOCA-5												
<i>canadensis ssp. elongata</i>	Canada goldenrod	SOCAE		E	E			E	E		E	E	E	E
<i>confinis</i>	Southern goldenrod	SOCO							E				E	E
<i>multiradiata</i>	Northern or Mountain goldenrod	SOMU						E	E			E		
<i>spectabilis</i>	Showy goldenrod	SOSP-3		E	E	E								
<i>SPERGULA</i>	CORN SPURRY	p.493		E	E	E							E	
<i>arvensis ssp. arvensis*</i>	Corn spurry, Starwort	SPARA												
<i>SPERGULARIA</i>	SAND-SPURRY	p.493							E	E	E			E
<i>marina</i>	Salt sand-spurrey	SPMA-2												
<i>rubra*</i>	Red sand-spurrey	SPRU		E				E	E	E	E	E	E	E

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FORBS	PAGE NO.													
<i>SPHAERALCEA</i>	GLOBE MALLOW p.760													
<i>ambigua</i> var. <i>ambigua</i>	Apricot globe mallow	SPAMA											L	
<i>grossulariifolia</i>	Gooseberry leaf globe mallow	SPGR-2											L	
<i>SPHENOSCIADIUM</i>	WHITE HEADS p.165													
<i>capitellatum</i> (PO)	Ranger's buttons	SPCA-5	L	L		L	L		L				L	
<i>SPIRANTHES</i>	LADIES TRESSES p.1216													
<i>porrifolia</i>	Western ladies tresses	SPP0-7	L	L			L		L					L
<i>romanzoffiana</i>	Hooded ladies tresses	SPRO	L	L		L	L		L		L		L	L
<i>STACHYS</i>	HEDGE NETTLE p.730													
<i>ajugoides</i> var. <i>rigida</i>	Rigid hedge nettle	STAJR					M	M	M		M			M
<i>albans</i>	White hedge nettle	STAL		M			M	M	M	M				M
<i>bullata</i>	California hedge nettle	STBU					M	M	M					M
<i>chamissonis</i>	Coast hedge nettle	STCH					M	M	M					
<i>palustris</i> ssp. <i>pilosa</i>	Swamp hedge nettle	STPAP-2					M						M	
<i>stricta</i>	Sonoma hedge nettle	STST					M		M		M			
<i>STELLARIA</i>	STARWORT, CHICKWEED p.496													
<i>borealis</i> ssp. <i>sitchana</i>	Boreal or Northern starwort	STBOS	M	M		M	M		M		M			
<i>calycantha</i>	Northern bog starwort	STCA	L				L		L				L	L
<i>crispa</i>	Ruffed or Chamisso's starwort	STCR-2	M			M	M	M	M					M
<i>longipes</i> var. <i>longipes</i>	Long-stalked starwort	STLOL-5	M	L	E	M	M		M					M
<i>media</i> *	Common chickweed	STME-2		E			E		E		E		E	
<i>umbellata</i>	Umbellate starwort	STUM		M		M	M							M
<i>STREPTANTHUS</i> SP.	JEWEL FLOWER p.439					E			E	E	E	E	E	E
<i>SUAEDA</i>	SEEPWEED p.514													
<i>calceoliformis</i>	Horned sea-blite	SUCA-2					E						E	
<i>SWERTIA</i> (FRASERA)	GREEN GENTIAN p.669													
<i>albicaulis</i>	Whitestem gentian	SWAL-2					L		L				L	
<i>perennis</i>	Star gentian, Perennial swertia	SWPE	L			L	L							
<i>radiata</i>	Monument plant	SWRA		M	M	L	M		L					L
<i>TARAXACUM</i>	DANDELION p.350													
<i>californicum</i>	California dandelion	TACA-5		E										E
<i>officinale</i> *	Common dandelion	TAOF		E		E	E	E	E	E	E	E	E	E
<i>THALICTRUM</i>	MEADOW RUE p.928													
<i>alpinum</i>	Alpine meadow rue	THAL		L		L	L							
<i>fendleri</i>	Fendler's meadow rue	THFE		L		L	L		L				L	L
<i>sparsiflorum</i>	Few-flowered meadow rue	THSP		L		L	L		L					
<i>THELYPODIUM</i> SP.	THELYPODIUM p.444						E						M	
<i>THYSANOCARPUS</i>	FRINGE POD p.447													
<i>curvipes</i>	Fringe pod	THCU						E	E	E	E	E	E	
<i>laciniatus</i>	Lace pod	THLA-3						E	E	E	E	E	E	
<i>radians</i>	Ribbed fringed pod	THRA						E	E	E	E	E	E	

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FORBS	PAGE NO.													
<i>TOFIELDIA</i>	<i>TOFIELDIA</i> p.1206													
<i>occidentalis ssp. occidentalis</i>	Western tofieldia	TOOCO	L	L		L	L		L					
<i>TORILIS</i>	<i>HEDGE PARSLEY</i> p.166													
<i>arvensis</i>	Spreading hedge parsley	TOAR							E	E	E	E		
<i>nodosa*</i>	Knotted hedge parsley	TONO							E	E	E	E		
<i>TRICHOSTEMA</i>	<i>BLUE CURLS</i> p.732													
<i>austromontanum</i>	Southern blue curls	TRAU			E		E		E				E	E
<i>lanceolatum</i>	Vinegar weed	TRLA-4						E	E	E	E	E		
<i>laxum</i>	Turpentine weed	TRLA-5							E	E	E	E		
<i>oblongum</i>	Mountain blue curls	TROB			E	E			E				E	E
<i>rubisepalum</i>	Hernandez blue curls	TRRU					E		E		E		E	E
<i>simulatum</i>	Siskiyou blue curls	TRSI										E	E	E
<i>TRIFOLIUM</i>	<i>CLOVER</i> p.646													
<i>albopurpureum</i>	Rancheria clover	TRAL-5		E			E		E	E	E			
<i>andersonii</i>	Anderson's clover	TRAN		M		M							M	M
<i>beckwithii</i>	Beckwith clover	TRBE-2		M									M	M
<i>bifidum var. dicipiens</i>	Notch-leaved clover	TRBID	M/20%					E	E	E				E
<i>bolanderi (SE)</i>	Bolander's clover#	TRBO-3		M			M							M
<i>breweri</i>	Forest clover	TRBR-3	M/20%						M					M
<i>ciliolatum</i>	Tree clover	TRCI							E	E	E	E		
<i>cyathiferum</i>	Bowl clover#	TRCY	M/20%	M			E		M		M		M/20%	E
<i>depauperatum</i>	Cowbag clover	TRDE	E	M			E		E	E	E			
<i>eriocephalum v. eriocephalum</i>	Wooleyhead clover	TRERE		M			E		M		E			E
<i>fucatum</i>	Bull clover	TRFU					E		E	E	E			
<i>gracilentum</i>	Pin-point clover	TRGR-2							E	E	E	E		
<i>hirtum*</i>	Rose clover	TRHI-4							E	E	E	E		
<i>hybridum*</i>	Alsike clover	TRHY		E					E		E			E
<i>kingii var. productum</i>	Shasta clover	TRKIP-2		M									M	M
<i>lemmonii</i>	Lemmon clover	TRLE-2											M	M
<i>longipes</i>	Long-stalked clover#	TRLO	M/20%	M	E	M	M		M		M		M	M
<i>longipes var oregonum</i>	Oregon clover#	TRLOO-2	M/20%	M			M		M				M	M
<i>macrocephalum</i>	Bighead clover	TRMA-3											M	M
<i>microcephalum</i>	Littlehead clover	TRMI-4					E		E		E			E
<i>microdon</i>	Valpariso clover	TRMI-5							E		E			
<i>monanthum</i>	Carpet clover#	TRMO-2	M/20%	M		M	M							M
<i>oliganthum</i>	Few-flowered clover	TROL							E		E	E		E
<i>pratense*</i>	Red clover	TRPR-2							E**	E**	E*	E**		
<i>repens*</i>	White clover	TRRE-3		E**	E**		E**		E**		E**		E**	E**
<i>subterraneum*</i>	Subterranean clover	TRSU-3		E**			E**	E**	E**		E**		E**	E**
<i>variegatum</i>	White-tip clover#	TRVA	M/20%	M			M	M	M		M		M	

