Classification of Vegetation on the Nevada Test Site

**WORK PERFORMED UNDER
CONTRACT NO. DE-AC08-96NV11718**

Submitted to

**U.S. Department of Energy
Nevada Operations Office
Environment, Safety, and Health Division
P.O. Box 98518
Las Vegas, NV 89193-8518**

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December 2000

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December 6, 2000

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ACKNOWLEDGMENTS

Robert Furlow of the U.S. Department of Energy, Nevada Operations Office, Las Vegas, provided support and encouragement for the project.

Prior work and herbarium specimens by Janice Beatley were instrumental in guiding the mapping efforts and helpful in identifying and describing plant species found on the Nevada Test Site.

Brad W. Schultz, Desert Research Institute, Reno, Nevada, performed vegetation sampling on portions of Area 15 on the Nevada Test Site adjacent to Nellis Air Force Range complex.

Bechtel Nevada scientists and staff who contributed to this report were: Cathy A. Wills, Paul D. Greger, Ashley V. Housewright, James Beckett, Sr., and Camilla Deckert.

R. Brent Colledge, Applied Ecological Services, Logan, Utah, provided assistance with Geographic Information Systems scripts for ArcView™.

Numerous technicians that assisted with collection of field data.

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ACRONYMS and ABBREVIATIONS

ac	acre
BECAMP	Basic Environmental Compliance and Monitoring Program
cm	centimeter
CP	Control Point
CRWMS	Civilian Radioactive Waste Management System
DOE/NV	U.S. Department of Energy, Nevada Operations Office
DOE	U.S. Department of Energy
EC	electrical conductivity
EGIS	ecosystem geographical information system
ELU	Ecological Landform Unit
ESRI	Environmental Systems Research Institute
ft	foot
GIS	Geographic Information System
GPS	Global Positioning System
ha	hectare
in	inch
km ²	square kilometer
m	meter
mi ²	square mile
mm	millimeter
NAEG	Nevada Applied Ecology Group
NRCS	National Resource Conservation Service
NTS	Nevada Test Site
SPOT	Satellite Pour L'Observation de la Terre
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
UTM	Universal Transverse Mercater

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EXECUTIVE SUMMARY

The Nevada Test Site (NTS) was used for nuclear testing from 1951 to 1992. Despite years of testing only about 7 percent of the 3,567 square kilometers (1,375 square miles) of the site has been disturbed (U.S. Department of Energy, 1996b). Although drastic changes to localized areas due to nuclear testing have occurred, biological resources over much of the NTS remain relatively pristine and undisturbed. Diversification in the mission of the NTS, as described in the recent programmatic NTS Environmental Impact Statement, has created a need to provide detailed information about vegetation for the purposes of National Environmental Policy Act compliance, ecosystem management, ecological monitoring, and resource management planning. Before resources can be effectively managed and preserved, they must first be identified and described. Vegetation classification and mapping are among the first steps in implementing ecosystem management on the NTS. Preparation of an accurate vegetation map and more detailed descriptions of vegetation and wildlife habitat are essential for ecosystem management for new projects or to support expanding existing projects on the NTS.

Mapping of vegetation was initiated by first identifying landforms and delineating their boundaries from prints of aerial photographs (1:24000 scale) of the NTS. These boundaries were traced onto clear plastic sheets registered to the underlying digital prints, as published in 1995 in the NTS Grid Map, A Grid System Photo Locator Map of the NTS. Boundaries of landforms with similar physical and biological properties were then verified in the field and modified to delineate ecological landform units (ELUs). ELUs were delineated on 32 satellite images corresponding in area to the 32 U.S. Geological Survey 7.5-minute quadrangles that cover the NTS.

The intent was not to subjectively or arbitrarily classify the ELUs as a particular vegetation type or subtype, but rather to delineate all of the basic building blocks or areas that were relatively homogeneous and would respond similarly to management practices. Once the boundaries of these areas were determined, the physical and biological characteristics within these areas were described. Site descriptions were made along 200-meter (m)-long (656-foot [ft]-long) linear transects, with observation points located every 20 m [65.5 ft] along the transects (i.e., 10 points per transect). At each observation point, the names of the five closest shrubs to the point were recorded, as well as an estimate of the cover of perennial vegetation. The relative abundance of forbs, grasses, cacti, and other important species such as threatened and endangered plant species were also recorded. The names of plants and animals observed, as well as physical conditions of the environment, were described. A total of 1,508 ELUs were sampled during the three-year period of 1996 through 1998.

After the final corrections were made to the delineated boundaries of the ELUs based on the field verification and photomaps, the ELU boundaries were digitized, using Environmental Systems Research Institute, Inc.'s (ESRI's®) Data Automation Kit TM. Boundaries were verified and then the polygons (ELUs) were labeled with the appropriate ELU number. This coverage was then linked to a Microsoft Access 97® database containing the site descriptions using Arcview® 3.1 software. Cluster analysis was then used to identify similar ELUs for purposes of classifying the vegetation. Individual ELUs were then assigned to a national vegetation classification category using quantitative characteristics determined from cluster analyses and other statistical tools. A geographic information system was developed to manage and display data collected during the mapping and classification efforts. The resulting system is referred to as the Ecosystem

Geographic Information System and will ensure that biological information can be readily accessed in a timely and cost-effective manner.

Based on an iterative clustering process, 10 alliances and 20 associations were recognized as occurring on the NTS. Several ELUs did not cluster as groups, but remained as single units because of their unique vegetation. These ELUs were listed together in a miscellaneous category on the final map. Alliances and associations were named after the dominant tree or shrub species based on relative abundance and according to Federal Geographic Data Committee and Ecological Society of America conventions.

Two major vegetation groups or ecoregions, Mojave Desert and Great Basin Desert, can be identified from this classification. Between these two deserts is a broad transition zone that often includes a mixture of species from either major ecoregion. There are three alliances within the Mojave Desert, three within the transition zone, and four within the Great Basin Desert. In terms of total area, the Great Basin Desert occupies approximately 40 percent of the NTS, followed by the transition zone with 37 percent. The Mojave Desert occupies the southern 22 percent of the NTS. Sampling within each major zone was rather even, with the average areas per ELU being 216 hectares (ha) (562 acres [ac]) in the Mojave Desert, 221 ha (575 ac) in the Transition Zone, and 233 ha (606 ac) in the Great Basin Desert.

There were a total of 20 vegetation associations that were recognized, described, and mapped. A distribution map of each association is presented, as well as a brief summary description and photo of each association. In the Mojave Desert, the *Larrea tridentata* /*Ambrosia dumosa* Shrubland was the most numerous association, representing about 19 percent of the ELUs on the NTS (18 percent of the total area). No other association in the Mojave Desert represented more than 4 percent of the total ELUs. In the Great Basin Desert, the *Artemisia tridentata*-*Chrysothamnus viscidiflorus* Shrubland was the most numerous association, representing about 11 percent of the ELUs on the NTS (7.5 percent of the total area). No other association in the Great Basin Desert represented more than 7 percent of the total ELUs. In the Transition Ecoregion between these deserts, the *Coleogyne ramosissima*-*Ephedra nevadensis* Shrubland was the most numerous association, representing about 22 percent of the ELUs on the NTS (21.6 percent of the total area). No other association in the Transition Ecoregion represented more than 6 percent of the total ELUs.

Analysis of species diversity (richness or the number of species) of perennial trees and shrubs is presented. Species richness of woody species was greatest in the Great Basin Desert associations (mean of 56 species) compared to associations in the Transition Zone (mean of 49 species) and the Mojave Desert (mean of 36 species). Similar species diversity patterns were also observed for all combined perennial species on the NTS.

Summary data of other environmental parameters such as elevation, precipitation, landforms, soil texture, desert pavement, and slope steepness of the ELUs are presented and summarized by plant associations. The presence of visible microbiotic crusts on the soil surface (i.e., non-vascular microorganisms such as algae, fungi, or lichens that are frequently important for enhancing soil fertility and surface stabilization) was noted during the field surveys. Within the NTS, 58 percent of the ELUs sampled had no visual evidence of microbiotic crusts, 28 percent had low visual evidence of crusts, 11 percent had moderate visual evidence of crusts, and only 4 percent had high visual evidence of microbiotic crusts. Visual evidence of crusts was observed to decrease with increases in elevation. Associations with high abundance of crusts also had

higher percentages of soil fines (clays or silts). Low presence of crusts or their absence was associated with active soil erosional processes (e.g., along washes and steeper unstable slopes).

The presence of annual vegetation (both native and introduced species) and its relative abundance is presented for each vegetation association. Vegetation associations that were more likely to undergo disturbance or are responding to previous disturbances, either natural or anthropogenic, contain higher productivity of annuals. One of the greatest threats to plant diversity in many ecosystems is the invasion of exotic species that have few natural diseases or pests to check their growth and reproduction. Of particular importance on the NTS are those annual species that colonize disturbed soils. Exotic species of concern include foxtail brome, cheatgrass, Arabian schismus, prickly Russian thistle, barbwire Russian thistle, and tumble-mustard. By far, the most widely distributed annual grass on the NTS is foxtail brome. It occurs mostly in the Transition Zone and the Mojave Desert, while cheatgrass is the dominant introduced annual grass in the Great Basin Desert.

Distribution on the NTS of the relative abundance of rodent activity is presented. The relative abundance of rodent burrows was found to be inversely correlated with elevation. The Mojave Desert sites may have deeper soils that are more conducive to burrowing, while the rockier soils of the Transition Zone have fewer burrows. The Great Basin Desert sites have shallower soils and more severe winters than the Mojave Desert sites that may reduce burrowing or the abundance of animals likely to burrow.

Perhaps one of the greatest benefits from this study has been the ability to generate maps of each species observed during the field sampling. Because more than 700 species were identified during the survey, only a selected subset of the most characteristic trees, shrubs, forbs, grasses, and succulents are presented and discussed.

Pairwise comparisons of perennial species abundance at a statistical level of significance of $\alpha=0.05$ of the 718 species observed to occur on the NTS indicate that there were 447 positive interspecific associations between species, and only 271 negative interspecific associations. Correlations of percent abundance of woody plant species are presented for approximately 122 species. Causal factors for the positive interspecific associations usually indicate similar ecological needs for related species. They may also suggest species that partition environmental resources sufficiently to allow the coexistence of both species in time or space.

Distributions of the dominant species on the NTS are shown in maps found in Section 4.3 of this report. The spatial distribution of each species results from ecological requirements for the species and the available physical and biological conditions present on NTS landforms. Elevation, as previously mentioned, provides the best single parameter that helps characterize the various plant associations. Each association tends to have only a few dominant species (e.g., two to six), while each species tends to occupy a range of the total elevation gradient ranging from 847 m (2,779 ft) at the low end of the NTS to 2,292 m (7,519 ft) at the upper end.

Species most characteristic of the Mojave Desert were (sorted from low to high in elevational position): Shockley's desert thorn, rabbit thorn, white bursage, creosote bush, and range ratany. In the Transition Zone, the most common shrubs were (sorted from low to high in elevational position): spiny menodora, spiny hopsage, winterfat, Anderson's wolfberry, white burrobush, Mojave buckwheat, blackbrush, Cooper's heathgoldenrod, and Nevada jointfir. Species most characteristic of the Great Basin Desert were (sorted from low to high in elevational position):

bursage, shadscale saltbush, green molly, four-wing saltbush, green rabbitbrush, rubber rabbitbrush, Mormon tea, Stansbury cliffrose, desert bitterbrush, basin big sagebrush, black sagebrush, fuzzy green rabbitbrush, granite prickly gilia, Utah Juniper, antelope bitterbrush, and singleleaf pinyon.

All non-woody plant species encountered during the field surveys on the NTS were ranked according to relative dominance in all ELUs. The top five species in each of the three categories (forbs, grasses, and succulents) are discussed and distribution maps provided.

Several appendices are presented that provide details of vegetation on the NTS, including lists of all species that have been recorded on the NTS and the vegetation alliances where they are commonly found, relative abundance and frequency values for species in vegetation alliances and associations, and species names and codes.

1.0 INTRODUCTION

Although the Nevada Test Site (NTS) was used for nuclear testing from 1951 to 1992, only about 7 percent of the 3,567 square kilometer (km²) (1,375 square miles [mi²]) of the site has been disturbed (U.S. Department of Energy [DOE], 1996b). Despite drastic changes to localized areas due to nuclear testing, biological resources over much of the NTS remain relatively pristine and undisturbed. The abuses of overgrazing by livestock, land degradation due to uncontrolled recreational uses, industrial pollution, and other disturbances common to public lands have been minor or absent on the NTS. Protection of its biological resources has been strengthened by DOE Policy 430.1 (DOE, 1996a) which mandated that land management practices incorporate ecosystem management principles. DOE also pledged to preserve viable populations of native plants and animals in its Resource Management Plan (DOE, 1998) for the NTS.

Before resources can be effectively managed and preserved, they must first be identified and described. Vegetation classification and mapping are among the first steps in implementing ecosystem management on the NTS. Mapping efforts are supported by state and federal laws that protect threatened and endangered species of plants and animals. Additionally, some habitats (i.e., an assemblage of plants and animals, and their environments) such as critical habitat for threatened and endangered species, jurisdictional wetlands, and waters of the United States are also protected by law. Inventories and spatial mapping are useful tools to ensure that these sensitive species and habitats are adequately described, located, and protected.

1.1 Need and Purpose

Recent diversification in the mission of the NTS, as described in the recent programmatic NTS Environmental Impact Statement (DOE, 1996b), has created a need to provide detailed information about vegetation for the purposes of National Environmental Policy Act compliance, ecosystem management, ecological monitoring, and resource management planning. Preparation of an accurate vegetation map and more detailed descriptions of vegetation and wildlife habitat are also required to facilitate the siting of new projects and to support expanding existing projects on the NTS. Such mapping facilitates delineation of boundaries of sensitive habitats and identifies areas that are already disturbed or better suited for new uses.

While numerous studies have been conducted on the NTS historically, there has been no attempt to map biological resources in a systematic manner nor to organize information needed for ecosystem management. Previous mapping of vegetation on the NTS was incomplete and inadequate for today's purposes. Furthermore, previous mapping efforts were not in compliance with recent federal standards for classification of biological resources and plant communities (Federal Geographic Data Committee, 1996). Because of inconsistencies in plant nomenclature, data form and structure, and method of documenting findings (e.g., spatial metadata standards), the information collected in the past is of marginal use to NTS managers, other stakeholders, government agencies, and scientific personnel.

The purpose of this project was to identify and classify the biological resources of the NTS and, through development of an ecosystem geographical information system, to facilitate the use of information in the form of vegetation maps, habitat descriptions, and other data needed to ensure

compliance and to facilitate the transfer of data to other land managers in the region. Another substantial benefit from these efforts will be significant savings associated with retrieval of information, especially compared to older methods of collecting data and preparing environmental assessments, clearance surveys, and monitoring reports. Information organized through these efforts will facilitate the management of NTS ecosystems and ensure the continued protection of its biological resources.

1.2 Goals and Objectives

The goal of this project was to collect essential biological information needed to fulfill the stewardship role accepted by the DOE to manage the NTS resources using ecosystem management principles in compliance with state and federal laws, standards, and biological opinions designed to protect rare or sensitive biological resources. The development of an ecosystem geographical information system (EGIS) as part of this goal will ensure that biological information can be readily accessed in a timely and cost-effective manner.

Specific objectives of the project were to:

- Identify, survey, classify, and describe plant communities on the NTS consistent with national classification standards.
- Develop a series of detailed vegetation maps showing boundaries of delineated vegetation types and distribution of key plant species.
- Establish sensitivity rankings for NTS habitat areas based on species diversity, physical characteristics of the site, previous disturbance, and sensitivity to disturbance.
- Develop an EGIS to organize information, facilitate retrieval, and simplify the preparation of graphics and reports.
- Document and archive data internally and externally through appropriate metadata procedures to ensure data transfer in the future.

1.3 Study Area

The NTS is located in Nye County in south-central Nevada and encompasses 3,567 km² (1,375 mi²). The NTS is divided into 27 areas for administration and management (Figure 1-1). Access to the site is strictly controlled. Land along the eastern boundary of the NTS is co-managed by the U.S. Air Force (Nellis Air Force Range) and the Desert National Wildlife Refuge (O'Farrell and Emery, 1976). Land to the north and west also is part of the Nellis Air Force Range. The U.S. Bureau of Land Management manages most land directly south and southwest of the NTS.

Three large valleys or basins dominate the southern two-thirds of the NTS: Yucca, Frenchman, and Jackass flats (*Figure 1-1*). Mountain ridges and hills rise above gradually sloping alluvial fans (bajadas) and enclose these basins. During years of high precipitation, surface water collects and forms shallow lakes in the closed basins of Yucca and Frenchman Flats.

Jackass Flats is an open basin and drains to the southwest via Fortymile Wash. Mercury, Rock, Topopah, and Mid Valleys are smaller basins and also have drainage outlets. Pahute Mesa and

Figure 1-1 Major roads, topographic features, and administrative areas of the Nevada Test Site

Timber and Shoshone mountains dominate the northern, northwestern, and west central sections of the NTS. Elevation on the NTS ranges from less than 1,000 meters (m) (3,281 feet [ft]) above sea level in Frenchman Flat and Jackass Flats to about 2,340 m (7,600 ft) on Rainier Mesa.

Elevations at the base of mountains on the NTS are an average of 975 m (3,200 ft) in the south, 1,370 m (4,500 ft) in the central region, and 1,600 m (5,250 ft) in the northern part of the NTS. Mountain peaks range from 1,400 m to 1,800 m (4,600 to 5,900 ft) in the south and 2,100 m to 2,300 m (6,890 to 7,550 ft) in the north (O'Farrell and Emery, 1976). Associated with these elevation increases are the northern boundary of the Mojave Desert and the southern boundary of the Great Basin Desert within a broad east-west corridor of transition (Beatley, 1976).

NTS has a climate characteristic of high deserts with little precipitation, very hot summers, mild winters, and large diurnal temperature ranges. Monthly average temperatures on the NTS range from 7°Celsius (C) (44°Fahrenheit [F]) in January to 32°C (90°F) in July (DOE, 1996b). The average annual precipitation on the NTS ranges from 15 centimeters (cm) (6 inches [in]) at the lower elevations to 23 cm (9 in) at the higher elevations (DOE, 1996b). About 60 percent of this precipitation occurs from September through March. Winter precipitation frequently occurs as snow, which persists in northern Yucca Flat and to the north. Higher mountains commonly are snow-covered much of the winter. Snow seldom persists for more than a few hours in the southern valleys.

The NTS is located in an area of southern Nevada that lies between the Great Basin Desert and the Mojave Desert as defined by Jaeger (1957). Within the site boundaries are found both of these desert types, with the northern end of the site being Great Basin Desert and the southern end of the site being Mojave Desert. Transitional areas between the two desert types are also present having been created by gradients in precipitation, temperature, and soils. Unique combinations of physical site conditions have created different vegetation patterns on the NTS that have challenged development of a simple classification system. Because of the remoteness of this area and the restricted access to the test site, little work in classification of vegetation was done prior to 1958.

2.0 LITERATURE REVIEW

2.1 Previous Classifications of NTS Vegetation

Descriptions of NTS vegetation types consist of three major classification efforts. Two of these efforts were done between 1958 and 1963. The third was published in 1976 and was the standard used until now. A description of these classification efforts follows.

2.1.1 1957 Vegetation Classification

In 1957, work was undertaken by New Mexico Highlands University to appraise the extent of nuclear effects on vegetation at the NTS. Objectives of the study were to:

- Measure changes in vegetative cover and floristic composition in relation to topographic, climatic, and edaphic factors;
- Evaluate plant succession around nuclear detonation points;
- Correlate soil properties with plant distribution;
- Evaluate genetic changes in surviving vegetation; and
- Document the nature and extent of injury to plants from radioactive matter.

Specimens of 106 plant species were collected for the herbarium, and Shields (1958) defined nine vegetation zones. A total of 23 plots (100 ft × 100 ft) were sampled, with only one to three plots per each vegetation zone. Soil pH, Kjeldahl nitrogen, and electrical conductivity (EC) (millimhos/cm² at 25°C) of saturated soil paste extract generally decreased with increasing elevation. Jackass Flats and Pahute Mesa were added as nuclear test areas in 1958 and 1964, respectively, and were not surveyed for vegetation during the earlier study. Other minor vegetation patterns were described for these basins and for the mesas to the north. The zones within these basins included:

Frenchman Flat

- *Atriplex confertifolia* Zone (10 to 14 percent vegetative cover, mean soil pH = 8.5, EC = 24)
- *Lycium* Zone (11 percent vegetative cover, mean soil pH = 8.6, EC = 15)
- *Larrea* Zone (6 to 16 percent vegetative cover, mean soil pH = 8.2, EC = 12)
- *Coleogyne ramosissima* Zone (18 percent vegetative cover, mean soil pH = 8.2, EC = 8)

Yucca Flat

- *Atriplex confertifolia*-*Kochia vestita* Zone (12 to 17 percent vegetative cover, mean soil pH = 8.4, EC = 41)
- *Atriplex confertifolia*-*Eurotia lanata* Zone (14 percent vegetative cover, mean soil pH = 8.5, EC = 20)
- *Tetradymia canescens* Zone (10 to 23 percent vegetative cover, mean soil pH = 8.9, EC = 23)
- *Coleogyne ramosissima* Zone (23 percent vegetative cover, mean soil pH = 8.1, EC = 11)
- *Pinus monophylla* Zone (44 percent vegetative cover, mean soil pH = 7.0, EC = 10)

Subsequently, Shields *et al.* (1959) and Shields and Rickard (1960) established an additional 60 permanent study plots, and extended the number of species in their study plots from 106 to 238. The study areas were expanded to include Jackass Flats; they also redefined these zones as vegetation types.

2.1.2 1962 Wildlife Habitat Studies and Plant Community Classification

Ecological surveys of the fauna and associated wildlife habitat were initiated in 1959 by Brigham Young University scientists and continued through 1962. These surveys were designed to determine the effects of past nuclear detonations that began at the NTS in 1951 on biota at the site (Allred *et al.*, 1963a). Principal objectives of the project were to determine the kinds, population, seasonal occurrence, geographic and ecological distribution, migration, home range, and related habits of native animals in these areas. Seven plant communities were recognized and briefly described:

- *Larrea-Ambrosia* (*Franseria*) (included smaller areas dominated by *Atriplex confertifolia*, *Atriplex canescens*, and *Lycium shockleyi* [rickardii])
- *Grayia-Lycium*
- *Coleogyne*
- *Atriplex-Kochia*
- *Salsola*
- Pinyon-Juniper
- Mixed Communities (included mountainous areas, natural springs, reservoirs, and playas)

Community boundaries were not delineated, nor was a vegetation map produced. Predominant plant species in each plant community were identified. A listing of some of the more common plants found in several communities were given in the appendix of their report, listing vertebrate and invertebrate animals by plant community type. Seasonal occurrence and relative abundance data of these animals were also presented.

A supplemental paper (Allred *et al.*, 1963b) to the original research report (Allred *et al.*, 1963a) described approximate locations (e.g., “2.9 miles NE of Mercury along Mercury Highway, thence 0.3 mile E”) of 297 sampling sites. The report listed 28 species of predominant plant species within the seven plant communities.

2.1.3 1976 Vegetation Classification

Collection of plants was also begun by the University of California, Los Angeles in 1959 and continued through 1975. Beatley (1976) provided the most detailed description of vegetation on the NTS up to that time, based on field observations recorded at the time of collection of herbarium specimens, and data from 68 permanent study sites on the NTS surveyed during the period of 1962 to 1975. Sites were selected as representative of the major kinds of ecosystems in the region. Vegetation and environmental data, including percent cover by perennial plant species, plant density, rainfall, temperature, soil texture, and soil moisture were also collected and summarized. Beatley (1976) recognized 23 plant associations (Table 2-1). Descriptions of plant associations were provided in a narrative form that makes comparison of similarities and differences between plant associations difficult (Appendix A).

Table 2-1 Plant associations recognized by Beatley on the NTS in 1976

MOJAVE DESERT REGION

Bajadas

1. *Larrea-Ambrosia*
2. *Larrea-Lycium-Grayia*
3. *Larrea-Atriplex*

Mountains

4. Mountain

Arroyos

5. Arroyo

Spring and Seepage Areas

6. Ash-Screwbean-*Baccharis*
7. *Atriplex* and *Atriplex-Haplopappus*
8. Mesquite (*Prosopis*)

TRANSITION DESERT REGION

Upper Bajada

9. *Coleogyne*
10. *Larrea-Grayia-Lycium*

Lower Bajada (playas or valley bottoms)

11. *Grayia-Lycium*
12. *Lycium pallidum-Grayia*
13. *Lycium shockleyi-Atriplex*

GREAT BASIN DESERT REGION

Atriplex

14. *Atriplex confertifolia*
15. *Atriplex-Kochia**
16. *Atriplex-Ceratoides**
17. *Atriplex-Sarcobatus**
18. *Atriplex canescens**

Artemisia

19. *Artemisia tridentata**
20. *Artemisia nova**
21. *Artemisia-Pinyon-Juniper*
22. *Artemisia-Cercocarpus*

White fir

23. White fir (*Abies concolor*) [does not occur on the NTS]

* Mapping unit not differentiated from other map units.

There has been no major effort to map the vegetative resources of the NTS in the past. The only complete vegetation map for the NTS prior to 1997 was a 5 ½" × 7" map produced by Janice Beatley in 1976 (Beatley, 1976). By contrast, this same area is covered by 37 U.S. Geological Survey (USGS) 7 ½-minute quadrangle maps. Reasons why no detailed mapping was done include: 1) work scopes did not require identification of vegetation types and detailed mapping, 2) mapping would be a major effort because the NTS consisted of more than 1,300 square miles of area, and 3) field work was difficult logistically because nuclear testing in the past limited access in areas that were already relatively inaccessible due to a lack of roads.

Beatley's vegetation map, showing location of plant associations and study sites, is only approximate and recognizes that "all boundaries are generalized and approximate." The vegetation map was highly simplified and lacked desirable cartographic qualities such as color, distinguishable type symbols and boundaries, and detail needed for interpretive use. The cartography was not corrected for proper orientation relative to acceptable coordinate systems such as decimal degrees, Universal Transverse Mercator (UTM), State Plane, or longitude and latitude. Enhancements to Beatley's original map were provided by O'Farrell and Emery (1976) by refining symbol patterns and correcting legend and symbol ambiguities. O'Farrell and Emery further described the NTS vegetation; however, no vegetation classification was made.

Boundary information from Beatley's original map (Beatley, 1976) and from that enhanced by O'Farrell and Emery (1976) was positioned by hand on clear overlays to LANDSAT georeferenced images to provide a vegetation map that was orthographically correct and georeferenced. Minor editing was done to ensure that boundaries coincided with mountain ranges, major drainages, and playas that were apparent from Beatley's original published and enhanced maps. Color coding was added and boundaries digitized for Geographic Information System (GIS) use to enhance visual interpretation and correlation with other GIS themes. Figure 2-1 shows Beatley's GIS-enhanced map.

The inherent diversity of these 23 plant communities was also noted. According to Beatley (1976): "The communities . . . are extremely diverse with respect to floristic composition; on no two sites is species composition the same (as documented from 20 to 75 species in 1,000 m²)." Because the vegetation patterns in the Mojave Desert and Transition Desert relate so well with physiographic features and other landforms, Beatley chose to name these vegetation patterns after them (e.g., bajadas, mountains, arroyos, and springs and seeps). However, she used the predominant species of shrubs or trees to name the communities in the Great Basin Desert (e.g., *Atriplex confertifolia*, *Atriplex canescens*, *Artemisia tridentata*, *Artemisia nova*, and *Artemisia*-Pinyon-Juniper) where there appeared to be greater uniformity in vegetation patterns than in the former desert types. Beatley concluded that in the Great Basin Desert, "The pattern of its vegetation . . . is relatively simple and clearly defined" and that "in general, all the plant associations are characterized by increased representation of herbaceous perennials and decreased representation of annual species, as compared with the Mojave and transition deserts; these characteristics are associated with the higher rainfall and lower temperatures of the higher elevations" (Beatley, 1976).

Beatley also provided descriptions of other minor plant communities such as disturbed sites, introduced species, and endangered and threatened species. Because the study area extended beyond the boundaries of the NTS to include central-southern Nevada, four additional plant

Figure 2-1 Plant associations on the Nevada Test Site according to Janice Beatley (1976)

communities were described that do not occur on the NTS (e.g., white fir, *Atriplex-Sarcobatus*, mesquite, and *Artemisia-Cercocarpus*). Beatley (1976) provided descriptions of plant associations in a narrative form that makes comparison of similarities and differences between plant associations difficult.

2.1.4 1999 Vegetation Classification of Yucca Mountain Area

From 1997 through 1999, DOE's Office of Civilian Radioactive Waste Management funded a mapping effort at Yucca Mountain and Little Skull Mountain in the southwestern part of the NTS. It extended into the adjacent U.S. Bureau of Land Management- and U.S. Air Force-managed lands to the west (Civilian Radioactive Waste Management System [CRWMS] Management and Operating Contractor, 1998). This mapping effort covered approximately 173 km² (67 mi²) at Yucca Mountain and 50 km² (19 mi²) at Little Skull Mountain in southern Jackass Flats. The vegetation mapping techniques were derived from those that were currently being used to map vegetation on the NTS for this study (Hansen *et al.*, 1999, Ostler *et al.*, 1999). A total of 259 vegetation sampling units, referred to as Ecological Landform Units (ELUs), were sampled in 1997 at Yucca Mountain and an additional 99 ELUs were sampled at Little Skull Mountain in 1998. Cluster analysis was used to classify ELU samples into groups with similar species composition using PC-ORD software (McCune and Mefford, 1995). Euclidean distance was used as a measure of dissimilarity, and Ward's method was used to agglomerate clusters because it reduced chaining. This quantitative classification grouped ELUs into nine associations that fell into five alliances and two formations. Alliances and associations were named after dominant species according to proposed guidelines by the Federal Geographic Data Committee in conjunction with the Vegetation Classification Panel of the Ecological Society of America (Federal Geographic Data Committee, 1996).

The two formations that were recognized in this mapping were the Mojave Desert Formation and the Great Basin Desert Formation. Alliances, associations, and subdominant species are provided in Table 2-2.

In addition to maps of the vegetation associations, the authors provide narrative descriptions for each of the associations recognized, including data on topography, surface soil textures, slope, common species, and relative cover of annuals.

2.2 Vegetation Studies on the NTS

2.2.1 Past Climatic Vegetation Changes

Vegetation patterns in response to changing climatic conditions have been studied extensively on the NTS and documented through the analyses of several packrat-midden sites (Spaulding, 1985). Vegetation patterns suggest that about 45,000 years before present (k yr BP), the NTS had cooler and wetter conditions than currently; dominant plants included littleleaf mountain mahogany (*Cercocarpus ledifolius*), Utah juniper (*Juniperus osteosperma*), sagebrush (*Artemisia*), and horsebrush (*Tetradymia* spp). By 35 k yr BP, limber pine (*Pinus flexilis*) and four-wing saltbush (*Atriplex canescens*) had established at the site. By 25 k yr BP, shadscale saltbush (*Atriplex confertifolia*), snowberry (*Symphoricarpos longiflorus*), and Utah Fendlerbush (*Fendlerella utahensis*) became more common. By 10 k yr BP, limber pine was no longer found

Table 2-2 Classification of vegetation at Yucca and Little Skull mountains adapted from CRWMS (1998)

<i>CLASSIFICATION LEVEL</i>	<i>ASSOCIATION SUBDOMINANTS</i>
I. MOJAVE DESERT FORMATION	
A. <i>Ambrosia dumosa</i>-<i>Larrea tridentata</i> Alliance	
1. <i>Ambrosia dumosa</i> - <i>Larrea tridentata</i>	<i>Hymenoclea salsola</i> <i>Ericameria nauseosa</i>
2. <i>Ambrosia dumosa</i>	<i>Ephedra nevadensis</i> <i>Lycium pallidum</i> <i>Krameria erecta</i>
3. <i>Larrea tridentata</i> - <i>Ephedra nevadensis</i>	<i>Ambrosia dumosa</i> <i>Krameria erecta</i>
B. <i>Ephedra nevadensis</i>-<i>Ambrosia dumosa</i> Alliance	
1. <i>Ambrosia dumosa</i> - <i>Atriplex confertifolia</i>	<i>Ericameria teretifolia</i> <i>Eriogonum fasciculatum</i>
2. <i>Ephedra nevadensis</i> - <i>Ambrosia dumosa</i>	<i>Krameria erecta</i> <i>Larrea tridentata</i>
3. <i>Menodora spinescens</i>	<i>Ambrosia dumosa</i> <i>Ephedra nevadensis</i> <i>Krameria erecta</i>
II. GREAT BASIN DESERT FORMATION	
A. <i>Eriogonum fasciculatum</i>-<i>Ericameria teretifolia</i> Alliance	
1. <i>Eriogonum fasciculatum</i> - <i>Ericameria teretifolia</i>	<i>Ephedra nevadensis</i> <i>Gutierrezia sarothrae</i>
B. <i>Artemisia</i> Alliance	
1. <i>Artemisia tridentata</i>	<i>Ephedra nevadensis</i> <i>Ericameria teretifolia</i>
C. <i>Coleogyne ramosissima</i> Alliance	
1. <i>Coleogyne ramosissima</i>	<i>Ephedra nevadensis</i> <i>Ericameria teretifolia</i>

in packrat midden samples and was replaced by the presence of singleleaf pinyon (*Pinus monophylla*) and an increase in the abundance of Utah Juniper. Goldenweed (*Haplopappus nanus*), Dorr's sage (*Salvia dorii*), and grizzlybear pricklypear (*Opuntia erinacea*) became more prevalent.

During the past 5 k yr BP, creosote bush (*Larrea tridentata*), white bursage (*Ambrosia dumosa*), and other species characteristic of the Mojave Desert established within the NTS area as

temperatures increased and precipitation decreased. It was estimated that many Great Basin Desert trees and shrubs were displaced about 457 to 610 m (1,500 to 2,000 ft) upward in elevation to what they historically had been as the climate changed (Spaulding, 1985). This climate change opened new niches for colonization by other species such as blackbrush (*Coleogyne ramosissima*). Ecotonal species are often adapted to a wide change in climatic conditions such as freezing temperatures, as well as hot, droughty climate.

Hereford and Longpre (2000) evaluated the climate history of the Mojave Desert Region from 1892 to 1996. They concluded that from about 1905 to 1940, precipitation was slightly above normal. From 1940 to 1978, precipitation was slightly below normal and that, more recently, from 1978 to 1996 that precipitation was slightly above normal, although individual years of greater than or less than normal precipitation were also reported during these three longer periods of recent climate.

2.2.2 Nevada Applied Ecological Group Studies

In 1970, DOE Nevada Operations Office (DOE/NV) established the Nevada Applied Ecology Group (NAEG) to conduct studies of radionuclides in the environment on and near the NTS. Over the next 16 years, this group studied various ecosystem components to determine the fate of radionuclides in these desert environments. Over 540 reports and papers were prepared during this period. The group compiled and published ten collections of progress and research reports through 1983. While much of these progress reports dealt with radionuclide dynamics, valuable information was presented on the vegetation of many areas on the NTS and impacts of various DOE activities on vegetation. Friesen (1992) has made a final descriptive summary of this work.

2.2.3 Basic Environmental Compliance and Monitoring Program Studies (BECAMP)

In 1987, DOE/NV established a follow-on group to NAEG to monitor environmental conditions on the NTS. The objectives of the BECAMP program were to ensure compliance to environmental regulations and monitor potential impacts of DOE activities on biota. Although no vegetation maps were produced from these studies, numerous plots were established and sampled that described both undisturbed and disturbed vegetation on the NTS and monitored changes over the next seven to eight years. Annual reports containing the data sampled from vegetation monitoring plots from 1987 to 1994 were published (Hunter and Medica, 1989; Hunter, 1994a,b,c, 1995).

2.2.4 Endangered and Threatened Species Studies

Numerous surveys have been conducted on the NTS over the past 25 years to determine the distribution and abundance of plant species that were candidates for listing under the Endangered Species Act. In 1977, Beatley (1977) produced the first reports on the status of endangered and threatened species on the NTS. Later that year, Rhoads and Williams (1977) also produced a report on the endangered species on the NTS and, in 1978, published on the threatened species on the NTS (Rhoads *et al.*, 1978). Between 1991 and 1998, extensive field surveys were made on species that remained as candidates for listing as threatened and endangered. Blomquist *et al.* (1992, 1995) and Anderson (1998) published results of these surveys. While none of these

efforts mapped vegetation on the NTS, they did contribute to our knowledge of the flora of the NTS by documenting species distribution, species collections, and providing habitat descriptions (Figure 2-2).

2.2.5 Wetland Studies

A study of potential wetlands and waters of the United States was conducted by Bechtel Nevada scientists during 1996-1997. A report documenting wetlands on the NTS was published by Hansen *et al.* (1997), including a map of wetlands sites (Figure 2-3). Vegetation from these areas was described, as was water flow and water quality parameters.

2.3 Vegetation Classification in the Western United States

Vegetation in the western United States has been traditionally classified using three land classification schemes: (1) habitat type, (2) range site, and (3) community type (Hironaka, 1986; Ferguson *et al.*, 1989). Because the first two of these schemes are based on climax or potential vegetation and do not recognize current vegetation, disturbances, or rare plant associations, they are of limited use in classifying vegetation on the NTS. A brief description of each scheme follows to facilitate comparisons among the classification schemes. Only the community type classification is deemed appropriate for the NTS vegetation.

Habitat type is a hierarchical ecological classification based on climax vegetation used primarily for forests (e.g., the U.S. Forest Service) in the western United States. The habitat type is the aggregate land area that presently supports, or until recently supported, and presumably is again capable of supporting the same climax vegetation. From a mapping viewpoint, all land that supports or supported the same specific climax vegetation is of the same habitat type. Classification by habitat types has not been very helpful in preserving very rare plant associations because classifications usually do not include the rare associations (Wellner, 1989). It does not recognize disturbed vegetation. The mapping of habitat types (based on vegetation) should not be confused with wildlife habitat, the abiotic and biotic components of an animal's environment. Computer models have been developed to relate these latter habitat components which have been reviewed by Berry (1986).

The second land classification scheme used primarily for shrublands and grasslands (e.g., the U.S. Bureau of Land Management and the Natural Resources Conservation Service) in the western United States is the range site classification. The range site is also an ecological classification based on climax vegetation. It is based on site productivity and/or species composition uniformity due to site differences within climax vegetation (Dyksterhuis, 1949). The range site is believed by many to be a homogeneous subdivision of a habitat type based on uniformity of productivity or species composition. The range site has been compared to the habitat type phase (Hironaka, 1986).

The third classification scheme is the community type (Mueller-Dombois and Ellenberg, 1974). It is an ecological classification based on current vegetation without regard to its successional status. It recognizes disturbed and rare plant associations and is considered the most appropriate of the three classification schemes for use on the NTS. The Nature Conservancy, under contract

Figure 2-2 Location of sensitive plant species on the Nevada Test Site

Figure 2-3 Location of wetlands on the Nevada Test Site

with the U.S. Geological Survey (USGS), has prepared a Standardized National Vegetation Classification based on hierarchical community types (Federal Geographic Data Committee, 1996; Grossman *et al.*, 1998). All federal agencies are encouraged to use this new classification. Accordingly, vegetation classification and mapping efforts on the NTS were aligned with these new standards.

2.3.1 Vegetation in Deserts is Strongly Influenced by Water and Soils

The distribution of vegetation on the earth's surface, especially in desert areas, is controlled more by the availability of water than by any other single factor (U.S. Congress, 1983; Kramer, 1969). Primarily climate and soils influence water availability. Climatological changes in desert areas over decades of time alter local availability of water, which has been shown to be highly correlated with changes in vegetation (Hastings and Turner, 1972). Rainfall and temperature determine to a large measure potential evapotranspiration, which has also been shown to correlate with habitat patterns and life zones of the world (Transeau, 1905; Holdridge, 1962). Soils in these habitats play a major role in determining water percolation, water retention, availability of plant nutrients, and ultimately in influencing the growth and vegetation patterns of an area.

2.3.2 Soil Surveys Help Identify Plant Communities

The U.S. Natural Resources Conservation Service (formerly the Soil Conservation Service) routinely performs soil surveys for the purpose of identifying the kinds and locations of unique soil types. Because soils persist in areas for very long periods of time ranging from thousands to millions of years, natural selection favors the growth of plants that are best adapted to the physical and chemical conditions peculiar to that soil. Therefore, soil surveys are also useful in identifying associated native vegetation (Gates *et al.*, 1956).

One of the most detailed soil surveys, and also most useful in identifying associated vegetation, identifies phases of a soil series and is referred to as an Order 1 Soil Survey. This survey identifies individual soils referred to as soil consociations (i.e., a single soil component in contrast to an "association" comprised of many soil types or soil components). The mapping unit (a spatial representation of the soil consociation boundaries) may also have occasional allowable complexes. The minimum size of delineated mapping units is usually less than 0.4 hectare (ha) (1.0 acre [ac]) in size, ranging from 0.1 to 1.0 ha (0.25 to 2.5 ac) in size (Peterson, 1981). The scale of such maps is often greater than 1:10,000. These mapping units are identified by air photo interpretation and validated by transecting and traversing the soil unit. Validation consists of positioning carefully constructed transects across the area, digging soil pits at regularly spaced intervals, and describing the physical and chemical characteristics of the soil profile.