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FORBS	PAGE NO.													
<i>TRIFOLIUM (Contd.)</i>	CLOVER p.646													
<i>willdenovii</i>	Tomcat clover	TRWI-3		E/20%										
<i>wormskjoldii</i>	Mountain clover	TRWO		M	M	M	M	M	M	M		M	M	
<i>TRIPHYSARIA</i>	OWL CLOVER p.1063													M
<i>(ORTHOCARPUS)</i>														
<i>eriantha</i>	Johnny Tuck, Butter & eggs	TRER												
<i>versicolor ssp. faucibarbatu s</i>	Triphysaria	TRVEF						E	E	E				
<i>TRITELIA</i>	TRITELIA p.1206							E	E	E				
<i>(Also see BRODIAEA and DICHELOSTOMA)</i>														
<i>bridgesii</i>	Bridge's tritelia	TRBR-7												
<i>crocea</i>	Common golden stars	TRCR-7						L			L			L
<i>dudleyi</i>	Dudley's tritelia	TRDU-4									M			L
<i>hyacinthina</i>	White tritelia, White hyacinth	TRHY-3	E	M		L	L							L
<i>ixiodes and ssp.</i>	Golden brodiaea	TRIX					M	M	M	M				M
<i>laxa</i>	Ithuriel's spear	TRLA-16						M	M	M				L
<i>montana</i>	Mountain tritelia	TRMO-11						M	M	M				M
<i>URTICA</i>	STINGING NETTLE p.1083					L								L
<i>dioica</i>	Stinging nettle	URDI		E										
<i>VERATRUM</i>	FALSE HELLEBORE p.1208							E						
<i>californicum v. californicum</i>	California corn lily	VECAC	M	M	M	L	M							
<i>insolitum</i>	Siskiyou false-hellebore	VEIN						M				M		
<i>viride</i>	White false-hellebore	VEVI	M	M		L	M							M
<i>VERBASCUM</i>	MULLEIN p.1064													
<i>blattaria*</i>	Moth mullein	VEBL												
<i>thapsus*</i>	Common mullein	VETH			E		E				E	E		
<i>VERBENA</i>	VERVAIN p.1088										E	E		E
<i>bracteata</i>	Bracted verbena	VEBR-3					E	E	E	E			E	
<i>lasio stachys</i>	Common or Western verbena	VELA			E		E	E	E	E		E		
<i>mentifolia</i>	Mint-leaved vervain	VEME						M	M					E
<i>scabra</i>	Rough vervain	VESC						M	M	M				
<i>VERONICA</i>	SPEEDWELL p.1066													
<i>americana</i>	American brooklime	VEAM-2	M	M		M	M	M	M					
<i>anagallis-aquatica*</i>	Water speedwell	VEAN-2	M	M		M	M	M	M			M		M
<i>arvensis*</i>	Field or Corn speedwell	VEAR		E			E			M		M		
<i>copelandii</i>	Copeland's speedwell	VECO							E			E		
<i>cusickii</i>	Cusick's speedwell	VECU		M		M								M
<i>peregrina ssp. xalapensis</i>	Purslane speedwell	VEPEX	E	E		M	M							M
<i>scutellata</i>	Marsh speedwell	VESC-2	M	M		E	E	E	E	E		E		E
<i>serpyllifolia ssp. humifusa</i>	Thyme-leaf speedwell	VESEH-2		E		M	M		M	M				M
<i>wormskjoldii</i>	Americal alpine speedwell	VEWP-2				M	E		M					E

R5 Rangeland Plant List

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			WET	MOIST	DRY									
FORBS	PAGE NO.													
<i>VICIA</i>	VETCH p.654													
<i>americana</i> var. <i>americana</i>	American vetch	VIAMA-3		E	E		E	M	M	E	E		M	
<i>gigantea</i>	Giant vetch	VEGI					M	M	M					
<i>sativa</i> *	Common vetch, Spring vetch	VISA					E	E	E	E	E	E		
<i>villosa</i> ssp. <i>varia</i> *	Hairy vetch	VIVIV-8					E**	E**	E**	E**	E**	E**	E**	
<i>VIOLA</i>	VIOLET p.1089													
<i>adunca</i>	Western dog violet	VIAD	M	M		M			M				M	
<i>aurea</i>	LeConte violet	VIAU-3										M		
<i>beckwithii</i>	Beckwith violet	VIBE-2										L	L	
<i>cuneata</i>	Wedge-leaf violet	VICU-2							L					
<i>douglasii</i>	Golden violet	VIDO					M		M	M			M	
<i>glabella</i>	Stream violet	VIGL		M			L		L				L	
<i>lobata</i>	Pine violet	VILO-2							L				L	
<i>macloskeyi</i>	Macloskey's white violet	VIMA-2	M	M		M			M				M	
<i>pedunculata</i>	Johnny jump-up	VIPE-3						L	L	L	L			
<i>purpurea</i>	Mountain violet	VIPU-4							L			L	L	
<i>sheltonii</i>	Shelton's violet	VISH							L	L	L	L	L	
<i>tomentosa</i>	Woolly violet	VITO												
<i>WYETHIA</i>	MULE EARS p.358													
<i>angustifolia</i>	Narrow-leaf mule ears	WYAN							M	M	M			
<i>bolanderi</i>	Bolander wyethia	WYBO								M	M	M		
<i>elata</i>	Hall's wyethia	WYEL								M	M	M		
<i>glabra</i>	Shining mule ears	WYGL						M	M				M	
<i>helenoides</i>	Gray mule ears	WYHE							M	M	M		M	
<i>invenusta</i>	Coville's wyethia	WYIN									M		M	
<i>longicaulis</i>	Humboldt mule ears	WYLO							M				M	
<i>mollis</i>	Mountain mule ears	WYMO				M							M	
<i>ovata</i>	Southern mule ears	WYOV						M	M	M			M	
<i>XANTHIUM SP.</i>	COCKLEBUR p.359						E	E	E	E	E	E		
<i>YABEA</i>	HEDGE PARSLEY p.166													
<i>microcarpa</i>	California hedge parsley	YAMI							E	E	E			
<i>ZIGADENUS (PO)</i>	DEATH CAMAS p.1210													
<i>exaltatus</i>	Giant death camas	ZYEX									M		M	
<i>fremontii</i>	Fremont's death camas	ZYFR							M	M	M		M	
<i>micranthus</i>	Small-flowered zigadene	ZYMI-2					M		M		M			
<i>paniculatus</i>	Sand corn	ZYPA-2										M	M	
<i>venenosus</i> var. <i>venenosus</i>	Death camas	ZYVEV		M	M		M	M	M		M	M	M	

L=Late Seral, M=Mid Seral, E=Early Seral, SE=Sensitive Species, PO=Poisonous, (M)=Mechanical injurious

*=Non-native Taxa, **=Suitable for reseeding, M/=Limitation

R5 Rangeland Plant List

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			WET	MOIST	DRY									
SHRUBS AND TREES	PAGE NO.													
ACER	MAPLE p.125													
<i>circinatum</i> (S)	Vine maple	ACCI					M		L					L
<i>glabrum</i> var. <i>diffusum</i> (S)	Great basin mtn. maple	ACGLD				L							L	L
<i>glabrum</i> var. <i>torreyi</i> (S)	Sierra Nevada mtn. maple	AGCLE				L	L						L	L
<i>marcophyllum</i> (S)	Bigleaf maple	ACMA-3					L		L			L		L
<i>negundo</i> var. <i>californicum</i> (S)	California box elder	ACNEC-2					L		L			L		L
ADENOSTOMA	CHAMISE p.946													
<i>fasciculatum</i> (S)	Chamise	ADFA							L	L		L	L	
<i>sparsifolium</i> (S)	Red shanks	ADSP							L	L		L	L	
AESCULUS	BUCKEYE p.862													
<i>californica</i> (PO) (S)	California buckeye	AECA								L		L	L	
ALNUS	ALDER p.364													
<i>incana</i> ssp. <i>tenuifolia</i>	Mountain alder	ALINT				L	L		L					L
<i>rubra</i>	Red alder	ALRU-2					L		M					
<i>rhombifolia</i> (S)	White alder	ALRH-2					L		M			M	M	M
<i>viridis</i> ssp. <i>sinuata</i> (S)	Sitka alder-Thin leaf alder	ALVIS					L		L					L
AMBROSIA	BUR-SAGE-RAGWEED p.193													
<i>dumosa</i>	Bur-sage	AMDU-2											E	
AMELANCHIER	SERVICEBERRY p.946													
<i>alnifolia</i> var. <i>semiintegrifolia</i> (S)	Pacific serviceberry	AMALS							L					L
<i>alnifolia</i> var. <i>pumila</i> (S)	Western serviceberry	AMALP-2					L							L
<i>utahensis</i> (S)	Utah serviceberry	AMUT				L			L				L	L
AMORPHA	MOCK LOCUST p.583													
<i>californica</i> (S)	California mock locust	AMCA-5							L	L		L		L
<i>californica</i> var. <i>napensis</i> (S)	Mock locust	AMCAN								L		L		L
<i>fruticosa</i> (S)	Desert indigobush	AMFR					L		L	L			L	
ARBUTUS	MADRONE p.545													
<i>menziesii</i> (S)	Madrone - Madrono	ARME					M		L			L		M
ARCTOSTAPHYLOS	MANZANITA p.545													
<i>canescens</i> (NS)	Hoary manzanita	ARCA-5							L	L			L	E
<i>glandulosa</i> (S)	Eastwood manzanita	ARGL-3							L	L		L		
<i>glauca</i> (NS)	Bigberry manzanita	ARGL-4							L	L		L	L	
<i>manzanita</i> (NS)	Common manzanita	ARMA							L	L		L	L	
<i>mewukka</i> (S)	Indian manzanita	ARME-3										L	L	M
<i>nevadensis</i> (NS)	Pinemat manzanita	ARNE				M			M					L
<i>nissenana</i> (NS) (SE)	Eldorado manzanita	ARNI										L	L	
<i>patula</i> (S)	Greenleaf manzanita	ARPA-6				L			L					M
<i>uva-ursi</i>	Bearberry, Sandberry manzanita	ARUV				L			L					
<i>viscida</i> ssp. <i>mariposa</i>	Mariposa manzanita	ARVIM-3										L	L	M
<i>viscida</i> ssp. <i>viscida</i>	Whiteleaf manzanita	ARVIV							L			L	L	M