Because a significant effort and cost is required to conduct an Order 1 Survey, this type of mapping is usually restricted to intensely managed agricultural lands or mining lands where segregation and salvage of topsoil is required for revegetation of the land. On large areas that are not intensely managed (like the NTS), soils surveys with less detail are performed where minimum size of soil units are larger, for example: 0.4 to 3.6 ha (1.0 to 9.0 ac) – Order 2 Survey, 3.6 to 25.9 ha (9.0 to 64 ac) – Order 3 Survey, 14.6 to 63.1 ha (36 to 156 ac) – Order 4 Survey, and 63.1 to 4,046.9 ha (156 to 10,000 ac) – Order 5 Survey (Peterson, 1981).

Aerial color and infrared photography at a scale of 1:10,000 to 1:24,000 are powerful tools in identifying boundaries of soil consociations. Although at a much smaller scale, satellite imagery with multispectral band wavelengths, such as the French SPOT (Satellite Pour L'Observation de la Terre) is an additional tool in identifying such consociation boundaries. This is because interpretation of the band wavelengths help identify subtle differences in soil moisture, desert pavement (surface armoring by eroded gravel), and mineral types (e.g., caliche layers or cementation layers) which strongly influence root development and plant growth.

2.3.3 Landforms are Correlated with Soil Types

Landforms are three-dimensional parts of the general land surface, which are distinctive and repeat themselves frequently across the landscape in fairly consistent positions with respect to surrounding landforms. Examples of landforms are hills, sideslopes, alluvial fans, stream terraces, ballena, flood plains, and playas. In desert areas of Nevada, many of these landforms are composed of distinctive materials and are highly correlated with soil consociations (Peterson, 1981). Because the landforms can be readily discerned from aerial photography, their boundaries can be recognized with a high degree of accuracy. Soils of a particular landform are frequently quite uniform and can be used to approximate the boundaries for soil consociation; however, they may occasionally vary along spatial gradients. For example, this might occur along an alluvial fan outwash slope where coarse materials are deposited near the top of the fan and finer-textured materials are carried to the lower, downslope positions. Such landforms may contain two or more consociations referred to as a soil "association." The only means of discerning the boundaries of these consociations may be differences in spectral properties (photographic hues or textures) or by differences in the plant communities occupying these soils. Landforms provide a means of rapidly identifying boundaries of soil consociations which, in turn, are highly correlated with plant communities or wildlife habitats.

2.3.4 Ecological Landform Units

When the landscape is delineated into small mapping units (0.4 to 4.0 ha [1 to 10 ac]) using aerial photography and multispectral satellite imagery, the area is divided into a mosaic of land features that closely approximate an Order 2 Soil Survey (Bailey *et al.*, 1994). This corresponds to the minimum size delineation which is approximately 0.4 cm² (1/4-inch square) (about 2.3 ha [5.7 ac] at 1:24,000 scale) (Holdorf, 1989). When these landform units are visited in the field by trained scientists, observations can be made of the delineated areas to determine if the vegetation is relatively homogeneous over the unit or if a mosaic of vegetation patterns exists within the mapping unit. When landform units with mosaics are divided into subunits that have relatively homogeneous plant communities, then these resulting landform units have been referred to as ELUs by Bechtel Nevada biologists. The physical (e.g., soils, slope, geology, and hydrology) and biological (e.g., plant community composition and structure) environmental parameters also strongly influence the types of animals (e.g., insects, birds, mammals, and reptiles) that will also be found in these ELUs. Because the soils, slope, geology, hydrology, vegetation, and animals are all relatively uniform and homogeneous within these ELUs, they represent a meaningful mapping unit that can be hierarchically combined with other similar units into a statistically defensible (e.g., dendrogram based on cluster analyses) collection of plant community types for

the purpose of mapping plant communities, determining wildlife habitat, and establishing plant species ranges. The strong correlation between landforms and wildlife habitat was also recognized by Berry (1979) and used to model habitat relationships of terrestrial vertebrates.

3.0 METHODS

3.1 Mapping ELUs on the NTS

Mapping of stands within plant communities (associations) was initiated by first identifying landforms (Figure 3-1) and delineating their boundaries from prints of aerial photographs (1:24,000 scale) (Figure 3-2). These boundaries were traced onto clear plastic sheets registered to the underlying digital prints as published in the NTS Grid Map, A Grid System Photo Locator Map of the NTS (DOE, 1995). Boundaries of landforms with similar physical and biological properties were then verified in the field and modified to delineate ELUs.

In theory, each area within an ELU has approximately the same slope, soils, and vegetation. The intent was not to subjectively and arbitrarily classify the ELU as a particular vegetation type or subtype, but rather to delineate all of the basic building blocks or areas that were relatively homogeneous and would perhaps respond similarly to management practices. Once the boundaries of these areas were determined, the physical and biological characteristics within these areas were described. A description of the ELU was made by selecting representative areas, visiting the area, and recording information about the ELU on field data sheets (Figure 3-3).

While most ELUs were several hectares in size, some having rather unique environmental conditions were sampled and delineated in areas as small as a hectare in size. UTM (Universal Transverse Mercator) land coordinates (NAD27) and one or more representative photographs were taken to document the location and appearance of the vegetation and landscape at that transect location.

Statistical tools such as cluster analysis were then used to identify similar ELUs for purposes of classifying the vegetation, consistent with national vegetation classification standards. Individual ELUs were then assigned to a national vegetation classification category using quantitative characteristics determined from cluster analyses and other statistical tools. This removed many of the problems of having to subjectively decide in the field which classification category the ELU falls into without having seen all the sites, comparing sites, or having field data to support the classification decision.

3.1.1 Geographic Information System Techniques

A geographic information system was developed to manage and display data collected during the mapping and classification efforts. The resulting system was referred to as the EGIS. It was developed using Environmental Systems Research Institute, Inc.'s (ESRI) ArcViewTM 3.2. Metadata conformed to proposed Content Standard for National Biological Information Infrastructure Metadata (National Biological Service, 1995).

CODES: M: RT,MESA (*fr, if*),MS,FS,FH (*c,s,if*),MV (*fr,if*) PS: RP,B,AF,FP (*efr,c*), FS (*c*) BF:AFP,P

MOUNTAIN (M)

STEEP TERRAIN WITH EXPOSED BEDROCK AT HIGHER ELEVATIONS

Ridge Top (RT)	Mountain tops or crest of broad-ridged mountains
Mesa (MESA)	Flat-topped mountains
fan remnants (<i>fr</i>)	Sloping erosional features of Mesas
inset fan (<i>if</i>)	Drainage channels of Mesas
Mid Slope (MS)	Middle elevation sections of mountain slopes
Foot Slope (FS)	Bottom elevation sections of mountain slopes
Foothills (FH)	Rolling hills with exposed bedrock at lower elevations
crest (<i>c</i>)	Tops of Foothills
slope (<i>s</i>)	Sides of Foothills
inset fan (<i>if</i>)	Drainage channels within Foothills
Mountain Valley (MV)	Valleys bounded by Mountains at higher elevations
fan remnants (<i>fr</i>)	Sloping erosional features of Mountain Valleys
inset fan (<i>if</i>)	Drainage channels within Mountain Valleys

PIEDMONT SLOPE (PS) LAND FORMED BY SOIL DEPOSITION AT LOWER ELEVATIONS

Rock Piedmont (RP)	An erosional surface cut across bedrock (rare on NTS)
Ballena (B)	Round-topped ridgeline remnants of fan alluvium
Alluvial Fan (AF)	Semiconical fans deposited in drainages below Mountains
Fan Piedmont (FP)	Slightly undulating depositional areas below Alluvial Fans
erosional fan remnant (<i>efr</i>)	Gradually sloping upland areas of a Fan Piedmont
inset fan (<i>if</i>)	Drainage channels within a Fan Piedmont
channel (<i>c</i>)	Drainage channels within a Fan Piedmont
Fan Skirt (FS)	Relatively flat slopes below coalescing Fan Piedmonts
channel (<i>c</i>)	Drainage channels within Fan Skirts

BASIN FLOOR (BF) BOTTOM OF A BASIN THAT COLLECTS WATER AND SEDIMENTS

Alluvial Flat/Plain (AFP)	Relatively flat vegetated areas upslope of barren playas
Playa (P)	Barren flats with fine-textured soils that are occasionally inundated

Figure 3-1 Landform types and codes for describing landforms on the Nevada Test Site

Figure 3-2 Example of delineated boundaries of an Ecological Landform Unit on the Nevada Test Site

BECHTEL NEVADA 1998 VEGETATION MAPPING SAMPLING FORM

SITE NO. _____ DATE 9/____/98 TIME _____ GRID MAP NO. _____

COLLECTORS WKO DJH USGS QUAD NAME _____ PHOTOS # _____

GPS COORDINATES 5-_____E, _____4____-_____N

ELEV _____ (m) SLOPE _____ (°) ASPECT _____ (Degrees)

LANDFORM _____
(M,PS,BF)(MT,MESA,MS,FS,FH,MV,B,AF,FP,FS,AFL,P)(EFR,IF,FA)(C,Cr,S,B,F,T,)

GEOLOGY _____ SOILS _____ EROSION PAVEMT _____ COVER _____ %
Fine < 5 cm, Med 5-15 cm, Coarse > 15 cm.

RODENT ACTVTY _____ CRYPTOS _____ ANN. PROD _____ HORSE SIGN _____
(1-5, 1=none, 5=very abundant)(1-4, 1=none, 4=high) (1-5, 1=low, 5=high)(1-3,1=none, 3=alot)

P COVER 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____ 8 _____ 9 _____ 10 _____ X _____ SD _____
DOM TREES/SHRUBS (Relative density, circle dominant species, put "W" if wash species)

ARNO4 _____ CORA _____ ERNAH _____ HYSA _____ PUTR2 _____

ARTRT _____ EPNE _____ ERPA30 _____ JUOS _____ RHTR _____

ARCA2 _____ EPVI _____ ERTE18 _____ KRLA2 _____ SYLO _____

ATCO _____ ERFA2 _____ GRSP _____ LYAN _____ TEAX _____

CHVI8 _____ ERMI4 _____ GUSA2 _____ PIMO _____ TECA2 _____

CHVIP4 _____ ERNAL _____ ERCO23 _____ PUST _____ YUBAV _____

IMPORTANT FORBS

1) _____ 2) _____ 3) _____ 4) _____ 5) _____

6) _____ 7) _____ 8) _____ 9) _____ 10) _____

IMPORTANT GRASSES

1) _____ 2) _____ 3) _____ 4) _____ 5) _____

OTHER IMPORTANT SPECIES (Cacti, T&E)

1) _____ 2) _____ 3) _____ TOTAL PER. SPECIES _____

ECOLOGICAL NOTES: _____

Figure 3-3 Example of a vegetation mapping sampling form

3.1.2 Image Analysis

Landform units were delineated on 32 French satellite images corresponding in area to the 32 USGS 7.5-minute quadrangles that cover the NTS. The digital images were produced by combining 30-m (98-ft) resolution SPOT color digital imagery with 10-m (32.8-ft) resolution SPOT black and white imagery and then printed to maps. Boundaries of landforms were distinguished by image differences in texture and color.

Boundaries were drawn in ink onto clear acetate overlays attached to and registered with the underlying map image. When available, clear overlays of USGS topographic maps were inserted between the image base and the upper overlay to assist in interpreting slope and aspects.

In addition to the SPOT images, 240 photomaps of the NTS and surrounding areas were used to provide greater detail for photo interpretation. The NTS Grid Map collection was obtained by aerial photographic mapping missions that were flown in August and September 1994 by the DOE's Remote Sensing Laboratory located at Nellis Air Force Base in Las Vegas, Nevada. The missions were flown at 488 m (16,000 ft) above ground level using two photogrammetric cameras with normal color film and infrared color film. The grid map atlas was printed from the normal color photography at a scale of roughly 1:24,000. Registration of latitude and longitude was only approximate, with apparent discrepancies observed from sheet to sheet. Maps were considered accurate to ± 30.5 m (100 ft). Prints of selected images (i.e., photo negatives) were made to provide higher resolution for distinguishing textural differences due to differences in shrub types and cover. These photographic prints were used in the field.

After the final corrections were made to the delineated boundaries of the ELUs based on the field verification and photomaps, the ELU boundaries were digitized using ESRI's Data Automation Kit TM. Boundaries were verified and then the polygons (ELUs) were labeled with the appropriate ELU number. This coverage was then linked to a Microsoft® Access 97 database using ArcViewTM 3.1 software.

3.2 Plant Identification

Plant species were identified using several published floras (Kartesz, 1988; Hickman, 1993; Welsh *et al.*, 1993; and Cronquist *et al.*, 1994). When the phenological stage of the plant was less than optimal for identification (e.g., before or after flowering when the plant lacked key taxonomic features), then species or varieties were determined as best as possible from taxonomic keys. Final assignment of identification was made by taking into account these features and which species were most commonly reported (e.g., Beatley, 1976) to occur in that community type. On rare occasions, some collections were sent to taxonomists who specialized in the identification of certain species or varieties (e.g., Dr. Stanley Welsh at Brigham Young University, Provo, Utah).

3.2.1 Nomenclature

Plant nomenclature used on the NTS up to 1997 generally followed Beatley (1976). However, with the taxonomic revision of some phylogenetic relationships and subsequent reassignment of a few plants into more appropriate genus and species names, a need arose to reflect current nomenclature. In 1996, the Biota of North America Program under the direction of Dr. John Kartesz, published a revised list of plant names, both scientific and vernacular (common) for North America (U.S. Department of Agriculture [USDA], National Resource Conservation Service [NRCS], 1996). Alphanumeric plant symbols were also assigned to each species or subspecies. The alphanumeric codes were generally comprised of the first two letters of the genus name followed by the first two letters of the species name (e.g., *Artemisia tridentata* = ARTR). To distinguish between species or subspecies with potentially the same alphanumeric codes (e.g., *Artemisia nova* and *Artemisia norvegica*), additional letters or numbers were used (e.g., *Artemisia norvegica* = ARNO and *Artemisia nova* = ARNO4). This list became the standard to be used by all federal agencies. Starting in 1997, plant nomenclature on the NTS was changed to reflect those of the National Plant Data Center (USDA NRCS, 1996). Synonyms were retained in the database as a crosswalk to the earlier nomenclature of Beatley (1976).

3.2.2 Voucher Specimens

Since 1957, plant voucher specimens have been collected, mounted, and stored in the herbarium at Mercury on the NTS. Duplicate specimens were also sent to the herbarium at the University of Nevada at Las Vegas. Additionally, selected specimens were deposited at the herbariums at the University of California in Los Angeles; the New Mexico Highlands University in Las Vegas, New Mexico; and Brigham Young University in Provo, Utah.

Plant collections made during field sampling were identified and mounted, and are also stored in the herbarium at Mercury.

3.3 Field Survey Techniques

Data were recorded on the sampling form previously shown (*Figure 3-3*). The collector reviewed data sheets for inconsistencies or deficiencies. Occasionally, global positioning system (GPS) readings could not be received in the field because of proximity to hills or topographic obstructions. Geographical location data were then estimated from USGS 7.5-minute topographic maps.

Site descriptions were made along 200-m- (656-ft)-long linear transects, with observation points located every 20 m (65.5 ft) along the transects (i.e., 10 points per transect). At each observation point, the names (alphacodes) of the five closest shrubs to the point were recorded. The relative abundance of forbs, grasses, cacti, and other important species such as threatened and endangered plant species were also recorded and ranked (the most abundant species received a ranking of 1, the second most abundance species received a ranking of 2, etc.). The names of plants and animals observed as well as physical conditions of the environment were described.

Not all ELUs were sampled. Based on ground observations, areas that appeared similar in physical and biological characteristics to an adjacently sampled area were not sampled, but

merely assigned the same characterization values by referencing the sampled site and its recorded attributes. ELUs that were remote or inaccessible were coded either as unsampled or assigned the closest and most comparable sampled ELU. Approximately 1,508 ELUs were sampled.

Two or more transects were used to document the species change on long slopes where species composition of the vegetation changed in response to environmental gradients like increase in soil texture or soil moisture along an elevation gradient. Arbitrary boundaries between the two sampling points were drawn on the map (straight lines half way between the two transect midpoints) to suggest that the upper polygon was most closely described by the transect in the upper reaches of the slope, while the lower polygon was most closely described by the transect in the lower reaches of the slope.

3.4 Laboratory Soil Analyses

Laboratory analyses consisted of determining soil texture. Soil samples were taken from representative portions of the area being sampled (i.e., the ELU), usually from the surface soil just under the perimeter of the shrub canopy. Atypical areas such as rocky outcrops, rodent diggings, desert pavement, or disturbances were avoided. The intent was to sample soil in an area that represented the most likely microsite for germinating seeds. Large rocks and plant litter were carefully removed from the surface exposing the surface soil. Approximately 100 milliliters of soil was scooped into small plastic containers. Samples were labeled with the number of the site and returned to the laboratory in Mercury, Nevada, for processing (usually the same day they were collected in the field).

Soil samples were then sieved through a 2-millimeter (mm)-sized sieve to remove gravel and plant debris. Screened samples were then wetted with tap water to gradually moisten the sample. The palm-sized sample was kneaded in the hand to mix the soil and water thoroughly. A textural particle size class was then assigned based on the ribbon and grit properties of the sample. Brady (1974) describes the procedure more fully. The textural analysis is only approximate, but appears to offer a quick method for distinguishing between the major textural classes that are often correlated with vegetation patterns.

3.5 Statistical Data Analyses

Field data were organized into data tables using Microsoft AccessTM and ExcelTM. Descriptive statistics were used to summarize and describe data. MiniTabTM and Systat 5.0TM software were used to provide statistical analyses such as cluster analyses, discriminate analyses, multiple regression analyses, and chi-square tests. Cluster analysis was used to identify similar ELUs for purposes of classifying vegetation, consistent with national vegetation classification standards.

The clustering program utilized squared Euclidean distance and average linkage to separate unique cluster groups. Clustering was based on the quantitative characteristics of only shrubs

and trees recorded along each transect. Forbs and grasses were not used in this analysis. Cluster groups were assigned to a national vegetation classification category based on the dominant shrubs and trees in each group. ELUs were assigned a number based on the cluster group in

which they occurred. These groups were used to produce a vegetation map of the NTS. This removed many of the problems of having to subjectively decide in the field which classification category the ELU fell into without having seen all of the site, comparing sites, or having field data to support the classification decision.

3.6 Tabular Data Management

After an initial review of field data sheets for accuracy, data were entered into custom data forms using Microsoft Access 97TM software. Field values were subjected to validation rules to ensure that entries were within given size ranges and of proper data type (e.g., alphanumeric vs. numeric or logical). The relational database consisted of five main data forms: (1) site data entry form, (2) shrub and tree data entry form, (3) herb and grass data entry form, (4) cacti and other species (e.g., threatened and endangered plant species), and (5) plant nomenclature data entry form. Data entry items that were not legible or clear were marked for review by the collector (field scientist) and data entered, corrected, or reentered. Data tables were exported for use in Microsoft Excel 97TM and ESRI ArcView 3.1TM software. Plant species alphanumeric symbol codes were also checked for accuracy using voucher specimens and other taxonomic aids.

4.0 RESULTS AND DISCUSSION

4.1 Vegetation Cluster Analyses

Results from the cluster analysis are shown in Figure 4-1. Assignment of ELUs to cluster groups (alliance and associations) was an iterative process. Initial clustering used the 75 percent similarity level and yielded 11 cluster groups (alliances). Three of these groups were very large and contained a diverse group of ELUs. Site data and pictures taken at each ELU were subsequently evaluated. It was decided to increase the similarity level to recognize additional associations within these three groups. Increasing the similarity level to 85 percent yielded only 13 cluster groups but still did not recognize the pinyon woodland plant communities that occur on the NTS. However, at the 90 percent similarity level, these woodlands were separated from cluster groups dominated by sagebrush. This level also recognized five associations within the group characterized by Nevada jointfir (*Ephedra nevadensis*). These associations had Nevada jointfir as a subdominant species and other species as dominants. Field observations also tended to support the need to recognize these as separate associations.

Based on this iterative clustering process, 10 alliances and 20 associations were recognized as occurring on the NTS. Several ELUs did not cluster as groups, but remained as single units because of their unique vegetation. These ELUs were listed together in a miscellaneous category on the final map. Alliances and associations were named after the dominant tree or shrub species based on relative abundance and according to Federal Geographic Data Committee and Ecological Society of America conventions (Grosman *et al.*, 1998; Anderson *et al.*, 1998). Results of the classification are shown in Table 4-1.

Two major vegetation groups or ecoregions, Mojave Desert and Great Basin Desert, can be identified from this classification. Between these two deserts is a broad transition zone that often includes a mixture of species from either major ecoregion. Beatley (1976) refers to this climatic zone as the "Transition Desert" and recognized several plant associations within this zone. These climatic zones or ecoregions are discussed more thoroughly in Section 4.4.1. The dominant plant association that typifies this zone is the *Coleogyne ramosissima*-*Ephedra nevadensis* Shrubland Alliance. In our cluster analysis, ELUs containing blackbrush clustered together, quite clearly showing the unique nature of this vegetation alliance. Several authors (Beatley, 1976; Brown *et al.*, 1980; Turner, 1982a,b; Holland, 1986) recognize a blackbrush vegetation association, but there is disagreement about whether it should be classified in the Mojave Desert or Great Basin Desert.

4.2 Distribution and Description of Plant Alliances

Figure 4-2 shows the distribution of plant alliances on the NTS. Also shown are the generalized boundaries for the Mojave Desert, Great Basin Desert, and the transition region between these deserts. Plant species that dominate alliances within this transition have been historically associated with either desert and, in some cases, listed as a minor species in both deserts. Characteristics of plant alliances on the NTS are shown in Table 4-2.

Figure 4-1 Results of cluster analyses for ELUs on the Nevada Test Site

Table 4-1 Vegetation ecoregions, alliances, and associations on the Nevada Test Site

<i>Ecoregion</i>	<i>Alliance</i>	<i>Association</i>
Mojave Desert	Lycium spp. Shrubland Alliance	Lycium shockleyi-Lycium pallidum Shrubland
	Larrea tridentata/Ambrosia dumosa Shrubland Alliance	Larrea tridentata/Ambrosia dumosa Shrubland
	Atriplex confertifolia-Ambrosia dumosa Shrubland Alliance	Atriplex confertifolia-Ambrosia dumosa Shrubland
Transition Zone	Hymenoclea-Lycium Shrubland Alliance	Lycium andersonii-Hymenoclea salsola Shrubland
		Hymenoclea salsola-Ephedra nevadensis Shrubland
	Ephedra nevadensis Shrubland Alliance	Menodora spinescens-Ephedra nevadensis Shrubland
		Krascheninnikovia lanata-Ephedra nevadensis Shrubland
		Eriogonum fasciculatum-Ephedra nevadensis Shrubland
		Ephedra nevadensis-Grayia spinosa Shrubland
	Coleogyne ramosissima Shrubland Alliance	Coleogyne ramosissima-Ephedra nevadensis Shrubland
Great Basin Desert	Atriplex spp. Shrubland Alliance	Atriplex confertifolia-Kochia americana Shrubland
		Atriplex canescens-Krascheninnikovia lanata Shrubland
	Chrysothamnus-Ericameria Shrubland Alliance	Chrysothamnus viscidiflorus-Ephedra nevadensis Shrubland
		Ericameria nauseosa-Ephedra nevadensis Shrubland
	Artemisia spp. Shrubland Alliance	Ephedra viridis-Artemisia tridentata Shrubland
		Artemisia tridentata-Chrysothamnus viscidiflorus Shrubland
		Artemisia nova-Chrysothamnus viscidiflorus Shrubland
		Artemisia nova-Artemisia tridentata Shrubland
	Pinus monophylla/Artemisia spp. Woodland Alliance	Pinus monophylla/Artemisia nova Woodland
		Pinus monophylla/Artemisia tridentata Woodland

Figure 4-2 Distribution of plant alliances on the Nevada Test Site

Nevada Test Site

Parameters

Nevada Test Site	Mojave Desert	Transition Ecoregion	Great Basin Desert	Parameters									
				Alliances	Alliances	Alliances	Alliances	Alliances	Alliances	Alliances	Alliances	Alliances	Alliances
Lycium shockleyi - Lycium pallidum Shrubland	Larrea tridentata/Ambrosia dumosa Shrubland	Atriplex confertifolia-Ambrosia dumosa Shrubland	Hymenoclea-Lycium Shrubland	Ephedra nevadensis Shrubland	Coleogyne ramosissima Shrubland	Atriplex spp. Shrubland	Chrysothamnus-Ericameria Shrubland	Artemisia spp. Shrubland	Pinus monophylla/Artemisia spp. Woodland				
6	283	49	57	178	323	57	97	293	136	Number of ELUs			
1,484	61,050	11,577	8,198	42,903	72,976	10,486	18,987	61,333	44,852	Area occupied (ha)			
0.4	18.0	3.4	2.4	12.6	21.6	3.1	5.6	18.1	13.3	Area occupied (% of NTS)			
941	1,080	1,153	1,263	1,263	1,385	1,208	1,485	1,776	2,054	Mean elevation (meters)			
14.8	16.0	16.9	18.3	18.3	19.3	17.6	21.1	24.7	28.2	Mean precipitation (cm)			
0.8	5.7	13.6	3.5	9.9	8.5	3.3	7.1	7.4	10.2	Mean slope (degrees)			
0-1	1-42	1-53	1-31	1-70	1-53	0-24	0-38	0-65	1-58	Slope range (degrees)			

Table 4-2. Characteristics of vegetation alliances on the Nevada Test Site.

Ten alliances were recognized as occurring on the NTS. These alliances contain diagnostic species or genera that dominate and provide the nomenclature as per the national classification system guidelines. About 4 percent of the 1,508 ELUs sampled were classified as “miscellaneous” because they were unique vegetation types, burned, scraped, or disturbed by nuclear testing. There are three alliances within the Mojave Desert, three within the transition zone, and four within the Great Basin Desert. In terms of total area, the Great Basin Desert occupies approximately 40 percent of the NTS, followed by the transition zone with 37 percent. The Mojave Desert occupies the southern 22 percent of the NTS. Sampling within each major zone was rather even, with the average areas per ELU being 216 ha (540 ac) in the Mojave Desert, 221 ha (553 ac) in the Transition Zone, and 233 ha (583 ac) in the Great Basin Desert.

4.2.1 Mojave Desert

There are three alliances in the Mojave Desert ecoregion of the NTS. These alliances contained 338 ELUs, which occurred on 74,111 ha (185,278 ac) or 21.8 percent of the total area of the NTS.

4.2.1.1 *Lycium shockleyi*-*Lycium pallidum* Shrubland Alliance

This shrubland alliance consists of a single association that is restricted to the Frenchman Flat area on the NTS. It is the smallest alliance recognized on the NTS, consisting of slightly under 1,500 ha (3,750 ac) or 0.4 percent of the area of the NTS. The dominant species in this alliance is Shockley’s desert thorn (*Lycium shockleyi*), which is a southern Nevada endemic that is restricted to the broad transition desert in southern Nevada. Rabbit thorn (*Lycium pallidum*), a co-dominant species, has a much greater distribution but is still restricted to the Mojave Desert. It reaches its northern limits of distribution at the NTS. Beatley (1976) states that this community occurs in this area because of the cold air drainage that prohibits invasion by creosote bush. Our observations do not support that hypothesis (e.g., solitary 25-year-old patches of creosote bush along excavated pipelines within the playa where cold air drainage should have killed all plants); rather, its distribution on the NTS appears to be more closely related to soil chemistry, texture, and moisture relations.

4.2.1.2 *Larrea tridentata*/Ambrosia dumosa Shrubland Alliance

A single association, *Larrea tridentata*/Ambrosia dumosa Shrubland, is found within this alliance. There were 283 ELUs that were sampled and clustered within this alliance. It is one of the largest associations on the NTS, with over 61,000 ha (152,500 ac) or 18 percent of the total area on the NTS. The dominant species in this alliance is creosote bush, which is the dominant shrub type within the Mojave Desert. On the NTS, white burrobush (*Ambrosia dumosa*) is the most common co-dominant, but this varies in other areas of the Mojave Desert where Anderson’s wolfberry (*Lycium andersonii*), spiny hopsage (*Grayia spinosa*), and shadscale saltbush are co-dominants. Beatley (1976) recognized three plant communities on the NTS dominated by creosote bush: *Larrea*-*Ambrosia*, *Larrea*-*Lycium*-*Grayia*, and *Larrea*-*Atriplex*. The first two are included within our *Larrea tridentata*/Ambrosia dumosa Shrubland and the latter one is closely equivalent to our *Atriplex confertifolia*-Ambrosia dumosa Shrubland.

4.2.1.3 *Atriplex confertifolia*-*Ambrosia dumosa* Shrubland Alliance

This is the third alliance within the Mojave Desert region of the NTS. It is also comprised of a single association. This alliance occurs on the foothills and mountains of the southern one-third of the NTS. There were 49 ELUs sampled and clustered within this alliance/association. It occurs on over 11,500 ha (28,750 ac) or 3.4 percent of the total area on the NTS. The dominant species in this alliance is shadscale saltbush. Beatley (1976) recognized a *Larrea-Atriplex* plant community; however, while creosote occurs in this alliance/association as an associated species, it seldom dominates.

4.2.2 Transition Zone

There are three alliances represented in the Transition Zone ecoregion. These three comprise over 124,077 ha (310,193 ac) or 36.6 percent of the total area on the NTS. A total of 558 ELUs were sampled in the Transition Zone.

4.2.2.1 *Hymenoclea-Lycium* Shrubland Alliance

This alliance consists of two associations. It is one of the smaller alliances recognized on the NTS, consisting of slightly over 8,000 ha (20,000 ac) or 2.4 percent of the area of the NTS. The dominant species in this alliance are white burrobush and Anderson's wolfberry. This alliance is generally associated with disturbance, either natural such as drainage channels or man-caused such as fires or aboveground nuclear tests. White burrobush is an early successional species in the desert and often invades on disturbed sites. Anderson's wolfberry is one of the few desert species that resprouts following fires or other surface disturbances. Beatley (1976) did not recognize a similar plant community in her vegetation map, possibly because the focus was on undisturbed or climax plant communities. However, this alliance generally overlaps the area that was identified as *Grayia-Lycium andersonii*. Since 1976 when, Beatley completed her vegetation map, many of the disturbances in Yucca Flat associated with underground testing have occurred in this type.

4.2.2.2 *Ephedra nevadensis* Shrubland Alliance

This shrubland alliance consists of four associations. It contains slightly under 43,000 ha (107,500 ac) or 12.6 percent of the area of the NTS. There were a total of 178 ELUs sampled that clustered within this alliance. The co-dominant or subdominant species in this alliance is Nevada jointfir, with several other species (spiny menodora [*Menodora spinescens*], winterfat [*Krascheninnikovia lanata*], and eastern Mojave buckwheat [*Eriogonum fasciculatum*]) that are co-dominants within the associations. This alliance occurs throughout the southern mountains and the upper slopes of the Yucca Flat Basin.

Beatley (1976) did not recognize this as an alliance within the Transition Zone, despite the fact that it represents over 30 percent of that zone on the NTS. She did recognize a similar association that she called *Grayia-Lycium andersonii*. She states that "the plant association that

most clearly characterizes the desert transition environmentally and vegetationally is *Grayia-Lycium andersonii*." In our current study, spiny hopsage is a minor species and never dominates.

It may be more susceptible to disturbance because it does not rootsprout and its abundance may have declined over the past 30 years. Also, it may have declined in response to natural changes such as global warming or in response to drought conditions in the late 1980s as reported at Yucca Mountain (Schultz and Ostler, 1995). Beatley (1976) states that this community occurs in basin floors such as Yucca Flat and Groom Lake because of the cold air drainage that prohibits invasion by species characteristic of the Mojave Desert. While the geographic areas overlap between our vegetation maps, the dominant species are quite different. She does identify other associated woody species in the *Grayia/Lycium andersonii* association, many of which are dominant or co-dominant within this alliance.

4.2.2.3 *Coleogyne ramosissima* Shrubland Alliance

A single association, *Coleogyne ramosissima*-*Ephedra nevadensis* Shrubland, made up this alliance. There were 323 ELUs sampled that clustered within this alliance/association. It is one of the largest associations on the NTS, with nearly 73,000 ha (182,500 ac) or 21.6 percent of the total area on the NTS. The dominant species in this alliance is blackbrush, which represents over 50 percent of the relative abundance of shrubs in this association. Nevada jointfir is the most common associated shrub species; however, blackbrush is often so dominant that it forms almost pure stands. Beatley (1976) recognized this plant association and discussed its transitional role between the Mojave and Great Basin Deserts. She stated that it basically belongs to the Mojave Desert, but almost exclusively occupies sites where rainfall exceeds the tolerance of probably many Mojave species. Much of this association has been disturbed on the NTS from testing and natural or man-caused fires. These disturbed areas do not appear to be returning to a *Coleogyne ramosissima* Shrubland Alliance; rather they tend to cluster within the *Ephedra nevadensis* Shrubland Alliance.

4.2.3 Great Basin Desert

There are four alliances within the Great Basin Desert, occupying 135,658 ha (339,145 ac) or 40 percent of the total area of the NTS. There were a total of 583 ELUs sampled in the Great Basin Desert region on the NTS.

4.2.3.1 *Atriplex* spp. Shrubland Alliance

This shrubland alliance consists of two associations. It is one of the smaller alliances recognized on the NTS, consisting of slightly over 10,500 ha (26,250 ac) or 3.1 percent of the area of the NTS. The dominant species in this alliance are shadscale saltbush and four-wing saltbush (*Atriplex canescens*). This alliance is generally associated with unique soil conditions (either saline, heavy-textured soils, or deep loose sandy soils). Beatley (1976) recognized both associations in her vegetation map.

4.2.3.2 *Chrysothamnus-Ericameria* Shrubland Alliance

This shrubland alliance is comprised of two associations. It is one of the smaller alliances recognized on the NTS, consisting of just under 19,000 ha (47,500 ac) or 5.6 percent of the area

of the NTS. The dominant species in this alliance are green rabbitbrush (*Chrysothamnus viscidiflorus*) and rubber rabbitbrush (*Ericameria nauseosa*). Beatley (1976) does not recognize this alliance, possibly because much of this alliance occurs in mountainous areas that were not broken out by plant associations in her vegetation map. This alliance also occurs on disturbed sites, particularly burned areas in Mid Valley. The Mid Valley burns occurred in the 1980s after Beatley had published her map.

4.2.3.3 *Artemisia* spp. Shrubland Alliance

This shrubland alliance is comprised of four associations. It consists of over 61,000 ha (152,500 ac) or 18.1 percent of the area of the NTS. There were a total of 293 ELUs sampled that clustered within this alliance. The dominant species in this alliance are basin big sagebrush (*Artemisia tridentata*) and black sagebrush (*Artemisia nova*), with two other species, Mormon tea (*Ephedra viridis*) and green rabbitbrush, that are co-dominants within the associations. This alliance occurs throughout the central and northwestern mountains. Beatley (1976) did recognize two of the associations that make up this alliance, *Artemisia tridentata* Shrubland and *Artemisia nova* Shrubland, but did not recognize the successional *Ephedra viridis*-*Artemisia tridentata* Shrubland association, which is the result of recent fires in the Timber Mountain and Fortymile Canyon areas.

4.2.3.4 *Pinus monophylla*/*Artemisia* spp. Woodland Alliance

This woodland alliance consists of two associations. It contains just under 45,000 ha (112,500 ac) or 13.3 percent of the area of the NTS. There were a total of 136 ELUs sampled that clustered within this alliance. The dominant species in this alliance is singleleaf pinyon with two other species, basin big sagebrush and black sagebrush, that are co-dominants within the associations. This alliance occurs throughout the central and northwestern mountains and mesas. Beatley (1976) recognized a similar plant association, *Artemisia*/Pinyon-Juniper. Utah juniper is a common associated species and may be classified as a diagnostic species, but seldom achieves dominance other than in localized conditions at slightly lower elevations such as the northwestern part of Pahute Mesa. Tree densities on the NTS are often not high enough to create closed canopies; rather, the aspect is more of an open woodland type with a mix of shrub and tree cover. This allows for relatively good development of a herbaceous layer particularly perennial grasses.

4.3 Distribution and Description of Plant Associations

The largest single vegetation association is the *Coleogyne ramosissima*-*Ephedra nevadensis* Shrubland, which occurs on over 21 percent of the total area of the NTS. This is followed by the *Larrea tridentata*/*Ambrosia dumosa* Shrubland with 18 percent. Each of the other associations is less than 8 percent of the total area on the NTS.

These 20 associations are similar to those recognized by Beatley (1976), with several exceptions. She recognized 23 associations although 4 of which did not occur on the NTS. She also recognized more associations that included creosote bush and atriplex as major components. She did not recognize Nevada jointfir or white burrobush as major alliances or several other transitional associations such as *Menodora spinosa*-*Ephedra nevadensis* Shrubland or

Eriogonum fasciculatum-*Ephedra nevadensis* Shrubland. She did recognize two associations related to springs that would be classified in our miscellaneous category because of their small size and unique flora.

A distribution map of each association is presented on the left-hand page. On the right-hand page is presented a brief summary description of the association.

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Figure 4-3 Distribution of the *Lycium shockleyi* - *Lycium pallidum* Shrubland Association on the Nevada Test Site

4.3.1 *Lycium shockleyi*-*Lycium pallidum* Shrubland

This shrubland association is represented by only six ELUs on the NTS which are all located near Frenchman Flat (Figure 4-3). The two *Lycium* species are separated from each other on a soil texture gradient, with Shockley's desert thorn occurring on clay and clay loam soils originating from limestone materials off of the Mercury Ridge. *L. pallidum* occurs on sandy soils originating mostly from volcanic materials from the Hampel Hill area and the hills north of Red Mountain. Beatley (1976) recognizes these as two separate vegetation communities with the associated subdominants of shadscale saltbush with

L. shockleyi and spiny hopsage with *L. pallidum*. Because of their limited size, close proximity, and restricted distribution, we chose to combine them. Of note is that spiny hopsage is present only as a minor component of the ELUs sampled; this condition is noted in other areas where Beatley (1976) has identified this species as being common but is currently uncommon. Summary information for this association is presented in Table 4-3.

Table 4-3 Characteristics of the *Lycium shockleyi*-*Lycium pallidum* Shrubland. (Percent relative abundance values for primary and associated species are enclosed in parenthesis.)

Primary species:	Shockley's desert thorn (38%), rabbit thorn (18%)
Associated species:	White bursage (18%), four-wing saltbush (10%), and shadscale saltbush (6%)
Species diversity:	11 species total; averaged 8.8 perennial species/ELU
Number of ELUs:	6
Area of NTS:	1,484 ha (0.4 %)
Landforms:	Basins, alluvial flats
Geology:	Quaternary alluvium
Elevation:	Average 941m, range 940 to 943m
Precipitation:	Average 14.8 cm
Slopes:	Average 0.8°, range 0 to 1°
Soils:	Clay-clay loams (<i>L. shockleyi</i>), sand (<i>L. pallidum</i>)
Annuals:	Very low

Figure 4-4 Distribution of the *Larrea tridentata* / *Ambrosia dumosa* Shrubland Association on the Nevada Test Site

4.3.2 *Larrea tridentata*/Ambrosia dumosa Shrubland

This association occurs throughout the southern third of the NTS from basin floors to the foothill slopes of the southern mountains (Figure 4-4). Because of the larger size, creosote appears to be the dominant species; however, this association is actually dominated by white bursage when

relative abundance, total cover, or total biomass are measured. Soils are generally sands to sandy loams. This association has low perennial species diversity and a high diversity of annual species that germinate in years of abundant

moisture, but are absent in most years. Summary information for this association is presented in Table 4-4.

Table 4-4 Characteristics of the *Larrea tridentata*/Ambrosia dumosa Shrubland. (Percent relative abundance values for primary and associated species are enclosed in parenthesis.)

Primary species:	White bursage (43%), creosote bush (13%)
Associated species:	Nevada jointfir (7%), range ratany (<i>Krameria erecta</i>) (7%), rabbit thorn (6%)
Species diversity:	49 species total; averaged 13.2 perennial species/ELU
Number of ELUs:	287
Area of NTS:	61,050 ha (18.0%)
Landforms:	Variable from basin to foothill slopes of mountains, mostly piedmont slopes
Geology:	Quaternary alluvium
Elevation:	Average 1,080 m, range 847 to 1,628 m
Precipitation:	Average 16.0 cm
Slopes:	Average 5.7°, range 1 to 42°
Soils:	Primarily sand to sandy loam
Annuals:	Very low to moderate

Figure 4-5 Distribution of the *Atriplex confertifolia* - *Ambrosia dumosa* Shrubland Association on the Nevada Test Site

4.3.3 *Atriplex confertifolia*-*Ambrosia dumosa* Shrubland

This association occurs only in the southern third of the NTS, generally in areas with shallow, often calcareous soils such as in foothill slopes or in the southern mountains, particularly those with limestone or dolomite (Figure 4-5). It is dominated by shadscale saltbush when measured

as relative abundance, frequency, or total cover. Soils are generally finer-textured, ranging from loams to sandy loams, but often contain larger fragments and a hardpan or caliche layer that restricts rooting depth. This association has high species diversity, particularly among perennial

shrub species and succulents. Summary information for this association is presented in Table 4-5.

Table 4-5 Characteristics of the *Atriplex confertifolia*-*Ambrosia dumosa* Shrubland. (Percent relative abundance values for primary and associated species are enclosed in parenthesis.)