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R5 Rangeland Plant List

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			WET	MOIST	DRY									
ARTEMISIA	SAGEBRUSH p.202													
<i>arbuscula (NS)</i>	Low sagebrush, Black sagebrush	ARAR-8				L			L				L	L
<i>californica (NS)</i>	California sagebrush	ARCA-11						L	L				L	L
<i>cana ssp. bolanderi</i>	Silver sagebrush	ARCAB-3		L	L	L	L						L	L
<i>norvegica ssp. saxatillis</i>	Norway sagebrush	ARNOS-4				L							L	L
<i>nova (NS)</i>	Black sagebrush	ARNO-4				L							L	L
<i>rothrockii (NS)</i>	Timberline sagebrush	ARRO-4		M		M	M						L	M
<i>spinescens (NS)</i>	Bud-sage	ARSP-5											L	M
<i>tridentata (NS)</i>	Basin sagebrush, Big sagebrush	ARTR-2				M	E						M	M
<i>tridentata ssp. vaseyana</i>	Mountain sagebrush	ARTRV				M							M	M
ATRIPLEX	SALTBRUSH p.501													
<i>canescens (NS)</i>	Fourwing saltbrush, Shadscale	ATCA-2					E	L	L				L	
<i>confertifolia (NS)</i>	Spiny saltbrush	ATCO											L	
<i>lentiformis ssp. lentiformis(NS)</i>	Brewer quailbrush	ATLEL						L	L	L			L	
<i>gardneri var falcata (NS)</i>	Salt sage	ATGAF					E						L	
BACCHARIS	BACCHARIS p.209													
<i>brachyphylla (S)</i>	Shortleaf baccharis	BABR					M						L	
<i>pilularis</i>	Chap. broom, Coyote brush	BAPI											L	
<i>salicifolia</i>	Seep willow, Mule fat	BASA-4						L	L	M	L	L	L	
<i>sarothroides (S)</i>	Desert broom	BASA-2					M	L	L	L	L	L	L	
BERBERIS	BARBERRY p.362						M	L					L	
<i>aquifolium</i>	Mountain grape	BEAQ												
<i>aquifolium var. aquifolium</i>	Piper's barberry	BEAQA							L		L	L	L	
<i>aquifolium var. repens</i>	Truckee barberry	BEAQR							L				L	
<i>aquifolium var. dictyota</i>	Jepson barberry	BEAQD							L				L	
<i>nervosa</i>	Oregon grape	BENE-2							L		L			
<i>pinnata</i>	California barberry	BEPI							L					L
BRICKELLIA	BRICKELL BRUSH p.215													
<i>californica (NS)</i>	California brickellbush	BRCA-3							L	L	L	L	L	
<i>desertorum</i>	Desert brickellbush	BRDE-3											L	
<i>grandiflora (NS)</i>	Large-flowered brickellbush	BRGR											L	
<i>greenei (NS)</i>	Greene brickellbush	BRGR-2							L		L		L	
<i>incana</i>	Wooley brickellbrush	BRIN							L				L	
<i>nevinii (NS)</i>	Nevin brickellbrush	BRNE-2					M						L	
CARPENTERIA	TREE ANEMONE p.816								L			L	L	
<i>californica (S) (SE)</i>	Bush anemone, tree anemone	CACA-17												
CASSIOPE	CASSIOPE p.559										L			
<i>mertensiana (NS)</i>	White mountain heather	CAME-7												
CEANOTHUS	CALIFORNIA LILAC p.932													
<i>cordulatus (S)</i>	Mountain whitethorn	CECO				L	L		L					M

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			WET	MOIST	DRY									
SHRUBS AND TREES	PAGE NO.													
<i>CEANOTHUS (Contd.)</i>	CALIFORNIA LILAC p.932													
<i>crassifolius (S)</i>	Hoary-leaf ceanothus	CECR						L	L					
<i>cuneatus (NS)</i>	Wedge-leaf c., Buckbrush	CECU							L		L			
<i>diversifolius (NS)</i>	Pinemat, Trailing ceanothus	CEDI-2							L					
<i>fresnensis (NS)</i>	Frenso mat	CEFR								L			L	
<i>gloriosus (NS)</i>	Pt. Reyes ceanothus	CEGL						L	L				L	
<i>greggii var. perplexans (NS)</i>	Cupleaf ceanothus	CEGRP						L	L					
<i>integerrimus (NS)</i>	Deerbrush	CEIN-3							L			L		
<i>lemmonii (S)</i>	Lemmon ceanothus	CELE							L				E	
<i>leucodermis (VS)</i>	Chaparral ceanothus	CELE-2							L				L	
<i>oliganthus var. sorediatus</i>	Jim brush	CEOLS						L	L		L			
<i>palmeri (S)</i>	Palmer ceanothus	CEPA							L		L			
<i>parryi (S)</i>	Parry ceanothus	CEPA-3							L		L			
<i>parvifolius (S)</i>	Little-leaf ceanothus	CEPA-4						L	L					
<i>pinetorum (S)</i>	Kern ceanothus	CEPI											L	
<i>prostratus (NS)</i>	Mahala mat	CEPR				L			L				L	
<i>pumilus (NS)</i>	Siskiyou mat	CEPU							L			L	L	
<i>spinosus (S)</i>	Redheart, Greenbark ceanothus	CESP							L		L		L	
<i>thyrsiflorus (NS)</i>	Blueblossom	CETH						L	L					
<i>tomentosus (S)</i>	Wooleyleaf ceanothus	CETO						L	L					
<i>velutinus (S)</i>	Tobaccobrush, Snowbrush	CEVE				M			L		L		L	
CERCIS	REDBUD p.606								L			M	M	
<i>occidentalis (S)</i>	California redbud	CEOC-3												
CERCOCARPUS	MOUNTAIN MAHOGANY p.948								L		L	L		
<i>betuloides (S)</i>	Birchleaf mahogany	CEBE-3							L	L	L	L	L	
<i>intricatus (S)</i>	Littleleaf Mtn. mahogany	CEIN-7				L					L	L	L	
<i>ledifolius (NS)</i>	Curlleaf Mtn. mahogany	CELE-3				L						L	L	
<i>minutiflorus (SN)</i>	Smooth Mtn. mahogany	CEMI-3							L				L	
CHAMAEBATIA	BEAR CLOVER p.949													
<i>australis (S)</i>	Southern bear clover	CHAU-2												
<i>foliolosa (S)</i>	Mtn. misery, Bear clover	CHFO						M						
CHAMAEBATIARA	FERN BUSH p.949								M		M		M	
<i>millefolium</i>	Fern bush, Desert sweet	CHMI-2												
CHRYSOTHAMNUS SP. (VS)	RABBITBRUSH p.229			E	E	E	E		E			L	E	
CHRYSOLEPIS	CHINQUAPIN p.657												E	
<i>(CASTANOPSIS)</i>														
<i>chrysophylla (S)</i>	Giant chinquapin	CHCH-7												
<i>chrysophylla var. minor (S)</i>	Golden chinquapin	CHCHM							M		M		M	
<i>sempervirens</i>	Bush chinquapin, Sierra chinquapin	CHSE-11						L	L		L		L	
COLEOGYNE	BLACKBRUSH p.950						M		M			M	M	
<i>ramosissima (NS)</i>	Blackbrush	CORA											L	

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SHRUBS AND TREES	PAGE NO.													
<i>CORNUS</i>	DOGWOOD p.522													
<i>canadensis (PO)</i>	Bunch-berry	COCA-13												L
<i>glabrata</i>	Brown dogwood	COGL-3					L		L					L
<i>nuttallii (S)</i>	Mountain dogwood	CONU-4					L		L					L
<i>sericea ssp. occidentalis</i>	Western dogwood	COSEO					L		L					L
<i>sericea ssp. sericea</i>	American dogwood, Red-osier d.	COSES					L		L					L
<i>sessilis</i>	Miner's dogwood	COSE-3					L		L					L
<i>CORYLUS</i>	HAZEL p.366													L
<i>cornuta var. californica (S)</i>	California hazelnut	COCOC					L		L					L
<i>CRATAEGUS</i>	HAWTHORN p.950													
<i>douglasii</i>	Black hawthorn	CRDO-2		M										
<i>suksdorfii</i>	Suksdorf's hawthorn	CRSU					M		M				M	M
<i>CYTISUS</i>	BROOM p.608													
<i>scoparius* (S)</i>	Scotch broom	CYSC-4												
<i>DENDROMECON</i>	BUSH POPPY p.811													
<i>rigida (S)</i>	Bush poppy	DERI												
<i>DIPLACUS (SEE MIMULUS)</i>	BUSH MONKEY FLOWER													
<i>ENCELIA</i>	ENCELIA p.248													
<i>actonii</i>	Acton's encelia	ENAC												
<i>californica (NS)</i>	California encelia	ENCA							L				L	
<i>farinosa (NS)</i>	Brittlebrush	ENFA							L			L		
<i>EPHEDRA</i>	MORMON TEA p.115													
<i>californica</i>	California ephedra	EPCA-2												
<i>nevadensis (NS)</i>	Nevada ephedra, Mormon tea	EPNE							L	L	L	L	L	
<i>viridis (NS)</i>	Green ephedra	EPVI											L	
<i>EPILOBIUM (ZAUSCHNERIA)</i>	CALIFORNIA FUSCHIA p.793													
<i>canum ssp. canum</i>	California fuschia	EPCAC-2												
<i>canum ssp. latifolium</i>	Broadleaf California fuschia	EPCAL				L	L	L	L		L	L		L
<i>ERICAMERIA</i>	GOLDENBUSH p.250													
<i>bloomeri</i>	Bloomer's goldenbush	ERBL-2											L	L
<i>greenei</i>	Greene's goldenbush	ERGR-6				L			L				L	L
<i>ERIODICTYON</i>	YERBA SANTA p.684													
<i>californicum (S)</i>	California yerba santa	ERCA-6												
<i>crassifolium</i>	Thickleaf yerba santa	ERCR-2						E	E		E	E	E	E
<i>tomentosum</i>	Wooley yerba santa	ERTO						E	E		E	E	E	
<i>traskiae</i>	Trask's yerba santa	ERTR-6						E	E		E	E	E	
<i>trichocalyx</i>	Hairy yerba santa	ERTR-7						E	E					
<i>trichocalyx var lanatum</i>	Wooley-leaf yerba santa	ERTRL-2											E	E
<i>ERIOGONUM</i>	BUCKWHEAT p.860													
<i>baileyi</i>	Bailey's buckwheat	ERBA-7												
<i>fasciculatum (VS)</i>	California buckwheat	ERFA-2					M	M			M		L	L

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SHRUBS AND TREES	PAGE NO.													
<i>ERIOGONUM (Contd.)</i>	BUCKWHEAT p.860													
<i>fasciculatum</i> var. <i>polifolium</i>	Interior Calif. buckwheat	ERFAP										M		
<i>fasciculatum</i> var. <i>foliolosum</i>	Mesa Calif. buckwheat	ERFAF-2						M	M				M	
<i>heermannii</i>	Heermann's buckwheat	ERHE				L	M		L				L	
<i>microthecum</i>	Great Basin buckwheat	ERMI-4				M							L	
<i>nudum</i> & varieties	Naked buckwheat	ERNU-3							M	M	M	M	L	
<i>nummulare</i>	Sand buckwheat	ERNU-4											M	
<i>ovalifolium</i>	Subalpine buckwheat	EROV				L							L	
<i>saxatile</i>	Rock eriogonum	ERSA-6				L							L	
<i>sphaerocephalum</i>	Rock buckwheat	ERSP-7											L	
<i>umbellatum</i>	Sulfur flower	ERUM				L							L	
<i>wrightii</i>	Wright's buckwheat	ERWR				L			M			M	L	
ERIOPHYLLUM	WOOLEY SUNFLOWER p.261													
<i>confertiflorum</i>	Yellow yarrow	ERCO-25						M	M			M	M	
<i>lanatum</i>	Wooley sunflower	ERLA-6				M		M	M			M	M	
FALLUGIA	APACHE PLUME p.952													
<i>paradoxa</i>	Apache plume	FAPA											L	
FRAXINUS	ASH p.775													
<i>dipetala</i> (S)	Calif. ash, Flowering ash	FRDI-2					L		L			L	L	
<i>latifolia</i> (S)	Oregon ash	FRLA					L		L			L	L	
FREMONTODENDRON	FLANNEL BUSH p.1078													
<i>californicum</i> (S)	California flannel bush	FRCA-6							L			L	L	
<i>mexicanum</i> (S)	Mexican flannel bush	FRME-2						L				L	L	
GARRYA	SILKTASSEL p.664													
<i>buxifolia</i> (S)	Boxleaf silktassel	GABU-2						L	L				L	
<i>congdonii</i> (S)	Interior silktassel	GACO-9						L	L			L	L	
<i>elliptica</i> (S)	Coast silktassel	GAEL						L	L			L	L	
<i>flavescens</i>	Ashy silktassel	GAFL-2						L	L			L	L	
<i>fremontii</i>	Fremont silktassel	GAFR						L	L			L	M	
<i>veatchii</i> (S)	Veatch silktassel	GAVE-2						L	L			L	L	
GAULTHERIA	SALAL p.560													
<i>humifusa</i>	Alpine wintergreen	GAHU				L	L						L	
<i>ovatifolia</i>	Oregon wintergreen	GAOV-2				L	L		L				L	
<i>shallon</i> (S)	Salal	GASH					L		L				L	
GENISTA (PO)	FRENCH BROOM p.609													
<i>monspessulana</i> *	French broom	GEMO-2						E	E					
GRAYIA	HOPSAGE p.511													
<i>spinosa</i> (NS)	Hopsage	GRSP							L				L	
GUTIERREZIA	SLAKEWEED p.274													
<i>californica</i>	California snakeweed	GUCA							M	M				
<i>sarothrae</i>	Common snakeweed	GUSA-2											M	