Primary species:	Shadscale saltbush (30%), white bursage (20%)
Associated species:	Nevada jointfir (10%), creosote bush (4%), range ratany (4%), Anderson's wolfberry (4%)
Species diversity:	49 species total; averaged 16.2 perennial species/ELU
Number of ELUs:	49
Area of NTS:	11,577 ha (3.4%)
Landforms:	Mountains
Geology:	Variable, mostly Quaternary alluvium/colluvium with some older limestones and Tertiary tuffs
Elevation:	Average 1,153 m, range 932 to 1,494 m
Precipitation:	Average 16.9 cm
Slopes:	Average 13.6°, range 1 to 53°
Soils:	Primarily sandy loam to loam
Annuals:	Very low-moderate

Figure 4-6 Distribution of the *Lycium andersonii* - *Hymenoclea salsola* Shrubland Association on the Nevada Test Site

4.3.4 *Lycium andersonii*-*Hymenoclea salsola* Shrubland

This association occurs primarily in the lower piedmont slopes of Yucca Flat, often near disturbances (Figure 4-6). It is one of the smallest associations recognized, with slightly under 1,500 ha (3,750 ac) or 0.4 percent of the total area of the NTS. Only 13 ELUs were clustered in

this association. It is dominated by Anderson's wolfberry, representing over 50 percent of the relative abundance of shrub species in this association. Soils are generally sands to sandy loams. This association has low species diversity.

Summary information for this association is presented in Table 4-6.

Table 4-6 Characteristics of the *Lycium andersonii*-*Hymenoclea salsola* Shrubland. (Percent relative abundance values for primary and associated species are enclosed in parenthesis.)

Primary species:	Anderson's wolfberry (49%), white burrobush (<i>Hymenoclea salsola</i>) (9%)
Associated species:	Winterfat (8%), shadscale (7%), four-wing saltbush (6%), Nevada jointfir (5%)
Species diversity:	23 species total; averaged 12.8 perennial species/ELU
Number of ELUs:	13
Area of NTS:	1,489 ha (0.4%)
Landforms:	Mostly lower piedmont slopes, fan piedmont-fan skirt
Geology:	Quaternary alluvium
Elevation:	Average 1,263 m, range 942 to 1,408 m
Precipitation:	Average 18.3 cm
Slopes:	Average 2.3°, range 1 to 31°
Soils:	Primarily sand to sandy loam
Annals:	Moderate to very high

Figure 4-7 Distribution of the *Hymenoclea salsola* - *Ephedra nevadensis* Shrubland Association on the Nevada Test Site

4.3.5 *Hymenoclea salsola-Ephedra nevadensis* Shrubland

This association occurs primarily along drainages in the southern part of the NTS and in disturbed areas in the lower piedmont slopes of Yucca Flat (Figure 4-7). It occupies over 6,700 ha (15,250 ac) or 2.0 percent of the NTS and consists of 44 ELUs. It is dominated by

white burro-bush that represents over 50 percent of the relative abundance of shrub species in this association. The most commonly associated species is Nevada jointfir. It occurs primarily in disturbed areas, natural or man-made. Soils are generally sand to sandy loams. This associa-

tion has high species diversity and often has a large number of annual species. Summary information for this association is presented in Table 4-7.

Table 4-7 Characteristics of the *Hymenoclea salsola-Ephedra nevadensis* Shrubland. (Percent relative abundance values for primary and associated species are enclosed in parenthesis.)

Primary species:	White burrobrush (52%), Nevada jointfir (9%)
Associated species:	Green rabbitbrush (5%), four-wing saltbush (5%), Anderson's wolfberry (5%)
Species diversity:	50 species total; averaged 15.2 perennial species/ELU
Number of ELUs:	44
Area of NTS:	6,709 ha (2.0%)
Landforms:	Lower piedmont slopes, fan piedmont-fan skirt
Geology:	Quaternary alluvium/colluvium
Elevation:	Average 1,263 m, range 950 to 1,530 m
Precipitation:	Average 18.3 cm
Slopes:	Average 3.8°, range 1 to 31°
Soils:	Primarily sand to sandy loam
Annuals:	Moderate to very high

Figure 4-8 Distribution of the Menodora spinescens - Ephedra nevadensis Shrubland Association on the Nevada Test Site

4.3.6 *Menodora spinescens*-*Ephedra nevadensis* Shrubland

This association occurs primarily along foothill areas in the southeastern part of the NTS, particularly in northern Mercury Valley (Figure 4-8). It occupies over 8,600 ha (21,500 ac) or 2.5 percent of the NTS and consists of 42 ELUs. It is co-dominated by spiny menodora, Nevada

jointfir, and white bursage. The most common associated species is shadscale saltbush. Soils are generally loams to sandy loams. This association has high species diversity, particularly perennial shrubs.

Summary information for this association is presented in Table 4-8.

Table 4-8 Characteristics of the *Menodora spinescens*-*Ephedra nevadensis* Shrubland. (Percent relative abundance values for primary and associated species are enclosed in parenthesis.)

Primary species:	Spiny menodora (15%), Nevada jointfir (12%), white bursage (10%)
Associated species:	Shadscale saltbush (8%), Fremont's dalea (<i>Psorothamnus fremontii</i>) (8%), blackbrush (5%), Anderson's wolfberry (5%)
Species diversity:	50 species total; averaged 17.6 perennial species/ELU
Number of ELUs:	45
Area of NTS:	8,614 ha (2.5%)
Landforms:	Upper piedmont slopes to mountain foothills
Geology:	Mostly Quaternary alluvium/colluvium with some Tertiary tuffs
Elevation:	Average 1,198 m, range 993 to 1,548 m
Precipitation:	Average 17.5 cm
Slopes:	Average 8.0°, range 1 to 48°
Soils:	Primarily sandy loam to loam
Annuals:	Very low to moderate

Figure 4-9 Distribution of the *Krascheninnikovia lanata* - *Ephedra nevadensis* Shrubland Association on the Nevada Test Site

4.3.7 *Krascheninnikovia lanata*-*Ephedra nevadensis* Shrubland

This association occurs primarily on lower piedmont slopes in the southern and central parts of Yucca Flat (Figure 4-9). It occupies over 4,000 ha (10,000 ac) or 1.2 percent of the NTS and consisted of 29 ELUs. It is dominated by winterfat that represents about 30 percent of the

relative abundance of shrub species in this association. The most common associated species are Nevada jointfir and spiny hopsage. Soils are generally loams to sandy loams. This association has high species diversity. Associated species found in Beatley's *Larrea/Grayia-Lycium* are commonly found in this association.

Summary information for this association is presented in Table 4-9.

Table 4-9 Characteristics of the *Krascheninnikovia lanata*-*Ephedra nevadensis* Shrubland. (Percent relative abundance values for primary and associated species are enclosed in parenthesis.)

Primary species:	Winterfat (29%), Nevada jointfir (12%)
Associated species:	Spiny hopsage (8%), Anderson's wolfberry (8%), Shockley's goldenhead (<i>Acamptopappus shockleyi</i>) (7%), shadscale saltbush (6%)
Species diversity:	34 species total; averaged 17.6 perennial species/ELU
Number of ELUs:	30
Area of NTS:	4,046 ha (1.2%)
Landforms:	Variable, mostly lower piedmont slopes, fan piedmont-fan skirt
Geology:	Quaternary alluvium/colluvium
Elevation:	Average 1,258 m, range 1,042 to 1,463 m
Precipitation:	Average 18.2 cm
Slopes:	Average 3.6°, range 1 to 14°
Soils:	Primarily loamy sand to loam
Annuals:	Moderate

Figure 4-10 Distribution of the *Eriogonum fasciculatum* - *Ephedra nevadensis* Shrubland Association on the Nevada Test Site

4.3.8 *Eriogonum fasciculatum*-*Ephedra nevadensis* Shrubland

This association occurs primarily in the volcanic tuffaceous mountains in south-central NTS, particularly around Yucca Mountain and the Calico Hills area (Figure 4-10). It occupies over 10,000 ha (25,000 ac) or 3.0 percent of the NTS and consists of 14 ELUs. It is dominated by

eastern Mojave buckwheat and Nevada jointfir that represent over 42 percent of the relative abundance of shrub species in this association. Soils are poorly developed consisting of shallow sandy loams that are very rocky. This association has high species diversity.

Summary information for this association is presented in Table 4-10.

Table 4-10 Characteristics of the *Eriogonum fasciculatum*-*Ephedra nevadensis* Shrubland. (Percent relative abundance values for primary and associated species are enclosed in parenthesis.)

Primary species:	Eastern Mojave buckwheat (28%), Nevada jointfir (16%)
Associated species:	Needle leaf rabbitbrush (<i>Ericameria teretifolia</i>) (12%), White bursage (5%), range ratany (5%), spiny hopsage (4%), winterfat (4%)
Species diversity:	36 species total; averaged 20.4 perennial species/ELU
Number of ELUs:	14
Area of NTS:	10,176 ha (3.0%)
Landforms:	Mountains (mostly in southern NTS)
Geology:	Tertiary tuffs
Elevation:	Average 1,292 m, range 1,140 to 1,579 m
Precipitation:	Average 18.7 cm
Slopes:	Average 36.3°, 19 to 70°
Soils:	Gravel to sandy loam
Annuals:	Very low to moderate

Figure 4-11 Distribution of the *Ephedra nevadensis* - *Grayia spinosa* Shrubland Association on the Nevada Test Site

4.3.9 *Ephedra nevadensis*-*Grayia spinosa* Shrubland

This association is scattered across much of the central part of the NTS (Figure 4-11). It occurs often along drainages and in other disturbed areas (natural or man-caused) in the upper piedmont slopes and foothills of Yucca Flats. This association is the largest association in this alliance and

occupies over 20,000 ha (50,000 ac) or 5.9 percent of the NTS. Ninety-three ELUs were clustered and sampled in this association. It is dominated by Nevada jointfir, but has three other co-dominant species, spiny hopsage, four-wing saltbush, and white burrobush. Large areas in Topopah valley that were recently

burned cluster in this association. Soils are generally loams to sandy loams. This association has high species diversity and often has a large number of annuals. Summary information for this association is presented in Table 4-11.

Table 4-11 Characteristics of the *Ephedra nevadensis*-*Grayia spinosa* Shrubland. (Percent relative abundance values for primary and associated species are enclosed in parenthesis.)

Primary species:	Nevada jointfir (24%), spiny hopsage (8%), four-wing saltbush (8%), white burrobush (8%)
Associates species:	Anderson's wolfberry (6%), green rabbitbrush (6%), Cooper's heathgoldenrod (<i>Ericameria cooperi</i>) (5%), blackbrush (4%)
Species diversity:	66 species total; averaged 19.7 perennial species/ELU
Number of ELUs:	89
Area of NTS:	20,067 ha (5.9%)
Landforms:	Highly variable from basin to mountain
Geology:	Mostly Quaternary alluvium/colluvium with some Tertiary tuffs
Elevation:	Average 1,413 m, range 988 to 1,884 m
Precipitation:	Average 20.2 cm
Slopes:	Average 8.8°, range 1 to 70°
Soils:	Primarily loamy sand to loam
Annuals:	Moderate to very high

Figure 4-12 Distribution of the *Coleogyne ramosissima* - *Ephedra nevadensis* Shrubland Association on the Nevada Test Site

4.3.10 *Coleogyne ramosissima*-*Ephedra nevadensis* Shrubland

This association occurs primarily on upper piedmont slopes surrounding Yucca Flat and in Mid Valley and Topopah Valley (Figure 4-12). It occupies nearly 73,000 ha (182,500 ac) on the NTS and consisted of 323 ELUs. Despite the large area, this association clustered very tightly

because of its rather unique flora. It is dominated by blackbrush that represents over 50 percent of the relative abundance of shrub species in this association, with few associated shrubs species. Fires have reduced much of the previous blackbrush in the Mid Valley and Topopah Valley. It occurs primarily in undisturbed areas with shallow soils or caliche layers near

the soil surface that restricts deep root development. Soils are generally loams to sandy loams. This association has moderate species diversity, but high species richness. Summary information for this association is presented in Table 4-12.

Table 4-12 Characteristics of the *Coleogyne ramosissima*-*Ephedra nevadensis* Shrubland. (Percent relative abundance values for primary and associated species are enclosed in parenthesis.)

Primary species:	Blackbrush (56%), Nevada jointfir (10%)
Associated species:	White burrobush (4%), Anderson's wolfberry (3%)
Species diversity:	84 species total; averaged 16.9 perennial species/ELU
Number of ELUs:	323
Area of NTS:	72,976 ha (21.6%)
Landforms:	Variable, mostly piedmont slopes to lower slopes of mountains
Geology:	Highly variable, mostly quaternary alluvium/colluvium with both older limestones and some Tertiary tuffs
Elevation:	Average 1,385 m, range 981 to 1,865 m
Precipitation:	Average 19.3 cm
Slopes:	Average 8.5°, range 1 to 53°
Soils:	Primarily loamy sand to loam
Annuals:	Very low to moderate

Figure 4-13 Distribution of the *Atriplex confertifolia* - *Kochia americana* Shrubland Association on the Nevada Test Site

4.3.11 **Atriplex confertifolia-Kochia americana Shrubland**

This association is restricted to areas surrounding Yucca and Frenchman lakes (Figure 4-13). It is one of the smaller associations and occupies over 3,200 ha (8,000 ac) or 0.9 percent of the NTS. Nineteen ELUs were sampled and clustered in this association. It is dominated by

shadscale saltbush that has over 50 percent of the relative shrub abundance, but is often co-dominant with green molly (*Kochia americana*), particularly in Yucca Flat. In these closed basins, minimum temperatures are lower than the surrounding slopes and, according to Beatley (1976), this area had the “lowest night-time temperatures” measured at any of

the sampled sites. Also, soils tend to contain more silts and clays and have higher salinity levels. Soils are generally clay loams to sandy loams. These conditions exclude most species, resulting in lower species diversity. Summary information for this association is presented in Table 4-13.

Table 4-13 Characteristics of the *Atriplex confertifolia-Kochia americana* Shrubland. (Percent relative abundance values for primary and associated species are enclosed in parenthesis.)

Primary species:	Shadscale saltbush (48%), green molly (20%)
Associated species:	Anderson’s wolfberry (7%), Bursage (<i>Artemisia spinescens</i>) (6%), spiny menodora (5%), winterfat (5%)
Species diversity:	53 species total; averaged 9.2 perennial species/ELU
Number of ELUs:	19
Area of NTS:	3,211 ha (0.9%)
Landforms:	Basin, alluvial flat
Geology:	Quaternary alluvium
Elevation:	Average 1,208 m, range 940 to 1,382 m
Precipitation:	Average 17.6 cm
Slopes:	Average 2.7°, range 0 to 20°
Soils:	Primarily sandy loam to clay loam
Annals:	Low to moderate

Figure 4-14 Distribution of the *Atriplex canescens* - *Krascheninnikovia lanata* Shrubland Association on the Nevada Test Site

4.3.12 *Atriplex canescens*-*Krascheninnikovia lanata* Shrubland

This association is most commonly found in the area surrounding Yucca and Frenchman lakes and in disturbed areas within Yucca Flat (Figure 4-14). It is one of the moderate-sized associations and occupies just less than 7,300 ha (18,250 ac) or 2.2 percent of the NTS. Thirty-eight

ELUs were recognized and clustered in this association. It is dominated by four-wing saltbush that has 58 percent of the relative shrub abundance. The most common co-dominant species is winterfat. These sites are also often associated with natural drainage channels. Soils tend to consist of loose deep sands, with little structure or soil development, often with high salinity

levels. These conditions tend to exclude most species such that this association has very low species diversity. However, because of the nature of these areas, there are often unique or endemic species such as *Gilia nyensis*, *Eriogonum concinnum*, *Psoralea polydenius*, and *Eriogonum kearneyi* that occur on undisturbed sites. Summary information for this association is presented in Table 4-14.

Table 4-14 Characteristics of the *Atriplex canescens*-*Krascheninnikovia lanata* Shrubland. (Percent relative abundance values for primary and associated species are enclosed in parenthesis.)

Primary species:	Four-wing saltbush (58%), winterfat (11%)
Associated species:	Anderson's wolfberry (5%), white burrobush (4%)
Species diversity:	87 species total; averaged 11.9 perennial species/ELU
Number of ELUs:	38
Area of NTS:	7,275 ha (2.2%)
Landforms:	Basin alluvial flats to lower piedmont slopes-fan skirt
Geology:	Mostly Quaternary alluvium/colluvium with some Tertiary tuffs
Elevation:	Average 1,237 m, range 940 to 1,707 m
Precipitation:	Average 18.0 cm
Slopes:	Average 3.5°, range 0 to 24°
Soils:	Sand to sandy loam
Annuals:	Moderate to very high

Figure 4-15 Distribution of the *Chrysothamnus viscidiflorus* - *Ephedra nevadensis* Shrubland Association on the Nevada Test Site

4.3.13 *Chrysothamnus viscidiflorus-Ephedra nevadensis* Shrubland

This association is scattered over the central part of the NTS with large areas near Buckboard Mesa, the northeast corner of the NTS near Groom Lake, and Plutonium Valley (Figure 4-15). It is of moderate size, occupying over 16,000 ha (41,600 ac) or 4.8% of the NTS. Seventy-six

ELUs were clustered and recognized in this association. It is dominated by green rabbitbrush, but has many associated shrub species, the most common of which is Nevada jointfir. It extends as far south as the mountains south of Mid Valley. Soils are generally loamy sands to loams. This association has high species diversity.

Summary information for this association is presented in Table 4-15.

Table 4-15 Characteristics of the *Chrysothamnus viscidiflorus-Ephedra nevadensis* Shrubland. (Percent relative abundance values for primary and associated species are enclosed in parenthesis.)

Primary species:	Green rabbitbrush (37%), Nevada jointfir (11%)
Associated species:	Four-wing saltbush (7%), winterfat (5%), spiny hopsage (5%), basin big sagebrush (5%), Anderson's wolfberry (5%), shadscale saltbush (4%)
Species diversity:	61 species total; averaged 21.4 perennial species/ELU
Number of ELUs:	76
Area of NTS:	16,114 ha (4.8%)
Landforms:	Variable, mostly mountains to upper piedmont slopes
Geology:	Mostly Quaternary alluvium/colluvium with some Tertiary tuffs
Elevation:	Average 1,495 m, range 1,198 to 2,292 m
Precipitation:	Average 21.1 cm
Slopes:	Average 7.1°, range 0 to 38°
Soils:	Primarily loamy sand to loam
Annuals:	Low to moderate

Figure 4-16 Distribution of the *Ericameria nauseosa* - *Ephedra nevadensis* Shrubland Association on the Nevada Test Site

4.3.14 Ericameria nauseosa-Ephedra nevadensis Shrubland

This association is scattered over the west-central part of the NTS (Figure 4-16). It is one of smallest associations, occupying just under 3,000 ha (7,500 ac) or 0.8 percent of the NTS. Twenty-one ELUs were clustered and sampled in this association. It is dominated by rubber

rabbitbrush that has over 50 percent of the relative abundance of shrub species. The most common co-dominant species is Nevada jointfir. It extends as far south as Mid Valley. This association is associated with disturbance either along natural drainage channels or as the result of man-caused surface disturbance such as fires. This fire

succession is particularly noticeable in Mid Valley where rubber rabbitbrush has invaded into areas formerly occupied by blackbrush. Soils are generally sandy loams to sands. This association has moderate species diversity, but high levels of annuals. Summary information for this association is presented in Table 4-16.

Table 4-16 Characteristics of the *Ericameria nauseosa-Ephedra nevadensis* Shrubland. (Percent relative abundance values for primary and associated species are enclosed in parenthesis.)

Primary species:	Rubber rabbitbrush (52%), Nevada jointfir (11%)
Associated species:	Basin big sagebrush (6%), blackbrush (5%), four-wing saltbush (5%), green rabbitbrush (4%)
Species diversity:	43 species total; averaged 17.1 perennial species/ELU
Number of ELUs:	21
Area of NTS:	2,873 ha (0.8%)
Landforms:	Variable, mostly piedmont slopes to mountains
Geology:	Mostly Quaternary alluvium/colluvium with some Tertiary tuffs
Elevation:	Average 1,563 m, range 1,311 to 2,018 m
Precipitation:	Average 21.1 cm
Slopes:	Average 6.9°, range 1 to 28°
Soils:	Primarily sand to sandy loam
Annuals:	Moderate to very high

Figure 4-17 Distribution of the *Ephedra viridis* - *Artemisia tridentata* Shrubland Association on the Nevada Test Site

4.3.15 *Ephedra viridis*-*Artemisia tridentata* Shrubland

This association occurs primarily in the southern part of Buckboard Mesa, in upper Fortymile Canyon, and the southern foothills of Timber Mountain (Figure 4-17). It is of moderate size, occupying over 8,500 ha (21,250 ac) or 2.5 percent of the NTS. Twenty ELUs were clustered

and recognized in this association. It is dominated by Mormon tea, basin big sagebrush, and desert bitterbrush (*Purshia glandulosa*). It occurs on very steep talus slopes or as a successional type following fire. Soils are sandy loams to silt loams but are very rocky, often with

surface talus. This association has very high species diversity. Summary information for this association is presented in Table 4-17.

Table 4-17 Characteristics of the *Ephedra viridis*-*Artemisia tridentata* Shrubland. (Percent relative abundance values for primary and associated species are enclosed in parenthesis.)

Primary species:	Mormon tea (20%), basin big sagebrush (16%), desert bitterbrush (16%)
Associated species:	Stansbury cliffrose (<i>Purshia stansburyana</i>) (9%), eastern Mojave buckwheat (6%), puberulent green rabbitbrush (5%)
Species diversity:	42 species total; averaged 27.0 perennial species/ELU
Number of ELUs:	20
Area of NTS:	8,585 ha (2.5%)
Landforms:	Mountains
Geology:	Mostly Tertiary tuffs
Elevation:	Average 1,721 m, range 1,402 to 2,012 m
Precipitation:	Average 24.0 cm
Slopes:	Average 18.2°, range 4 to 35°
Soils:	Primarily sandy loam to silt loam
Annals:	Moderate to very high

Figure 4-18 Distribution of the *Artemisia tridentata* - *Chrysothamnus viscidiflorus* Shrubland Association on the Nevada Test Site

4.3.16 **Artemisia tridentata-Chrysothamnus viscidiflorus Shrubland**

This association occurs primarily in the northwestern part of the NTS, but does extend as far south as Skull Mountain (Figure 4-18). It is rather large, occupying over 24,700 ha (61,750 ac) or 7.3 percent of the NTS. One hundred thirty-nine ELUs were clustered in this association. It is

dominated by basin big sagebrush that has 56 percent of the relative abundance of shrub species. There are several other associated species, mainly green rabbitbrush and Nevada jointfir. It occurs on a range of sites from steep slopes to fairly level mountain valleys and

mesas. It covers large areas on Pahute Mesa, Buckboard Mesa, and Timber Mountain where soils are relatively deep. Where soils are shallow, it is replaced by black sagebrush. At higher elevations and greater precipitation, it is replaced by pinyon and juniper. Soils are sandy loams to loams. This association has high species diversity. Summary information for this association is presented in Table 4-18.

Table 4-18 Characteristics of the *Artemisia tridentata-Chrysothamnus viscidiflorus* Shrubland. (Percent relative abundance values for primary and associated species are enclosed in parenthesis.)

Primary species:	Basin big sagebrush (58%), green rabbitbrush (9%)
Associated species:	Nevada jointfir (8%), puberulent green rabbitbrush (<i>Chrysothamnus viscidiflorus ssp. puberulus</i>) (3%), granite prickly gilia (<i>Leptodactylon pungens</i>) (3%)
Species diversity:	73 species total; averaged 20.8 perennial species/ELU
Number of ELUs:	139
Area of NTS:	24,703 ha (7.3%)
Landforms:	Mostly mountains, some upper piedmont slopes
Geology:	Mostly Tertiary tuffs with some Quaternary alluvium/colluvium
Elevation:	Average 1,776 m, range 1,298 to 2,225 m
Precipitation:	Average 24.7 cm
Slopes:	Average 5.9°, range 0 to 65°
Soils:	Primarily loamy sand to loam
Annuals:	Very low to moderate

Figure 4-19 Distribution of the *Artemisia nova* - *Chrysothamnus viscidiflorus* Shrubland Association on the Nevada Test Site

4.3.17 *Artemisia nova*-*Chrysothamnus viscidiflorus* Shrubland

This association occurs primarily in the northwestern part of the NTS (Figure 4-19). It is one of the larger associations on the NTS, occupying about 23,500 ha (58,750 ac) or 6.9 percent of the NTS. One hundred four ELUs were clustered and sampled in this association. It is

dominated by black sagebrush that contributes 68 percent of the relative abundance of shrub species in this association. Like black-brush, it often forms nearly pure stands with few other shrub species. It occurs mostly on gently rolling hills or mesa tops. It covers large areas on Pahute and Buckboard

mesas where soils are relatively shallow. At higher elevations and greater precipitation, it is replaced by pinyon pine and Utah juniper. Soils are generally residual and consist of sandy loams to loams. This association has high species diversity. Summary information for this association is presented in Table 4-19.

Table 4-19 Characteristics of the *Artemisia nova*-*Chrysothamnus viscidiflorus* Shrubland. (Percent relative abundance values for primary and associated species are enclosed in parenthesis.)

Primary species:	Black sagebrush (68%), green rabbitbrush (5%)
Associated species:	Nevada jointfir (5%), basin big sagebrush (4%), puberulent green rabbitbrush (3%), spiny hopsage (2%)
Species diversity:	56 species total; averaged 24.7 perennial species/ELU
Number of ELUs:	104
Area of NTS:	23,478 ha (6.9%)
Landforms:	Mostly mountains, foothills, and mesas.
Geology:	Mostly Tertiary tuffs with some Quaternary alluvium/colluvium
Elevation:	Average 1,805 m, range 1,433 to 2,120 m
Precipitation:	Average 25.1 cm
Slopes:	Average 6.4°, range 0 to 28°
Soils:	Primarily sandy loam to loam
Annuals:	Very low to low

Figure 4-20 Distribution of the *Artemisia nova* - *Artemisia tridentata* Shrubland Association on the Nevada Test Site

4.3.18 **Artemisia nova-Artemisia tridentata Shrubland**

This association occurs primarily in the northwestern part of the NTS, but does extend as far south as Shoshone Mountain (Figure 4-20). It occupies over 4,500 ha (11,250 ac) or 1.4 percent of the NTS. Thirty ELUs were recognized and clustered in this association. It is co-dominated

by black sagebrush and basin big sagebrush in roughly equal numbers. There are several other associated shrub species, mainly puberulent green rabbitbrush, green rabbitbrush, and granite prickly gilia. It occurs in areas with variable slopes with

basin big sagebrush occupying areas with deeper soils and black sagebrush along the hillsides and areas with shallower soils. At higher elevations and greater precipitation, it is replaced by *Pinus monophylla*/*Artemisia nova* Woodland. Soils are loamy sands to loams. This association has very high species diversity. Summary information for this association is presented in Table 4-20.

Table 4-20 Characteristics of the *Artemisia nova-Artemisia tridentata* Shrubland. (Percent relative abundance values for primary and associated species are enclosed in parenthesis.)

Primary species:	Black sagebrush (34%), basin big sagebrush (25%)
Associated species:	Puberulent green rabbitbrush (8%), green rabbitbrush (5%), Nevada jointfir (3%)
Species diversity:	47 species total; averaged 29.1 perennial species/ELU
Number of ELUs:	30
Area of NTS:	4,567 ha (1.4%)
Landforms:	Mountains
Geology:	Mostly Tertiary tuffs
Elevation:	Average 1,84413 m, range 1,622 to 2,079 m
Precipitation:	Average 25.4 cm
Slopes:	Average 8.6°, range 1 to 38°
Soils:	Primarily loamy sand to loam
Annals:	Very low to moderate

Figure 4-21 Distribution of the *Pinus monophylla* / *Artemisia nova* Woodland Association on the Nevada Test Site

4.3.19 *Pinus monophylla*/*Artemisia nova* Woodland

This association occurs primarily in the northern part of the NTS, but does extend as far south as Shoshone Mountain (Figure 4-21). It occupies almost 25,000 ha (62,500 ac) or 7.4 percent of the NTS. Seventy-eight ELUs were clustered and recognized in this association. It is co-dominated

by black sagebrush and singleleaf pinyon. There are several other associated shrub and tree species, mainly Utah juniper and green rabbitbrush. It occurs in mountainous areas with variable slopes. At higher elevations or where soils are deeper, it is displaced by

the *Pinus monophylla*/*Artemisia tridentata* Woodland. Soils are sandy loams to loams. This association has very high species diversity. Summary information for this association is presented in Table 4-21.

Table 4-21 Characteristics of the *Pinus monophylla*/*Artemisia nova* Woodland. (Percent relative abundance values for primary and associated species are enclosed in parenthesis.)

Primary species:	Black sagebrush (55%), singleleaf pinyon (14%)
Associated species:	Utah juniper (6%), green rabbitbrush (4%), basin big sagebrush (3%), granite prickly gilia (3%)
Species diversity:	54 species total; averaged 27.0 perennial species/ELU
Number of ELUs:	78
Area of NTS:	24,930 ha (7.4%)
Landforms:	Mountains, mid slopes to mesas
Geology:	Mostly Tertiary tuffs
Elevation:	Average 1,985 m, range 1,725 to 2,201 m
Precipitation:	Average 27.3 cm
Slopes:	Average 8.1°, range 1 to 58°
Soils:	Primarily sandy loam to loam
Annuals:	Very low to low

Figure 4-22 Distribution of the *Pinus monophylla* / *Artemisia tridentata* Woodland Association on the Nevada Test Site

4.3.20 *Pinus monophylla*/*Artemisia tridentata* Woodland

This association occurs primarily in the north and west-central parts of the NTS (Figure 4-22). It occupies just less than 20,000 ha (50,000 ac) or 5.9 percent of the NTS. Fifty-eight ELUs were clustered and recognized in this association. It is co-dominated by singleleaf pinyon and basin

big sagebrush in roughly equal numbers. There are several other associated shrub species, mainly antelope bitterbrush (*Purshia tridentata*) and Utah juniper. It occurs in mountainous areas with variable slopes. Soils are loamy sands to loams. Because of the better precipi-

tation and deeper soils, this association has very high species diversity. Summary information for this association is presented in Table 4-22.

Table 4-22 Characteristics of the *Pinus monophylla*/*Artemisia tridentata* Woodland. (Percent relative abundance values for primary and associated species are enclosed in parenthesis.)

Primary species:	Singleleaf pinyon (21%), basin big sagebrush (31%)
Associated species:	Utah juniper (7%), Antelope bitterbrush (5%), granite prickly gilia (5%), black sagebrush (4%), gambel's oak (<i>Quercus gambelii</i>) (4%)
Species diversity:	47 species total; averaged 28.6 perennial species/ELU
Number of ELUs:	58
Area of NTS:	19,922 ha (5.9%)
Landforms:	Mountains, mid slopes to mesas
Geology:	Mostly Tertiary tuffs
Elevation:	Average 2,054 m, range 1,682 to 2,292 m
Precipitation:	Average 28.2 cm
Slopes:	Average 14.3°, range 1 to 55°
Soils:	Primarily loamy sand to loam
Annuals:	Very low to low

4.4 Characteristics of NTS Vegetation

4.4.1 Major Climatic Zones or Ecoregions of the NTS

Topographic features at the NTS create an elevation and moisture gradient formed by relatively cool, moist mountains in the northern part of the NTS and relatively hot, dry valleys in the southern part. Between these two climatic extremes lies an area of land located at intermediate elevations with intermediate climatic conditions. These belts of distinct climate and elevation can be referred to as climatic zones or ecoregions. For the purposes of this report, we use the term “ecoregion” rather loosely to refer to the collection of biotic communities that are determined by climate and often characterized by a distinctive vegetation physiognomy. They have been linked by name to the broader regional physiographic land areas adjacent to the NTS and prior use on the NTS by Beatley (1976).

We do not use the term ecoregion to imply the use of the U.S. Forest Service’s ELU classification for the United States (Bailey 1976, 1995). The three major zones or ecoregions on the NTS (*Figure 4-2*, shown previously) are equivalent to what Beatley (1976) referred to as the “Great Basin Desert Region,” the “Mojave Desert Region,” and the “Transition Desert Region.” Two of these ecoregions, the Great Basin Desert Ecoregion (hereafter referred to as the Great Basin Desert) and the Mojave Desert Ecoregion (hereafter referred to as the Mojave Desert) are representative of land included within the physiographic land areas, or desert biomes, known as the Great Basin Desert (cold-temperate desertland) and the Mojave Desert (warm-temperate desertland) (Brown, 1982). The third ecoregion, the Transition Ecoregion, is a more localized phenomenon restricted to the NTS and is not recognized regionally by others (Brown, 1982; and Bailey, 1976, 1995).

The Transition Ecoregion (i.e., the transition zone between the Great Basin Desert and the Mojave Desert) is of interest because it contains plant species found in both the Great Basin and the Mojave deserts. Species in this ecoregion often have tolerance to freezing as well as drought conditions. Because these species are at the lowermost elevation (i.e., Great Basin Desert species) or uppermost elevation (i.e., Mojave Desert species) boundaries of their tolerance limits, they are very sensitive to climatic fluctuations and other natural perturbations. Plant community composition is often a diverse mixture of shrubs and reflects the recent (last 50 to 100 years) influence of climatic conditions (e.g., freezes and droughts) and other perturbations (e.g., fires and effects of nuclear testing) at the NTS. This ecoregion is located at elevation positions and locations that have been locally disturbed by past nuclear testing. This disturbance encouraged colonization of weedy native and nonnative species.

A study of vegetation within the Transition Ecoregion is valuable to help better understand the differences between the vegetation of the Mojave and the Great Basin deserts. It can also be a useful tool to monitor the effects of global warming, climatic changes, and site disturbances. For these reasons, a discussion of vegetation of the Transition Ecoregion has been included in this report.

4.4.2 Environmental Parameters of Associations Within Ecoregions

4.4.2.1 Composition of Ecoregions by the Number of ELUs

About 23 percent and 37 percent of the ELUs sampled on the NTS were located in the Mojave Desert and Great Basin, respectively (Table 4-23). The remaining 36 percent of the ELUs were located in a Transition Ecoregion between these two deserts. About 4 percent of the 1,508 ELUs sampled were classified as “miscellaneous” because they were unique vegetation types, burned, scraped, or disturbed by nuclear testing.

In the Mojave Desert, the *Larrea tridentata* /*Ambrosia dumosa* Shrubland was the most numerous association, representing about 19 percent of the ELUs on the NTS (18 percent of the total area). No other association in the Mojave Desert represented more than 4 percent of the total ELUs.

In the Great Basin Desert, the *Artemisia tridentata*-*Chrysothamnus viscidiflorus* Shrubland was the most numerous association, representing about 11 percent of the ELUs on the NTS (7.5 percent of the total area). No other association in the Great Basin Desert represented more than 7 percent of the total ELUs.

In the Transition Ecoregion between these deserts, the *Coleogyne ramosissima*-*Ephedra nevadensis* Shrubland was the most numerous association, representing about 22 percent of the ELUs on the NTS (21.6 percent of the total area). No other association in the Transition Ecoregion represented more than 6 percent of the total ELUs.

Associations that were considered typical or characteristic of the Mojave Desert were those that contained a presence of Shockley’s desert thorn, rabbit thorn, creosote bush, or white bursage, but lacked species characteristic of the Great Basin Desert (Table 4-24). The distribution of white bursage on the NTS (Appendix I) approximates the boundaries for the Mojave Desert on the NTS. Associations that were considered typical of the Great Basin Desert were those that contained a presence of sagebrush, singleleaf pinyon, or Utah juniper, but lacked species characteristic of the Mojave Desert. The distribution of big sagebrush (*Artemisia tridentata*) on the NTS (Appendix I) approximates the boundaries of the Great Basin on the NTS. Associations within the Transition Ecoregion were considered to be those that had a mixture of species. Some perennial shrubs such as *Ephedra* (*Ephedra spp.*) and blackbrush that occur in the Transition Ecoregion also occur in both the Mojave and Great Basin Desert (Table 4-24). The distribution of blackbrush on the NTS (Appendix I) best approximates the boundaries of the Transition Ecoregion on the NTS, although it is absent from areas with deep soils in the bottomlands (e.g., landform types such as basin floor, alluvial flats and piedmont slope, fan skirts).

Associations that occur in the Transition Ecoregion have shrubs that are often drought deciduous (e.g., blackbrush) or have essentially leafless, photosynthetic stems (e.g., *Ephedra spp.*), while the most abundant dominant shrubs from associations in the Mojave Desert and Great Basin Desert are frequently evergreen in habit (e.g., creosote bush, big sagebrush, singleleaf pinyon, and Utah juniper). The evolutionary adaptation of leaf reduction or abscission during drought and stress-induced dormancy may help maintain the abundance of blackbrush and Mormon tea in these ecotones. While the abundance of species other than blackbrush

Nevada Test Site		Mojave Desert Associations			Transition Ecoregion Associations								Great Basin Desert Associations
<i>Lycium shockleyi</i> – <i>Lycium pallidum</i>	6	283	49	45	30	13	44	14	89	323	19	38	76	21	20	139	104	30	78	58
		<i>Larrea tridentata</i> / <i>Ambrosia dumosa</i>	11	49	49	50	34	23	50	36	66	84	53	87	61	43	42	73	56	47	54	47
		<i>Atriplex confertifolia</i> - <i>Ambrosia dumosa</i>	8.8	13.2	16.2	19.4	17.6	12.8	15.2	20.4	19.7	16.9	9.2	11.9	21.4	17.1	27.0	20.8	24.7	29.1	27.0	28.6
			941	1,080	1,153	1,198	1,258	1,263	1,263	1,292	1,413	1,385	1,208	1,237	1,485	1,563	1,721	1,776	1,805	1,831	1,985	2,054
			14.8	16.0	16.9	17.5	18.2	18.3	18.3	18.7	20.2	19.3	17.6	18.0	21.1	21.1	24.0	24.7	25.1	25.4	27.3	28.2
			0.8	5.7	13.6	8.0	3.6	2.3	3.8	36.3	8.8	8.5	2.7	3.5	7.1	6.9	18.2	5.9	6.4	8.6	8.1	14.3
			32.5	63.2	57.4	65.0	58.1	55.5	47.6	17.5	57.0	68.2	34.1	41.1	57.5	62.8	49.8	52.5	66.7	47.8	53.5	47.8

Table 4-23. Parameters associated with associations in the Mojave and Great Basin Deserts and Transition ecoregions on the NTS.

Nevada Test Site

Plant Species

Nevada Test Site

Mojave Desert Associations

Transition Ecoregion Associations

Great Basin Desert Associations

Plant Species

Lycium shockleyi - Lycium pallidum	Larrea tridentata/Ambrosia dumosa	Atriplex confertifolia-Ambrosia dumosa	Lycium andersonii-Hymenoclea salsola	Hymenoclea salsola-Ephedra nevadensis	Menodora spinescens-Ephedra nevadensis	Krascheninnikovia lanata-Ephedra nevadensis	Eriogonum fasciculatum- Ephedra nevadensis	Ephedra nevadensis-Grayia spinosa	Coleogyne ramosissima-Ephedra nevadensis	Atriplex confertifolia-Kochia americana	Atriplex canescens-Krascheninnikovia lanata	Chrysothamnus viscidiflorus-Ephedra nevadensis	Eriocaulon nauseosum-Ephedra nevadensis	Ephedra viridis-Artemisia tridentata	Artemisia tridentata-Chrysothamnus viscidiflorus	Artemisia nova-Chrysothamnus viscidiflorus	Artemisia nova-Artemisia tridentata	Pinus monophylla/Artemisia tridentata
32.0	0.6	0.1	0.1	0.4	1.1	0.6	0.2	0.6	0.6	0.8	0.1	0.1	0.1					
28.2	5.6	3.9	0.1	0.4	1.1	0.6	0.2	0.6	0.6	0.6	0.5	0.4	0.6	0.1	0.0			
14.7	43.1	20.3	1.1	2.2	10.3	3.9	6.3	0.6	3.8	0.5	0.4	0.6	0.1		0.0			
	12.7	4.3	2.0	1.6	3.1	2.3	0.3	0.6	1.9	0.1	0.9	0.1			0.0			
	6.7	4.3	0.3	0.3	4.0	0.7	6.0	0.9	1.0	0.0	0.2	0.0			0.1			
	3.1	3.6	45.9	4.6	4.5	7.7	3.4	6.0	3.2	6.6	6.0	4.8	0.6	0.1	0.8	0.6	0.3	0.0
0.3	1.7	0.8	10.1	61.5	2.6	3.6	1.3	8.0	2.6	0.2	3.9	1.7	0.2		0.0	0.0		
	1.3	1.8	0.3	0.1	14.6	2.1	0.0	0.6	1.5	5.2	0.3	0.3			0.0	0.0		
	1.6	1.1	1.3	2.6	0.3	0.3	0.6	0.7	0.0	0.1	0.2							
	0.4	1.0	1.5	0.8	3.0	1.1	0.8	1.2	0.7	0.2	0.7				0.0			
8.0	3.3	2.3	5.6	2.8	4.0	20.8	3.6	3.4	1.4	5.0	10.8	6.4	0.0	0.1	1.1	0.8	0.5	0.0
2.0	3.9	0.9	0.8	1.0	1.9	6.5	0.7	0.6	1.8	0.8	0.1							
	0.4	1.0	0.1	0.1	0.4	0.1	26.1	1.7	0.8	0.1	0.4			6.3	0.3	0.0	0.3	0.0
	0.1	0.9	0.2	0.1	0.1	0.2	12.1	2.2	1.3	0.1	0.3	0.6	2.9	0.6	0.1	0.0	0.0	0.0
	7.0	10.1	5.6	8.6	11.8	12.0	16.4	23.7	9.8	0.1	2.8	11.4	11.1	2.2	8.2	4.6	3.3	0.8
0.0	2.1	0.3	4.8	1.9	1.2	8.0	3.7	8.4	2.0	0.7	3.2	6.3	0.1	0.8	2.3	2.0	2.0	0.5
	0.6	0.3	0.3	1.1	0.5	1.2	2.3	5.0	0.7		1.0	0.8	0.7	0.0	0.2	0.1	0.1	0.4
	0.8	3.4	2.3	1.8	4.7	2.1	0.7	4.5	66.4	0.1	1.8	1.8	6.3	1.9	0.6	0.2	1.9	0.1
5.0	2.6	29.6	7.4	0.6	8.3	6.8	3.0	0.7	1.4	40.4	3.3	3.8			0.2	0.8	0.2	0.0
0.3									0.0	20.1	0.9	0.3				0.1		
1.0	0.1	0.3	2.0	0.2	0.9	6.0		0.9	0.2	6.2	0.8	2.6		0.7	0.1	0.0	0.1	0.4
9.6	0.4	0.0	6.2	4.6	0.9	2.4	0.4	8.1	0.8	2.1	67.5	7.0	5.4	3.7	2.2	1.5	2.1	0.5
0.0	0.1	0.8	0.5	6.4	2.7	2.2	2.2	5.5	1.5	0.7	1.0	38.7	4.4	2.0	8.8	6.2	4.7	3.8
				0.6			0.3	0.6	0.2		0.3	0.3	91.7	0.2	1.0	0.3	0.8	1.7
	0.0	0.0		0.6	0.2		3.0	0.8	1.0	0.8	0.4	1.3	2.3	20.2	1.4	1.7	2.3	2.2
								0.4	0.1		0.7	0.2	0.8	15.8	0.7	0.3	1.0	0.8
				0.6				0.3	0.6		0.2	0.4	1.2	9.0	0.1	0.3	0.1	1.0
		0.0				0.1	0.1	1.4	1.3		0.3	6.0	6.0	16.1	56.3	4.3	26.3	2.7
								0.9	0.3		1.0	0.6		2.0	87.5	34.2	56.3	3.9
	0.0							0.4	0.2		0.8	0.1		4.7	3.0	2.7	8.0	1.7
	0.2							0.3	0.3		0.3	0.1		3.4	0.6	0.9	4.3	1.9
														0.1	0.1	0.2	0.3	0.8
											0.0	0.0		0.1	0.6	0.6	0.9	6.9
														0.3	0.0	1.0	2.6	4.8
	0.0	0.0			0.0		0.3	0.0	0.0					0.4	0.2		0.6	0.2
												0.1		0.2	0.0	0.0		0.5
Values in red/yellow indicate the association in which the species has its highest abundance																		

Table 4-24. Percent abundance of dominant species found in associations in the Mojave and Great Basin Deserts and Transition Ecoregions on the NTS

are relatively low in the *Coleogyne ramosissima*–*Ephedra nevadensis* Shrubland, they are frequently present in small numbers being found in microrefugia such as small patches where animals have disturbed the soil horizons or fire has reduced competition with blackbrush.