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			WET	MOIST	DRY									
HAZARDIA (HAPPLOPAPPUS)	GOLDENBUSH p.275													
<i>squarrosa</i>	Sawtoothed goldenbush	HASQ-2						L	L			L		
<i>whitneyi</i>	Whitney's hazardia	HAWH-3				L								L
HETEROMELES (PO)	TOYON p.953													
<i>arbutifolia</i> (S)	Toyon, Christmas berry	HEAR-5						L	L			L	L	
HOLIDISCUS	CREAMBUSH p.953													
<i>discolor</i>	Ocean spray, Creambush	HODI						L	L					L
<i>microphyllus</i>	Rock spirea	HOMI-3				L	M					L		L
HYMENOCLEA	BURROBUSH p. 291													
<i>salsola</i>	White burrobush	HYSA							L			L		
JUNIPERUS	JUNIPER p.114													
<i>californica</i>	California juniper	JUCA-7							L			L		
<i>communis</i>	Dwarf juniper	JUCO-6				L			L					L
<i>occidentalis</i> var. <i>occidentalis</i>	Western juniper	JUOCO				L			L					L
<i>osteosperma</i>	Utah juniper	JUOS											M	
KALMIA	AMERICAN LAUREL p.560													
<i>polifolia</i> ssp. <i>microphylla</i> (PO)	Alpine laurel	KAPOM-3	L	L		L	L		L					L
KOCHIA	KOCHIA p.511													
<i>americana</i>	Green molly	KOAM											L	
KRASCHENINNIKOVIA	WINTER FAT p.512													
<i>lanata</i>	Winter fat	KRLA-2											M	
KECKIELLA	BEARDTONGUE p.1033													
<i>antirrhinoides</i>	Snap dragon beardtongue	KEAN												
<i>breviflora</i>	Bush beardtongue	KEBR						L	L			L	L	
<i>cordifolia</i>	Heart-leaved beardtongue	KECO						L	L			L	L	L
<i>corymbosa</i>	Red beardtongue	KECO-2										L		
<i>lemmonii</i>	Lemmon beardtongue	KELE							L					L
<i>rothrockii</i>	Rothrock beardtongue	KERO				L							L	
<i>ternata</i>	Scarlet beardtongue	KETE						L	L			L		
LEDUM (PO)	LABRADOR TEA p.561													
<i>glandulosum</i>	Western labrador tea	LEGL	L	L		L	L		L					L
LEPICHINEA	PITCHER SAGE p.714													
<i>calycina</i>	Pitcher sage, Wood balm	LECA-3							L			L	L	
LEPIDOSPARTUM	BROOM-SCALE p.304													
<i>squamatum</i>	California broomsage	LESQ							M			M	M	
LEUCOTHOE	LEUCOTHOE p.561													
<i>davisiae</i> (PO)	Sierra laurel	LEDA	L	L		L	L							L
LITHOCARPUS	TANOAK p.658													
<i>densiflorus</i> (S)	Tanoak	LIDE-3							L					L
<i>densiflorus</i> var. <i>echinoides</i>	Dwarf tanbark oak	LIDEE							L					L

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<i>LONICERA</i>	HONEYSUCKLE p.472													
<i>caurina</i>	Bluefly honeysuckle	LOCA-9	L	L		L	L							L
<i>ciliosa</i>	Orange honeysuckle	LOCI-3						L						
<i>conjugialis</i>	Double honeysuckle	LOCO-5				L	L	L				L	L	
<i>hispidula</i> var. <i>vacillans</i>	California honeysuckle	LOHIV					L				L			
<i>interrupta</i>	Chaparral honeysuckle	LOIN-4						L			L	L		L
<i>involuta</i> (NS)	Twin berry	LOIN-5		L	L	L	L	L				L		L
<i>subspicata</i>	Southern honeysuckle	LOSU-2									L	L		
<i>LOTUS</i>	DEERWEED p.616													
<i>scoparius</i>	Deerweed, Calif. broom	LOSC-2						L	L	L	L	L		L
<i>MALACOTHAMNUS</i>	BUSH MALLOW p.751													
<i>fasciculatus</i>	Chaparral bush mallow	MAFA						M	M					
<i>fremontii</i>	Fremont's bush mallow	MAFR-2							L		M	M	L	L
<i>MALOSMA</i> (RHUS)	LAUREL SUMAC p.135													
<i>laurina</i>	Laurel sumac	MALA-6						L	L					
<i>MALUS</i>	APPLE p.962													
<i>fusca</i>	Oregon crab apple	MAFU							L					L
<i>MENODORA</i>	MENODORA p.776													
<i>spinescens</i>	Spiny menodora	MESP-2											L	
<i>MENTZELIA</i>	BLAZING STAR p.741													
<i>laevicaulis</i>	Smooth-stem blazing star	MELA-2							L		L		L	
<i>MIMULUS</i>	BUSH MONKEY FLOWER p.1037													
<i>aurantiacus</i> (S)	Bush monkey flower	MIAU						M	M	M		M	M	
<i>clevelandii</i> (S)	San Diego bush m. flower	MICL-2							M					M
<i>MYRICA</i>	WAX MYRTLE p.766													
<i>californica</i> (S)	Pacific wax-myrtle	MYCA						L	L					
<i>hartwegii</i>	Sierra sweet bay	MYHA						L			L			L
<i>NICOTIANA</i>	TABACCO p.1072													
<i>glauca</i> (PO)*	Tree tobacco	NIGL						E	E		E		E	
<i>OEMLERIA</i> (OSMARONIA)	OSO BERRY p.962													
<i>cerasiformis</i>	Oso berry	OECE						L			L			L
<i>PERAPHYLLUM</i>	WILD CRAB APPLE p.962													
<i>ramossimum</i>	Wild crab apple	PERA-4											L	
<i>PHILADELPHUS</i>	MOCK ORANGE p.818													
<i>lewisii</i>	California mock orange	PHLE-4							L		L			M
<i>microphyllus</i>	Little-leaf mock orange	PHMI-4							L				L	
<i>PHLOX</i>	PHLOX p.849													
<i>diffusa</i>	Spreading phlox	PHDI-3					L		M					L
<i>pulvinata</i>	Alpine phlox, Cushion phlox	PHPU-5					L							
<i>speciosa</i> ssp. <i>occidentalis</i>	Western showy phlox	PHSPO							M	M		M		L
<i>stansburyi</i>	Intermountain phlox	PHST-11					L						L	