Blackbrush occurs at intermediate elevations. At these elevations, lightning strikes associated with storms blowing from the south, are common during the summer and occasionally fuel loading reaches levels high enough to support wildfires. Once burned, these communities reestablish very slowly; Brown (1982) also reports this phenomenon. The most extensive burn areas on the NTS appear to be anthropogenic in origin (e.g., explosives used in military training or aboveground nuclear events).

4.4.2.2 Species Richness

Species richness or the number of all species in each ELU is shown in Figure 4-23. Species richness for all woody species was greatest in the Great Basin Desert associations (*Table 4-23*) (mean of 56 species) compared to associations in the Transition Zone (mean of 49 species) and the Mojave Desert (mean of 36 species). Similar species diversity patterns were also observed for all combined perennial species on the NTS (e.g., Great Basin Desert: 21.7 species per ELU, Transition Zone: 17.4 species per ELU, and Mojave Desert: 12.7 species per ELU).

4.4.2.3 Elevation and Precipitation

Plant associations within the Mojave Desert and Great Basin Desert were ordered according to increasing elevation precipitation (Figure 4-24). Elevation of ELUs is shown in *Table 4-23* and Figure 4-25. Mean annual precipitation was determined to be positively correlated ($r^2=0.85$) with elevation on the NTS, based on correlation modeling and actual weather recording data (French 1986; other detailed meteorological data are presented by Fransioli and Ambros, 1997). The importance of elevation, slope, and substrate in accounting for statistical variance in shrub species cover was also described for the Nellis Air Force Range consisting of 1,228,355 ha (4,743 mi²) of shrubland adjacent to the NTS (Pritchett *et al.*, 1997).

4.4.2.4 Slope Steepness

Slope steepness on the NTS (*Table 4-23* and Figure 4-26) was highest in the Transition Zone between the Great Basin Desert and the Mojave Desert and was generally associated with erosion-resistant geological formations such as basalts and tuff deposits. The slopes were often steeper at the boundaries separating these desert zones. Specific geological features include Big and Little Skull mountains, areas around Yucca Mountain and Control Point, and steep slopes associated with Rainier and Paiute Mesas. The *Eriogonum fasciculatum*–*Ephedra nevadensis* Shrubland was located on the steepest slopes (36 degrees), with all other associations averaging slopes less than 18 degrees, with a mean slope of 7 degrees. Steeper slopes result in greater runoff during precipitation events and frequently produced greater erosion, leaving behind more of the soil surface covered with larger rocks.

4.4.2.5 Landforms

Landforms are a product of past geological events and erosional processes determined mainly by climatic conditions. Key features include: (1) upland areas such as mountains, foothills, and mesas created by shifts in tectonic plates and volcanic events; (2) piedmont slopes created by

Figure 4-23 Species richness of Ecological Landform Units sampling locations on the Nevada Test Site

Figure 4-24 Average elevation and precipitation of vegetation associations on the Nevada Test Site

Figure 4-25 Elevation of Ecological Landform Unit sampling locations on the Nevada Test Site

Figure 4-26 Slope steepness of Ecological Landform Unit sampling locations on the Nevada Test Site

erosion of upland areas; and (3) lowland areas created by deposition of eroded materials into basin floors and playas. Resulting landforms are often correlated with erosion and soil-forming processes as described earlier. Figure 4-27 shows the major landform types found on the NTS. The most commonly occurring landforms in the Great Basin Desert are the mountain and mountain valley landform types at higher elevations. The most commonly occurring landforms of the transitional zone between the Great Basin Desert and the Mojave Desert are the lower elevational mountains, piedmont slopes, and basin floors at intermediate elevations. The most commonly occurring landforms of the Mojave Desert are a mixture of landforms ranging from mountain foothills, piedmont slopes, and basin floor types at lower elevations. Landforms provide additional perspective to landscapes that are not always apparent in elevational maps (e.g., compare the elevational map in *Figure 4-25* to the landform map in *Figure 4-27*).

4.4.2.6 Soils

Texture of surface soils (0 to 5 cm [0 to 2 in]) appeared to differ little among all associations except for two that were correlated with playas and steep mountain slopes. The plant associations associated with playas were the *Lycium shockleyi*-*Lycium pallidum* Shrubland and the *Atriplex confertifolia*-*Kochia americana* Shrubland. Soil texture of these associations had a greater percentage of clay than other associations. The most abundant soil textures for surface soils of the associations were comprised of three textural types: sandy loam (30 percent), loamy sand (18 percent), and loam (14 percent). Soil samples from the remaining 38 percent of associations were classified into more than 30 different textural types.

Despite little difference in soil texture near the soil surface, associations were observed to differ in the type of substrate upon which they most commonly appeared. The *Coleogyne ramosissima*-*Ephedra nevadensis* Shrubland and *Atriplex confertifolia*-*Ambrosia dumosa* Shrubland appeared frequently on shallow soils of limestone-derived parent materials, while most of the associations in the Great Basin Desert occurred in the basalt or tuff formations. Remaining associations occurred in alluvial soils. Creosote bush appeared to be limited by shallow soils or the presence of a caliche layer. Lunt *et al.* (1973) suggest that big sagebrush and creosote bush have unusually high oxygen requirements, while roots of white bursage appear to require less oxygen.

4.4.2.7 Rock Pavement and Clast Size Classes

Rock fragments on the soil surface have resulted from several erosional and depositional processes such as the chemical and physical weathering of parent material; removal or sorting of weathered substrates; and the accretion of materials by wind, water, or volcanic activity which has rearranged the soil particles and rock fragments to form desert pavements. The percentage of the soil surface covered with rock or desert pavement within ELUs is shown in Figure 4-28, while the rock clast size classes is shown in Figure 4-29. A greater percentage of the surface was covered with rock at higher elevations in steeper areas near mountains than in the flatter areas in the valleys (*Table 4-23*). The sizes of rock clasts became smaller with greater distance from the mountains, with the smallest sizes often occurring on the surface at playas. Large areas of sandy soils were most common in the Mojave Desert where prevailing winds deposited blowing sands around geological formations such as hills and mesas. True desert pavements (i.e., a rocky surface on top of a deposit of soil fines with relatively few rocks; see Wood *et al.*, 1998) were most common on older soil surfaces where surface erosion was less than in washes and steep slopes. These latter soils were often crunchy when walked on and were characteristically devoid of most vegetation, except brittle spineflower (*Chorizanthe* spp.).

Figure 4-27 Landform types of Ecological Landform Unit sampling locations on the Nevada Test Site

Figure 4-28 Percent of soil surface with rock or pavement cover in Ecological Landform Units on the Nevada Test Site

Figure 4-29 Rock clast size classes in Ecological Landform Units on the Nevada Test Site

4.4.2.8 Microbiotic Crusts

The presence of visible microbiotic crusts on the soil surface (i.e., nonvascular microorganisms such as algae, fungi, or lichens that are frequently important for enhancing soil fertility and surface stabilization) was noted during the field surveys. Within the NTS, 58 percent of the ELUs sampled had no visual evidence of microbiotic crusts, 28 percent had low visual evidence of crusts, 11 percent had moderate visual evidence of crusts, and only 4 percent had high visual evidence of microbiotic crusts (Figure 4-30). Visual evidence of crusts was observed to decrease with increases in elevation. For example, no microbiotic crusts were observed in 31 percent of sites within the Mojave Desert, 43 percent of sites within the Transition Zone, and 50 percent of sites within the Great Basin Desert. Associations with high abundance of crusts also had higher percentages of soil fines (clays or silts). Low presence of crusts or their absence was associated with active soil erosional processes (e.g., along washes and steeper unstable slopes).

4.4.2.9 Productivity of Annual Vegetation

The presence of annual vegetation (both native and introduced species) and its relative abundance is shown in Figure 4-31. Vegetation associations that were more likely to undergo disturbance or are responding to previous disturbances, either natural or anthropogenic, contain higher productivity of annuals (ELUs in the high and very high categories). Three of these associations, *Lycium andersonii*-*Hymenoclea salsola* Shrubland, *Ericameria nauseosa*-*Ephedra nevadensis* Shrubland, and *Ephedra viridis*-*Artemisia tridentata* Shrubland, are mostly successional vegetation that is responding to previous fires. Similarly, *Ephedra nevadensis*-*Grayia spinosa* Shrubland sites have experienced tremendous disturbance, although mostly from human activities and nuclear testing. The other vegetation association that ranks high in productivity of annuals, *Atriplex canescens*-*Krashenninkovia lanata* Shrubland, contains sites that often experience natural disturbances from soil movement along washes or in very sandy areas. Many of these sites have also been subject to human disturbance from nuclear testing. Some areas, particularly in Frenchman Flat and western Mercury Valley, contain a high productivity of annuals due to impacts from gophers (Hunter *et. al.*, 1980). These areas contain almost no perennial shrubs or forbs, yet often have a carpet of annual grasses and annual forbs, particularly foxtail brome (*Bromus rubens*).

4.4.2.10 Invasive Plant Species

One of the greatest threats to plant diversity in many ecosystems is the invasion of exotic (i.e., introduced from other countries) species that have few natural diseases or pests to check their growth and reproduction. Of particular importance on the NTS are those annual species that colonize disturbed soils. Species of concern include foxtail brome, cheatgrass (*Bromus tectorum*), Arabian schismus (*Schismus arabicus*), prickly Russian thistle (*Salsola kali* ssp. *tragus*), barbwire Russian thistle (*Salsola paulsenii*), and tumblemustard (*Sisymbrium altissimum*).

By far the most widely distributed annual grass on the NTS is foxtail brome (Figure 4-32). It occurs mostly in the Transition Zone and the Mojave Desert, while cheatgrass is the dominant introduced annual grass in the Great Basin Desert (Figure 4-33). It thrives better in cooler habitats. One interesting observation is its presence in aboveground nuclear test areas (e.g., T2 in Yucca Valley) where foxtail brome is conspicuously absent. Both foxtail brome and

Figure 4-30 Abundance of biotic crusts in Ecological Landform Units on the Nevada Test Site

Figure 4-31 Productivity of annual vegetation in Ecological Landform Units on the Nevada Test Site

Figure 4-32 Relative ranking of dominance of *Bromus rubens* in Ecological Landform Units on the Nevada Test Site

Figure 4-33 Relative ranking of dominance of *Bromus tectorum* on the Nevada Test Site

cheatgrass were observed in areas without any apparent human disturbance and no livestock grazing for nearly 50 years. In these sites, their presence appeared to be associated with rodent burrows and predators digging for rodents. No other plants of these species were observed for hundreds of meters surrounding these microsite disturbances. The widespread success of these species appears to lie in their early germination, rapid growth, and ability to displace other species once established. Arabian schismus appears to tolerate heat and drought better than foxtail brome or cheatgrass, and it is found most abundantly in the southwest corner of the NTS (Figure 4-34) in Jackass Flats where foxtail brome ranks low in dominance and cheatgrass is absent.

Prickly Russian thistle, barbwire Russian thistle, and tumbled mustard are generally restricted to areas on the NTS (Figures 4-35 through 4-37) where there have been major earthmoving disturbances or aboveground nuclear events. These species appear to thrive best just following soil disturbance when a lack of competition by other plants permits their rapid growth. Without further soil disturbance and with time, the dominance of these species appears to decline as soil nutrients and favorable germination sites are gradually taken over by other native vegetation. These plants were frequently described on sites following aboveground nuclear events.

4.4.2.11 Rodent Activity

Signs indicating burrowing rodents included burrow entrances, excavated soils, or collapsed burrows. These signs give a measure of how disturbed the soil surface is and serve as a crude index of potential for invasive plant species, as well as potential for burrowing by tortoises. For soil to support burrowing by rodents and tortoises, it must have sufficient fines to prevent the burrows from collapsing. For example, soils with all sand-size particles do not support burrowing well, as burrows collapse or fill in with loose particles; they lack the clays, silts, or soil moisture needed to maintain a burrow. Soils must also have sufficient depth before encountering bedrock or caliche to sustain animals through summer heat and winter cold. Distribution on the NTS of sign indicating rodent activity is shown in Figure 4-38. Rodent burrowing sign was found to be inversely correlated with elevation. The Mojave Desert was observed to have a mean of 45 percent of the sites with none to low sign. The Transition Zone was observed to have 59 percent of the sites with none to low sign, and the Great Basin Desert was observed to have 80 percent of the sites with none to low sign. Both the moderate rodent sign and the high to very high rodent sign were also inversely correlated with elevation. The Mojave Desert had 39 percent moderate sign and 16 percent high to very high sign. The Transition Zone had 30 percent moderate sign and 11 percent high to very high sign. The Great Basin Desert had 14 percent moderate sign and 6 percent high to very high sign. The Mojave Desert sites may have deeper soils that are more conducive to burrowing, while the rockier soils of the Transition Zone have fewer burrows. The Great Basin Desert sites have shallower soils and more severe winters than the Mojave Desert sites that may reduce burrowing or the abundance of animals likely to burrow.

4.5 Species Analyses

Perhaps one of the greatest benefits from this study has been the ability to generate maps of each species observed during the field sampling. Because of the limited area actually sampled (e.g., only one 200-m [660-ft] transect per each ELU) and variable climatic conditions over the several years of sampling, some species were overlooked or undersampled. However, the limited sampling was still sufficient to provide a powerful tool to graphically show spatial distribution of

Figure 4-34 Relative ranking of dominance of *Schismus arabicus* in Ecological Landform Units on the Nevada Test Site

Figure 4-35 Relative ranking of dominance of *Salsola kali* ssp. *tragus* in Ecological Landform Units on the Nevada Test Site

Figure 4-36 Relative ranking of dominance of *Salsola paulesenii* in Ecological Landform Units on the Nevada Test Site

Figure 4-37 Relative ranking of dominance of *Sisymbrium altissimum* in Ecological Landform Units on the Nevada Test Site

Figure 4-38 Rodent activity classes in Ecological Landform Units on the Nevada Test Site

species abundance. Because 466 species were identified during the survey, it is not possible to present all of the maps here; rather, a selected subset of the most characteristic trees, shrubs, forbs, grasses, and succulents are presented and discussed.

4.5.1 Species Correlations

Pairwise comparisons of perennial species abundance at a statistical level of significance of $\alpha=0.05$ of the 718 species observed to occur on the NTS indicate that there were 447 positive interspecific associations between species and only 271 negative interspecific associations. The negative interspecific associations for the NTS as a whole are less meaningful because they naturally result when two species are not found together as occurs when the two species are from unrelated associations (e.g., species from the *Larrea tridentata*/*Ambrosia dumosa* Shrubland and the *Pinus monophylla*/*Artemisia tridentata* Woodland). Negative interspecific associations are most meaningful when they are identified within the same association, or closely related associations. The general trend of having more positive associations than negative associations is in agreement with earlier studies conducted using 25 circular plots of 30.5 m (100 ft) in diameter during the late 1960s at the NTS (Wallace and Romney, 1972). Using Chi-squared analyses, Wallace and Romney reported a great many more positive than negative measures of association.

Correlations of percent abundance of woody plant species are presented in Appendix H for approximately 122 species. Causal factors for the positive interspecific associations usually indicate similar ecological needs for related species. They may also suggest species that partition environmental resources sufficiently to allow the coexistence of both species in time or space. For example, basin big sagebrush and Louisiana sagewort (*Artemisia ludoviciana*) are positively correlated with each other and probably partition resources. On the other hand, black sagebrush is not positively or negatively correlated with basin big sagebrush or Louisiana sagewort and probably do not partition resources in the same area. Basin big sagebrush is usually found in deep soils, while black sagebrush is found in shallow, rocky soils. Louisiana sagewort is observed in small disturbed patches (e.g., rodent burrows) within the basin big sagebrush sites or on rocky sites at lower elevations where other shrub species (e.g., *Eriogonum* spp. and *Ericameria* spp.) appear to exclude the black sagebrush. Information about associations may also be useful to characterize the habitat of selected unique or interesting species such as Joshua tree (*Yucca brevifolia*) or in selecting compatible species while preparing revegetation plans for sites that are to be reseeded or transplanted.

4.5.2 Dominant Trees and Shrubs

Thirty-three dominant (based on percent abundance) shrubs and three dominant trees (Utah juniper, gambel's oak, and singleleaf pinyon) were selected to characterize the 20 plant associations on the NTS as previously presented in *Table 4-24*. These species include the following species (presented alphabetically by scientific name):

<u>Scientific Name</u>	<u>Common Name</u>
<i>Acamptopappus shockleyi</i>	Shockley goldenhead
<i>Ambrosia dumosa</i>	white bursage
<i>Artemisia nova</i>	black sagebrush
<i>Artemisia spinescens</i>	budsage
<i>Artemisia tridentata</i>	basin big sagebrush
<i>Atriplex canescens</i>	four-wing saltbush
<i>Atriplex confertifolia</i>	shadscale saltbush
<i>Chrysothamnus viscidiflorus ssp. puberulus</i>	fuzzy green rabbitbrush
<i>Chrysothamnus viscidiflorus ssp. viscidiflorus</i>	sticky green rabbitbrush
<i>Coleogyne ramosissima</i>	blackbrush
<i>Ephedra nevadensis</i>	Nevada jointfir
<i>Ephedra viridis</i>	Mormon tea
<i>Ericameria cooperi</i>	Cooper's heathgoldenrod
<i>Ericameria nauseosus</i>	rubber rabbitbrush
<i>Ericameria teretifolia</i>	needle leaf rabbitbrush
<i>Eriogonum fasciculatum</i>	eastern Mojave buckwheat
<i>Eriogonum microthecum var. simpsonii</i>	slender buckwheat
<i>Grayia spinosa</i>	spiny hopsage
<i>Hymenoclea salsola</i>	white burrobrush
<i>Juniperus osteosperma</i>	Utah juniper
<i>Kochia americana</i>	green molly
<i>Krameria erecta</i>	range ratany
<i>Krascheninnikovia lanata</i>	winterfat
<i>Larrea tridentata</i>	creosote bush
<i>Leptodactylon pungens</i>	granite prickly gilia
<i>Lycium andersonii</i>	Anderson's wolfberry
<i>Lycium pallidum</i>	rabbit thorn
<i>Lycium shockleyi</i>	Shockley's desert thorn
<i>Menodora spinescens</i>	spiny menodora
<i>Pinus monophylla</i>	singleleaf pinyon
<i>Psoralea argophylla</i>	Fremont's dalea
<i>Purshia glandulosa</i>	desert bitterbrush
<i>Purshia stansburiana</i>	stansbury cliffrose
<i>Purshia tridentata</i>	antelope bitterbrush
<i>Quercus gambelii</i>	Gambel oak
<i>Thamnosma montana</i>	turpentinebroom

Distributions of the dominant species on the NTS are shown in maps found in Appendix I. Species associated with these key species are found in Appendix H. Each dominant woody plant species appears to be distributed independently of the other species, although some are found together more frequently than by random chance because of their similar ecological requirements as was discussed previously. For example, creosote bush and white bursage are frequently both found in the same ELUs; however, they achieve their highest dominance in different ELUs. In other words, these species are rarely co-dominant in the sense of having the same percent abundance—one or the other usually has higher dominance, showing slightly better adaptation for conditions within that ELU. Similar patterns are also apparent for closely related species within

genera such as *Artemisia* spp., *Atriplex* spp., *Chrysothamnus* spp., *Ephedra* spp., *Lycium* spp., and *Purshia* spp. In some cases, the presence of one species meant the exclusion of the other species, especially if the abundance of the first species was rather high. These patterns support the concept of niche partitioning and speciation resulting in reduced interspecific competition.

The spatial distribution of each species results from ecological requirements for the species and the available physical and biological conditions present on NTS landforms. Elevation, as previously mentioned, provides the best single parameter to help characterize the various plant associations. Each association tends to have only a few dominant species (e.g., two to six), while each species tends to occupy a range of the total elevation gradient ranging from 847 m (2,779 ft) at the low end of the NTS to 2,292 m (7,519 ft) at the upper end. For some species like Shockley's desert thorn, this range is rather narrow (e.g., < 300 m [984 ft] in elevational range) and its presence is limited to a single plant association, suggesting a rather narrow niche width or ecological amplitude. For other species like four-wing saltbush, the range is wide (> 1,200 m [3,937 ft] in elevational range), being found in all of the plant associations, which suggests a broader niche width or ecological amplitude.

Species most characteristic of the Mojave Desert were (sorted from low to high in elevational position): Shockley's desert thorn, rabbit thorn, white bursage, creosote bush, and range ratany. Species most characteristic of the Great Basin Desert were (sorted from low to high in elevational position): budsage, shadscale saltbush, green molly, four-wing saltbush, green rabbitbrush, rubber rabbitbrush, Mormon tea, Stansbury cliffrose, desert bitterbrush, basin big sagebrush, black sagebrush, fuzzy green rabbitbrush, slender buskwheat, granite prickly gilia, Utah Juniper, antelope bitterbrush, gambel oak, and singleleaf pinyon. Species that were most characteristic within the Transition Zone between these two deserts were (sorted from low to high in elevational position): spiny menodora, Fremont's dalea, turpentinebroom, spiny hopsage, winterfat, Anderson's wolfberry, white burrobrush, eastern Mojave buckwheat, needleleaf rabbitbrush, blackbrush, Cooper's heathgoldenrod, and Nevada jointfir.

4.5.3 Dominant Forbs, Grasses, and Succulents

All non-woody plant species on the NTS were ranked according to relative dominance in all ELUs. The top five species in each of the three categories (forbs, grasses, and succulents) were selected for discussion here (see Appendix J for distribution maps). The rankings were limited to five because the ranking was relatively easy for the first five species at a site, but became much more subjective as more species were observed at a site. For example, some sites had more than 30 species and it was impossible to accurately rank them by dominance in any meaningful way past the first five or six species. The top five species in each category include (listed in order of dominance across all ELUs on the NTS):

<u>Scientific Name</u>	<u>Common Name</u>
Forbs:	
<i>Amsinckia tessellata</i>	bristly fiddleneck
<i>Sphaeralcea ambigua</i> ssp. <i>ambigua</i>	apricot globemallow
<i>Chaenactis stevioides</i>	Steves duskymaiden
<i>Eriogonum inflatum</i>	native American pipeweed
<i>Machaeranthera canescens</i> ssp. <i>canescens</i>	hoary aster

Grasses:

<i>Achnatherum hymenoides</i>	Indian ricegrass
<i>Bromus rubens</i>	foxtail brome
<i>Elymus elymoides</i> ssp. <i>elymoides</i>	bottlebrush squirreltail
<i>Achnatherum speciosum</i>	desert needlegrass
<i>Bromus tectorum</i>	cheatgrass

Succulents:

<i>Opuntia echinocarpa</i> var. <i>echinocarpa</i>	staghorn cholla
<i>Opuntia erinacea</i> var. <i>erinacea</i>	Mojave pricklypear
<i>Echinocereus engelmannii</i>	Engelmann's cactus
<i>Echinocactus polycephalus</i>	cottontop barrelcactus
<i>Opuntia polyacantha</i> var. <i>rufispina</i>	hairspine pricklypear

4.5.3.1 Forbs

The dominant species of forbs on the NTS were distributed along an elevational gradient. In order of decreasing elevation (mean elevation in meters $\pm$ SE mean, number of observations) they were: hoary aster ($1,732 \pm 18$, $n = 244$), apricot globemallow ($1,295 \pm 13$, $n = 411$), Steves dusky maiden ($1,492 \pm 15$, $n = 15$), bristly fiddleneck ($1,432 \pm 11$, $n = 435$), and native American pipeweed ($1,258 \pm 16$, $n = 201$).

4.5.3.2 Grasses

The dominant species of grass on the NTS were distributed along an elevational gradient. In order of decreasing elevation (mean elevation in meters $\pm$ SE mean, number of observations) they were: cheatgrass ($1,770 \pm 15$, $n = 320$), bottlebrush squirreltail ($1,740 \pm 13$, $n = 426$), Indian ricegrass ($1,574 \pm 16$, $n = 494$), desert needlegrass ($1,449 \pm 13$, $n = 326$), and foxtail brome ($1,346 \pm 10$, $n = 320$).

4.5.3.3 Succulents

The five most dominant succulents on the NTS were distributed along an elevational gradient (Figure 4-39). In order of decreasing elevation (mean elevation in meters $\pm$ SE mean, number of observations, species alphacode) they were: hairspine pricklypear ($1,887 \pm 21$, $n=128$, OPPOR), Mojave pricklypear ($1,837 \pm 180$, $n=185$, OPERE), Engelmann's cactus ($1,526 \pm 20$, $n=153$, ECEN), staghorn cholla ($1,392 \pm 13$, $n=394$, OPECE), and cottontop barrelcactus ($1,302 \pm 16$, $n=131$, ECPO2).

Frequency of Elevation

Figure 4-39 Percent frequency of succulents on the NTS by elevation (meters).

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6.0 APPENDICES

- Appendix A Plant Associations on the NTS Recognized by Beatley
- Appendix B Plant Species on the NTS
- Appendix C List of Common Names, Alphacodes, Scientific Names, and Older Names
- Appendix D Percent Abundance of Woody Plants on the NTS by Alliance
- Appendix E Percent Abundance of Woody Plants on the NTS by Association
- Appendix F Percent Frequency of NTS Plant Species by Alliance
- Appendix G Percent Frequency of NTS Plant Species by Association
- Appendix H Interspecific Association of Woody Vegetation on the NTS
- Appendix I Distribution on the NTS of the Top Dominant Woody Plant Species Based on Abundance
- Appendix J Distribution on the NTS of the Top Dominant Grasses, Forbs, and Succulents Based on the Relative Ranking of Dominance

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Appendix A

Plant Associations on the NTS Recognized by Beatley

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APPENDIX A. PLANT ASSOCIATIONS ON THE NTS RECOGNIZED BY BEATLEY

- 1. *Artemisia nova* Association**
- 2. *Artemisia tridentata* Association**
- 3. *Atriplex canescens* Association**
- 4. *Atriplex* - *Ceratoides* Association**
- 5. *Atriplex confertifolia* Association**
- 6. *Coleogyne* Association**
- 7. *Grayia* - *Lycium* Association**
- 8. *Larrea* - *Ambrosia* Association**
- 9. *Larrea* - *Atriplex* Association**
- 10. *Larrea* - *Lycium* - *Grayia* Association**
- 11. *Lycium andersonii* - *Grayia* Association**
- 12. *Lycium pallidum* - *Grayia* Association**
- 13. *Lycium shockleyi* - *Atriplex* Association**
- 14. *Pinus* - *Juniperus* - *Artemisia* Association**

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1. ARTEMISIA NOVA ASSOCIATION

Regional Type:	Great Basin Desertscrub Biome
Landform Type:	Mountains and Uplands
Series Name:	<i>Sagebrush</i>
Association Name:	<i>Artemisia nova</i>
Beatley Type:	<i>Artemisia nova</i>
Prevailing Location:	Large areas occur on northwestern Pahute Mesa and eastern Fortymile Canyon. Occurs in aspects and on soil types similar to <i>Coleogyne</i> but at higher elevations.
Elevation:	5,000 ft to 6,000 ft (1,524 m to 1,829 m). At its lower altitudinal limits, the species is present in narrow ecotones with <i>Coleogyne</i> and <i>Atriplex-Ceratoides</i> . At its upper altitudinal limit, it is replaced by <i>Pinyon-Juniper-Artemisia</i> associations.
Geology:	(Not described, but reported to occur on volcanic and limestone mountain areas.)
Soils:	The soils, unlike those of <i>Artemisia tridentata</i> associations, are residual, stony, and usually a thin mantle of various size rock particles over the underlying rock.
Hydrology/drainage:	Mountains, mesas, foothills, or rolling uplands.
Precipitation:	Mean rainfall was 8.0 in. (203 mm), and annually varied from 5.3 to 17.9 in. (135 to 455 mm). The mean precipitation/mean temperature (P/T) ratio was 16.6.
Temperature:	Mean minimum temperature was 29.8°F (-1.2°C), and the extreme minimum temperature was -3°F (-19.4°C); mean maximum temperature was 78.5°F (25.8°C), and the extreme maximum was 108°F (42.2°C). On the <i>A. nova</i> site, nighttime temperatures are much higher and daytime temperatures are lower than in the nearby lowland <i>A. tridentata</i> ; moreover, the nights appear to be considerably warmer than in the lowlands of Frenchman and Yucca Flats, at 2,000 to 3,000 ft lower elevation.
Veg. Cover (%):	Plants are dark-stemmed, uniformly of low height (average 0.3 m), closely spaced, and make up about 90 percent of the total shrub cover (37.3 percent, as measured). Maximum cover by herbaceous perennials was 3.8 percent, most of which was due to the grass <i>Sitanion hystrix</i> and lesser numbers of <i>Stipa speciosum</i> and <i>Oryzopsis hymenoides</i> . Winter annuals, represented by 10 species, had a maximum density of 73.8 plants/m ² and cover of 5.3 percent.
Distinguishing Conditions:	<i>Artemisia nova</i> is the dominant species on stony and thin soils at elevations between 5,000 ft to 6,000 ft (1,524 m to 1,829 m) with more moderate temperatures than <i>A. tridentata</i> associations.
Predominant Species:	<i>Artemisia nova</i> is the dominant species.
Associate Species:	<p>As in <i>Coleogyne</i>, <i>Ephedra nevadensis</i> and <i>Yucca baccata</i> are rather consistently, if sparingly, present in these communities below 6,000 ft. (1,829 m). The most predictable shrub associate is <i>Chrysothamnus viscidiflorus</i> ssp. <i>puberulus</i>. Several cacti are characteristic of this plant association: <i>Coryphantha vivipara</i> var. <i>rosea</i>, <i>Echinocereus engelmannii</i> var. <i>chrysocentrus</i>, and <i>E. triglochidiatus</i> vars. <i>melanachanthus</i> and <i>mojavensis</i>.</p> <p>As in <i>A. tridentata</i> communities, there is a large number of herbaceous species associated with the <i>A. nova</i> communities of the region as a whole. Those species characteristic of <i>A. nova</i> vegetation (including the washes), or of interest because of their rarity or</p>

uncommon occurrence in this association somewhere in the region (indicated by an asterisk), are the following:

Allium nevadense
*Arabis dispar**
Arabis holboellii var. *pinetorum*
Arabis pulchra var. *gracilis*
*Arabis shockleyi**
Aristida fendleriana
*Astragalus beatleyae**
Astragalus calycosus
Astragalus casei
Astragalus purshii var. *tinctus*
Balsamorhiza hookeri var.
neglecta
Calochortus flexuosus
Camissonia pterosperma
Cleomella hillmanii
Cryptantha humilis var. *ovina**
Delphinium andersonii
Dichelostemma pulchellum
Eriastrum sparsiflorum
*Erigeron aphanactis**

Erigeron pumilus ssp.
concinoides
*Eriogonum beatleyae**
Eriogonum ovalifolium var.
*multiscapum**
*Eriogonum shockleyi**
*Eriogonum rupinum**
Euphorbia fendleri
Gayophytum racemosum
*Gilia aliquanta**
*Gilia malior**
Gilia ophthalmoides
Hilaria jamesii
Hymenoxys cooperi
Lomatium nevadense
Lupinus brevicaulis
*Lupinus uncialis**
Microsteris gracilis ssp. *humilis*
Microseris linearifolia
Mirabilis bigelovii

Munroa squarrosa
Orobanche corymbosa
Orobanche fasciculata
Pectocarya setosa
*Phlox lanata**
Phoenicaulis cheiranthoides
Plantago purshii var. *oblonga*
Poa sandbergii
Polygala subspinoso var.
subspinoso
Senecio multilobatus
Sitanion hystrix
Sphaeralcea ambigua ssp.
monticola
Stylocline micropoides
Syntrichopappus fremontii
Tricardia watsonii
Viguiera multiflora var.
nevadensis

2. ARTEMISIA TRIDENTATA ASSOCIATION

Regional Type:	Great Basin Desertscrub Biome
Landform Type:	Upper Bajadas
Series Name:	<i>Sagebrush</i>
Association Name:	<i>Artemisia tridentata</i>
Beatley Type:	<i>Artemisia tridentata</i>
Prevailing Location:	Occurs on large areas of Pahute Mesa, small areas on Rainier Mesa, and in the Fortymile Canyon drainage in nearly pure stands.
Elevation:	5,000 ft to 6,000 ft (1,524 m to 1,829 m). At its lower altitudinal limits, the species is present in narrow ecotones with <i>Coleogyne</i> and <i>Atriplex-Ceratoides</i> . At its upper altitudinal limit, it is replaced by <i>Pinyon-Juniper-Artemisia</i> associations.
Geology:	(Not described.)
Soils:	Soils may be either alluvial or residual, and are usually sandy and deep. In most areas, they are found in mosaics with <i>Artemisia nova</i> associations which are found on shallower and drier soils than <i>Artemisia tridentata</i> associations.
Hydrology/drainage:	Upper bajadas and closed drainage basins.
Precipitation:	Mean rainfall was 8.0 in. (203 mm), and annually varied from 5.1 to 17.0 in. (130 to 432 mm), as measured in the eastern Fortymile Canyon drainage, west of Rainier Mesa at 5,740 ft (1,750 m). The mean P/T ratio was 17.3.
Temperature:	Mean minimum temperature was 25.9°F (-3.4°C), and the extreme minimum temperature was -10°F (-23.3°C); mean maximum temperature on this topographic site was 80.7°F (27.0°C), and the extreme maximum was 110°F (43.3°C). Mean minimum temperature was 26.0°F (-3.3°C), and the extreme minimum was -10°F (-23.3°C). Mean maximum temperature was 82.0°F (27.8°C), and the extreme summer temperature was 111°F (43.8°C).
Veg. Cover (%):	Shrub cover was 32.6 percent, 95 percent of which was due to <i>Artemisia tridentata</i> . Average height was 0.6 m, but the shrubs are commonly as much as 0.9 m tall.
Distinguishing Conditions:	<i>Artemisia tridentata</i> is the dominant species on deep, usually sandy soils at elevations between 5,000 ft to 6,000 ft (1,524 m to 1,829 m).
Predominant Species:	<i>Artemisia tridentata</i> is the dominant species.
Associate Species:	Shrub species, usually sparingly represented in these communities, may be <i>Ceratoides lanata</i> , <i>Chrysothamnus viscidiflorus</i> spp. <i>viscidiflorus</i> and ssp. <i>stenophyllus</i> , <i>C. Nauseosus</i> ssp. <i>leiospermus</i> , <i>Ephedra viridis</i> , <i>Tetradymia glabrata</i> , <i>Eriogonum microthecum</i> var. <i>foliosum</i> , <i>Opuntia echinocarpa</i> , and <i>Echinocereus engelmannii</i> var. <i>armatus</i> . In some areas, as on Pahute Mesa, <i>Cowania mexicana</i> var. <i>stansburiana</i> is prominently associated. Especially along washes or around low rock outcrops, <i>Amelanchier utahensis</i> , <i>Purshia glandulosa</i> , <i>Symphoricarpos longiflorus</i> , and <i>Artemisia ludoviciana</i> ssp. <i>incompta</i> are predictable. Of limited distributions along washes of volcanic areas are <i>Prunus andersonii</i> and <i>Eriogonum umbellatum</i> var. <i>verum</i> , and along the major washes in limestone areas <i>Lepidospartum latisquamum</i> and <i>Fallugia paradoxa</i> are often common. <i>Peraphyllum ramosissimum</i> , rare and local on the Nevada Test Site (NTS), around calcareous rock outcrops in the Eleana and Halfpint Ranges, is common in washes (and on slopes) of the limestone Spring Mountains.