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SHRUBS AND TREES	PAGE NO.													
<i>PHYLLODOCE</i>	MOUNTAIN HEATHER p.562													
<i>breweri</i>	Purple Mtn. heather	PHBR-4		L		L			L				L	
<i>empetriformis</i>	Pink Mtn. heather	PHEM		L		L							L	
<i>PHYSOCARPUS</i>	NINEBARK p.964													
<i>alternans (NS)</i>	Dwarf ninebark	PHAL-7										L		
<i>capitatus (NS)</i>	Western ninebark	PHCA-11					L		L				L	
<i>PICKERINGIA</i>	CHAPARRAL PEA p.641													
<i>montana (S)</i>	Chaparral pea	PIMO-5					L	L		L				
<i>PLATANUS</i>	SYCAMORE p.822													
<i>racemosa (S)</i>	Western sycamore	PLRA				L	L	L	L	L				
<i>POPULUS</i>	ASPEN, COTTONWOOD p.988													
<i>alba*</i>	White poplar	POAL-7										E	E	
<i>balsamifera ssp. trichocarpa (S)</i>	Black cottonwood	POBAT			L	L	L					L	L	
<i>fremontii ssp. fremontii (S)</i>	Fremont cottonwood	POFRF-3						L		L				
<i>tremuloides (S)</i>	Quaking Aspen	POTR-3		L	L	L	L	M				M	M	
<i>POTENTILLA</i>	CINQUEFOIL p.964													
<i>fruticosa (NS)</i>	Bush cinquefoil	POFR-4		L	L	L	L						L	
<i>PRIMULA</i>	PRIMROSE p.909													
<i>suffrutescens</i>	Sierra primrose	PRSU				L							L	
<i>PRUNUS</i>	CHERRY, PLUM, etc. p.969													
<i>andersonii</i>	Desert peach	PRAN-2										L		
<i>emarginata</i>	Bitter cherry	PREM				L	E		L		L		E	
<i>fasciculata</i>	Desert almond	PRFA										L		
<i>ilicifolia (S)</i>	Hollyleaf cherry	PRIL						L		L	L			
<i>subcordata (S)</i>	Sierra plum	PRSU-2						L		L	L		L	
<i>virginiana var. demissa (S)</i>	Western chokecherry	PRVID			M		E		L		L	L	E	
<i>PURSHIA</i>	BITTERBRUSH p.970													
<i>mexicana var. stansburyana</i>	Stansberry cliff rose	PUMES										L		
<i>tridentata var. glandulosa (VS)</i>	Desert bitterbrush	PUTRG				L						L	L	
<i>tridentata (NS)</i>	Bitterbrush	PUTR				L			L			L	L	
<i>QUERCUS</i>	OAK p.658													
<i>agrifolia (S)</i>	Coast live oak, Encino	QUAG					L		L					
<i>berberidifolia</i>	Scrub oak	QUBE						M	M		M	M		
<i>chrysolepis (S)</i>	Canyon live oak	QUCH-2					L		L		L		L	
<i>douglasii (S)</i>	Blue oak	QUDO							L	L	L			
<i>dumosa (S)</i>	Nuttall scrub oak	QUDU						L	L		L	L		
<i>durata (S)</i>	Leather oak	QUDU-4							L		L			
<i>garryana (S)</i>	Oregon oak, Garry oak	QUGA-4							L		L			
<i>garryana var. breweri (S)</i>	Brewer oak	QUGAB							L		L		L	
<i>kelloggii (S)</i>	California black oak	QUKE							L		L		L	
<i>lobata (S)</i>	Valley oak, Roble	QULO					L		L	L	L			

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QUERCUS (Contd.)	OAK													
<i>palmeri</i>	Palmer's oak	QUPA-10												
<i>sadleriana</i> (S)	Sadler oak, Deer oak	QUSA-2						L						
<i>vaccinifolia</i> (S)	Huckleberry oak	QUVA				L		L						L
<i>wislizenii</i> (S)	Interior live oak	QUWI-2						L						L
<i>wislizenii</i> var. <i>frutescens</i> (S)	Shrub interior live oak	QUWIF						L	L		L	L		
RHAMNUS	BUCKTHORN													
<i>alnifolia</i> (S)	Alderleaf coffeeberry	RHAL		L	L									
<i>californica</i> (S)	California coffeeberry	RHCA				L								L
<i>crocea</i> (S)	Redberry	RHCR						L	L		L	L		
<i>ilicifolia</i> (S)	Hollyleaf redberry	RHIL												
<i>purshiana</i> (S)	Cascara sagrada	RHPU						L			L	L		L
<i>rubra</i> (S)	Sierra coffeeberry	RHRU						L			L	L		
<i>tomentella</i> ssp. <i>cuspidata</i> (S)	Hoary coffeeberry	RHTOC										L	L	L
RHODODENDRON	RHODODENDRON													
<i>macrophyllum</i> (PO) (S)	Calif. rosebay, Coast rhododendron	RHMA-3							L					
<i>occidentale</i> (PO) (S)	Western azalea	RHOC							L					L
RHUS	SUMACS													
<i>integrifolia</i>	Lemonade berry	RHIN-2							M	M				
<i>ovata</i>	Sugar bush	RHOV							M	M				
<i>trilobata</i>	Skunk bush, Sour berry	RHTR							M	M		M	M	M
RIBES (VS)	GOOSEBERRY, CURRANT													
<i>amarum</i>	Bitter gooseberry	RIAM												
<i>aureum</i>	Golden currant	RIAU			L				L		L	L		
<i>cereum</i>	Wax currant	RICE			M	L	M		L		L		L	L
<i>divaricatum</i>	Straggly gooseberry	RIDI												
<i>inermis</i> var. <i>inermis</i>	White-stem gooseberry	RIINI		L		L	L	L	L		L			
<i>lasianthum</i>	Alpine gooseberry	RILA-2				L			L			L		L
<i>malvaceum</i>	Chaparral currant	RIMA							L	L				
<i>menziesii</i>	Canyon gooseberry	RIME							L	L				
<i>montigenum</i>	Mountain gooseberry	RIMO-2									L	L		
<i>nevadense</i>	Mountain pink currant	RINE				L	L		L					L
<i>roezlii</i>	Sierra gooseberry	RIRO					L					L	L	L
<i>sanguineum</i>	Red flowering currant	RISA							L			L	L	E
<i>sanguineum</i> var. <i>glutinatum</i>	Pink flowering currant	RISAG							L					
<i>speciosum</i>	Fuchsia-flowered gooseberry	RISP							L	L				
<i>velutinum</i>	Plateau gooseberry	RIVE												
<i>viscosissimum</i> (VS)	Sticky currant	RIVI-3											L	L
ROSA	ROSE													
<i>californica</i> (S)	California wild rose	ROCA-2												L
<i>gymnocarpa</i> (S)	Wood rose	ROGY							L					L