Herbaceous perennials are represented in these communities by a large number of species because there is great diversity in the origin of the soil materials over the region as a whole. However, except for the grasses, they are seldom present as more than occasional plants on any given site. As measured, their maximum cover was 6.6 percent, nearly all of which was due to the perennial grasses *Stipa comata* and *Sitanion hystrix*. Winter annuals are not consistently associated with this kind of vegetation (as measured, maximum density of 34.4 plants/m² [nine species], and cover of 7.7 percent), because low temperatures are limiting to germination most years. In total however, a number of winter annual species occur in *Artemisia tridentata* vegetation, and these, together with the herbaceous perennials that are more or less frequent in this shrub type (or of particular interest because they are rare or uncommon in this region, indicated by an asterisk), are the following (including the washes):

<i>Abronia elliptica</i>	<i>Eriastrum wilcoxii</i>	<i>Lupinus caudatus</i>
<i>Anisocoma acaulis</i>	<i>Eriastrum sparsiflorum</i>	<i>Lupinus holmgrenanus*</i>
<i>Anthriscinum kingii</i>	<i>Erigeron aphanactis*</i>	<i>Lupinus aridus*</i>
<i>Astragalus lentiginosus</i> var.	<i>Erigeron breweri</i> var.	<i>Malacothrix sonchoides</i>
<i>fremontii</i>	<i>porphyreticus*</i>	<i>Mentzelia veatchiana</i>
<i>Astragalus minthorniae</i> var.	<i>Eriogonum nutans*</i>	<i>Mentzelia albicaulis</i>
<i>villosus</i>	<i>Eriogonum hookeri</i>	<i>Nama densum*</i>
<i>Astragalus purshii</i> var. <i>tinctus</i>	<i>Eriogonum deflexum</i> var.	<i>Oenothera avita</i>
<i>Astragalus beckwithii</i> var.	<i>nevadense</i>	<i>Orobancha corymbosa</i>
<i>purpureus</i>	<i>Eriogonum deflexum</i> var.	<i>Orobancha fasciculata</i>
<i>Astragalus newberryi</i>	<i>baratum</i>	<i>Oryzopsis hymenoides</i>
<i>Baileya pleniradiata</i>	<i>Eriogonum concinnum*</i>	<i>Oxybaphus comata</i>
<i>Brickellia oblongifolia</i> var. <i>linifolia</i>	<i>Eriogonum cernuum</i> var.	<i>Oxytheca dendroidea*</i>
<i>Camissonia parvula*</i>	<i>viminale</i>	<i>Penstemon floridus</i>
<i>Camissonia heterochroma</i>	<i>Eriogonum brachyanthum</i>	<i>Phacelia bicolor</i>
<i>Camissonia claviformis</i> ssp.	<i>Eriogonum ovalifolium</i> var.	<i>Phacelia crenulata</i> var. <i>funerea</i>
<i>integrior</i>	<i>ovalifolium</i>	<i>Phlox stansburyi</i>
<i>Camissonia boothii</i> ssp.	<i>Eriogonum saxatile</i>	<i>Plagiobothrys kingii</i>
<i>intermedia</i>	<i>Euphorbia albomarginata</i>	<i>Sitanion hystrix</i>
<i>Caulanthus pilosus</i>	<i>Gayophytum ramosissimum</i>	<i>Sphaeralcea ambigua</i> ssp.
<i>Caulanthus glaber</i>	<i>Gilia sinuata</i>	<i>monticola</i>
<i>Caulanthus crassicaulis</i>	<i>Gilia modocensis</i>	<i>Sphaeralcea emoryi</i> var.
<i>Chaenactis xantiana</i>	<i>Gilia leptomeria</i>	<i>variabilis</i>
<i>Chenopodium leptophyllum</i>	<i>Gilia hutchinsifolia</i>	<i>Sporobolus cryptandrus</i>
<i>Chenopodium incanum</i>	<i>Gilia brecciarum</i>	<i>Stanleya elata</i>
<i>Cymopterus ripleyi</i>	<i>Hilaria jamesii</i>	<i>Stanleya pinnata</i> var. <i>pinnata</i>
<i>Dalea searlsiae</i>	<i>Lathyrus hitchcockianus*</i>	<i>Stephanomeria exigua</i>
<i>Descurania pinnata</i> ssp.	<i>Leucelene ericoides</i>	<i>Stipa comata</i>
<i>halictorum</i>	<i>Linum lewisii</i>	

3. ATRIPLEX CANESCENS ASSOCIATION

Regional Type:	Great Basin Desertscrub Biome
Landform Type:	Basin Floors or Lower Bajadas
Series Name:	<i>Shadscale</i>
Association Name:	<i>Atriplex canescens</i>
Beatley Type:	<i>Atriplex canescens</i>
Prevailing Location:	The plant assemblages are the middle-elevation equivalents of the <i>Larrea Ambrosia</i> association of edaphically similar sites at the lower elevations. Occurs on the sandy soils of the southern and eastern Fortymile Canyon drainage; the north slope of the Shoshone Mountain; the west side of the Eleana Range, southern Groom Lake, southwestern Penoyer Valley, the Cane Spring of west Frenchman Flat and, to a lesser extent, at the middle elevations of southeastern Fortymile Canyon uplands west of the Sugar Loaves. <i>Atriplex canescens</i> (four-wing saltbush) also occurs in mosaic with <i>Lycium pallidum</i> - <i>Grayia</i> association and <i>Atriplex confertifolia</i> in the Frenchman Flat lowlands, at elevations around 2,000 ft (610 m).
Elevation:	Middle elevations of the region at 4,500 ft (1,372 m) to 5,500 ft (1,676 m).
Geology:	Derived from volcanic tuffs and other geologic strata.
Soils:	Deep loose sands.
Hydrology/drainage:	Middle elevation bajadas.
Precipitation:	At the middle elevations, mean annual rainfall, as measured on the southeastern Fortymile Canyon uplands west of the Sugar Loaves, was 7.2 in. (183 mm) and varied from 3.3 to 14.5 in. (84 to 368 mm). The mean annual P/T ratio was 16.8. At the lower elevations, mean annual rainfall was 5.0 in. (127 mm) and varied among the years from 3.2 to 7.7 in. (81 to 196 mm). The P/T ratio was 9.3
Temperature:	At the middle elevations, mean minimum temperature for the 11-year period of record was 26.5°F (-3.0°C), with -9°F (-22.8°C), the lowest temperature recorded in 11 winter seasons. Year-round mean maximum was 77.0°F (25.0°C), and the highest summer temperature was 108°F (42.2°C). At the lower elevations, mean minimum temperature was 25.7°F (-3.5°C), and the all-time low temperature reading for the NTS, -18°F (-27.8°C), was set in the winter of 1970. Mean maximum temperature was 86.8°F (30.4°C), and the all-time high temperature reading for the Test Site, 121°F (49.4°C), was set in 1969.
Veg. Cover (%):	The middle- and lower-elevation communities have in common low shrub cover and small winter annual populations but, because of the large difference in mean rainfall, are dissimilar with respect to the representation of herbaceous perennials. In the middle elevations, shrub cover was around 15 percent, about two-thirds of which was the suffrutescent <i>Eriogonum keameyi</i> var. <i>keameyi</i> . Cover by herbaceous perennials fluctuated between 6 and 23 percent during the years 1963 to 1975, reflecting large fluctuations in rainfall during this period. Most of the cover was due to <i>Oryzopsis hymenoides</i> , but also to <i>Dalea (petalostemum) searlsiae</i> and <i>Cymopterus ripleyi</i> , both widely distributed species of sandy soils in this region, and especially <i>Oenothera pallida</i> which some years contributes as much as 5 percent to the total cover. Only in certain years are winter annuals present. Maximum winter annual density, in the six years of measurement, was 15 plants/m ² (seven species), and maximum cover was 3.5 percent.

The lower-elevation communities are characterized by around 5.4 percent shrub cover, consisting almost entirely of *Atriplex canescens*. Cover by herbaceous perennials, including perennial grasses, was comparable to that elsewhere in lowland communities of the Mojave Desert; maximum was 2.1 percent (six species, all generally present in the Frenchman Flat lowlands). Maximum cover by winter annuals was 1.6 percent, with a maximum density of 20 plants/m² (two species).

Distinguishing Conditions:

Atriplex canescens is the dominant species located on deep loose sands at middle elevations.

Predominant Species:

Atriplex canescens is the dominant species.

Associate Species:

Associated shrub species were *Eriogonum keameyi* var. *keameyi*, *Chrysothamnus viscidiflorus* ssp. *viscidiflorus*, *Psoralea polydenius*, and *Ephedra viridis*. Two endemic taxa have been described from this association: *Gilia nyensis* and *Eriogonum concinnum*. In addition, the known ranges of some species are greatly extended by their occurrence on the sands of this area, including *Lesquerella ludoviciana* and *Oenothera pallida*. In the Cane Spring of west Frenchman Flat (4,000 ft or 1,219 m), *Camissonia megalantha* is reported to be an endemic species.

The following are the characteristic herbaceous species of the middle-elevation *Atriplex canescens* association; those which occur also in either the lower elevation *Atriplex canescens* or *Larrea-Ambrosia* associations are indicated with an asterisk.

Abronia turbinata
Ambrosia acanthicarpa
Anisocoma acaulis
Baileya pleniradiata
Camissonia heterochroma
*Camissonia megalantha**
Chaetadelphia wheeleri
Chenopodium desiccatum var.
leptophylloides
Coldenia plicata
Coldenia nuttallii
Cryptantha micrantha
Cymopterus ripleyi
*Dalea searlsiae**

Eriastrum eremicum
*Eriogonum concinnum**
*Eriogonum brachyanthum**
*Eriogonum hookeri**
Gilia leptomeria
Gilia campanulata
*Gilia nyensis**
Ipomopsis depressa
Iva nevadensis
Langloisia schottii
*Lesquerella ludoviciana**
Lupinus shockleyi
Lupinus pusillus var.
*intermontanus**

Machaeranthera canescens
Malacothrix sonchoides
Mentzelia nitens
Nama aretioides
*Oenothera pallida**
*Orobanche fasciculata**
Oryzopsis hymenoides
*Penstemon venosus**
Phacelia bicolor
Prenanthes exigua
Stephanomeria exigua

4. ATRIPLEX - CERATOIDES ASSOCIATION

Regional Type:	Great Basin Desertscrub Biome
Landform Type:	Drainage Basins
Series Name:	<i>Shadscale</i>
Association Name:	<i>Atriplex - Ceratoides</i>
Beatley Type:	<i>Atriplex - Ceratoides</i>
Prevailing Location:	Is the most widely represented of the shadscale series and is considered to be the association from which the other <i>Atriplex</i> associations are derived in this region. Occurs in southern Yucca Flat which is intermediate in elevation between the <i>Atriplex - Kochia americana</i> association (occurs next to the playa) and the <i>Grayia - Lycium</i> communities at slightly higher elevations.
Elevation:	(Not stated, but inferred to be > 4,000 ft or 1,219 m).
Geology:	(Not stated, but usually basin floors.)
Soils:	Soils of fine particles and sandy loams, better drained than the <i>Atriplex confertifolia</i> association and less sandy than the <i>Atriplex canescens</i> association.
Hydrology/drainage:	Relatively level drainage basins.
Precipitation:	Mean rainfall for the ten-year period was 7.0 in. (178 mm), varying annually from 1.9 to 16.7 in. (48 to 424 mm). The mean P/T ratio was 14.6.
Temperature:	Mean minimum temperature was 26.0°F (-3.3°C), and the extreme minimum was -10°F (-23.3°C). Mean maximum temperature was 82.0°F (27.8°C), and the extreme summer temperature was 111°F (43.8°C).
Veg. Cover (%):	Shrub cover varied from 17.5 percent in 1963 to 25.6 percent in 1975 on the same site, in part reflecting the effects of 16.7 in. (425 mm) of rainfall in 1969. Percentage of the shrubs that were <i>Atriplex confertifolia</i> and <i>Ceratoides lanata</i> (74 percent), however, remained unchanged. The number of herbaceous species and individuals present was higher than species in the <i>Atriplex - Kochia</i> association. Maximum cover by herbaceous perennials was 2.4 percent (consisting of <i>Astragalus lentiginosus</i> var. <i>fremontii</i> , <i>Mirabilis pudica</i> , and <i>Oryzopsis hymenoides</i>); maximum winter annual density was 76.4 plants/m ² (nine species), and 8.3 percent cover.
Distinguishing Conditions:	<i>Atriplex confertifolia</i> and <i>Ceratoides lanata</i> are the dominant species located in drainage basins higher in elevation than the <i>Atriplex confertifolia</i> association.
Predominant Species:	<i>Atriplex confertifolia</i> and <i>Ceratoides lanata</i> are the dominant species.
Associate Species:	<p>Other associated shrub species include <i>Artemisia spinescens</i>, <i>Grayia spinosa</i>, <i>Lycium andersonii</i>, and <i>Tetradymia glabrata</i>. <i>Chrysothamnus Greenei</i> ssp. <i>filifolius</i> and <i>C. viscidiflorus</i> ssp. <i>stenophyllus</i> are predominant associates or co-dominants over large disturbed areas in the drainage basins to the north. The introduced annuals <i>Halogeton glomeratus</i> and <i>Salsola</i> species are common weeds in disturbed areas of this association.</p> <p>Herbaceous species (and cacti) that either characterize the <i>Atriplex</i> communities as a whole or are of special interest because they are known in the region only in the <i>Atriplex</i> vegetation are the following:</p>

Astragalus lentiginosus var.
Camissonia boothii ssp.
intermedia
Camissonia claviformis ssp.
Integrior
Caulanthus pilosus
Chenopodium nevadense
Chenopodium incanum
Cleome serrulata
Eriogonum deflexum var.
nevadense
Euphorbia albomarginata
Hemidium alipes

fremontii
Hilaria jamesii
Ipomopsis depressa
Iva nevadensis
Langloisia punctata
Lepidium montanum ssp.
canescens
Machaeranthera canescens
Mentzelia torreyi
Oenothera caespitosa ssp.
crinita
Opuntia pulchella
Oryzopsis hymenoides

Blepharidachne kingii
Penstemon venosus
Penstemon arenarius
Psathyrotes annua
Psoralea lanceolata ssp. *scabra*
Sclerocactus polyancistrus
Scleropogon brevifolius
Sphaeralcea ambigua ssp.
monticola
Sporobolus cryptandrus

5. ATRIPLEX CONFERTIFOLIA ASSOCIATION

Regional Type:	Great Basin Desertscrub Biome
Landform Type:	Closed Drainage Basins
Series Name:	<i>Shadscale</i>
Association Name:	<i>Atriplex confertifolia</i>
Beatley Type:	<i>Atriplex confertifolia</i>
Prevailing Location:	Occurs over many square miles of the basin floors of Gold Flat, Kawich Valley, Groom Lake, and other basins to the north. Lowland <i>Atriplex</i> communities in the corridor of desert transition, or in the Mojave Desert, are usually restricted to discrete areas in the vicinity of playas, from which the Mojave <i>Larrea</i> communities are inferred to be excluded by the low temperatures of the lowlands. In Frenchman Flat of the NTS, the association is represented by a nearly pure stand of <i>Atriplex</i> in a discrete, roughly triangular-shaped area north of the playa. The <i>Lycium pallidum</i> - <i>Grayia</i> and <i>Atriplex canescens</i> communities extend to the southwest, and the <i>Lycium shockleyi</i> communities are along the south playa margin.
Elevation:	(Not stated.)
Geology:	(Not stated, but usually basin floors.)
Soils:	Soils on or near playas of fine particles and higher soil salinity levels than soils of other associations.
Hydrology/drainage:	Drainage basins and lower bajadas.
Precipitation:	Mean rainfall was 5.1 in. (129 mm), annual rainfalls ranged from 3.2 to 7.9 in. (81 to 201 mm). The mean P/T ratio was 9.4.
Temperature:	Mean minimum temperature on the north side of the playa at Frenchman Flat, was 26.6°F (-3.0°C), and the extreme for all winters was -8°F (-22.2°C). Maximum temperatures in these lowlands are among the highest in the region: Mean maximum was 85.9°F (29.9°C), and the highest summer temperature recorded was 120°F (48.8°C).
Veg. Cover (%):	Shrub cover is the lowest in the regional vegetation mosaic (5.5 percent), and likewise the number of herbaceous species represented. Number of individuals of the few species is variable. As measured, maximum cover by herbaceous perennials was 1.1 percent (consisting of two species, <i>Sphaeralcea parvifolia</i> and <i>Oryzopsis hymenoides</i>); for the winter annuals, maximum density was 2.6 plants/m ² , and 0.9 percent cover (five species), which is the lowest maximum occurrence (over a six-year period) of winter annuals in any kind of vegetation in the region.
Distinguishing Conditions:	<i>Atriplex confertifolia</i> is the dominant species located in drainage basins on fine-textured soils or droughty soil conditions.
Predominant Species:	<i>Atriplex confertifolia</i> is the dominant species.
Associate Species:	<i>Sphaeralcea parvifolia</i> and <i>Oryzopsis hymenoides</i> are the key perennials species. Many species appear to be excluded from these sites because of extremes in temperatures and adverse soil conditions such as fine particle sizes and higher soil-salt contents. Herbaceous species (and cacti) that either characterize the <i>Atriplex</i> communities as a whole or are of special interest because they are known in the region only in the <i>Atriplex</i> vegetation are the following:

Astragalus lentiginosus var.
fremontii
Blepharidachne kingii
Camissonia boothii ssp.
intermedia
Camissonia claviformis ssp.
integrior
Caulanthus pilosus
Chenopodium nevadense
Chenopodium incanum
Cleome serrulata
Eriogonum deflexum var.
nevadense

Euphorbia albomarginata
Hemidium alipes
Hilaria jamesii
Ipomopsis depressa
Iva nevadensis
Langloisia punctata
Lepidium montanum ssp.
canescens
Machaeranthera canescens
Mentzelia torreyi
Oenothera caespitosa ssp.
crinita
Opuntia pulchella

Oryzopsis hymenoides
Penstemon venosus
Penstemon arenarius
Psathyrotes annua
Psoralea lanceolata ssp. *scabra*
Sclerocactus polyancistrus
Scleropogon brevifolius
Sphaeralcea ambigua ssp.
monticola
Sporobolus cryptandrus

6. COLEOGYNE ASSOCIATION

Regional Type:	Great Basin Desertscrub Biome
Landform Type:	Upper Bajadas (and lower foothills)
Series Name:	<i>Blackbrush</i>
Association Name:	<i>Coleogyne</i>
Beatley Type:	<i>Coleogyne</i>
Prevailing Location:	The upper bajadas of the north and east slopes of Jackass Flats, the east slope of Frenchman Flat, much of the western and northern Yucca Flat, and the entire basin floors of Topopah Valley and Mid Valley. It also occurs on the upper bajadas below the Spring Mountains.
Elevation:	Between 4,000 ft (1,219 m) elevation to 5,000 ft (1,524 m).
Geology:	Soils derived from calcareous rocks or dolomite hills.
Soils:	Soils are usually shallow, contain many gravels, boulders of various size, or rocky outcrops, and have a predominantly sand matrix. On the floors of the middle-elevation open drainage basins, where the vegetation may cover many square miles, alluvial deposits are deeper and there are fewer large rock fragments in the surface and subsurface soils. Nearly everywhere they occur, however, these communities are associated with soils that would be characterized as stony or rocky soils.
Hydrology/drainage:	Upper bajadas or lower foothills.
Precipitation:	The lower precipitation range is around 6.4 in. (160 mm) mean annual rainfall, although the mean annual rainfall, as measured for 10 years, was about 8.9 to 9.5 in. (225 to 240 mm) in areas where <i>Coleogyne</i> is best developed (in Topopah and Mid Valleys and on upper bajadas of northwestern Yucca Flat below the Eleana Range). Average rainfall amounts were reported to vary from 3.7 to 19.9 in. (94 to 505 mm). The upper range of mean rainfall is about 7.2 in. (180 mm). Variation of annual rainfall in ecotones of <i>Larrea/Coleogyne</i> ranged from 2.0 to 17.6 in. (51 to 447 mm). Mean P/T ratios are in the range of 14.7 to 17.0.
Temperature:	The year-round mean minimum air temperature ranged from 33.0 to 35.4°F (0.8 to 1.9°C), with an extreme minimum air temperature of -7°F (-21.7°C). The year-round mean maximum air temperature ranged from 81.8 to 83.7°F (27.7 to 28.7°C), with an extreme maximum air temperature of 118.0°F (47.7°C). Temperature parameters alone do not distinguish the blackbrush environments from that of the creosote environments.
Veg. Cover (%):	<p>Percent shrub cover reaches its highest value in the region in the nearly pure stands of <i>Coleogyne</i> (as measured, 45 to 51 percent cover), in a large part reflecting the high rainfall. The populations are uniform in height (average around 15 in. [37 cm]) nearly everywhere they occur in the region. The plants are closely spaced and are scarcely or not at all in clumps.</p> <p>Maximum cover values for native winter annuals for the period 1963 to 1968 was 7.8 percent cover and 97.6 plants/m² (density). Maximum cover value for herbaceous perennials was 0.4 percent, and on most sites was <0.1 percent, with the perennial grasses uniformly scarcely represented, except in the ecotones with other kinds of vegetation.</p>
Distinguishing Conditions:	<i>Coleogyne</i> is the dominant species on upper bajadas and lower foothills on rocky and sandy soils with no or few co-dominant species.
Predominant Species:	<i>Coleogyne ramosissima</i> is the dominant species.

Associate Species:

The single predictable associated shrub is the sparingly represented *Ephedra nevadensis*. Around rocky outcrops *Chrysothamnus teretifolius* is also predictable. Toward its lower altitudinal limits, especially in the ecotones with *Larrea*, *Yucca brevifolia* (Joshua Tree) is often prominent, and towards its upper altitudinal limits, especially in the ecotones with *Artemisia*, *Yucca baccata* is often represented. Otherwise, occasional plants of *Opuntia echinocarpa* (Golden Cholla) are commonly all that breaks the uniformity of this well-defined plant association.

In the broad ecotones, other species are associated, principally *Larrea tridentata*, *Lycium andersonii*, and *Grayia spinosa*. These species, and other shrubs such as *Ephedra nevadensis*, occur in discrete clumps within the matrix of closely spaced *Coleogyne* plants. Where *Atriplex confertifolia* shares dominance of the site with *Coleogyne*, as is commonly the case on the upper bajadas below limestone hills or mountain ranges, or site dominance is shared with *Menodora spinescens*, as occurs across the whole of the upper north slope of Jackass Flats, there is also a marked tendency for *Coleogyne* and the second shrub species to be somewhat segregated in their local distribution. The ecotonal communities are therefore mosaics, more or less, of two plant associations, each with its own soil environment and herbaceous flora.

Although many herbaceous species occur in the *Coleogyne* communities, they are seldom present in large numbers, except in the ecotones. The introduced winter annual, *Bromus rubens*, has become thoroughly integrated into the *Coleogyne* vegetation of certain areas with densities as high as 1,500 plants/m² and cover as much as 30 percent, largely due to fire and man-caused disturbances. A number of herbaceous species, are predictable in this association, even if present in small numbers including:

Amaranthus fimbriatus
Arabis pulchra var. *munciensis*
Astragalus layneae
Astragalus acutirostris
Astragalus casei
Balsamorhiza hookeri var.
neglecta
Calochortus flexuosus
Calycoseris parryi
Castilleja chromosa
Chelanthus covillei
Chorizanthe watsonii
Chorizanthe thurberi
Cymopterus globosus
Delphinium parishii

Dicholostemma pulchellum
Emmenanthe penduliflora
Eriogonum howellianum
Euphorbia serpyllifolia
Euphorbia setiloba
Euphorbia micromera
Gilia aliquanta
Gilia malior
Linanthus dichotomus
Lomatium nevadense
Lotus humistratus
Lupinus brevicaulis
Mentzelia veatchiana
Microseris linearifolia
Oenothera primiveris

Pectocarya setosa
Penstemon utahensis
Plagiobothrys arizonicus
Plantago purshii var. *oblonga*
Sitanion hystrix
Sitanion jubatum
Stephanomeria parryi
Stipa speciosum
Stylocline micropoides
Suntrichopappus fremontii
Thysanocarpus curvipes var.
eradiatus
Tricardia watsonii

7. GRAYIA - LYCIUM ASSOCIATION

Regional Type:	Mojave Desertscrub Biome
Landform Type:	Closed Drainage Basins
Series Name:	<i>Lycium</i>
Association Name:	<i>Lycium andersonii</i> - <i>Grayia</i>
Beatley Type:	<i>Grayia-Lycium</i>
Prevailing Location:	Located on large areas of the floors of closed drainage basins and locally on upper bajadas or near drainage divides (as in the upper Cane Spring Wash area of the NTS) and lower mountain slopes of the transition region. On the long, low-gradient basin floor of Yucca Flat (and that of southern Groom Lake to the north), the communities are well developed over many square miles where the lowlands are under the influence of cool or cold air accumulations.
Elevation:	Between 4,000 ft (1,219 m) and 5,000 ft (1,524 m) elevation.
Geology:	Variable geologic origin of parent materials in closed drainage basins.
Soils:	Silt loams or sandy loams on the lower bajadas that are derived from usually deep alluvial deposits.
Hydrology/drainage:	Primarily on closed drainage basins and lower bajadas.
Precipitation:	Mean rainfall is regionally intermediate, on the sites of measurements being in the range of 6.5 to 7.1 in. (164 to 179 mm). Annual rainfalls varied from 1.7 to 16.4 in. (43 to 417 mm).
Temperature:	Minimum temperatures are comparable to those in the Great Basin Desert of central and northern Nevada. Year-round mean minimums were from 25.6 to 28.3°F (-3.6 to 2.1°C), and extreme minimums of the 10-year record were -14 to -12°F (-25.5 to -24.4°C). Maximum temperatures are similar to those of the Mojave Desert in the south: Mean maximum temperatures were from 82.1 to 83.6°F (27.8 to 28.6°C), and the extreme maximums recorded were from 111 to 116°F (43.8 to 46.6°C). Mean P/T ratios varied from 13.1 to 13.5.
Veg. Cover (%):	Total shrub cover is from 32 to 37 percent, with 40 to 60 percent of this being attributable to the two dominant species, <i>Lycium andersonii</i> and <i>Grayia spinosa</i> , which grow in close association in usually well-developed clumps. Average shrub height is 0.4 to 0.5 m. In most seasons, <i>Oryzopsis hymenoides</i> or <i>Sitanion hystrix</i> have cover values less than 0.2 percent. Winter annuals, although limited in most years by soil temperature, have cover up to 19 percent, with densities up to 200 plants/m ² and as many as 20 species/100 m ² .
Distinguishing Conditions:	<i>Lycium andersonii</i> and <i>Grayia spinosa</i> are the two co-dominants located in closed drainage basins where cold air accumulates on silt or sandy loam soils.
Predominant Species:	<i>Grayia spinosa</i> and <i>Lycium andersonii</i> are the two co-dominants.
Associate Species:	<p><i>Ceratoides lanata</i> is prominently represented (locally may be numerical dominant). In some areas, <i>Tetradymia glabrata</i>, <i>Artemisia spinescens</i>, <i>Atriplex canescens</i>, or <i>Acamptopappus shockleyi</i> are numerically important constituents. Other associated woody species are especially <i>Chrysothamnus viscidiflorus</i> ssp. <i>stenophyllus</i>, <i>Ephedra nevadensis</i>, <i>Tetradymia axillaris</i>, <i>Yucca brevifolia</i>, and <i>Opuntia echinocarpa</i>. <i>Opuntia stanlyi</i> var. <i>prishii</i> is known only from this kind of vegetation.</p> <p>Among the herbaceous perennials, <i>Mirabilis pudica</i> (endemic to the desert transition region of southern Nevada), <i>Sphaeralcea ambigua</i> ssp. <i>monticola</i>, and <i>Stephanomeria parryi</i> are more or less consistently present in significant numbers in the undisturbed</p>

communities. *Oryzopsis hymenoides* or *Sitanion hystrix* are predictable constituents. Herbaceous species generally predictable in this association are as follows:

Amaranthus fimbriatus
Amsinckia tessellata
Arabis glaucovalvula
Astragalus acutirostris
Astragalus lentiginosus var.
fremontii
Calycoseris wrightii
Camissonia boothii ssp.
condensata
Camissonia claviformis ssp.
Integrior
Caulanthus cooperi
Caulanthus lasiophyllus
Chaenactis stevioides
Chaenactis macrantha
Chenopodium incanum
Cryptantha recurvata
Cryptantha nevadensis
Cryptantha pterocarya

Cryptantha circumscissa
Delphinium parishii
Descurainia pinnata ssp. *glabra*
Eriastrum eremicum
Eriogonum nidularium
Eriogonum deflexum var.
nevadense
Eriogonum maculatum
Eriophyllum pringlei
Euphorbia albomarginata
Euphorbia micromera
Gilia cana ssp. *triceps*
Glyptopleura marginata
Ipomopsis polycladon
Langloisia schottii
Lupinus flavoculatus
Machaeranthera tortilifolia var.
tortilifolia
Malacothrix glabrata

Mentzelia obscura
Mentzelia albicaulis
Mirabilis pudica
Oryzopsis hymenoides
Oxytheca perfoliata
Pectis papposa
Phacelia fremontii
Phacelia vallis-mortae
Polygala subspinoso var.
heterorhyncha
Prenanthes exiguua
Rafinesquia neomexicana
Sitanion hystrix
Sphaeralcea ambigua ssp.
monticola
Stanleya pinnata var. *pinnata*
Stephanomeria parryi
Streptanthella longirostris

8. LARREA - AMBROSIA ASSOCIATION

Regional Type:	Mojave Desertscrub Biome
Landform Type:	Bajada
Series Name:	<i>Creosote</i>
Association Name:	<i>Larrea-Ambrosia</i>
Beatley Type:	<i>Larrea-Ambrosia</i>
Prevailing Location:	The long, low-gradient bajada extending from Shoshone Mountain in northwestern Jackass Flats, south into Amargosa Valley, and in the deep sands in the northeastern Frenchman Flat south and west of the Buried Hills; elsewhere, the sands below the Striped Hills and the Big Dune area of the northern Amargosa Valley are large areas that are edaphically similar.
Elevation:	Below 4,000 ft (1,219 m) elevation (lower elevations of NTS is at about 2,780 ft or 850 m).
Geology:	(Not described.)
Soils:	Deep, loose sands without a surface pavement.
Hydrology/drainage:	Low-gradient bajadas.
Precipitation:	All Associations within the Creosote Series - Mean rainfall as low as 4.61 in. (117 mm) 10-year mean annual rainfall, ranging from 1.9 to 12.7 in. (49 to 324 mm). Sixty to sixty-five percent of rain comes between the middle of September and late March (autumn and winter). Mean P/T ratios varied from 7.4 to 10.1.
Temperature:	All Associations within the Creosote Series - Mean maximum temperatures for all seasons were 81.1 to 87.4°F (27.2 to 30.7°C), and mean minimums were from 29.1 to 39.8°F (-1.6 to 4.3°C). The extreme maximum temperature recorded for these communities during the 10-year period was 117°F (47.2°C), and the extreme minimum was -8°F (-22.2°C).
Veg. Cover (%):	All Associations within the Creosote Series - Total shrub cover on the Bajadas of the NTS varies from 7.2 to 23.1 percent, and average height of all shrubs varies from 1.6 ft (0.2 m), where <i>Larrea</i> is scarcely represented and all shrubs are of low stature, to 3.0 ft (0.9 m), where most of the shrubs are large <i>Larrea</i> plants.
Distinguishing Conditions:	<i>Larrea tridentata</i> and <i>Ambrosia dumosa</i> are dominants at lower elevations with perennial grasses on deep loose sands without surface pavement.
Predominant Species:	<i>Larrea tridentata</i> and <i>Ambrosia dumosa</i> (bursage) are the usual co-dominants.
Associate Species:	Common shrub associates are <i>Psoralea arguta</i> (<i>Dalea fremontii</i>), <i>Krameria parvifolia</i> , <i>Ephedra nevadensis</i> , <i>Ceratoides lanata</i> and, in some areas, <i>Acamptopappus shockleyi</i> or <i>Menodora spinescens</i> . In extreme cases, as for example in the Lathrop Wells area and below the red cinder cone of the northern Amargosa Valley, only <i>Larrea</i> is represented. Perennial grasses (especially <i>Oryzopsis hymenoides</i>) are characteristic of this association. A number of other herbaceous species characterize the communities as a whole, but most are of more or less restricted distribution and only some are predictable everywhere. Among these species are the following:

Abronia turbinata
Anisocoma acaulis
Astragalus didymocarpus var.
dispermus
Astragalus lentiginosus var.
micans

Calyptidium monandrum
Camissonia brevipes ssp.
brevipes
Chaenactis fremontii
Chaetadelphia wheeleri
Coldenia nuttallii

Coldenia plicata
Cryptantha micrantha
Cympterus ripleyi
Dalea mollissima
Eremalche exilis
Eremalche rotundifolia

Eriastrum eremicum
Eriogonum insigne
Eriophyllum pringlei
Euphorbia parishii
Gerea canescens
Gilia campanulata
Glyptopleura setulosa
Langloisia schottii
Linanthus arenicola
Lupinus shockleyi

Malacotrix sonchoides
Monoptilon bellioides
Monoptilon bellidiforme
Nama aretioides
Nama depressum
Nemacladus rubescens
Oenothera deltoides
Oryzopsis hymenoides
Penstemon thurberi var.
anestius

Penstemon albomarginatus
Polygala subspinos var.
heterorhyncha
Sphaeralcea emoryi var.
variabilis
Sporobolus flexuosus
Stephanomeria exigua
Stillingia spinulosa
Streptanthella longirostris

9. LARREA - ATRIPLEX ASSOCIATION

Regional Type:	Mojave Desertscrub Biome
Landform Type:	Bajada
Series Name:	<i>Creosote</i>
Association Name:	<i>Larrea - Atriplex</i>
Beatley Type:	<i>Larrea - Atriplex</i>
Prevailing Location:	Found on the bajadas of probably the major part of the Mojave area and at elevations of usually less than 4,000 ft (1,219 m).
Elevation:	Between 3,500 ft (1,067 m) to 4,000 ft (1,219 m) elevation (higher elevations than the <i>Larrea-Ambrosia</i> Association Type).
Geology:	Found where soils are calcareous originating in the limestone-dolomite mountain ranges and foothills.
Soils:	On soils having a well-developed surface pavement, and the soil matrix is generally finer-textured (fine sandy or silt loams) associated nearly everywhere with gravels or larger fragments in the root zone. A more or less hardened calcareous hardpan (caliche) is commonly near the surface and restrictive to root depth.
Hydrology/drainage:	Bajadas
Precipitation:	All Associations in the Creosote Series - Mean rainfall as low as 4.61 in. (117 mm) 10-year mean annual rainfall, ranging from 1.9 to 12.7 in. (49 to 324 mm). Sixty to sixty-five percent of rain comes between the middle of September and late March (autumn and winter). Mean P/T ratios varied from 7.4 to 10.1.
Temperature:	All Associations in the Creosote Series - Mean maximum temperatures for all seasons were 81.1 to 87.4°F (27.2 to 30.7°C), and mean minimums were from 29.1 to 39.8°F (-1.6 to 4.3°C). The extreme maximum temperature recorded for these communities during the 10-year period was 117°F (47.2°C), and the extreme minimum was -8°F (-22.2°C).
Veg. Cover (%):	All Associations in the Creosote Series - Total shrub cover on the Bajadas of the NTS varies from 7.2 to 23.1 percent, and average height of all shrubs varies from 0.7 ft (0.2 m), where <i>Larrea</i> is scarcely represented and all shrubs are of low stature, to 3.0 ft (0.9 m), where most of the shrubs are large <i>Larrea</i> plants.
Distinguishing Conditions:	<i>Larrea tridentata</i> and <i>Atriplex confertifolia</i> are the co-dominants at slightly higher elevations than <i>Larrea-Ambrosia</i> Association with well-developed surface pavement, generally without a hardpan near the surface, and with a fine sandy or silty loam matrix with gravels and larger rock fragments in the root zone.
Predominant Species:	<i>Larrea tridentata</i> and <i>Atriplex confertifolia</i> are consistent co-dominants. The communities are regionally those with the greatest floristic diversity. Species composition varies with the mountain range or part of the range, the soil materials, and accordingly the plant distribution boundaries are often sharply defined. On many bajadas, the communities occur in mosaic with <i>Larrea-Ambrosia</i> , and <i>Larrea-Ambrosia-Atriplex</i> is a well-defined variant of certain bajadas.
Associate Species:	In most communities, <i>Psoralea fremontii</i> and <i>Krameria parvifolia</i> are prominently represented. In certain ones, <i>Ephedra torreyana</i> or <i>E. funerea</i> is numerically prominent, both of which have highly restricted and nonoverlapping distributions in the region. In other areas, the ecological equivalent is the widely distributed <i>E. nevadensis</i> . Either <i>Lycium shockleyi</i> or <i>L. pallidum</i> may be co-dominants in this association, although neither is exclusively identified with it. <i>Yucca schidigera</i> (Mojave Yucca) occurs in certain areas, where it may be associated with either <i>Larrea-Atriplex</i> or <i>Larrea-Ambrosia</i> vegetation and often has the status of a community dominant. <i>Opuntia ramosissima</i> is known only from

this kind of vegetation; *O. basilaris*, perhaps the most widely distributed cactus of the region, is frequently in these communities. Suffrutescent perennials essentially restricted to these communities are *Sphaeralcea ambigua* ssp. *ambigua* and *Stephanomeria pauciflora*.

Herbaceous species most characteristic of this association, or restricted to it, are the following:

Allionia incarnata
Androstephium breviflorum
Anthrithinum filipes
Astragalus tidestromii
Atrichoseris platyphylla
Bouteloua barbata
Camissonia boothii ssp.
condensata
Camissonia brevipes ssp.
pallidula
Camissonia munzii
Chaenactis carphoclinia
Chorizanthe rigida
Cryptantha augustifolia
Cryptantha decipiens
Cryptantha recurvata

Cryptantha virginensis
Eriogonum bifurcatum
Eriogonum deflexum var.
deflexum
Eriogonum inflatum
Erioneuron pulchellum
Eriogonum rixfordii
Eriogonum trichopes
Gilia clokeyi
Gilia filiformis
Gilia transmontana
Hilaria rigida
Langloisia setosissima
Lepidium flavum
Lepidium fremontii
Mimulus parryi

Nama pusillum
Nemacladus glanduliferus var.
orientalis
Nemacladus sigmoideus
Oenothera primiveris
Orobancha cooperi
Pectocarya heterocarpa
Pectocarya platycarpa
Pectocarya recurvata
Phacelia crenulata var. *crenulata*
Plantago insularis var. *fastigiata*
Selinocarpus diffusus
Tidestromia oblongifolia
Vulpia octoflora

10. LARREA - LYCIUM - GRAYIA ASSOCIATION

Regional Type:	Mojave Desertscrub Biome
Landform Type:	Bajada
Series Name:	<i>Creosote</i>
Association Name:	<i>Larrea - Lycium - Grayia</i>
Beatley Type:	<i>Larrea - Lycium - Grayia</i>
Prevailing Location:	Found on the lower north and east slopes of Jackass Flats and much of the western half of Frenchman Flat where soils are derived from volcanic mountains and hills. The association occurs elsewhere in the region where there is similar origin of soil materials and at elevations of usually less than 4,000 ft (1,219 m).
Elevation:	Between 3,500 ft (1,067 m) to 4,000 ft (1,219 m) elevation (higher elevations than the <i>Larrea-Ambrosia</i> Association Type).
Geology:	Found where soils are derived from volcanic mountains and hills.
Soils:	On soils having a more or less imperfectly developed surface pavement, generally without a hardpan near the surface, and with a sandy loam matrix with larger rock fragments scattered throughout.
Hydrology/drainage:	Bajadas
Precipitation:	All Associations in the Creosote Series - Mean rainfall as low as 4.61 in. (117 mm) 10-year mean annual rainfall, ranging from 1.9 to 12.7 in. (49 to 324 mm). Sixty to sixty-five percent of rain comes between the middle of September and late March (autumn and winter). Mean P/T ratios varied from 7.4 to 10.1.
Temperature:	All Associations in the Creosote Series - Mean maximum temperatures for all seasons were 81.1 to 87.4°F (27.2 to 30.7°C), and mean minimums were from 29.1 to 39.8°F (-1.6 to 4.3°C). The extreme maximum temperature recorded for these communities during the 10-year period was 117°F (47.2°C), and the extreme minimum was -8°F (-22.2°C).
Veg. Cover (%):	All Associations in the Creosote Series - Total shrub cover on the Bajadas of the NTS varies from 7.2 to 23.1 percent, and average height of all shrubs varies from 0.7 ft (0.2 m), where <i>Larrea</i> is scarcely represented and all shrubs are of low stature, to 3.0 ft (0.9 m), where most of the shrubs are large <i>Larrea</i> plants.
Distinguishing Conditions:	<i>Larrea tridentata</i> , <i>Lycium andersonii</i> , and <i>Grayia spinosa</i> are co-dominants at slightly higher elevations than <i>Larrea-Ambrosia</i> Association with imperfectly developed surface pavement, generally without a hardpan near the surface, and with a sandy loam matrix with larger rock fragments scattered throughout.
Predominant Species:	<i>Larrea tridentata</i> , <i>Lycium andersonii</i> , and <i>Grayia spinosa</i> are co-dominants with all degrees of numerical co-dominance.
Associate Species:	The associated species are those of the <i>Larrea-Ambrosia</i> communities including: shrub species such as <i>Psoralea</i> (<i>Dalea</i>) <i>fremontii</i> , <i>Krameria parvifolia</i> , <i>Ephedra nevadensis</i> , <i>Ceratoides lanata</i> and, in some areas, <i>Acamptopappus shockleyi</i> or <i>Menodora spinescens</i> . Additionally, <i>Haplopappus cooperi</i> may be prominent, and a conspicuous associate in some areas is <i>Yucca brevifolia</i> (Joshua tree) which adds a third stratum to the shrub community when it is present. It is in these communities that there are large biennial populations of <i>Astragalus lentiginosus</i> , associated with mass germination in occasional years. Characteristic herbaceous species of the communities that make up the association are the most widely distributed species in the northern Mojave Desert and include:

Amsinckia tessellata
Arabis glaucovalvula
Astragalus lentiginosus var.
fremontii
Astragalus acutirostris
Calycoseris wrightii
Camissonia kemensis ssp.
gilmanii
Caulanthus lasiophyllus
Caulanthus cooperi
Chaenactis stevioides
Chaenactis macrantha
Chorizanthe brevicornu var.
brevicornu
Cryptantha nevadensis

Cryptantha recurvata
Cryptantha dumetorum
Cryptantha circumscissa
Cryptantha pterocarya
Delphinium parishii
Descurainia pinnata ssp. *glabra*
Eriogonum deflexum var.
nevadense
Eriogonum maculatum
Eriogonum reniforme
Eriogonum nidularium
Eschscholzia glyptosperma
Gilia cana ssp. *speciformis*
Gilia cana ssp. *triceps*
Glyptopleura marginata

Ipomopsis polycladon
Lepidium lasiocarpum
Linanthus demissus
Linanthus jonesii
Lupinus flavoculatus
Malacotrix glabrata
Mentzelia obscura
Nama demissum
Oryzopsis hymenoides
Oxytheca perfoliata
Phacelia vallis-mortae
Phacelia fremontii
Rafinesquia neomexicana

11. LYCIUM ANDERSONII - GRAYIA ASSOCIATION

Regional Type:	Mojave Desertscrub Biome
Landform Type:	Closed Drainage Basins
Series Name:	<i>Lycium</i>
Association Name:	<i>Lycium andersonii</i> - <i>Grayia</i>
Beatley Type:	<i>Grayia</i> - <i>Lycium</i>
Prevailing Location:	Located on large areas of the floors of closed drainage basins and locally on upper bajadas or near drainage divides (as in the upper Cane Spring Wash area of the NTS) and lower mountain slopes of the transition region. On the long, low-gradient basin floor of Yucca Flat (and that of southern Groom Lake to the north), the communities are well developed over many square miles where the lowlands are under the influence of cool or cold air accumulations.
Elevation:	Between 4,000 ft (1,219 m) and 5,000 ft (1,524 m) elevation.
Geology:	Variable geologic origin of parent materials in closed drainage basins.
Soils:	Silt loams or sandy loams on the lower bajadas that are derived from usually deep alluvial deposits.
Hydrology/drainage:	Primarily on closed drainage basins and lower bajadas.
Precipitation:	Mean rainfall is regionally intermediate, on the sites of measurements being in the range of 6.5 to 7.1 in. (164 to 179 mm). Annual rainfalls varied from 1.7 to 16.4 in. (43 to 417 mm).
Temperature:	Minimum temperatures are comparable to those in the Great Basin Desert of central and northern Nevada. Year-round mean minimums were from 25.6 to 28.3°F (-3.6 to 2.1°C), and extreme minimums of the 10-year record were -14 to -12°F (-25.5 to -24.4°C). Maximum temperatures are similar to those of the Mojave Desert in the south: Mean maximum temperatures were from 82.1 to 83.6°F (27.8 to 28.6°C), and the extreme maximums recorded were from 111 to 116°F (43.8 to 46.6°C). Mean P/T ratios varied from 13.1 to 13.5.
Veg. Cover (%):	Total shrub cover is from 32 to 37 percent, with 40 to 60 percent of this being attributable to the two dominant species, <i>Lycium andersonii</i> and <i>Grayia spinosa</i> , which grow in close association in usually well-developed clumps. Average shrub height is 0.4 to 0.5 m. In most seasons, <i>Oryzopsis hymenoides</i> or <i>Sitanion hystrix</i> have cover values less than 0.2 percent. Winter annuals, although limited in most years by soil temperature, have cover up to 19 percent, with densities up to 200 plants/m ² and as many as 20 species/100 m ² .
Distinguishing Conditions:	<i>Lycium andersonii</i> and <i>Grayia spinosa</i> are the two co-dominants located in closed drainage basins where cold air accumulates on silt or sandy loam soils.
Predominant Species:	<i>Lycium andersonii</i> and <i>Grayia spinosa</i> are the two co-dominants.
Associate Species:	<i>Ceratoides lanata</i> is prominently represented (locally may be numerical dominant). In some areas, <i>Tetradymia glabrata</i> , <i>Artemisia spinescens</i> , <i>Atriplex canescens</i> , or <i>Acamptopappus shockleyi</i> are numerically important constituents. Other associated woody species are especially <i>Chrysothamnus viscidiflorus</i> ssp. <i>stenophyllus</i> , <i>Ephedra nevadensis</i> , <i>Tetradymia axillaris</i> , <i>Yucca brevifolia</i> , and <i>Opuntia echinocarpa</i> . <i>Opuntia stanlyi</i> var. <i>parishii</i> is known only from this kind of vegetation. Among the herbaceous perennials, <i>Mirabilis pudica</i> (endemic to the desert transition region of southern Nevada), <i>Sphaeralcea ambigua</i> ssp. <i>monticola</i> , and <i>Stephanomeria parryi</i> are more or less consistently present in significant numbers in the undisturbed

communities. *Oryzopsis hymenoides* or *Sitanion hystrix* are predictable constituents. Herbaceous species generally predictable in this association are as follows:

Amaranthus fimbriatus
Amsinckia tessellata
Arabis glaucovalvula
Astragalus acutirostris
Astragalus lentiginosus var.
fremontii
Calycoseris wrightii
Camissonia boothii ssp.
condensata
Camissonia claviformis ssp.
Integrior
Caulanthus cooperi
Caulanthus lasiophyllus
Chaenactis stevioides
Chaenactis macrantha
Chenopodium incanum
Cryptantha recurvata
Cryptantha nevadensis
Cryptantha pterocarya

Cryptantha circumscissa
Delphinium parishii
Descurainia pinnata ssp. *glabra*
Eriastrum eremicum
Eriogonum nidularium
Eriogonum deflexum var.
nevadense
Eriogonum maculatum
Eriophyllum pringlei
Euphorbia albomarginata
Euphorbia micromera
Gilia cana ssp. *triceps*
Glyptopleura marginata
Ipomopsis polycladon
Langloisia schottii
Lupinus flavoculatus
Machaeranthera tortifolia var.
tortifolia
Malacothrix glabrata

Mentzelia obscura
Mentzelia albicaulis
Mirabilis pudica
Oryzopsis hymenoides
Oxytheca perfoliata
Pectis papposa
Phacelia fremontii
Phacelia vallis-mortae
Polygala subspinosus var.
heterorhyncha
Prenanthes exiguus
Rafinesquia neomexicana
Sitanion hystrix
Sphaeralcea ambigua ssp.
monticola
Stanleya pinnata var. *pinnata*
Stephanomeria parryi
Streptanthella longirostris

12. LYCIUM PALLIDUM - GRAYIA ASSOCIATION

Regional Type:	Mojave Desertscrub Biome
Landform Type:	Closed Drainage Basins
Series Name:	<i>Lycium</i>
Association Name:	<i>Lycium pallidum</i> - <i>Grayia</i>
Beatley Type:	<i>Lycium pallidum</i> - <i>Grayia</i>
Prevailing Location:	Located on closed drainage basins, it is one of the most conspicuous vegetation features of the NTS, extending southwest from the playa in Frenchman Flat, in an area about 4 1/2 miles long and 2 miles wide (7 by 3 km).
Elevation:	Between 3,100 ft (945 m) and 3,250 ft (991 m) elevation.
Geology:	Variable geologic origin of parent materials in closed drainage basins.
Soils:	Soils in southwestern Frenchman Flat are derived from materials from the north face of the limestone Spotted Range (Mercury Ridge and Red Mountain) and the east end of the volcanic Skull Mountain. They are comprised of sands without a surface pavement, which distinguishes the zone of <i>Lycium pallidum</i> - <i>Grayia</i> , but not the <i>Larrea</i> boundaries.
Hydrology/drainage:	The association boundaries are correlated with low nocturnal temperatures of cold air lake in the Frenchman Flat lowlands, a closed drainage basin.
Precipitation:	Mean annual rainfall in the Frenchman Flat over a ten-year period averaged 4.8 in. (121 mm), with the annual rainfall varying from 2.6 to 10.0 in. (66 to 254 mm). Mean annual rainfall is lower in this association than in the <i>Lycium andersonii</i> - <i>Grayia</i> association.
Temperature:	Mean minimum temperature for 10 years was 27.0°F (-2.8°C), and the extreme minimum was -110°F (-23.9°C). Mean maximum temperature was 86.0°F (30.0°C), and the extreme maximum was 119°F (48.3°C). Although daytime temperatures are somewhat higher than in the <i>Lycium andersonii</i> - <i>Grayia</i> communities of the Yucca Flat lowlands (at 1,000-ft higher elevation) the similarity of the temperature regimes in the two plant associations is apparent. The mean P/T ratio was 8.9.
Veg. Cover (%):	Shrub cover was reported as 75 percent <i>Lycium pallidum</i> var. <i>oligospermum</i> and 20 percent <i>Grayia spinosa</i> .
Distinguishing Conditions:	<i>Lycium andersonii</i> and <i>Grayia spinosa</i> are the two co-dominants located in closed drainage basins where cold air accumulates on silt or sandy loam soils.
Predominant Species:	<i>Lycium pallidum</i> and <i>Grayia spinosa</i> are the two co-dominants. These two species are prominent constituents of the surrounding <i>Larrea</i> vegetation of southwestern Frenchman Flat. <i>Lycium pallidum</i> continues in the <i>Larrea</i> vegetation to the southwest, on the sandy soils below the south face of the volcanic Skull Mountain and across the crest of the limestone Specter Range, where soils have physical properties in notable contrast. Occurrence of the species in this region is inferred to be correlated with soil chemical properties. In this association at Frenchman Flat, <i>Lycium pallidum</i> is the ecological equivalent of <i>Lycium andersonii</i> in the <i>Lycium andersonii</i> - <i>Grayia</i> association of Yucca Flat, and the two associations are in fundamental ways ecological equivalents in the two drainage basins.
Associate Species:	<i>Atriplex canescens</i> which becomes the dominant shrub in local areas of the lowlands, and <i>Psoralea polydenia</i> are associated with <i>Lycium pallidum</i> and <i>Grayia spinosa</i> . The environment is marginal for herbaceous species of the Mojave Desert because of the low nighttime temperatures. Of interest in this association is the lowland occurrence of <i>Machaeranthera canescens</i> , <i>Gilia hutchinsifolia</i> , and <i>G. sinuata</i> , all species of the higher elevations in this region; the narrowly restricted endemics, <i>Mirabilis pudica</i>

and *Polygala subspinoso* var. *heterorhyncha*; the occurrence of *Abronia turbinata*, a species of restricted distribution and associated elsewhere in the region with *Larrea* - *Ambrosia* communities; and *Peteria thompsonae*, known from the region elsewhere only from the Goldfield Hills.

According to Beatley, "most of the species that occur in the *Lycium andersonii* - *Grayia* association, especially those of more sandy soils, also occur in this association." Based on this statement, herbaceous species generally predictable in this association are inferred to be:

<i>Amaranthus fimbriatus</i>	<i>Cryptantha circumscissa</i>	<i>Mentzelia obscura</i>
<i>Amsinckia tessellata</i>	<i>Delphinium parishii</i>	<i>Mentzelia albicaulis</i>
<i>Arabis glaucovalvula</i>	<i>Descurainia pinnata</i> ssp. <i>glabra</i>	<i>Mirabilis pudica</i>
<i>Astragalus acutirostris</i>	<i>Eriastrum eremicum</i>	<i>Oryzopsis hymenoides</i>
<i>Astragalus lentiginosus</i> var. <i>fremontii</i>	<i>Eriogonum nidularium</i>	<i>Oxytheca perfoliata</i>
<i>Calycoseris wrightii</i>	<i>Eriogonum deflexum</i> var. <i>nevadense</i>	<i>Pectis papposa</i>
<i>Camissonia boothii</i> ssp. <i>condensata</i>	<i>Eriogonum maculatum</i>	<i>Phacelia fremontii</i>
<i>Camissonia claviformis</i> ssp. <i>Integrior</i>	<i>Eriophyllum pringlei</i>	<i>Phacelia vallis-mortae</i>
<i>Caulanthus cooperi</i>	<i>Euphorbia albomarginata</i>	<i>Polygala subspinoso</i> var. <i>heterorhyncha</i>
<i>Caulanthus lasiophyllus</i>	<i>Euphorbia micromera</i>	<i>Prenanthes exiguus</i>
<i>Chaenactis stevioides</i>	<i>Gilia cana</i> ssp. <i>triceps</i>	<i>Rafinesquia neomexicana</i>
<i>Chaenactis macrantha</i>	<i>Glyptopleura marginata</i>	<i>Sitanion hystrix</i>
<i>Chenopodium incanum</i>	<i>Ipomopsis polycladon</i>	<i>Sphaeralcea ambigua</i> ssp. <i>monticola</i>
<i>Cryptantha recurvata</i>	<i>Langloisia schottii</i>	<i>Stanleya pinnata</i> var. <i>pinnata</i>
<i>Cryptantha nevadensis</i>	<i>Lupinus flavoculatus</i>	<i>Stephanomeria parryi</i>
<i>Cryptantha pterocarya</i>	<i>Machaeranthera tortifolia</i> var. <i>tortifolia</i>	<i>Streptanthella longirostris</i>
	<i>Malacothrix glabrata</i>	

13. LYCIUM SHOCKLEYI - ATRIPLEX ASSOCIATION

Regional Type:	Mojave Desertscrub Biome
Landform Type:	Lowlands and Uplands
Series Name:	<i>Lycium</i>
Association Name:	<i>Lycium shockleyi</i> - <i>Atriplex</i>
Beatley Type:	<i>Lycium shockleyi</i> - <i>Atriplex</i>
Prevailing Location:	Distribution of <i>Lycium shockleyi</i> is defined by the area of bajada soils originating from the northwest face of the Ranger Mountains in southeastern Frenchman Flat, where it occurs from the playa margin to the base of the mountains, mostly in otherwise <i>Larrea</i> - <i>Atriplex</i> vegetation. It also occurs in lowlands elsewhere, especially in the Mud Lake area to the north, but is equally identifiable with middle and upper bajadas. The largest known area over which it predominates is in Stonewall Flat, on the south slope below the Goldfield Hills and west slope of the Cactus Range.
Elevation:	Between 2,600 ft (792 m) below Skeleton Hills of the northern Amargosa Valley, to 3,100 ft (945 m) - 4,000 ft (1,219 m) near the southern boundary of the NTS, to 5,200 ft (1,585 m) elevation in Ralston Valley to the north.
Geology:	Variable geologic origin of parent materials, both limestone and volcanic.
Soils:	Soils appear to span the range of physical characteristics.
Hydrology/drainage:	Lowlands as well as middle and upper bajadas.
Precipitation:	Mean annual rainfall, as measured on four sites in southeastern Frenchman Flat, was 4.9 to 5.4 in. (124 to 137 mm). Extreme annual rainfall ranged from 2.3 to 9.9 in. (58 to 251 mm).
Temperature:	Its best development on the NTS, at the edge of the playa, is where the year-round mean minimums were from 26.2 to 29.1°F (-3.2 to - 1.6°C), and the extreme minimums were -11 to - 8°F (-23.9 to 22.2°C), as in other communities lying near the bottom of the cold air lakes. The mean maximum temperatures are those of the Mojave Desert: Mean maximums were from 83.2 to 85.5°F (28.4 to 29.7°C), and the extremes were from 112 to 116°F (44.4 to 46.6°C). (No mean annual P/T ratio was reported.)
Veg. Cover (%):	Shrub cover for <i>Lycium shockleyi</i> ranged from 7.8 to 10.1 percent.
Distinguishing Conditions:	<i>Lycium shockleyi</i> and <i>Atriplex confertifolia</i> are the two co-dominants located in lowlands or in uplands.
Predominant Species:	<i>Lycium shockleyi</i> and <i>Atriplex confertifolia</i> are the two co-dominants. <i>Lycium shockleyi</i> is endemic to southern Nevada and does not occur in adjacent states.
Associate Species:	No herbaceous species are known to distinguish the association. Since the species is nearly always a co-dominant with <i>Atriplex confertifolia</i> in both upland and lowland communities, and with <i>Larrea</i> or <i>Sarcobatus</i> , as well, the herbaceous component of the communities is that of the basic community types.

14. PINUS - JUNIPERUS - ARTEMISIA ASSOCIATION

Regional Type:	Great Basin Desertscrub Biome
Landform Type:	Mountains
Series Name:	<i>Pinyon - Juniper</i>
Association Name:	<i>Pinus - Juniperus - Artemisia</i>
Beatley Type:	<i>Artemisia - Pinyon - Juniper</i>
Prevailing Location:	Located on Pahute Mesa and the upper Thirsty Canyon uplands. Trees are localized and discontinuous around low cliffs or rock outcrops, or along shallow drainage courses, in what is otherwise <i>Artemisia</i> vegetation. In local but discrete areas, juniper may occur almost to the exclusion of pinyon pine, as on the "Juniper Flats" of northwest Pahute Mesa and, in other areas, the pine may be in essentially pure stands. On mountain slopes, the community may be pinyon - juniper, without either of the <i>Artemisia</i> species in the shrub layer.
Elevation:	6,000 ft to 8,000 ft (1,829 m to 2,438 m).
Geology:	(Not described, but reported to occur on volcanic ranges.)
Soils:	Soils are variable in composition and thickness.
Hydrology/drainage:	Mountains, mesas, and foothills.
Precipitation:	Mean annual precipitation on sites from 6,100 to 7,500 ft (1,860 to 2,286 m) elevation was from 10.3 to 11.3 in (261 to 286 mm); lowest and highest annual rainfalls on the sites were 5.1 and 26.1 in. (130 and 663 mm), both recorded on the high-elevation site (Rainer Mesa). The mean P/T ratios were from 22.2 to 32.5.
Temperature:	Mean minimum temperature were from 24.6 to 29.3°F (-4.1 to -1.5°C), and the extreme low minimum was -17°F (-27.2°C). The extremes of the minimums were all recorded on the site at 7,500 ft (2,286 m), and the extreme low temperature was 1°F higher than the all-time low temperature of -18°F (-27.8°C) recorded at 4,400 ft (1,341 m) lower elevation in the Frenchman Flat lowlands. Mean maximum temperature varied from 71.1 to 79.5°F (21.7 to 26.4°C), and the high maximum of the record was 108°F (42.2°C).
Veg. Cover (%):	Total tree and shrub cover varied from 34.8 percent (where much of the surface was outcropping bedrock) to 43.9 percent. Maximum herbaceous perennial cover varied among the sites from 7.0 to 31.1 percent (to 19 species/1,000 m ²), with 69 to 99 percent of the cover due to perennial grasses, especially species of <i>Stipa</i> (<i>S. comata</i> , <i>S. pinetorum</i> , or <i>S. thurberiana</i>). Winter annuals are represented usually only near the lower limits of the association where on one site, one year, they were present in a density of 35.6 plant/m ² (10 species), and cover of 15.7 percent reflecting the large size of plants in areas of high rainfall.
Distinguishing Conditions:	<i>Pinus monophylla</i> , <i>Juniperus osteosperma</i> , and <i>Artemisia</i> spp. are the dominant species in mountainous areas at elevations between 6,000 to 8,000 ft (1,829 m to 2,438 m).
Predominant Species:	<i>Pinus monophylla</i> , <i>Juniperus osteosperma</i> , and <i>Artemisia</i> spp. are the dominant species. Because of variable soil conditions, any of the three dominant species may be found in nearly pure stands without the other species. In order of increasing drought tolerance, the species could be ranked <i>Artemisia</i> , <i>Juniperus</i> , and <i>Pinus</i> . <i>Artemisia</i> also occurs in drier sites interspersed within the trees and sometimes without trees. Juniper is found at slightly lower elevations than pinyon pine, often occurring first as scattered small trees on the <i>Artemisia</i> slopes, followed by pinyon pine within 200 to 300 ft (70 to 90 m) increase in elevation; at the upper limits of the association, pinyon pine continues up slope in the white fir communities usually a few hundred feet after juniper has disappeared.

Associate Species: About half of the plant species in the whole region are known to occur somewhere in this association. The great diversity of geologic substrates and erosional and depositional features result in environmental conditions that encourage high species diversity. Because this association includes *Artemisia* spp., many herbaceous species listed as occurring in the *Artemisia tridentata* and *Artemisia nova* associations can also be found here and are not included in this list.

Commonly occurring species include:

Trees, Shrubs, and Cacti

<i>Amelanchier utahensis</i>	<i>Eriogonum microthecum</i> var.	<i>Opuntia chlorotica</i>
<i>Arctostaphylos pungens</i>	<i>foliosum</i>	<i>Opuntia erinacea</i> var. <i>erinacea</i>
<i>Artemisia nova</i>	<i>Eriogonum caespitosum</i>	<i>Opuntia phaeacantha</i> var. <i>major</i>
<i>Artemisia tridentata</i>	<i>Eriogonum microthecum</i> var.	<i>Opuntia polyacantha</i> var.
<i>Berberis fremontii</i>	<i>lapidicola</i>	<i>rufispina</i>
<i>Ceanothus cordulatus</i>	<i>Eriogonum microthecum</i> var.	<i>Peraphyllum ramosissimum</i>
<i>Ceanothus greggii</i> var. <i>vestitus</i>	<i>laxiflorum</i>	<i>Perityle megaloccephala</i> var.
<i>Cercocarpus ledifolius</i>	<i>Eriogonum umbellatum</i> var.	<i>megaloccephala</i>
<i>Chrysothamnus nauseosus</i> ssp.	<i>dichrocephalum</i>	<i>Petradoria discoidea</i>
<i>hololeucus</i>	<i>Eriogonum umbellatum</i> var.	<i>Petradoria pumila</i>
<i>Chrysothamnus parryi</i> ssp.	<i>subaridum</i>	<i>Pinus monophylla</i>
<i>nevadensis</i>	<i>Eriogonum umbellatum</i> var.	<i>Polygala subspinososa</i> var.
<i>Chrysothamnus viscidiflorus</i> ssp.	<i>versicolor</i>	<i>subspinososa</i>
<i>puberulus</i>	<i>Forsellesia nevadensis</i>	<i>Purshia tridentata</i>
<i>Chrysothamnus viscidiflorus</i> ssp.	<i>Galium hypotrichium</i> ssp.	<i>Quercus gambelii</i>
<i>viscidiflorus</i>	<i>nevadense</i>	<i>Rhus trilobata</i> var. <i>Anisophylla</i>
<i>Coryphantha vivipara</i> var. <i>rosea</i>	<i>Galium multiflorum</i>	<i>Ribes cereum</i>
<i>Cowania mexicana</i> var.	<i>Galium parishii</i>	<i>Ribes niveum</i>
<i>stansburiana</i>	<i>Garrya flavescens</i>	<i>Ribes velutinum</i>
<i>Echinocereus engelmannii</i> var.	<i>Gutierrezia sarothrae</i>	<i>Salvia domii</i> ssp. <i>argentea</i>
<i>chrysocentrus</i>	<i>Holodiscus microphyllus</i>	<i>Sclerocactus polyancistrus</i>
<i>Echinocereus triglochidiatus</i> var.	<i>Juniperus osteosperma</i>	<i>Stephanomeria spinosa</i>
<i>melanacanthus</i>	<i>Keckiella rothrockii</i>	<i>Symphoricarpos longiflorus</i>
<i>Echinocereus triglochidiatus</i> var.	<i>Leptodactylon pungens</i> ssp.	<i>Symphoricarpos parishii</i>
<i>mojavensis</i>	<i>puchriiflorum</i>	<i>Tetradymia canescens</i>
<i>Ephedra viridis</i>	<i>Linanthus nuttallii</i>	<i>Viguiera multiflora</i> var.
<i>Eriodictyon angustifolium</i>	<i>Lupinus excubitus</i>	<i>nevadensis</i>

Herbs

<i>Achillea millefolium</i> var. <i>lanulosa</i>	<i>Astragalus oophorus</i> var.	<i>Chenopodium gigantospermum</i>
<i>Agoseris glauca</i> var. <i>laciniata</i>	<i>clokeyanus</i>	<i>Chenopodium leptophyllum</i>
<i>Agropyron spicatum</i>	<i>Astragalus oophorus</i> var.	<i>Chorizanthe brevicornu</i> var.
<i>Agropyron vaseyi</i>	<i>oophorus</i>	<i>spathulata</i>
<i>Allium atrovirens</i>	<i>Astragalus purshii</i> var. <i>purshii</i>	<i>Collinsia callosa</i>
<i>Antennaria dimorpha</i>	<i>Bouteloua gracilis</i>	<i>Comandra umbellata</i> ssp.
<i>Antennaria rosea</i>	<i>Brickellia californica</i>	<i>californica</i>
<i>Arabis fendleri</i>	<i>Brickellia microphylla</i> var. <i>scabra</i>	<i>Crepis intermedia</i>
<i>Arabis hirsuta</i> var. <i>pyncocarpa</i>	<i>Bromus anomalus</i>	<i>Crepis occidentalis</i>
<i>Arabis holboellii</i> var. <i>retrofracta</i>	<i>Bromus carinatus</i>	<i>Cryptantha ambigua</i>
<i>Arabis microphylla</i>	<i>Calocortus bruneaunis</i>	<i>Cryptantha confertiflora</i>
<i>Arabis pendulina</i>	<i>Calyptidium parryi</i> var.	<i>Cryptantha flavoculata</i>
<i>Arabis pulchra</i> var. <i>gracilis</i>	<i>nevadense</i>	<i>Cryptantha gracilis</i>
<i>Arenaria congesta</i> var.	<i>Carex occidentalis</i>	<i>Cryptantha jamesii</i> var. <i>abortiva</i>
<i>subcongesta</i>	<i>Castilleja linariaefolia</i>	<i>Cryptantha torreyana</i>
<i>Argemone munita</i>	<i>Castilleja martinii</i> var. <i>clokeyi</i>	<i>Cryptantha scoparia</i>
<i>Aristida longiseta</i> var. <i>robusta</i>	<i>Chaenactis douglasii</i>	<i>Cryptantha virginensis</i>
<i>Artemisia dracunculoides</i>	<i>Chenopodium atrovirens</i>	<i>Cryptantha watsonii</i>
<i>Astragalus aequalis</i>	<i>Chenopodium berlandieri</i> var.	<i>Elymus cinereus</i>
<i>Astragalus inyoensis</i>	<i>zsackei</i>	<i>Eriogonum baileyi</i>
<i>Astragalus nuttallianus</i> var.	<i>Chenopodium fremontii</i>	<i>Eriogonum cernuum</i> var.
<i>imperfectus</i>	<i>Chenopodium missouriense</i>	<i>cernuum</i>

Eriogonum esmeraldense
Eriogonum palmerianum
Eriogonum panamintense
Eriogonum racemosum
Erysimum asperum var. *purshii*
Frasera albomarginata
Frasera pahutensis
Fritillaria atropurpurea
Fritillaria pinetorum
Galium bifolium
Galium hilendiae ssp. *hilendiae*
Galium hilendiae ssp. *kingstonense*
Gayophytum decipiens
Gayophytum ramosissimum
Haplopappus acaulis
Hulsea vestita ssp. *inyoensis*
Hymenopappus filifolius var. *megacephalus*
Ipomopsis aggregata
Ipomopsis congesta
Ivesia sabulosa
Koeleria cristata
Lappula occidentalis
Lesquerella kingii ssp. *kingii*
Lesquerella kingii ssp. *latifolia*
Linanthus septentrionalis
Lithospermum ruderales

Lomatium parryi
Lupinus alpestris
Lupinus argenteus var. *tenellus*
Lupinus palmeri
Lygodesmia dianthopsis
Machaeranthera canescens
Melica stricta
Mentzelia congesta
Mentzelia laevicaulis
Mentzelia montana
Mimulus densus
Mimulus pilosus
Mimulus rubellus
Mirabilis froebelii
Monolepis spathulata
Muhlenbergia richardsonis
Nicotiana attenuata
Oenothera caespitosa ssp. *marginata*
Oryzopsis micrantha
Pallaea truncata
Pedicularis semibarbata
Pellaea mucronata
Penstemon bridgesii
Penstemon confusus
Penstemon eatonii
Penstemon humilis
Penstemon kingii

Penstemon pahutensis
Penstemon palmeri
Penstemon thompsoniae
Phacelia affinis
Phacelia curvipes
Phacelia hastata
Phacelia lemmonii
Phacelia tetramera
Physalia hederifolia var. *cordifolia*
Physaria chambersii
Pityrogramma triangularis
Poa fendleriana
Polanisia trachysperma
Ranunculus andersonii
Scrophularia desertorum
Silene verecunda ssp. *andersonii*
Stipa arida
Stipa coronata var. *depauperata*
Stipa pinetorum
Stipa thurberiana
Streptanthus cordatus
Thalictrum fendleri
Vulpia microstachya var. *pauciflora*

Species of volcanic flatrock areas (especially Rainer Mesa, southern Pahute Mesa, and northern Fortymile Canyon drainage, but also similar areas of different rock substrate elsewhere in the region, e.g., near the base of the northern Belted Range) include:

Arabis holboellii var. *pinetorum*
Camissonia pterosperma
Camissonia pusilla
Carex douglasii
Chorizanthe watsonii
Collinsia parviflora
Cryptantha humilis var. *ovina*
Delphinium andersonii
Draba cuneifolia var. *cuneifolia*
Eriogonum caespitosum
Eriogonum microthecum var. *lapidicola*
Gayophytum diffusum ssp. *parviflorum*

Gilia aliquanta
Gilia brecciarum
Haplopappus nanus
Hymenoxys cooperi
Ivesia sabulosa
Lesquerella kingii ssp. *kingii*
Lewisia rediviva
Lithophragma tenellum
Lomatium foeniculaceum ssp. *fimbriatum*
Microsteris gracilis ssp. *humilis*
Mimulus densus
Mimulus suksdorfii
Navarretia breweri

Phacelia saxicola
Plantago purshii var. *oblonga*
Poa sandbergii
Polygonum douglasii var. *johnstonii*
Stipa pinetorum
Townsendia scapigera
Trifolium andersonii ssp. *beatleyae*
Zigadenus paniculatus

Species of cliff ledges and crevices include:

Eriogonum heermannii var. *argense*
Halimolobos diffusa var. *jaegeri*
Haplopappus cuneatus
Haplopappus watsonii

Heterotheca villosa var. *hispida*
Montia perfoliata
Petrophytum caespitosum
Phacelia mustelina
Phacelia peirsoniana

Pityrogramma triangularis
Purpusia saxosa
Thelypodium laxiflorum

Species of springs and seepage areas include:

Trees and shrubs

Chrysothamnus nauseosus ssp.
albicaulis
Prunus virginiana var.
melanocarpa
Ribes aureum

Clematis ligusticifolia
Populus fremontii
Rosa woodsii
Salix exigua var. *stenophylla*
Salix lasiolepis

Populus trichocarpa
Salix rigida var. *watsonii*

Herbs

Agrostis scabra
Agrostis exarata var. *monolepis*
Allium bisceptrum
Alopecurus aequalis
Amaranthus blitoides
Angelica kingii
Apocynum sibericum var.
salignum
Aquilegia shockleyi
Arnica parryi ssp. *sonneri*
Artemisia biennis
Aster adscendens
Carex alma
Carex aurea
Carex douglasii
Carex lanuginosa
Carex microptera
Carex nebrascensis
Carex scopularum
Cleome lutea
Conzys canadensis
Descurainia californica
Descurainia obtusa
Eleocharis macrostachya
Eleocharis parishii
Elymus cinereus

Elymus triticoides
Epilobium ciliatum
Epilobium glandulosum var.
tenue
Erigeron divergens
Equisetum hyemale
Equisetum laevigatum
Geum macrophyllum
Gilia tenerima
Hordeum brachyantherum
Hordeum jubatum
Hutchinsia procumbens
Iris missouriensis
Juncus balticus
Juncus bufonius
Juncus ensifolius
Juncus longistylis
Juncus nodosus
Lemna minuta
Leptodactylon caespitosum
Mimulus guttatus
Monolepis nuttalliana
Montia chamissoi
Oenothera hookeri ssp.
angustifolia
Osmorhiza occidentalis

Plagiobothrys scouleri var.
penicillatus
Poa nevadensis
Potentilla gracilis ssp. *nuttallii*
Potentilla biennis
Ranunculus cymbalaria var.
saximontanus
Rumex salicifolius
Sagina saginoides
Scirpus microcarpus
Senecio integerrimus var.
exaltatus
Sisyrinchium halophilum
Smilacina stellata
Solanum triflorum
Trifolium andersonii ssp.
beatleyae
Trifolium ciliatum
Trifolium monanthum
Trifolium wormskioldii
Urtica holosericea
Verbena bracteata
Veronica americana
Viola neprophylla
Zinnichellia palustris

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Appendix B

Plant Species on the NTS

Fremont's phacelia (*Phacelia fremontii*) [Photo by Susan Cochrane]

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APPENDIX B. DISTRIBUTION OF PLANT SPECIES WITHIN ALLIANCES ON THE NTS

LEGEND: A=1999 Survey; B=additional species listed in the 1976 Beatley Survey; 1 = *Lycium* spp. Shrubland Alliance; 2 = *Larrea tridentata*/*Ambrosia dumosa* Shrubland Alliance; 3 = *Atriplex confertifolia*/*Ambrosia dumosa* Shrubland Alliance; 4 = *Hymenoclea-Lycium* Shrubland Alliance; 5 = *Ephedra nevadensis* Shrubland Alliance; 6 = *Coleogyne ramosissima* Shrubland Alliance; 7 = *Atriplex* spp. Shrubland Alliance; 8 = *Chrysothamnus-Ericameria* Shrubland Alliance; 9 = *Artemisia* spp. Shrubland Alliance; 10 = *Pinus monophylla*/*Artemisia* spp. Woodland Alliance; 11= Miscellaneous

Code	Genus	Species	1	2	3	4	5	6	7	8	9	10	11
ABEL	<i>Abronia</i>	<i>elliptica</i>		A			A			A	A	A	
ABTU	<i>Abronia</i>	<i>turbinata</i>	B	B					B	A			
ACAR14	<i>Achnatherum</i>	<i>arida</i>						A			A	A	
ACCO21	<i>Achnatherum</i>	<i>coronata</i>						A			A	A	
ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	B	A	A	A	A	A	A	A	A	A	
ACMIL3	<i>Achillea</i>	<i>millefolium</i> var. <i>lanulosa</i>										B	
ACPA13	<i>Achnatherum</i>	<i>parishii</i>											B
ACPAP	<i>Achnatherum</i>	<i>parishii</i> var. <i>parishii</i>											B
ACPI2	<i>Achnatherum</i>	<i>pinetorum</i>								A		B	
ACROP	<i>Acroptilon</i>	<i>repens</i>											B
ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	A	A	A	A	A	A	A	A			B
ACSP12	<i>Achnatherum</i>	<i>speciosa</i>		A	A	A	A	A	A	A	A	A	
ACTH7	<i>Achnatherum</i>	<i>thurberiana</i>									A	A	
ADCO2	<i>Adenophyllum</i>	<i>cooperi</i>		A		A	A	A		A	A		
AGCR	<i>Agropyron</i>	<i>cristatum</i>										B	B
AGEMX2	<i>Agrostis</i>	<i>exarata</i> var. <i>monolepis</i>											B
AGLL	<i>Agoseris</i>	<i>glauca</i> var. <i>laciniata</i>								A	A	A	
AGSE2	<i>Agrostis</i>	<i>semiverticillata</i>										B	B
AGUTE	<i>Agave</i>	<i>utahensis</i> var. <i>eborispina</i>											B
ALIN	<i>Allionia</i>	<i>incarnata</i>			B								
ALNE	<i>Allium</i>	<i>nevadense</i>					A	A			A	A	
ALSC3	<i>Allium</i>	<i>scorodoprasum</i>											B
AMAC2	<i>Ambrosia</i>	<i>acanthicarpa</i>		B			A	A	B	A	A	A	
AMAL	<i>Amaranthus</i>	<i>albus</i>					B				B	B	
AMBL	<i>Amaranthus</i>	<i>blitoides</i>						B			B	B	
AMCA	<i>Amaranthus</i>	<i>californicus</i>		B									
AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	A	A	A	A	A	A	A	A	A		
AMER	<i>Ambrosia</i>	<i>eriocentra</i>		A		A	A	A			B		B
AMFI	<i>Amaranthus</i>	<i>fimbriatus</i>		B		B	B	B					
AMFRF	<i>Amphipappus</i>	<i>fremontii</i> var. <i>fremontii</i>											B
AMPA2	<i>Amelanchier</i>	<i>pallida</i>										A	B
AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	A	A	A	A	A	A	A	A	A	A	
AMTO2	<i>Amsonia</i>	<i>tomentosa</i>			B								
AMUT	<i>Amelanchier</i>	<i>utahensis</i>								A	A	A	B

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Code	Genus	Species	1	2	3	4	5	6	7	8	9	10	11
ANAC	<i>Anisocoma</i>	<i>acaulis</i>		A			A	A	B	A	A	A	
ANBR4	<i>Androstaphium</i>	<i>breviflorum</i>	B	B	B			B					
ANDI2	<i>Antennaria</i>	<i>dimorpha</i>								A	A	A	
ANRO2	<i>Antennaria</i>	<i>rosea</i>										A	
ANTU	<i>Anemone</i>	<i>tuberosa</i>						B					
APGR2	<i>Apium</i>	<i>graveolens</i>										B	
AQFOF	<i>Aquilegia</i>	<i>formosa</i> var. <i>formosa</i>										B	B
ARAD	<i>Aristida</i>	<i>adscensionis</i>		B	B								
ARAR6	<i>Aristida</i>	<i>arizonica</i>											B
ARBI3	<i>Artemisia</i>	<i>bigelovii</i>						A					
ARCO6	<i>Argemone</i>	<i>corymbosa</i>	B									A	
ARCOS2	<i>Arenaria</i>	<i>congesta</i> var. <i>subcongesta</i>					A	A		A	A	A	B
ARDI	<i>Arabis</i>	<i>dispar</i>									B	B	
ARDI3	<i>Arceuthobium</i>	<i>divaricatum</i>										A	
ARDR4	<i>Artemisia</i>	<i>dracuncululus</i>					A		A	A	A	A	B
ARGL2	<i>Arabis</i>	<i>glaucovalvula</i>	B	B	B	B	B						
ARHOP3	<i>Arabis</i>	<i>holboellii</i> var. <i>pinetorum</i>						A			A	A	B
ARIN	<i>Arabis</i>	<i>inyoensis</i>						A		A	A	B	
ARJO2	<i>Argyrochosma</i>	<i>jonesii</i>											B
ARKIC	<i>Arenaria</i>	<i>kingii</i> ssp. <i>compacta</i>						B				A	
ARLU	<i>Artemisia</i>	<i>ludoviciana</i>					A	A			A	A	0
ARLUI2	<i>Artemisia</i>	<i>ludoviciana</i> ssp. <i>incompta</i>						B			B	B	
ARMA3	<i>Arenaria</i>	<i>macradenia</i>			A		A	A		A	A	A	
ARMAF	<i>Arenaria</i>	<i>macradenia</i> ssp. <i>ferrisiae</i>						B			B	B	
ARMAM4	<i>Arenaria</i>	<i>macradenia</i> ssp. <i>macradenia</i> var. <i>macraden</i>			B		B	B				B	
ARME2	<i>Arctomecon</i>	<i>merriamii</i>		B	A				A				B
ARMUR	<i>Argemone</i>	<i>munita</i> ssp. <i>rotundata</i>						A	B	A	A	B	
ARNO4	<i>Artemisia</i>	<i>nova</i>					A	A		A	A	A	
ARPE	<i>Arabis</i>	<i>pendulina</i>										B	B
ARPE2	<i>Arabis</i>	<i>perennans</i>		B	B						B	B	
ARPU9	<i>Aristida</i>	<i>purpurea</i>		A	A		A	A		A	A	A	
ARPUF	<i>Aristida</i>	<i>purpurea</i> var. <i>fendleriana</i>					B				B	B	
ARPUG	<i>Arabis</i>	<i>pulchra</i> var. <i>gracilis</i>					A	A		A	A	A	
ARPUL	<i>Aristida</i>	<i>purpurea</i> var. <i>longiseta</i>				A		B		A	B	B	

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Code	Genus	Species	1	2	3	4	5	6	7	8	9	10	11
ARPUM	<i>Arabis</i>	<i>pulchra</i> var. <i>munciensis</i>	A	A	A	A	A	A		A	A	A	
ARPUN	<i>Aristida</i>	<i>purpurea</i> var. <i>nealleyi</i>		B	B			B					
ARPUW	<i>Aristida</i>	<i>purpurea</i> var. <i>wrightii</i>						B					
ARSH	<i>Arabis</i>	<i>shockleyi</i>						A			B	B	
ARSP5	<i>Artemisia</i>	<i>spinescens</i>	A	A	A	A	A	A	A	A	A	A	
ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>			A			A	A	A	A	A	B
ASAC3	<i>Astragalus</i>	<i>acutirostris</i>	B	A		B	A	A	A	A	A	A	
ASBE3	<i>Astragalus</i>	<i>beckwithii</i>									A	A	
ASBE5	<i>Astragalus</i>	<i>beatleyae</i>									A	A	
ASCA14	<i>Astragalus</i>	<i>casei</i>					A	A	A		A	B	
ASCAC5	<i>Astragalus</i>	<i>calycosus</i> var. <i>calycosus</i>								A	A	A	B
ASDID	<i>Astragalus</i>	<i>didymocarpus</i> var. <i>dispemus</i>		A				A					
ASER2	<i>Asclepias</i>	<i>erosa</i>		A			B	A			A	B	
ASFU3	<i>Astragalus</i>	<i>funereus</i>								A	A		B
ASLA8	<i>Astragalus</i>	<i>layneae</i>		A	A	A	A	A					
ASLEF2	<i>Astragalus</i>	<i>lentiginosus</i> var. <i>fremontii</i>	A	A	A	A	A	A	A	A	A	A	
ASLEM3	<i>Astragalus</i>	<i>lentiginosus</i> var. <i>micans</i>		B	B						B		
ASLEV	<i>Astragalus</i>	<i>lentiginosus</i> var. <i>variabilis</i>											B
ASMIV	<i>Astragalus</i>	<i>minthorniae</i> var. <i>villosus</i>						B			A	B	
ASMOM4	<i>Astragalus</i>	<i>mohavensis</i> var. <i>mohavensis</i>		B				B					
ASNE6	<i>Astragalus</i>	<i>newberryi</i>									A	A	
ASNEC	<i>Astragalus</i>	<i>newberryi</i> var. <i>castoreus</i>											B
ASNEN	<i>Astragalus</i>	<i>newberryi</i> var. <i>newberryi</i>									B	B	B
ASNY2	<i>Astragalus</i>	<i>nyensis</i>											B
ASOOO2	<i>Astragalus</i>	<i>oophorus</i> var. <i>oophorus</i>										B	
ASPUL2	<i>Astragalus</i>	<i>purshii</i> var. <i>lectulus</i>											B
ASPUT	<i>Astragalus</i>	<i>purshii</i> var. <i>tinctus</i>					A	A	A	A	A	A	
ASTI	<i>Astragalus</i>	<i>tidestromii</i>		A	B		A		A				B
ATARE	<i>Atriplex</i>	<i>argentea</i> ssp. <i>expansa</i>											B
ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	A	A	A	A	A	A	A	A	A	A	B
ATCO	<i>Atriplex</i>	<i>confertifolia</i>	A	A	A	A	A	A	A	A	A	A	
ATELF	<i>Atriplex</i>	<i>elegans</i> var. <i>fasciculata</i>											B
ATHY	<i>Atriplex</i>	<i>hymenelytra</i>		A	A								
ATLEL	<i>Atriplex</i>	<i>lentiformis</i> ssp. <i>lentiformis</i>											B