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<i>ROSA (Contd.)</i>	ROSE													
<i>pinetorum (S)</i>	Pine rose	ROPI												
<i>pisocarpa (S)</i>	Cluster rose	ROPI-2						L						L
<i>spithamea (S)</i>	Ground rose	ROSP-3						L						
<i>woodsii var. ultramontana (S)</i>	Mtn. rose, Interior rose	ROWOU-2		M	M	L	M				M	M		L
<i>RUBUS</i>	RASPBERRY, etc.							L					L	M
<i>glaucofolius (S)</i>	Prostrate raspberry	RUGL												
<i>leucodermis(S)</i>	Western raspberry	RULE					L	L			L			L
<i>parviflorus (S)</i>	Western thimbleberry	RUPA					L	L	L					L
<i>spectabilis (S)</i>	Salmon berry	RUSP					L	L						M
<i>ursinus (S)</i>	California blackberry	RUUR					L	L			L			L
<i>SALIX (S)</i>	WILLOW													
<i>arctica</i>	Arctic willow	SAAR-4	L	L		L	L							L
<i>bebbiana</i>	Bebb willow, Gray willow	BABE					L							
<i>boothii</i>	Booth's willow	SABO				L	L						L	
<i>drummondiana</i>	Drummond's willow	SADR				L	L							
<i>eastwoodiae</i>	Eastwood willow	SAEA	L	L		L	L							L
<i>exigua</i>	Sandbar willow, Coyote willow	SAEX	L	L			L							L
<i>geyeriana</i>	Geyer's willow	SAGE-2	L	L		L	L						M	M
<i>goodingii</i>	Gooding's black willow	SAGO					L						L	L
<i>jepsonii</i>	Jepson's willow	SAJE	L	L		L	L				L			
<i>laevigata</i>	Red willow	SALA					L							
<i>lasiolepis</i>	Arroyo willow	SALA-6		L	L		L							L
<i>lemmonii</i>	Lemmon's willow	SALE	L	L	L	L	L				L		L	L
<i>ligulifolia</i>	Strap-leaf willow	SALI				L	L							L
<i>lucida ssp. caudata</i>	Greenleaf willow	SALUC	L	L		L	L						L	L
<i>lucida ssp. lasiandra</i>	Shining willow, red willow	SALUL	L	L	L	L	L				L		L	L
<i>lutea</i>	Yellow willow	SALU-2	L	L	L	L	L						L	L
<i>melanopsis</i>	Dusky willow	SAME-2				L	L		L		L		L	L
<i>orestera</i>	Sierra willow	SAOR	L	L		L	L						L	L
<i>scouleriana</i>	Scouler willow	SASC		L		L	L		L				L	L
<i>SALVIA</i>	SAGE													
<i>apiana (NS)</i>	White sage	SAAP-2												
<i>dorrrii (NS)</i>	Great Basin sage	SADO-4						M	M				L	
<i>leucophylla</i>	Purple sage	SALE-3											L	
<i>mellifera (S)</i>	Black sage	SAME-3						M	M					
<i>SAMBUCUS (PO)</i>	ELDERBERRY													
<i>melanocarpa (S)</i>	Black elderberry	SAME-4		M		L	M							L
<i>mexicana (S)</i>	Blue elderberry	SAME-5				L	M							L
<i>racemosa var. microbotrys (NS)</i>	Mtn. red elderberry	SARAM				L	M				L		L	M

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BOTANICAL NAME	COMMON NAME	SYMBOL	MEADOW			SUB AL- PINE	NON MDW RIP	CSTL SCRUB	CSTL RNGE	ANN GRSS	FTHL OAK WDLT	CHAP	SAGE- BRSH STEPPE	CON FOR
			WET	MOIST	DRY									
SHRUBS AND TREES	PAGE NO.													
<i>SARCOBATUS</i>	GREASEWOOD p.514													
<i>vermiculatus (NS)</i>	Black greasewood	SAVE-4										M		
<i>SHEPHERDIA</i>	BUFFALO BERRY p.541													
<i>argentea (S)</i>	Silver buffalo-berry	SHAR	L	L								L		
<i>SORBUS</i>	MOUNTAIN ASH p.976													
<i>californica (S)</i>	California Mtn. ash	SOCA-8				L	L		L				L	
<i>scopolina var. cascadiensis (S)</i>	Cascade Mtn. ash	SOSCC				L	L		L			L	L	
<i>scopolina var. scopolina</i>	Western Mtn. ash	SOSCS				L	L		L				L	
<i>SPARTIUM</i>	SPANISH BROOM p.644													
<i>junceum*</i>	Spanish broom	SPJU-2						E	E					
<i>SPIREA</i>	SPIREA p.976													
<i>densiflora (S)</i>	Mtn. spirea, Mtn. sweet	SPDE				L	L		L				L	
<i>douglasii (S)</i>	Douglas spirea	SPDO					M		L			L	L	
<i>SUAEDA</i>	SEEPWEED p.514									L			L	
<i>mosquini</i>	Bush seepweed	SUMO												
<i>SYMPHORICARPOS</i>	SNOWBERRY p.475													
<i>albus var. laevigatus (S)</i>	Common snowberry	SYALL					M		L		L		L	
<i>mollis (S)</i>	Creeping snowberry	SYMO							M		L	L	L	
<i>rotundifolius</i>	Mountain snowberry	SYRO				L						L	L	
<i>rotundifolius var. parishii</i>	Parish's snowberry	SYROP				L						L	L	
<i>r. var. rotundifolius (S)</i>	Round-ash leaf snowberry	SYROR				L						L	L	
<i>TETRADYMIA (PO)</i>	HORSEBRUSH p.352													
<i>canescens</i>	Spineless horsebrush	TECA-2				L							L	
<i>TOXICODENDRON (TOX)</i>	POISON OAK p.136													
<i>diversilobum (S)</i>	Poison oak (TOXIC)	TODI							M	M	M	M	M	
<i>TRICHOSTEMA</i>	BLUE CURLS p.732													
<i>lanatum (S)</i>	Wooley blue curls, Romero	TRLA-3							L	L				
<i>parishii (S)</i>	Parish's blue curl	TRPA-3							L	L				
<i>UMBELLULARIA</i>	CALIFORNIA LAUREL p.734													
<i>californica (S)</i>	Calif. laurel, Bay tree	UMCA							L		L	L	M	
<i>VACCINIUM</i>	HUCKLEBERRY p.566													
<i>caespitosum (S)</i>	Dwarf bilberry	VACA	L	L		L	L		L				L	
<i>membranaceum (S)</i>	Thin-leaf huckleberry	VAME	L	L			L						L	
<i>ovatum (S)</i>	California huckleberry	VAOV-2							L					
<i>parvifolium</i>	Red huckleberry	VAPA							L				L	
<i>uliginosum ssp. occidentale</i>	Western blueberry	VAULO	L	L		L	L						L	
<i>VITIS</i>	GRAPE p.1097													
<i>californica (S)</i>	Calif. wild grape	VICA-5					M		L	L	L			
<i>girdiana (S)</i>	Southern Calif. wild grape	VIGI-2					L	L	L			L		
<i>WHIPPLEA</i>	MODESTY p.818													
<i>modesta</i>	Whipplea, Modesty flower	WHMO							L					

L=Late Seral, M=Mid Seral, E=Early Seral, SE=Sensitive, PO=Poisonous, M=Mechanical

*=Non-native, **=Reseeding, S=Sprouter, NS=Non-sprouter, VS=Variable-sprouter