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Code	Genus	Species	1	2	3	4	5	6	7	8	9	10	11
ATPL	<i>Atrichoseris</i>	<i>platyphylla</i>			B		A						
ATPO	<i>Atriplex</i>	<i>polycarpa</i>		A	B	A							
AVSA	<i>Avena</i>	<i>sativa</i>											B
BAEM	<i>Baccharis</i>	<i>emoryi</i>											B
BAHON	<i>Balsamorhiza</i>	<i>hookeri</i> var. <i>neglecta</i>						B			A	A	
BAHY	<i>Bassia</i>	<i>hyssopifolia</i>							B			B	
BAMU	<i>Baileya</i>	<i>multiradiata</i>	A	A	A	A	A	A	A	A			
BAPL3	<i>Baileya</i>	<i>pleniradiata</i>	B	B			B	A	B	A			
BEER	<i>Berula</i>	<i>erecta</i>											B
BLKI	<i>Blepharidachne</i>	<i>kingii</i>		B			B		B				B
BOBA2	<i>Bouteloua</i>	<i>barbata</i>		B	B		B	B	B				
BOGR2	<i>Bouteloua</i>	<i>gracilis</i>					A	A	B	A	A	A	
BORO5	<i>Bolboschoenus</i>	<i>robustus</i>											B
BOTR2	<i>Bouteloua</i>	<i>trifida</i>		B				B					
BRAN	<i>Bromus</i>	<i>anomalus</i>										B	B
BRAT	<i>Brickellia</i>	<i>atractylodes</i>		A	A	A	A	A		A			
BRAR2	<i>Brickellia</i>	<i>arguta</i>											B
BRBE2	<i>Bromus</i>	<i>berterianus</i>						A	B	A			B
BRCA3	<i>Brickellia</i>	<i>californica</i>									A	B	
BRCA5	<i>Bromus</i>	<i>carinatus</i>										B	B
BRCA6	<i>Bromus</i>	<i>catharticus</i>		A	B	A	A	A			A	B	
BRDE3	<i>Brickellia</i>	<i>desertorum</i>		B									
BRDI3	<i>Bromus</i>	<i>diandrus</i>											B
BRGE	<i>Brassica</i>	<i>geniculata</i>											
BRIN	<i>Brickellia</i>	<i>incana</i>		B		A							
BRJA	<i>Bromus</i>	<i>japonicus</i>											B
BRLO	<i>Brickellia</i>	<i>longifolia</i>											B
BRL0M	<i>Brickellia</i>	<i>longifolia</i> var. <i>multiflora</i>			A								
BRMIS	<i>Brickellia</i>	<i>microphylla</i> var. <i>scabra</i>							B	A	A	B	
BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>		A	A		A	A		A		A	
BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>				A	A	A		A	A	B	B
BRRU2	<i>Bromus</i>	<i>rubens</i>	A	A	A	A	A	A	A	A	A	A	
BRTE	<i>Bromus</i>	<i>tectorum</i>		A		A	A	A	A	A	A	A	
BUUT	<i>Buddleja</i>	<i>utahensis</i>		B	A			A					

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Code	Genus	Species	1	2	3	4	5	6	7	8	9	10	11
CAAL7	<i>Carex</i>	<i>alma</i>										B	
CAAP4	<i>Castilleja</i>	<i>aplegatei</i>		A	A	A	A	A	A	A	A	A	B
CAAPM	<i>Castilleja</i>	<i>aplegatei</i> ssp. <i>martinii</i>		A		A	A					B	B
CABOC	<i>Camissonia</i>	<i>boothii</i> ssp. <i>condensata</i>	B	A	A	A	A	A				A	
CABOI	<i>Camissonia</i>	<i>boothii</i> ssp. <i>intermedia</i>							B	A	A	B	
CABR4	<i>Calochortus</i>	<i>bruneauensis</i>										B	
CABRB4	<i>Camissonia</i>	<i>brevipes</i> ssp. <i>brevipes</i>		A	A	A	B	A	A	A	A	A	B
CABRP	<i>Camissonia</i>	<i>brevipes</i> ssp. <i>pallidula</i>		B	A								
CACA32	<i>Camissonia</i>	<i>californica</i>									B		B
CACH12	<i>Camissonia</i>	<i>chamaenerioides</i>		B	B		B						
CACLI	<i>Camissonia</i>	<i>claviformis</i> ssp. <i>integrior</i>	B	A		B	A	A	B	A	A	A	
CACO18	<i>Caulanthus</i>	<i>cooperi</i>	B	A		B	B	B					
CACRG	<i>Caulanthus</i>	<i>crassicaulis</i> var. <i>glaber</i>									A	A	
CADO2	<i>Carex</i>	<i>douglasii</i>										A	
CAFL	<i>Calochortus</i>	<i>flexuosus</i>		A		A	A	A	A	A	A	A	
CAHE12	<i>Camissonia</i>	<i>heterochroma</i>		A			A	A	B		B	B	
CAKEG	<i>Camissonia</i>	<i>kemensis</i> ssp. <i>gilmanii</i>		A	A	A	A	A	A	A	A		
CAL4	<i>Castilleja</i>	<i>linariaefolia</i>						A		A	A	A	B
CAME16	<i>Camissonia</i>	<i>megalantha</i>						A	A	A			B
CAMU14	<i>Camissonia</i>	<i>munzii</i>			B								
CAOC2	<i>Carex</i>	<i>occidentalis</i>										A	
CAPA39	<i>Camissonia</i>	<i>parvula</i>									A	B	
CAPA7	<i>Calycoseris</i>	<i>parryi</i>					A	A	A	A	A	A	
CAPI4	<i>Caulanthus</i>	<i>pilosus</i>		A		A	A		B	A	A		
CAPR5	<i>Carex</i>	<i>praegracilis</i>							B			B	B
CAPT	<i>Camissonia</i>	<i>pterosperma</i>					A	B		A	A	A	
CAPU16	<i>Camissonia</i>	<i>pusilla</i>									A	A	
CARE2	<i>Camissonia</i>	<i>refracta</i>		A	A					A	A		
CAWAT	<i>Camissonia</i>	<i>walkerii</i> ssp. <i>tortilis</i>			B			B					
CAWR	<i>Calycoseris</i>	<i>wrightii</i>	B	B		A	B	B					
CEGRV2	<i>Ceanothus</i>	<i>greggii</i> ssp. <i>vestitus</i>						A			A	A	B
CEIN7	<i>Cercocarpus</i>	<i>intricatus</i>						B				A	B
CELEL	<i>Cercocarpus</i>	<i>ledifolius</i> var. <i>ledifolius</i>						A				A	B
CETH3	<i>Centrostegia</i>	<i>thurberi</i>	A	A			A	A	A	A	A	A	

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LEGEND: A=1999 Survey; B=additional species listed in the 1976 Beatley Survey; 1 = *Lycium* spp. Shrubland Alliance; 2 = *Larrea tridentata*/*Ambrosia dumosa* Shrubland Alliance; 3 = *Atriplex confertifolia*/*Ambrosia dumosa* Shrubland Alliance; 4 = *Hymenoclea-Lycium* Shrubland Alliance; 5 = *Ephedra nevadensis* Shrubland Alliance; 6 = *Coleogyne rammosissima* Shrubland Alliance; 7 = *Atriplex* spp. Shrubland Alliance; 8 = *Chrysothamnus-Ericameria* Shrubland Alliance; 9 = *Artemisia* spp. Shrubland Alliance; 10 = *Pinus monophylla*/*Artemisia* spp. Woodland Alliance; 11= Miscellaneous

Code	Genus	Species	Lycium spp	Larrea tridentata/ambrosia dumosa	Atriplex confertifolia/Ambrosia dumosa	Hymenoclea-Lycium	Ephedra nevadensis	Coleogyne rammosissima	Atriplex spp.	Chrysothamnus-Ericameria	Artemisia spp.	Pinus monophylla/Artemisia spp.	Miscellaneous
1	2	3	4	5	6	7	8	9	10	11			
CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	A	A	A	A	A	A	A	A	A	A	
CHAL7	<i>Chenopodium</i>	<i>album</i>							A		A	A	B
CHALM2	<i>Chenopodium</i>	<i>album</i> var. <i>missouriense</i>										B	
CHAT	<i>Chenopodium</i>	<i>atrovirens</i>										B	
CHBES	<i>Chenopodium</i>	<i>berlandieri</i> var. <i>sinuatum</i>										B	
CHBEZ	<i>Chenopodium</i>	<i>berlandieri</i> var. <i>zschackei</i>						B				B	
CHBRB	<i>Chorizanthe</i>	<i>brevicornu</i> var. <i>brevicornu</i>		A		A	A	A	A		A		
CHBRS	<i>Chorizanthe</i>	<i>brevicornu</i> var. <i>spathulata</i>										B	
CHCA	<i>Chaenactis</i>	<i>carphoclinia</i>		A	A		B	A					
CHCO4	<i>Cheilanthes</i>	<i>covillei</i>						B					
CHDO	<i>Chaenactis</i>	<i>douglasii</i>									A	A	B
CHER2	<i>Leucelene</i>	<i>ericoides</i>					B	B	B	A	A	B	
CHFE3	<i>Chamaesyce</i>	<i>fendleri</i>									B	B	B
CHFR	<i>Chaenactis</i>	<i>fremontii</i>	A	A	A	A	A	A	A	A	A		
CHFR3	<i>Chenopodium</i>	<i>fremontii</i>										B	
CHGR13	<i>Chrysothamnus</i>	<i>gramineus</i>									A	A	B
CHGR6	<i>Chrysothamnus</i>	<i>greenei</i>					A	A	B	A	A	A	
CHIN2	<i>Chenopodium</i>	<i>incanum</i>		B		B	B	B	B		A	A	
CHLE4	<i>Chenopodium</i>	<i>leptophyllum</i>								A	A	A	
CHMA	<i>Chaenactis</i>	<i>macrantha</i>	B	A	A	B	A	A	A	A	A	A	
CHMI2	<i>Chamaebatiaria</i>	<i>millefolium</i>										B	
CHMI7	<i>Chamaesyce</i>	<i>micromera</i>	B	B	B	B	B	B	B		B		
CHPA30	<i>Chamaesyce</i>	<i>parishii</i>		B									
CHPA4	<i>Cheilanthes</i>	<i>parryi</i>			B								
CHPR5	<i>Chenopodium</i>	<i>pratericola</i>		B					B				
CHRI	<i>Chorizanthe</i>	<i>rigida</i>		A	A		A	A	A	A	A		
CHSE8	<i>Chamaesyce</i>	<i>setiloba</i>					B	B			B		
CHSES	<i>Chamaesyce</i>	<i>serpyllifolia</i> ssp. <i>serpyllifolia</i>		B			A	B	B	A	A	B	
CHSI2	<i>Chenopodium</i>	<i>simplex</i>										B	
CHST	<i>Chaenactis</i>	<i>steviodes</i>	A	A	A	A	A	A	A	A	A	A	
CHSTG2	<i>Chenopodium</i>	<i>strictum</i> ssp. <i>glaucophyllum</i>										B	
CHV4	<i>Chloris</i>	<i>virgata</i>										B	
CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>			A		A	A	B	A	A	A	B
CHVIS5	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i> var. <i>stenophyllus</i>				B	A	B	B		A	B	

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Code	Genus	Species	1	2	3	4	5	6	7	8	9	10	11
CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	A	A	A	A	A	A	A	A	A	A	B
CHWA2	<i>Chorizanthe</i>	<i>watsonii</i>					A	A		A	A	A	
CHWH	<i>Chaetadelpchia</i>	<i>wheeleri</i>		B			B		B				
CHXA	<i>Chaenactis</i>	<i>xantiana</i>									A	A	B
CIMO4	<i>Cistanthe</i>	<i>monandra</i>		B									B
CINE	<i>Cirsium</i>	<i>neomexicanum</i>		A			A	A		A	A	A	
CIPAN	<i>Cistanthe</i>	<i>parryi</i> var. <i>nevadense</i>						A			A	B	
CLLU2	<i>Cleome</i>	<i>lutea</i>							B			B	
CLPAU2	<i>Claytonia</i>	<i>perfoliata</i> ssp. <i>perfoliata</i>						A			A	A	
COAR4	<i>Convolvulus</i>	<i>arvensis</i>											B
COCA5	<i>Conyza</i>	<i>canadensis</i>			B			B				B	
COPA3	<i>Collinsia</i>	<i>parviflora</i>						A				A	
CORA	<i>Coleogyne</i>	<i>ramosissima</i>		A	A	A	A	A	A	A	A	A	
COTE	<i>Collomia</i>	<i>tenella</i>						B				B	
GRAM3	<i>Cryptantha</i>	<i>ambigua</i>					A				A	A	
CRAN4	<i>Cryptantha</i>	<i>angustifolia</i>		B	B								
CRBA5	<i>Cryptantha</i>	<i>barbigera</i>						B					
CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	A	A	A	A	A	A	A	A	A	A	
CRCO12	<i>Cryptantha</i>	<i>confertiflora</i>					A	A	A	A	A	A	
CRDE	<i>Cryptantha</i>	<i>decipiens</i>		B	B						A		
CRDU	<i>Cryptantha</i>	<i>dumetorum</i>		B									
CRFL6	<i>Cryptantha</i>	<i>flavoculata</i>			A		A	A		A	A	A	
CRGR3	<i>Cryptantha</i>	<i>gracilis</i>					A	A		A	A	A	
CRHU2	<i>Cryptantha</i>	<i>humilis</i>									B	A	
CRIN4	<i>Crepis</i>	<i>intermedia</i>										A	B
CRMA7	<i>Cryptantha</i>	<i>maritima</i>		A			A						B
CRMI	<i>Cryptantha</i>	<i>micrantha</i>		A	A	A	A	A	A	A	A	A	
CRNEN	<i>Cryptantha</i>	<i>nevadensis</i> var. <i>nevadensis</i>	A	A	A	A	A	A	A	A	A	A	B
CROCO2	<i>Crepis</i>	<i>occidentalis</i> ssp. <i>occidentalis</i>					A	A			A	A	
CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	A	A		A	A	A	A	A	A	A	
CRRA2	<i>Cryptantha</i>	<i>racemosa</i>		B									
CRRE5	<i>Cryptantha</i>	<i>recurvata</i>	B	A	B	B	A	A	B	A	A		
CRRUH	<i>Crepis</i>	<i>runcinata</i> ssp. <i>hallii</i>											B
CRSC2	<i>Cryptantha</i>	<i>scoparia</i>										B	

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Code	Genus	Species	1	2	3	4	5	6	7	8	9	10	11
CRUT	<i>Cryptantha</i>	<i>utahensis</i>		A	A		A	A	A	A	A	A	
CRV15	<i>Cryptantha</i>	<i>virginensis</i>		A	A	A	A	A	A	A	A	A	
CRWA2	<i>Cryptantha</i>	<i>watsonii</i>										B	
CUDE2	<i>Cuscuta</i>	<i>denticulata</i>											B
CUDEV	<i>Cuscuta</i>	<i>denticulata</i> var. <i>vetchii</i>		A				A					B
CYAB	<i>Cymopterus</i>	<i>aboriginum</i>						A			B	A	
CYDA	<i>Cynodon</i>	<i>dactylon</i>											B
CYGI	<i>Cymopterus</i>	<i>gilmanii</i>						B					
CYGL2	<i>Cymopterus</i>	<i>globosus</i>				A	A	A	A	A	A		B
CYPU	<i>Cymopterus</i>	<i>purpurascens</i>					A	A			A	B	
CYRI2	<i>Cymopterus</i>	<i>ripleyi</i>		B		A	A	A	B	A	A	B	
CYUT	<i>Cynanchum</i>	<i>utahense</i>		B									
DACA6	<i>Daucus</i>	<i>carota</i>											B
DAGL	<i>Dactylis</i>	<i>glomerata</i>											B
DAMO2	<i>Dalea</i>	<i>mollissima</i>		A					B				
DASE3	<i>Dalea</i>	<i>searsiae</i>						B	B	A	B	B	
DAWR2	<i>Datura</i>	<i>wrightii</i>							B				
DEAN	<i>Delphinium</i>	<i>andersonii</i>		A	A		A	A			A	A	
DECA18	<i>Deschampsia</i>	<i>caespitosa</i>											B
DEDA	<i>Deschampsia</i>	<i>danthonioides</i>						B					
DEPAP3	<i>Delphinium</i>	<i>parishii</i> ssp. <i>parishii</i>	B	A	A	A	A	A	A	A	A	A	
DEPIG	<i>Descurainia</i>	<i>pinnata</i> ssp. <i>glabra</i>	A	A	A	B	A	A	A	A	A	A	
DEPIH	<i>Descurainia</i>	<i>pinnata</i> ssp. <i>halictorum</i>									B	B	B
DESO2	<i>Descurainia</i>	<i>sophia</i>	A	A	B		A	A				B	
DIPU3	<i>Dichelostemma</i>	<i>pulchellum</i>		A		A	A	A		A	A	A	
DISA	<i>Digitaria</i>	<i>sanguinalis</i>											B
DISP	<i>Distichlis</i>	<i>spicata</i>							B				
DRCUC	<i>Draba</i>	<i>cuneifolia</i> var. <i>cuneifolia</i>									B	B	
DRCUI	<i>Draba</i>	<i>cuneifolia</i> var. <i>integrifolia</i>						B					
DYPEB	<i>Dyssodia</i>	<i>pentachaeta</i> var. <i>belenidium</i>						B					
ECCR	<i>Echinochloa</i>	<i>crusgalli</i>											B
ECEN	<i>Echinocereus</i>	<i>engelmannii</i>		A	A	A	A	A	A	A	A	A	
ECENA2	<i>Echinocereus</i>	<i>engelmannii</i> var. <i>armatus</i>									B		
ECENC	<i>Echinocereus</i>	<i>engelmannii</i> var. <i>chysocentrus</i>										B	

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ECENE	<i>Echinocereus</i>	<i>engelmannii</i> var. <i>engelmannii</i>			B		A	A		A			
ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>		A	A	A	A	A	A	A			
ECTRM	<i>Echinocereus</i>	<i>triglochidiatus</i> var. <i>melanacanthus</i>		A			A	B			A	A	
ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoids</i>	A	A	A	A	A	A	A	A	A	A	
ELMA5	<i>Eleocharis</i>	<i>macrostachya</i>										B	
ELMU3	<i>Elymus</i>	<i>multisetus</i>						B					B
ELPA3	<i>Eleocharis</i>	<i>paulustris</i>											B
ELPA4	<i>Eleocharis</i>	<i>parishii</i>										B	B
ENNUN	<i>Enceliopsis</i>	<i>nudicaulis</i> var. <i>nudicaulis</i>				A	A				B		
ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>		A	A	A	A	A	A	A	A		
EPCI	<i>Epilobium</i>	<i>ciliatum</i>						B				A	
EPFU	<i>Ephedra</i>	<i>funerea</i>		A	A		A	A					
EPGL	<i>Epilobium</i>	<i>glaberrimum</i>											B
EPNE	<i>Ephedra</i>	<i>nevadensis</i>		A	A	A	B	A	A	A	A	A	
EPTO	<i>Ephedra</i>	<i>torreyana</i>		A	A		A	A	A				
EPVI	<i>Ephedra</i>	<i>viridis</i>		A	A	A	A	A	A	A	A	A	
ERAP	<i>Erigeron</i>	<i>aphanactis</i>								A	A	A	B
ERBA2	<i>Eragrostis</i>	<i>barbieri</i>											B
ERBAB	<i>Eriogonum</i>	<i>baileyi</i> var. <i>baileyi</i>											B
ERBR7	<i>Eriogonum</i>	<i>brachyanthum</i>						A	B		A	A	
ERBR8	<i>Eriogonum</i>	<i>brachypodum</i>			B			B					
ERBRP	<i>Erigeron</i>	<i>breweri</i> var. <i>porphyreticus</i>									B		
ERCA2	<i>Eriogonum</i>	<i>californicum</i>									A	A	B
ERCA8	<i>Eriogonum</i>	<i>caespitosum</i>						A			A	B	
ERCEC	<i>Eriogonum</i>	<i>cernuum</i> var. <i>cernuum</i>										B	B
ERCEV	<i>Eriogonum</i>	<i>cernuum</i> var. <i>viminale</i>									B	B	
ERIC6	<i>Erodium</i>	<i>cicutarium</i>		A	A	A	A	A	A	A	A	A	
ERCO18	<i>Eriogonum</i>	<i>concinnum</i>							B		A	B	
ERCO23	<i>Ericameria</i>	<i>cooperi</i>		A	A	A	A	A	A	A	A	A	
ERCOC3	<i>Erigeron</i>	<i>concinus</i> var. <i>concinus</i>		A	A		A	A	A	A	A	A	
ERCUC	<i>Ericameria</i>	<i>cuneatus</i>						A			B	B	
ERDE6	<i>Eriogonum</i>	<i>deflexum</i>		A	A	A	A	A	A	A	A	A	
ERDEB	<i>Eriogonum</i>	<i>deflexum</i> var. <i>baratum</i>						B			B	B	
ERDED4	<i>Eriogonum</i>	<i>deflexum</i> var. <i>deflexum</i>		B	B							B	

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ERDEN	<i>Eriogonum</i>	<i>defflexum</i> var. <i>nevadense</i>	B	B		B	B	B	B		B	B	
ERDI4	<i>Erigeron</i>	<i>divergens</i>					A	A		A	A	A	
ERER2	<i>Eriastrum</i>	<i>eremicum</i>	A	A	A	A	A	A	A	A	A	A	
ERESE	<i>Eriogonum</i>	<i>esmeraldense</i> var. <i>esmeraldense</i>					A				A	A	B
EREX3	<i>Eremalche</i>	<i>exilis</i>		B									B
ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>		A	A	A	A	A	A	A	A	A	
ERGL4	<i>Eriogonum</i>	<i>glandulosum</i>			B			A					
ERHEA	<i>Eriogonum</i>	<i>heermannii</i> var. <i>argense</i>						A			A	B	
ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>			A		A	A					B
ERHES2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>sulcatum</i>											B
ERHO12	<i>Eriogonum</i>	<i>howellianum</i>						B					
ERHO6	<i>Eriogonum</i>	<i>hookeri</i>							B	A	A		
ERIN10	<i>Eriogonum</i>	<i>insigne</i>		B									
ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	A	A	A	A	A	A	A	A	A	A	
ERLI6	<i>Ericameria</i>	<i>linearifolius</i>					A	A		A	A	A	
ERMA2	<i>Eriogonum</i>	<i>maculatum</i>	A	A	A	B	B	A	B		A		
ERMIL	<i>Eriogonum</i>	<i>microthecum</i> var. <i>lapidicola</i>						A			A	A	
ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>			A		A	A		A	A	A	
ERNA10	<i>Ericameria</i>	<i>nauseosus</i>			B		A	A	B	A	A	A	B
ERNA7	<i>Ericameria</i>	<i>nanus</i>					A	B	A	A	A	A	
ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>			B	A	A	A	A	A	A	A	
ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>		A	A	A	A	A	A	A	A	A	
ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	A	A	A	A	A	A	A	A	A	A	
ERNU4	<i>Eriogonum</i>	<i>nummular</i>					A	A	B	A	A		
ERNUN2	<i>Eriogonum</i>	<i>nutans</i> var. <i>nutans</i>									B	B	
EROVO5	<i>Eriogonum</i>	<i>ovalifolium</i> var. <i>ovalifolium</i>				A	A	A		A	A	A	
ERPA11	<i>Eriogonum</i>	<i>palmerianum</i>						B			B	A	
ERPA29	<i>Ericameria</i>	<i>paniculata</i>		A		A	A				A	A	B
ERPAN2	<i>Ericameria</i>	<i>parryi</i> var. <i>nevadensis</i>									A	A	
ERPI5	<i>Erioneuron</i>	<i>pilosum</i>									B		
ERPR4	<i>Eriophyllum</i>	<i>pringlei</i>	B	A	A	A	A	A	A	A	A		
ERPU6	<i>Eriogonum</i>	<i>pusillum</i>		A		A	B	A	A	A	A		
ERPU8	<i>Erioneuron</i>	<i>pulchellum</i>		A	A	A	A	A	A	A	A		
ERRA3	<i>Eriogonum</i>	<i>racemosum</i>		A						A	A	A	B

APPENDIX B. DISTRIBUTION OF PLANT SPECIES WITHIN ALLIANCES ON THE NTS

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Code	Genus	Species	1	2	3	4	5	6	7	8	9	10	11
ERRE3	<i>Eriogonum</i>	<i>reniforme</i>	B	B			A						
ERRO8	<i>Eremalche</i>	<i>rotundifolia</i>		B	B								
ERSA6	<i>Eriogonum</i>	<i>saxatile</i>					A	A		A	A	A	
ERSP3	<i>Eriastrum</i>	<i>sparsiflorum</i>		A	A			A		A	A	A	
ERTE18	<i>Ericameria</i>	<i>teretifolia</i>		A	A	A	A	A	A	A	A	A	
ERTH	<i>Eriogonum</i>	<i>thomasii</i>		A	A			A		A			
ERTR8	<i>Eriogonum</i>	<i>trichopes</i>		A	B			A			B		
ERUM	<i>Eriogonum</i>	<i>umbellatum</i>					A	A	A	A	A	A	
ERUMD3	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>dichrocephalum</i>									B	B	
ERUMS2	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>subaridum</i>										A	B
ERUMV	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>vernum</i>									B	A	
ERUMV2	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>versicolor</i>									A	A	B
ERWA8	<i>Ericameria</i>	<i>watsonii</i>		A							A	A	
ERWI	<i>Eriastrum</i>	<i>wilcoxii</i>									A	A	
ERWRS	<i>Eriogonum</i>	<i>wrightii</i> var. <i>subscaposum</i>											B
ESGL	<i>Eschscholtzia</i>	<i>glyptosperma</i>	A	A	A		A	A	A				
ESMI	<i>Eschscholtzia</i>	<i>minutiflora</i>		A	B		A	B	B		A		
ESMIC2	<i>Eschscholtzia</i>	<i>multiflora</i> ssp. <i>covillei</i>		B	B			B					
ESVID	<i>Escobaria</i>	<i>vivipara</i> var. <i>deserti</i>					A	A		A	A	B	
ESVIR2	<i>Escobaria</i>	<i>vivipara</i> var. <i>rosea</i>			A		A	A	A		A	A	
EUMI2	<i>Eucrypta</i>	<i>micrantha</i>			B			B					
EUUR	<i>Eucnide</i>	<i>urens</i>											B
FAPA	<i>Fallugia</i>	<i>paradoxa</i>						B			B	B	
FEPR	<i>Festuca</i>	<i>pratensis</i>											B
FEUT	<i>Fendlerella</i>	<i>utahensis</i>						B				B	
FOPUP	<i>Forestiera</i>	<i>pubescens</i> var. <i>pubescens</i>			B								B
FRAL5	<i>Frasera</i>	<i>albomarginata</i>											B
FRALM	<i>Frasera</i>	<i>pahutensis</i>										A	
FRAN2	<i>Fraxinus</i>	<i>anomala</i>											B
FRAT	<i>Fritillaria</i>	<i>atropurpurea</i>									A	B	
FRVE2	<i>Fraxinus</i>	<i>velutina</i>											B
GAAP2	<i>Galium</i>	<i>aparine</i>										B	
GABI	<i>Galium</i>	<i>bifolium</i>										B	
GACO5	<i>Gaura</i>	<i>coccinea</i>		B	B			B					

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Code	Genus	Species	1	2	3	4	5	6	7	8	9	10	11
GADE2	<i>Gayophytum</i>	<i>decipiens</i>										B	
GADIP	<i>Gayophytum</i>	<i>diffusum</i> ssp. <i>parviflorum</i>									A	A	
GAHIH	<i>Galium</i>	<i>hilendiae</i> ssp. <i>hilendiae</i>										B	
GAHIK	<i>Galium</i>	<i>hilendiae</i> ssp. <i>kingstonense</i>										B	
GAMA3	<i>Galium</i>	<i>magnifolium</i>						B					
GARA	<i>Gayophytum</i>	<i>racemosum</i>					A				A	B	B
GARA2	<i>Gayophytum</i>	<i>ramosissimum</i>									A	B	
GAST	<i>Galium</i>	<i>stellatum</i>		B	A								
GECA2	<i>Geraea</i>	<i>canescens</i>			B								
GIALB	<i>Gilia</i>	<i>aliquanta</i> ssp. <i>brevikoba</i>						A			B	B	
GIBRB	<i>Gilia</i>	<i>brecciarum</i> ssp. <i>brecciarum</i>		A	A		A	A	A	A	A	A	
GICA2	<i>Gilia</i>	<i>campanulata</i>	B	B	B				B				
GICAS	<i>Gilia</i>	<i>cana</i> ssp. <i>speciformis</i>		A	A		B	B					
GICAT	<i>Gilia</i>	<i>cana</i> ssp. <i>triceps</i>	B	A		B	A	B	B				
GICL2	<i>Gilia</i>	<i>clokeyi</i>		B	B			B					
GIFI2	<i>Gilia</i>	<i>filiformis</i>			B								
GIHU	<i>Gilia</i>	<i>hutchinsifolia</i>	B	B				A			A	A	
GIIN2	<i>Gilia</i>	<i>inconspicua</i>				A	A	A	A	A	A	A	B
GILA2	<i>Gilia</i>	<i>latifolia</i>		B	B			A					
GILE3	<i>Gilia</i>	<i>leptomeria</i>		A				B	B		B	B	
GIMA	<i>Gilia</i>	<i>malior</i>						B			B		
GIMO	<i>Gilia</i>	<i>modocensis</i>									B	B	
GINY	<i>Gilia</i>	<i>nyensis</i>							B		A	A	
GIOP	<i>Gilia</i>	<i>ophthalmoides</i>						A		A	B	B	
GIRI2	<i>Gilia</i>	<i>ripleyi</i>											B
GISC	<i>Gilia</i>	<i>scopulorum</i>		A	B		A	A					
GISI	<i>Gilia</i>	<i>sinuata</i>				B				A	A		
GIST	<i>Gilia</i>	<i>stellata</i>		B		B							
GITR	<i>Gilia</i>	<i>transmontana</i>			B								
GLMA2	<i>Glyptopleura</i>	<i>marginata</i>	B	B		B	A	B	B				
GLSPA	<i>Forsellesia</i>	<i>nevadensis</i>					A	A			A	A	B
GNPA	<i>Gnaphalium</i>	<i>palustre</i>									B	B	
GRSP	<i>Grayia</i>	<i>spinosa</i>	A	A	A	A	A	A	A	A	A	A	
GRSQS	<i>Grindelia</i>	<i>squarrosa</i> var. <i>serrulata</i>			B								

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Code	Genus	Species	<i>Lycium</i> spp	<i>Larrea tridentata</i> / <i>ambrosia dumosa</i>	<i>Atriplex confertifolia</i> / <i>Ambrosia dumosa</i>	<i>Hymenoclea-Lycium</i>	<i>Ephedra nevadensis</i>	<i>Coleogyne ramosissima</i>	<i>Atriplex</i> spp.	<i>Chrysothamnus-Ericameria</i>	<i>Artemisia</i> spp.	<i>Pinus monophylla</i> / <i>Artemisia</i> spp.	Miscellaneous
GULA4	<i>Guillenia</i>	<i>lasiophylla</i>	B	B		B	B	B					
GUMI	<i>Gutierrezia</i>	<i>microcephala</i>			B		B	B	B		B	B	
GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>		A	A	A	A	A	A	A	A	A	B
HABR3	<i>Hazardia</i>	<i>brickellioides</i>											B
HAGL	<i>Halogeton</i>	<i>glomeratus</i>			A		A	A	A		A		
HEAN3	<i>Helianthus</i>	<i>annuus</i>											B
HECOC8	<i>Hesperostipa</i>	<i>comata</i> ssp. <i>comata</i>					A	A		A	A	A	B
HEMUN	<i>Heliomeris</i>	<i>multiflora</i> var. <i>nevadensis</i>		A		A	A	A	A	A	A	A	
HENAC	<i>Hedeoma</i>	<i>nanum</i> ssp. <i>californicum</i>											B
HEPEF	<i>Helianthus</i>	<i>petiolaris</i> ssp. <i>fallax</i>											B
HEPEP	<i>Helianthus</i>	<i>petiolaris</i> ssp. <i>petiolaris</i>											B
HESH	<i>Hecastocleis</i>	<i>shockeyi</i>						B					
HEVIH	<i>Heterotheca</i>	<i>villosa</i> var. <i>hispida</i>										B	
HIIN3	<i>Hirschfeldia</i>	<i>incana</i>											B
HODI	<i>Holodiscus</i>	<i>discolor</i>								A		A	B
HOJU	<i>Hordeum</i>	<i>jubatum</i>						B			A	B	
HOMUG	<i>Hordeum</i>	<i>murinum</i> ssp. <i>glaucum</i>											B
HUVEI	<i>Hulsea</i>	<i>vestita</i> ssp. <i>inyoensis</i>							B	A	A	A	
HYCOC2	<i>Hymenoxys</i>	<i>cooperi</i> var. <i>cooperi</i>									A	A	
HYFIM	<i>Hymenopappus</i>	<i>filifolius</i> var. <i>megacephalus</i>										A	
HYSA	<i>Hymenoclea</i>	<i>salsola</i>	A	A	A	A	A	A	A	A	A		
IPCO5	<i>Ipomopsis</i>	<i>congesta</i>							B		A	A	B
IPDE	<i>Ipomopsis</i>	<i>depressa</i>	B		B			B	B			A	
IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	A	A	A	A	A	A	A	A	A	A	
ISACA2	<i>Isocoma</i>	<i>acradenius</i> var. <i>eremophilus</i>											B
IVARS	<i>Ivesia</i>	<i>arizonica</i> var. <i>saxosa</i>										B	
IVNE	<i>Iva</i>	<i>nevadensis</i>							B				
IVSA	<i>Ivesia</i>	<i>sabulosa</i>										B	B
JUBA	<i>Juncus</i>	<i>balticus</i>			B			B	B		A	B	
JULO	<i>Juncus</i>	<i>longistylis</i>											B
JUOS	<i>Juniperus</i>	<i>osteosperma</i>					A	A	A	A	A	A	B
JUSA	<i>Juncus</i>	<i>saximontanus</i>											B
KEROR	<i>Keckiella</i>	<i>rothrockii</i> ssp. <i>rothrockii</i>										A	
KOAM	<i>Kochia</i>	<i>americana</i>	A					A	A	A	A		B

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Code	Genus	Species	<i>Lycium</i> spp	<i>Larrea tridentata</i> / <i>ambrosia dumosa</i>	<i>Atriplex confertifolia</i> / <i>Ambrosia dumosa</i>	<i>Hymenoclea-Lycium</i>	<i>Ephedra nevadensis</i>	<i>Coleogyne ramosissima</i>	<i>Atriplex</i> spp.	<i>Chrysothamnus-Ericameria</i>	<i>Artemisia</i> spp.	<i>Pinus monophylla</i> / <i>Artemisia</i> spp.	Miscellaneous
KOIR	<i>Kochia</i>	<i>iranica</i>									B	B	
KOMA	<i>Koeleria</i>	<i>macrantha</i>								A	A	A	
KOSC	<i>Kochia</i>	<i>scoparia</i>											B
KRER	<i>Krameria</i>	<i>erecta</i>		A	A	A	A	A	A	A			
KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	A	A	A	A	A	A	A	A	A	A	
LAH4	<i>Lathyrus</i>	<i>hitchcockianus</i>									B	B	
LAOCO	<i>Lappula</i>	<i>occidentalis</i> var. <i>occidentalis</i>	A				A	A		A	A	A	B
LASE	<i>Lactuca</i>	<i>seriola</i>		A	B	A		A					
LASE3	<i>Langloisia</i>	<i>setosissima</i>	A	A	B	A	A	A	B	A			
LASEP	<i>Langloisia</i>	<i>setosissima</i> ssp. <i>punctata</i>							B				
LATR2	<i>Larrea</i>	<i>tridentata</i>		B	A	A	A	A	A	A	A		B
LECI4	<i>Leymus</i>	<i>cinereus</i>						A	A	A	A	A	B
LEFLF2	<i>Lepidium</i>	<i>flavum</i> var. <i>flavum</i>		A	B			A					B
LEFR2	<i>Lepidium</i>	<i>fremontii</i>		A	A	A	A	A	A	A	A		
LEKIK	<i>Lesquerella</i>	<i>kingii</i> ssp. <i>kingii</i>									A	A	B
LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	A	A	A	A	A	A	A	A	A	A	
LELU	<i>Lesquerella</i>	<i>ludoviciana</i>							B			B	
LEMOC	<i>Lepidium</i>	<i>montanum</i> var. <i>canescens</i>		A					B				B
LEPE2	<i>Lepidium</i>	<i>perfoliatum</i>											B
LEPU	<i>Leptodactylon</i>	<i>pungens</i>		A	A		A	A		A	A	A	B
LEREM	<i>Lewisia</i>	<i>rediviva</i> var. <i>minor</i>									A	A	
LETR5	<i>Leymus</i>	<i>triticoideus</i>						B				B	
LEUN2	<i>Leptochloa</i>	<i>uninervia</i>											B
LIAR2	<i>Linanthus</i>	<i>arenicola</i>		B									
LIBI2	<i>Linanthus</i>	<i>bigelovii</i>		B							A		
LIDE2	<i>Linanthus</i>	<i>demissus</i>		A				A					
LIDI2	<i>Linanthus</i>	<i>dichotomus</i>		A				A		A	B	A	
LIJO	<i>Linanthus</i>	<i>jonesii</i>		B	B			B					
LILE3	<i>Linum</i>	<i>lewisii</i>				A	A	A	A	A	A	A	
LINUN	<i>Linanthus</i>	<i>nuttallii</i> ssp. <i>nuttallii</i>									A	A	B
LIRU4	<i>Lithospermum</i>	<i>ruderales</i>									B	A	
LISE	<i>Linanthus</i>	<i>septentrionalis</i>										B	
LITE4	<i>Lithophragma</i>	<i>tenellum</i>										B	
LOAR10	<i>Lolium</i>	<i>arundinacea</i>											B

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			1	2	3	4	5	6	7	8	9	10	11
LOFOF	<i>Lomatium</i>	<i>foeniculaceum</i> ssp. <i>fimbriatum</i>									B	A	
LOHU2	<i>Lotus</i>	<i>humistratus</i>		A	A		A	A		A	A		
LONEN	<i>Lomatium</i>	<i>nevadense</i> var. <i>nevadense</i>					A	A		A	A	A	
LOPEM2	<i>Lolium</i>	<i>perenne</i> ssp. <i>multiflorum</i>											B
LOSC3	<i>Lomatium</i>	<i>scabrum</i>		A			A	A		A			
LOSC6	<i>Loeseliastrum</i>	<i>schottii</i>	B	A		B	A	A	B	A	B		
LUAR7	<i>Lupinus</i>	<i>aridus</i>									B		
LUARL5	<i>Lupinus</i>	<i>argenteus</i> ssp. <i>artenteus</i> var. <i>laxiflorus</i>								A	A	A	B
LUBR2	<i>Lupinus</i>	<i>brevicaulis</i>	B	A			A	A	A	A	A	A	
LUCA	<i>Lupinus</i>	<i>caudatus</i>									B	A	
LUCO02	<i>Lupinus</i>	<i>concinus</i> ssp. <i>orcuttii</i>						A			A		B
LUFL	<i>Lupinus</i>	<i>flavoculatus</i>	B	A		B	A	A	A	A	A	A	
LUHO	<i>Lupinus</i>	<i>holmgrenanus</i>									B		
LUMI	<i>Lupinus</i>	<i>microcarpus</i>									A		
LUPA3	<i>Lupinus</i>	<i>palmeri</i>										A	
LUSH	<i>Lupinus</i>	<i>shockleyi</i>		A	A	A	A	A	A	A	A	A	
LUSU10	<i>Lupinus</i>	<i>subvexus</i>									A		
LUUN	<i>Lupinus</i>	<i>uncialis</i>									B		
LYAN	<i>Lycium</i>	<i>andersonii</i>		A	A	A	A	A	A	A	A	A	
LYD4	<i>Lygodesmia</i>	<i>dianthopsis</i>									B	B	
LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	A	A	A	A	A	A	A	A			B
LYSH	<i>Lycium</i>	<i>shockleyi</i>	A	A	A	A	A		A			B	B
MAAF	<i>Malcolmia</i>	<i>africana</i>											B
MACAC	<i>Machaeranthera</i>	<i>canescens</i> ssp. <i>canescens</i>	A	A	A	A	A	A	A	A	A	A	
MACO3	<i>Malacothrix</i>	<i>coulteri</i>		B	B			B					
MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	A	A	A	A	A	A	A	A	A	A	
MAGR10	<i>Machaeranthera</i>	<i>gracilis</i>											B
MAPA5	<i>Malva</i>	<i>parviflora</i>											B
MAPIG2	<i>Machaeranthera</i>	<i>gooddingii</i>											B
MASO	<i>Malacothrix</i>	<i>sonchoides</i>		A			A	A	B	A	A	A	
MATE4	<i>Mammillaria</i>	<i>tetrancistra</i>		A			A	A			A	A	B
MAVU	<i>Marrubium</i>	<i>vulgare</i>										B	
MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	A	A	A	B	A	A	A	A	A	A	
MECO2	<i>Mentzelia</i>	<i>congesta</i>						A			A	A	

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Code	Genus	Species	1	2	3	4	5	6	7	8	9	10	11
MEIN2	<i>Melilotus</i>	<i>indicus</i>						B				B	
MEMO4	<i>Mentzelia</i>	<i>montana</i>						B			B	B	
MENI2	<i>Mentzelia</i>	<i>nitens</i>		B				A	B				
MEOB3	<i>Mentzelia</i>	<i>obscura</i>	B	A	A	A	A	A	A	A	A		
MEOF	<i>Melilotus</i>	<i>officinalis</i>											B
MEOR3	<i>Mentzelia</i>	<i>oreophila</i>											B
MERE	<i>Mentzelia</i>	<i>reflexa</i>		B									
MESA	<i>Medicago</i>	<i>sativa</i>											B
MESP2	<i>Menodora</i>	<i>spinescens</i>		A	A	A	A	A	A	A	A		
MEVE5	<i>Mentzelia</i>	<i>vestchiana</i>		A		A	A	A	A	A	A	A	
MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>		A	A	A	A	A	A	A	A	A	
MIBIB	<i>Mirabilis</i>	<i>bigelovii</i> var. <i>bigelovii</i>		B			A						
MIBIB2	<i>Mimulus</i>	<i>bigelovii</i> var. <i>bigelovii</i>		B	B		A	B					
MICO15	<i>Oxybaphus</i>	<i>comatus</i>						B			B	B	B
MIDE2	<i>Mimulus</i>	<i>densus</i>									B	B	
MIGU	<i>Mimulus</i>	<i>guttatus</i>						B				B	B
MIMO2	<i>Mimulus</i>	<i>montioides</i>		B	B								
MIMUG	<i>Mirabilis</i>	<i>multiflora</i> var. <i>glandulosa</i>					A	B			A	A	
MIPI5	<i>Mimetanthe</i>	<i>pilosus</i>										B	
MIPU5	<i>Mirabilis</i>	<i>pudica</i>	A	A	A	A	A	A	A	A	A		
MIRU	<i>Mimulus</i>	<i>rubellus</i>											B
MISP	<i>Mimulus</i>	<i>spissus</i>	B				A	A	A	A	A	A	
MISU2	<i>Mimulus</i>	<i>suksdorfii</i>					A	A		A	A	A	
MOBE	<i>Monoptilon</i>	<i>bellidiflorae</i>	B	A	B		A	A		A			
MOBE2	<i>Monoptilon</i>	<i>bellioides</i>		A									
MOBR	<i>Mohavea</i>	<i>breviflora</i>		B	B								
MOCE	<i>Mollugo</i>	<i>cerviana</i>		B			B						
MOGL	<i>Monardella</i>	<i>glauca</i>											B
MOSP	<i>Monolepis</i>	<i>spathulata</i>										B	
MOSQ	<i>Monroa</i>	<i>squarrosa</i>									B	B	
MOUT	<i>Mortonia</i>	<i>utahensis</i>											B
MUPO2	<i>Muhlenbergia</i>	<i>porteri</i>			B		B	B					
MURI	<i>Muhlenbergia</i>	<i>richardsonis</i>										B	
NAAR	<i>Nama</i>	<i>aretioides</i>		B					B		A		

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Code	Genus	Species	1	2	3	4	5	6	7	8	9	10	11
NABR	<i>Navarretia</i>	<i>breweri</i>									A	A	
NADE2	<i>Nama</i>	<i>densum</i>									B	B	
NADE3	<i>Nama</i>	<i>depressum</i>		B									
NADED	<i>Nama</i>	<i>demissum</i> var. <i>demissum</i>		A		B	B	A	A	A	A	B	
NAPU	<i>Nama</i>	<i>pusillum</i>		A	B	A	A	A		A	A	A	
NEFI	<i>Neogaerthium</i>	<i>filipes</i>		B	B								
NEGLO	<i>Nemacladus</i>	<i>glanduliferus</i> var. <i>orientalis</i>		A	B			A			B		
NERU	<i>Nemacladus</i>	<i>rubescens</i>	B	B									
NESI	<i>Nemacladus</i>	<i>sigmoideus</i>		B				B					
NIAT	<i>Nicotiana</i>	<i>attenuata</i>			A		A		B			B	
NITRT	<i>Nicotiana</i>	<i>trigonophylla</i> var. <i>trigonophylla</i>		B									
OECA2	<i>Oenothera</i>	<i>californica</i> ssp. <i>avita</i>	A	A							A		B
OECM4	<i>Oenothera</i>	<i>caespitosa</i> ssp. <i>marginata</i>		A		A	A	A	A	A	A	A	
OEDED4	<i>Oenothera</i>	<i>deltoides</i> ssp. <i>deltoides</i>		A	A								
OEPAP	<i>Oenothera</i>	<i>pallida</i> ssp. <i>pallida</i>					A	A	B	A	A	A	
OEPR	<i>Oenothera</i>	<i>primiveris</i>	A	A	B		A	B	A		A		
OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>		A	A	A	A	A	A	A	A	B	
OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>		A	A	A	A	A	A	A	A	A	
OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>		A	A	A	A	A	A	A	A	A	
OPERU	<i>Opuntia</i>	<i>erinacea</i> var. <i>ursina</i>					A	B			A	B	
OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>					A	A	A	A	A	A	
OPPU	<i>Opuntia</i>	<i>pulchella</i>				A	A	A	B		A		B
OPRA	<i>Opuntia</i>	<i>ramosissima</i>		A	A		A	A			A		
ORCO4	<i>Orobanch</i>	<i>cooperi</i>		B	B							A	
ORCO5	<i>Orobanch</i>	<i>corymbosa</i>									A	B	
ORFA	<i>Orobanch</i>	<i>fasciculata</i>						A	B	A	A	A	
OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	A	A	A	A	A	A	A	A	A		
PASM	<i>Pascopyrum</i>	<i>smithii</i>											
PEAL3	<i>Penstemon</i>	<i>albomarginatus</i>		B									
PEANV	<i>Penstemon</i>	<i>angustifolius</i> var. <i>venosus</i>							B				
PECA12	<i>Petrophytum</i>	<i>caespitosum</i>						B				B	B
PEFLA2	<i>Penstemon</i>	<i>floridus</i> var. <i>austini</i>					A	A		A	A	A	
PEFRA	<i>Penstemon</i>	<i>fruticiformis</i> ssp. <i>amargosae</i>		B	B			B					
PEHE	<i>Pectocarya</i>	<i>heterocarpa</i>		B	B								

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Code	Genus	Species	1	2	3	4	5	6	7	8	9	10	11
PEHUH	<i>Penstemon</i>	<i>humilis</i> ssp. <i>humilis</i>								A	A	A	
PEMEI	<i>Perityle</i>	<i>megaloccephala</i> var. <i>intricata</i>											B
PEMEM	<i>Perityle</i>	<i>megaloccephala</i> var. <i>megaloccephala</i>									B	B	
PEMUM	<i>Pellaea</i>	<i>mucronata</i> ssp. <i>mucronata</i>						B				B	
PENI	<i>Petalonyx</i>	<i>nitidus</i>				A	A	A			A		
PEPA2	<i>Pectis</i>	<i>papposa</i>	B			B	B	B				A	
PEPA23	<i>Penstemon</i>	<i>pahutensis</i>								A	A	B	
PEPA8	<i>Penstemon</i>	<i>palmeri</i>				A		A			A	A	B
PEPE13	<i>Penstemon</i>	<i>petiolatus</i>			B			B					
PEPL	<i>Pectocarya</i>	<i>platycarpa</i>		A	A		A	A		A	A	A	
PEPU7	<i>Petradoria</i>	<i>pumila</i>									A	A	B
PERA4	<i>Peraphyllum</i>	<i>ramosissimum</i>						A			A	B	
PERE	<i>Pectocarya</i>	<i>recurvata</i>		A	B			A					
PERO10	<i>Penstemon</i>	<i>rostriflorus</i>								A		A	B
PESC4	<i>Peucephyllum</i>	<i>schottii</i>		B									
PESE	<i>Pectocarya</i>	<i>setosa</i>		A	A	A	A	A		A	A	A	
PETH3	<i>Penstemon</i>	<i>thurberi</i>		B									
PETH5	<i>Peteria</i>	<i>thompsonae</i>	B	B									B
PETHT	<i>Petalonyx</i>	<i>thurberi</i> ssp. <i>thurberi</i>		B									
PETR3	<i>Pellaea</i>	<i>truncata</i>						B				B	
PETR7	<i>Pentagrama</i>	<i>triangularis</i>										A	B
PETRT	<i>Pentagrama</i>	<i>triangularis</i> ssp. <i>triangularis</i>						B			B	B	
PHAF	<i>Phacelia</i>	<i>affinis</i>										A	
PHAM8	<i>Phacelia</i>	<i>ambigua</i>											B
PHBE3	<i>Phacelia</i>	<i>beatleyae</i>						B					
PHBI	<i>Phacelia</i>	<i>bicolor</i>		B					B		A	B	
PHCA2	<i>Phacelia</i>	<i>cathifolia</i>					A						B
PHCH2	<i>Physaria</i>	<i>chambersii</i>								A	B	A	B
PHCR2	<i>Phacelia</i>	<i>cryptantha</i>											B
PHCR4	<i>Physalis</i>	<i>crassifolia</i>		B	B								
PHCRC3	<i>Phacelia</i>	<i>crenulata</i> var. <i>crenulata</i>		A	A	A	A	A	A	A	A	A	
PHCU	<i>Phacelia</i>	<i>curvipes</i>						A			A	A	
PHDI	<i>Phacelia</i>	<i>distans</i>											B
PHFR2	<i>Phacelia</i>	<i>fremontii</i>	B	A	A	A	A	A	A	A	A	A	

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Code	Genus	Species	Alliance										
			1	2	3	4	5	6	7	8	9	10	11
PHGRH	<i>Phlox</i>	<i>gracilis</i> ssp. <i>humilis</i>			A		A	A		A	A	A	
PHHOL	<i>Phlox</i>	<i>hoodii</i> ssp. <i>lanata</i>								A	A	A	
PHJU	<i>Phoradendron</i>	<i>juniperinum</i>										B	
PHLE	<i>Phacelia</i>	<i>lemmonii</i>											B
PHMU	<i>Phacelia</i>	<i>mustelina</i>			B			B			A	B	
PHPA2	<i>Phacelia</i>	<i>parishii</i>			A								B
PHPE	<i>Phacelia</i>	<i>pedicellata</i>			B								
PHPE2	<i>Phacelia</i>	<i>peirsoniana</i>										A	
PHRO2	<i>Phacelia</i>	<i>rotundifolia</i>		B	B			B					
PHSA	<i>Phacelia</i>	<i>saxicola</i>		A			A	A	B	A	A	A	
PHST11	<i>Phlox</i>	<i>stansburyi</i>			A	A	A	A	A	A	A	A	
PHTe	<i>Phacelia</i>	<i>tetramera</i>										B	
PHVAV2	<i>Phacelia</i>	<i>vallis-mortae</i> var. <i>vallis-mortae</i>	B	A	A	A	A	A		A	A	A	
PIMI7	<i>Piptatherum</i>	<i>micrantha</i>										B	
PIMO	<i>Pinus</i>	<i>monophylla</i>						A		A	A	A	B
PLAR	<i>Plagiobothrys</i>	<i>arizonicus</i>						B			B		
PLJA	<i>Pleuraphis</i>	<i>jamesii</i>				A	A	A	A	A	A	A	
PLJO	<i>Plagiobothrys</i>	<i>jonesii</i>		B									
PLKI	<i>Plagiobothrys</i>	<i>kingii</i>									B		
PLOV	<i>Plantago</i>	<i>ovata</i>		A	A	A	A	A					
PLPA2	<i>Plantago</i>	<i>patagonica</i>					A	A	A	A	A	A	
PLPL	<i>Pleurocoronis</i>	<i>pluriseta</i>		B									
PLRI3	<i>Pleuraphis</i>	<i>rigida</i>		A	A	A	A	A					
POAN	<i>Poa</i>	<i>annua</i>											B
POAR5	<i>Polygonum</i>	<i>argyrocoleon</i>											B
POAV	<i>Polygonum</i>	<i>aviculare</i>											B
POBI	<i>Poa</i>	<i>bigelovii</i>											B
POBI7	<i>Potentilla</i>	<i>biennis</i>						B			B	B	
PODOJ2	<i>Polygonum</i>	<i>douglasii</i> ssp. <i>johnstonii</i>										B	B
POFE	<i>Poa</i>	<i>fendleriana</i>						A	A	A	A	A	B
POFRF3	<i>Populus</i>	<i>fremontii</i> ssp. <i>fremontii</i>										B	B
POGR5	<i>Porophyllum</i>	<i>gracile</i>		B									
POHE7	<i>Polygala</i>	<i>heterorhyncha</i>	B	B	B	B	B		B		A	A	
POIN7	<i>Polypogon</i>	<i>interruptus</i>											B

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Code	Genus	Species	1	2	3	4	5	6	7	8	9	10	11
POMO5	<i>Polypogon</i>	<i>monspeliensis</i>						B	B			B	
POPE2	<i>Polygonum</i>	<i>pensylvanicum</i>											B
POPE6	<i>Potamogeton</i>	<i>pectinatus</i>											B
POPR	<i>Poa</i>	<i>pratensis</i>									B		
POSE	<i>Poa</i>	<i>secunda</i>		B	A		A	A	A	A	A	A	
POSU	<i>Polygala</i>	<i>subspinos</i>	A	A	A	A	A	A	A	A	A	A	
POVI9	<i>Polypogon</i>	<i>viridis</i>											B
PREX	<i>Prenanthes</i>	<i>exigua</i>	B	A		B	B	A	B				
PRFA	<i>Prunus</i>	<i>fasciculata</i>			A	A	A	A		A	A	A	
PRGLT	<i>Prosopis</i>	<i>glandulosa</i> var. <i>torreyana</i>											B
PSAN	<i>Psathyrotes</i>	<i>annua</i>		B			A	A	A	A	B		
PSCO2	<i>Psilostrophe</i>	<i>cooperi</i>						B					
PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>		A	A	A	A	A	A	A			
PSPO	<i>Psoralea</i>	<i>polydenius</i>	B	A	A	A	A	A	A	A	A		
PSRA	<i>Psathyrotes</i>	<i>ramosissima</i>		B									
PSST7	<i>Pseudognaphalium</i>	<i>stramineum</i>											B
PTHE	<i>Pteris</i>	<i>hendersonii</i>											B
PUDI	<i>Puccinellia</i>	<i>distans</i>											B
PUGL2	<i>Purshia</i>	<i>glandulosa</i>					A	A	A	A	A	A	
PUST	<i>Purshia</i>	<i>stansburiana</i>				A	A	A	A	A	A	A	
PUTR2	<i>Purshia</i>	<i>tridentata</i>						A		A	A	A	
QUGA	<i>Quercus</i>	<i>gambelii</i>								A	A	A	
RAAN	<i>Ranunculus</i>	<i>andersonii</i>										B	B
RANE	<i>Rafinesquia</i>	<i>neomexicana</i>	B	A	A	B	A	A		A			
RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>				A	A				A	A	
RICEC2	<i>Ribes</i>	<i>cereum</i> var. <i>cereum</i>									A	A	B
RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>						A		A	A	A	B
ROWO	<i>Rosa</i>	<i>woodsii</i>										B	B
RUCR	<i>Rumex</i>	<i>crispus</i>									B	B	
RUSA	<i>Rumex</i>	<i>salicifolius</i>						B				B	
SACOC	<i>Salvia</i>	<i>columbariae</i> var. <i>columbariae</i>		A	B		A	A	A	A	A	B	
SADOD3	<i>Salvia</i>	<i>dorrii</i> ssp. <i>dorrii</i> var. <i>dorrii</i>				A	A	A		A	A	A	
SAEX	<i>Salix</i>	<i>exigua</i>						B				B	
SAGO	<i>Salix</i>	<i>gooddingii</i>							B			B	B

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LEGEND: A=1999 Survey; B=additional species listed in the 1976 Beatley Survey; 1 = *Lycium* spp. Shrubland Alliance; 2 = *Larrea tridentata*/*Ambrosia dumosa* Shrubland Alliance; 3 = *Atriplex confertifolia*/*Ambrosia dumosa* Shrubland Alliance; 4 = *Hymenoclea-Lycium* Shrubland Alliance; 5 = *Ephedra nevadensis* Shrubland Alliance; 6 = *Coleogyne ramosissima* Shrubland Alliance; 7 = *Atriplex* spp. Shrubland Alliance; 8 = *Chrysothamnus-Ericameria* Shrubland Alliance; 9 = *Artemisia* spp. Shrubland Alliance; 10 = *Pinus monophylla*/*Artemisia* spp. Woodland Alliance; 11= Miscellaneous

Code	Genus	Species	<i>Lycium</i> spp	<i>Larrea tridentata</i> / <i>Ambrosia dumosa</i>	<i>Atriplex confertifolia</i> / <i>Ambrosia dumosa</i>	<i>Hymenoclea-Lycium</i>	<i>Ephedra nevadensis</i>	<i>Coleogyne ramosissima</i>	<i>Atriplex</i> spp.	<i>Chrysothamnus-Ericameria</i>	<i>Artemisia</i> spp.	<i>Pinus monophylla</i> / <i>Artemisia</i> spp.	Miscellaneous
SAKAT3	<i>Salsola</i>	<i>kali</i> ssp. <i>tragus</i>				A	A	A	A	A	A		
SAKI	<i>Sairocarpus</i>	<i>kingii</i>						B			B	B	B
SAME	<i>Salazaria</i>	<i>mexicana</i>		A	A	A	A	A	A	A	A		
SAPA8	<i>Salsola</i>	<i>paulsenii</i>	A	A		A	A	A	A	A	A	A	B
SCACA	<i>Schoenoplectus</i>	<i>acutus</i> var. <i>acutus</i>											
SCAR	<i>Schismus</i>	<i>arabicus</i>		A	A	A		A					
SCDE	<i>Scrophularia</i>	<i>desertorum</i>										B	
SCPO4	<i>Sclerocactus</i>	<i>polyancistrus</i>					A	A	A	A	A	A	
SCRI2	<i>Scopulophila</i>	<i>ritfordii</i>			B								
SEDI3	<i>Selinocarpus</i>	<i>nevadensis</i>		B	B								
SEINE	<i>Senecio</i>	<i>integerimus</i> var. <i>exaltatus</i>										B	
SEMU3	<i>Senecio</i>	<i>multilobatus</i>					A	A		A	A	A	B
SENE5	<i>Senecio</i>	<i>flaccidus</i> var. <i>douglasii</i>		B	A		A	A					
SEPU8	<i>Setaria</i>	<i>pumila</i>											B
SESP3	<i>Senecio</i>	<i>spartioides</i>									A	A	B
SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>		A	A	A	A	A	A	A	A	B	
SIIR	<i>Sisymbrium</i>	<i>irio</i>		B									
SIRO	<i>Sibara</i>	<i>rosulata</i>											B
SIVEA	<i>Silene</i>	<i>verecunda</i> ssp. <i>andersonii</i>								A	A	A	B
SOAS	<i>Sonchus</i>	<i>asper</i>											B
SOHA	<i>Sorghum</i>	<i>halapense</i>						B					
SONO3	<i>Solanum</i>	<i>nodiflorum</i>											B
SPAMA	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>ambigua</i>	A	A	A	A	A	A	A	A	A	A	
SPAMM	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>monticola</i>	B	B		B	A	A	A	A	A	A	
SPAMR	<i>Sphaeralcea</i>	<i>ambigua</i> var. <i>rugosa</i>		A	A	A	A	A		A	A		
SPCR	<i>Sporobolus</i>	<i>cryptandrus</i>		B			A		B	A	A	A	B
SPEM	<i>Sphaeralcea</i>	<i>emoryi</i>	B								B		
SPFL2	<i>Sporobolus</i>	<i>flexuosus</i>		B									
SPGRP2	<i>Sphaeralcea</i>	<i>grossulariaefolia</i> ssp. <i>pedata</i>		A	A	A	A	A	A	A	A	A	
SPPA2	<i>Sphaeralcea</i>	<i>parvifolia</i>	B						B				
STCOC	<i>Streptanthus</i>	<i>cordatus</i> var. <i>cordatus</i>		A			A	A		A	A	A	B
STEL	<i>Stanleya</i>	<i>elata</i>				A	A	A	B	A	A		
STEXE	<i>Stephanomeria</i>	<i>exigua</i> ssp. <i>exigua</i>	B	A	A	A	A	A	A	A	A	A	
STLO4	<i>Streptanthella</i>	<i>longirostris</i>	B	A		B	A	A		A	A	A	

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LEGEND: A=1999 Survey; B=additional species listed in the 1976 Beatley Survey; 1 = *Lycium* spp. Shrubland Alliance; 2 = *Larrea tridentata*/*Ambrosia dumosa* Shrubland Alliance; 3 = *Atriplex confertifolia*/*Ambrosia dumosa* Shrubland Alliance; 4 = *Hymenoclea-Lycium* Shrubland Alliance; 5 = *Ephedra nevadensis* Shrubland Alliance; 6 = *Coleogyne ramosissima* Shrubland Alliance; 7 = *Atriplex* spp. Shrubland Alliance; 8 = *Chrysothamnus-Ericameria* Shrubland Alliance; 9 = *Artemisia* spp. Shrubland Alliance; 10 = *Pinus monophylla*/*Artemisia* spp. Woodland Alliance; 11 = Miscellaneous

Code	Genus	Species	1	2	3	4	5	6	7	8	9	10	11
STMI2	<i>Stylocline</i>	<i>micropoides</i>						A			A	B	
STPA3	<i>Stephanomeria</i>	<i>parryi</i>	B	A	A	A	A	A		A	A		B
STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	A	A	A	A	A	A	A	A	A	A	
STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	A	A	A	A	A	A	A	A	A	A	B
STPS	<i>Stylocline</i>	<i>psilocarphoides</i>											B
STSP	<i>Stillingia</i>	<i>spinulosa</i>		B								A	
STSP6	<i>Stephanomeria</i>	<i>spinosa</i>								A	A	B	B
SUMO	<i>Suaeda</i>	<i>moquinii</i>			B				B				B
SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>		A	A	A	A	A	A	A	A	A	
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>					A	A	A	A	A	A	
SYROP	<i>Symphoricarpos</i>	<i>rotundifolius</i> var. <i>parishii</i>										B	B
TARA	<i>Tamarix</i>	<i>ramosissima</i>											B
TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	A	A	A	A	A	A	A	A	A	A	
TECA2	<i>Tetradymia</i>	<i>canescens</i>		A	A	A	A	A	A	A	A	A	B
TEGL	<i>Tetradymia</i>	<i>glabrata</i>		A		B	A	A	B	A	A	A	
THCU	<i>Thysanocarpus</i>	<i>curvipes</i>						A			A	A	
THLA3	<i>Thysanocarpus</i>	<i>laciniatus</i>					A						B
THLA4	<i>Thelypodium</i>	<i>laxiflorum</i>					A					B	
THMO	<i>Thamnosma</i>	<i>montana</i>		A	A	A	A	A	A	A	A		
THPEB	<i>Thymphylla</i>	<i>pentachaeta</i> var. <i>belenidium</i>			A			A					
TICAC	<i>Tiquilia</i>	<i>canescens</i> var. <i>canescens</i>											B
TINU2	<i>Tiquilia</i>	<i>nuttallii</i>		B				A	B		A	B	
TIOBO	<i>Tidestromia</i>	<i>oblongifolia</i> ssp. <i>oblongifolia</i>		B									
TIPL2	<i>Tiquilia</i>	<i>plicata</i>		B					B				
TOSC	<i>Townsendia</i>	<i>scapigera</i>									A	A	
TRAN	<i>Trifolium</i>	<i>andersonii</i>									B	A	
TRMU	<i>Tridens</i>	<i>muticus</i>		B	B			B					
TRTE	<i>Tribulus</i>	<i>terrestris</i>		B									
TRWA2	<i>Tricardia</i>	<i>watsonii</i>					A	B			A	A	
TYDO	<i>Typha</i>	<i>domingensis</i>				B	B	B					
TYLA	<i>Typha</i>	<i>latifolia</i>											B
ULMI	<i>Ulmus</i>	<i>minor</i>						B				B	
ULPA	<i>Ulmus</i>	<i>parvifolia</i>											B
URLI2	<i>Uropappus</i>	<i>linearifolia</i>					A	A	A	A	A	A	

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			1	2	3	4	5	6	7	8	9	10	11		
			Code	Genus	Species										
			VEAM2	<i>Veronica</i>	<i>americana</i>									B	
			VEAN2	<i>Veronica</i>	<i>anagallis-aquatica</i>									B	
			VEBR	<i>Verbena</i>	<i>bracteata</i>									B	B
			VEPEX2	<i>Veronica</i>	<i>peregrina</i> ssp. <i>xalapensis</i>		B				B			B	
			VUMI	<i>Vulpia</i>	<i>microstachys</i>	A					A		A	A	B
			VUMY	<i>Vulpia</i>	<i>myuros</i>						B				
			VUOC	<i>Vulpia</i>	<i>octoflora</i>		A	A	A	A	A	A	A	A	
			XASTC	<i>Xanthium</i>	<i>strumarium</i> var. <i>canadense</i>										B
			XYTOT	<i>Xylorhiza</i>	<i>tortifolia</i> var. <i>imberbis</i>	B	A	A	A	A	A		A		
			YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>			A		A	A	A	A	A	
			YUBR	<i>Yucca</i>	<i>brevifolia</i>		A	A	A	A	A	A	A	A	
YUSC2	<i>Yucca</i>	<i>schidigera</i>		A	A	A	A	A	A						
ZAPA	<i>Zannichellia</i>	<i>palustris</i>						B				B			
ZIPA2	<i>Zigadenus</i>	<i>paniculatus</i>									A	A			
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Appendix C

List of Common Names, Alphacodes, Scientific Names, and Older Names

Oregon bitterroot (*Lewisia rediviva*) [photo by Susan Cochrane]

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APPENDIX C. LIST OF COMMON PLANT NAMES, ALPHACODES, SCIENTIFIC NAMES, AND OLDER NAMES

Common Name	Code	Genus	Species	Older Name Used by Beatley
acorn buckw heat	ERGL4	<i>Eriogonum</i>	<i>glandulosum</i>	
African mustard	MAAF	<i>Malcolmia</i>	<i>africana</i>	
alfalfa	MESA	<i>Medicago</i>	<i>sativa</i>	
alkali bulrush	BORO5	<i>Bolboschoenus</i>	<i>robustus</i>	<i>Scirpus robustus</i> , <i>Scirpus maritimus</i>
alkali goldenbush	ISACA2	<i>Isocoma</i>	<i>acradenius</i> var. <i>eremophilus</i>	<i>Isocoma acadenia</i> ssp. <i>eremophilus</i>
American black nightshade	SOAM	<i>Solanum</i>	<i>americanum</i>	
American speedwell	VEAM2	<i>Veronica</i>	<i>americana</i>	
Anderson's buttercup	RAAN	<i>Ranunculus</i>	<i>andersonii</i>	
Anderson's campion	SIVEA	<i>Silene</i>	<i>verecunda</i> ssp. <i>andersonii</i>	
Anderson's wolfberry	LYAN	<i>Lycium</i>	<i>andersonii</i>	
annual bluegrass	POAN	<i>Poa</i>	<i>annua</i>	
annual hargrass	DEDA	<i>Deschampsia</i>	<i>danthonioides</i>	
annual psathyrotes	PSAN	<i>Psathyrotes</i>	<i>annua</i>	
annual rabbitsfoot grass	POMO5	<i>Polypogon</i>	<i>monspeliensis</i>	
annual toothleaf	STSP	<i>Stillingia</i>	<i>spinulosa</i>	
annual yellow sweetclover	MEIN2	<i>Melilotus</i>	<i>indicus</i>	
antelope bitterbrush	PUTR2	<i>Purshia</i>	<i>tridentata</i>	
Antelope Island skeletonplant	LYDI4	<i>Lygodesmia</i>	<i>dianthopsis</i>	
Apache plume	FAPA	<i>Fallugia</i>	<i>paradoxa</i>	
apricot globemallow	SPAMA	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>ambigua</i>	
Arabian schismus	SCAR	<i>Schismus</i>	<i>arabicus</i>	
Argus blazingstar	MEOR3	<i>Mentzelia</i>	<i>oreophila</i>	
arid needlegrass	ACARI4	<i>Achnatherum</i>	<i>arida</i>	<i>Stipa arida</i>
Arizona honeysweet	TIOBO	<i>Tidestromia</i>	<i>oblongifolia</i> ssp. <i>oblongifolia</i>	
Arizona popcornflower	PLAR	<i>Plagiobothrys</i>	<i>arizonicus</i>	
Arizona threeawn	ARAR5	<i>Aristida</i>	<i>arizonica</i>	
Austin's beardtongue	PEFLA2	<i>Penstemon</i>	<i>floridus</i> var. <i>austinii</i>	<i>Penstemon floridus</i> ssp. <i>austinii</i>
backfoot groundsmoke	GARA	<i>Gayophytum</i>	<i>racemosum</i>	
Bailey's buckwheat	ERBAB	<i>Eriogonum</i>	<i>baileyi</i> var. <i>baileyi</i>	
ballhead gilia	IPCOS	<i>Ipomopsis</i>	<i>congesta</i>	
Baltic rush	JUBA	<i>Juncus</i>	<i>balticus</i>	
banana yucca	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	
barbwire Russian thistle	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	
baretwig stylocline	STPS	<i>Stylocline</i>	<i>psilocarphoides</i>	
barnyard grass	ECCR	<i>Echinochloa</i>	<i>crusgalli</i>	
bashful four o'clock	MIPUS	<i>Mirabilis</i>	<i>pudica</i>	
basin big sagebrush	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	
basin catseye	CRAM3	<i>Cryptantha</i>	<i>ambigua</i>	
basin wildrye	LECI4	<i>Leymus</i>	<i>cinereus</i>	<i>Elymus cinereus</i>
basin yellow catseye	CRCO12	<i>Cryptantha</i>	<i>confertiflora</i>	
bastardsage	ERWRS	<i>Eriogonum</i>	<i>wrightii</i> var. <i>subscaposum</i>	

Common Name	Code	Genus	Species	Older Name Used by Beasley
beaked spiny polygala	POHE7	Polygala	heterorhyncha	Polygala subspinoza var. heterorhyncha
bearded catseye	CRBA6	Cryptantha	barbigera	
beardless wildye	LETR6	Leymus	triticoides	Elymus triticoides
Beasley milkvetch	ASBE6	Astragalus	beasleyae	
Beasley's scorpionweed	PHBE3	Phacelia	beasleyae	
beaver monolepis	MOSP	Monolepis	spatulata	
beaverail pricklypear	OPBAB2	Opuntia	basilans var. basilans	
Beckwith's milkvetch	ASBE3	Astragalus	beckwithii	
beguiling catseye	CRDE	Cryptantha	decipiens	
bellshaped gilia	GICA2	Gilia	campanulata	
bentgrass	AGSE2	Agrostis	semiverticillata	
Bermuda grass	CYDA	Cynodon	dactylon	
biennial cinquefoil	POBI7	Potentilla	biennis	
big galleta	PLRI3	Pleuraphis	rigida	Hilaria rigida
big sabbush	ATLEL	Atriplex	lentiformis ssp. lentiformis	
big squimrethall	ELMU3	Elymus	multisetus	Sitanion jubatum
bigbract verbena	VEBR	Verbena	bracteata	
Bigelow sagebrush	ARB13	Artemisia	bigelovii	
bighead dustymaiden	CHMA	Chaenactis	macrantha	
Biglow's deserttrumpets	LIBI2	Linanthus	bigelovii	
Biglow's four o'clock	MIBIB	Mirabilis	bigelovii var. bigelovii	Mirabilis bigelovii var. aspera
Biglow's monkeyflower	MIBIB2	Mimulus	bigelovii var. bigelovii	
bird nest buckwheat	ERNH4	Eriogonum	nidulatum	
birdfoot cliffbrake	PEMUM	Pollaea	mucronata ssp. mucronata	
black sagebrush	ARNO4	Artemisia	nova	
blackbrush	CORA	Coleogyne	ramosissima	
blackstem rabbitbrush	ERPA29	Encarnetia	paniculata	
brazingstar	MENTZ	Mentzelia		
blue grams	BOGR2	Bouteloua	gracilis	
blue pod rockcress	ARGL2	Arabis	glaucovalvula	
blue threawn	ARPUN	Aristida	purpurea var. nealleyi	Aristida purpurea var. nealleyi
bluebonnet lupine	LUPA3	Lupinus	palmeri	
bluedick	DIPU3	Dichelostemma	pulchellum	Dichelostemma congestum
bottlebrush squimrethall	ELELE	Elymus	elymoides ssp. elymoides	Sitanion hystrix
branched pencil cholla	OPRA	Opuntia	ramosissima	
Brewer's fleabane	ERBRP	Eriogon	breweri var. porphyreus	
Brewer's navaretia	NABR	Navaretia	breweri	
brickellibush goldenweed	HABR3	Hazardia	brickelliioides	Haaplopappus brickelliioides
Bridge penstemon	PERO10	Penstemon	rostriflorus	Penstemon bridgesii
brightwhite	PREX	Prenanthea	exigua	

Common Name	Code	Genus	Species	Older Name Used by Beatley
bristly fiddleneck	AMTE3	Amisnckia	tessellata	
bristly hairy goldenaster	HEVIH	Heterotheca	villosa var. hispida	
brittle spinyflower	CHBRB	Chortzanth	brevicornu var. brevicornu	
brittle spinyflower	CHBRS	Chortzanth	brevicornu var. spatulata	
broadbeard beardtongue	PEANV	Pentstemon	angustifolius var. venosus	Pentstemon venosus
broadfruit combedseed	PEPL	Pectocarya	platycarpa	
broadleaf cattail	TYLA	Typha	latifolia	
broom groundsel	SESP3	Senecio	spartoides	
browneyes	CACLI	Camissonia	claviformis ssp. integror	
brownplume wirelettuce	STPA4	Stephanomeria	pauciflora	
Bruneau manposia lily	CABR4	Calochortus	brunaeunus	
budsage, Bud sagebrush	ARSP6	Artemisia	spinescens	
Bullfrog Mountain peavine	LAH4	Lathyrus	hitchcockianus	
bush arrowleaf	PLPL	Pleurocoronis	plunseia	
bush muhly	MUP02	Muhlenbergia	porteri	
bushloving catseye	CRDU	Cryptantha	dumetorum	
bushy catseye	CRA2	Cryptantha	racemosa	
California amaranth	AMCA	Amaranthus	californicus	
California brickellbush	BRCA3	Brickellia	californica	
California broome	BRCA5	Bromus	canadensis	
California eveningprimrose	OECA2	Oenothera	californica ssp. avita	
California falsepenstemon	HENAC	Hedeoma	nanum ssp. californicum	
California sage	SACOC	Salvia	columbariae var. columbariae	
California suncup	CACA32	Camissonia	californica	Oenothera avita
California winged rockcress	SIRO	Sibera	rosulata	
calthaleaf scorpionweed	PHCA2	Phacelia	calthifolia	
Canada cocklebur	XASTC	Xanthium	strumarium var. canadense	
Canadian horseweed	COCAS	Conyza	canadensis	
carpet phlox	PHHOL	Phlox	hoodii ssp. lanata	Phlox lanata
carveseed	GLMA2	Glyptoleura	marginala	
Case's milkvetch	ASCA14	Astragalus	casei	
cattle saltbush	ATPO	Atriplex	polycarpa	
celery	APGR2	Apium	graveolens	
Chamber's twinpod	PHCH2	Physaria	chambersii	
cheatgrass	BRT	Bromus	tectorum	
cheeseweed mallow	MAPA5	Malva	parviflora	
Chilean chess	BRBE2	Bromus	berterianus	
Chinese elm	ULPA	Ulmus	parvifolia	
chuckwalla combedseed	PEHE	Pectocarya	heterocarpa	
clinchweed fetidmangold	PEPA2	Pectis	papposa	
clasping pepperweed	LEPE2	Lepidium	perfoliatum	
clefleaf wildheliotrope	PHCRC3	Phacelia	crenulata var. crenulata	Phacelia crenulata var. funerea

Common Name	Code	Genus	Species	Older Name Used by Beatley
cliff heathgolderod	ERCUC	Ericameria	cuneatus	Haplopappus cuneata var. cuneata
Clokey's gilia	GICL2	Gilia	clokeyi	
clustered broomrape	ORFA	Orbanche	fasciculata	
clustered field sedge	CAPR6	Carex	praegracilis	
colddesert phlox	PHST11	Phlox	stansburyi	
Colorado four o'clock	MIMUG	Mirabilis	multiflora var. glandulosa	Mirabilis foebelii
Columbia groundsel	SEINE	Senecio	integerrimus var. exaltatus	
common fishhook cactus	MATE4	Mammillaria	tetrancistra	
common kochia	KOSC	Kochia	scoparia	
common oat	AVSA	Avena	sativa	
common pussy-paws	CIM04	Cistanthe	monandra	Calyptridium monandrum
common snakeweed	GUSA2	Gutierrezia	sarothrae	
common spikerush	ELMA6	Eleocharis	macrostachya	Eleocharis palustris
common spikerush	ELPA3	Eleocharis	pauлистis	
common sunflower	HEAN3	Helianthus	annuus	Helianthus annuusssp. lenticularis
compact monkeyflower	MISP	Minulus	spissus	
Cooper's dogweed	ADCO2	Adenophyllum	cooperi	Dyssodia cooperi
Cooper's heathgolderod	ERCO23	Ericameria	cooperi	Haplopappus cooperi
Cooper's hymenoxys	HYCOC2	Hymenoxys	cooperi var. cooperi	
Cooper's wild cabbage	CACO18	Caularthus	cooperi	
cotton-top barrelcactus	ECP02	Echinocactus	polyccephalus	
Coville's goldenpoppy	ESMIC2	Eschscholzia	multiflora ssp. covillei	Eschscholzia covillei
Coville's liftem	CHCO4	Chellanthus	covillei	
coyote tobacco	NIAT	Nicotiana	attenuata	
creosote bush	LATR2	Larrea	tridentata	
crest needlegrass	ACCO21	Achnatherum	coronata	Stipa coronatum
crested wheatgrass	AGCR	Agropyron	cristatum	
crimson columbine	AQFOF	Aquilegia	formosa var. formosa	Aquilegia eximia, Aquilegia shockleyi
curliest mountain mahogany	CELEL	Cercocarpus	ledifolius var. ledifolius	
curly dock	RUCR	Rumex	cristus	
curlycup gumweed	GRSQS	Gnndelia	squarrosa var. serrulata	
curvenut catseye	CRRE6	Cryptantha	recurvata	
curvenut combedseed	PERE	Pectocarya	recurvata	
cushion buckwheat	EROVO5	Eriogonum	ovalifolium var. ovalifolium	
cushion catseye	CRCI2	Cryptantha	circumscissa	
cutleaf waterparsnip	BEER	Berula	erecta	
dainty desert hideseed	EUMI2	Eucypta	micrantha	
daisy desertstar	MOBE	Monoptilon	bellidiflorae	
Death Valley beardtongue	PERFA	Pentstemon	fruticiformis ssp. amargosae	
Death Valley ephedra	EPFU	Ephedra	funerea	
Death Valley phacelia	PHVAV2	Phacelia	vallis-mortae var. vallis-mortae	
Death Valley suncup	CAMU14	Camissonia	munzii	

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deceptive ground smoke	GADE2	<i>Gayophytum</i>	<i>decipiens</i>	
depressed fiddleleaf	NADE3	<i>Nama</i>	<i>depressum</i>	
depressed skyrocket	IPDE	<i>Ipomopsis</i>	<i>depressa</i>	
desert almond	PRFA	<i>Prunus</i>	<i>fasciculata</i>	
desert bear poppy	ARME2	<i>Arctomecon</i>	<i>merriamii</i>	
desert biscuitroot	LOFOF	<i>Lomatium</i>	<i>foeniculaceum ssp. fimbriatum</i>	
desert bitterbrush	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	
desert brickellbush	BRDE3	<i>Brickellia</i>	<i>desertorum</i>	
desert broomrape	ORCO4	<i>Orobanche</i>	<i>cooperi</i>	
desert dodder	CUDE2	<i>Cuscuta</i>	<i>denticulata</i>	
desert elkweed	FRAL5	<i>Frasera</i>	<i>albomarginata</i>	<i>Swertia albomarginata</i>
desert eveningprimrose	OEPR	<i>Oenothera</i>	<i>primiveris</i>	
desert figwort	SCDE	<i>Scrophularia</i>	<i>desertorum</i>	
desert fivespot	ERRO8	<i>Eremalche</i>	<i>rotundifolia</i>	
desert globemallow	SPAMM	<i>Sphaeralcea</i>	<i>ambigua ssp. monticola</i>	
desert goldenpoppy	ESGL	<i>Eschscholzia</i>	<i>glyptosperma</i>	
desert gooseberry	RIVEV	<i>Ribes</i>	<i>velutinum var. velutinum</i>	
desert goosefoot	CHPR5	<i>Chenopodium</i>	<i>pratensis</i>	<i>Chenopodium desiccatum var. leptophylloides</i>
desert holly	ATHY	<i>Atriplex</i>	<i>hymenelytra</i>	
desert indianwheat	PLOV	<i>Plantago</i>	<i>ovata</i>	<i>Plantago insularis var. fastigiata</i>
desert lupine	LUAR7	<i>Lupinus</i>	<i>aridus</i>	
desert marigold	BAMU	<i>Baileya</i>	<i>multiradiata</i>	
desert milkweed	ASER2	<i>Asclepias</i>	<i>erosa</i>	
desert needlegrass	ACSP12	<i>Achnatherum</i>	<i>speciosa</i>	<i>Stipa speciosum</i>
desert pale gilia	GIHU	<i>Gilia</i>	<i>hutchinsifolia</i>	
desert pepperweed	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	
desert princesplume	STPIP	<i>Stanleya</i>	<i>pinnata var. pinnata</i>	
desert rockcress	ARPUG	<i>Arabis</i>	<i>pulchra var. gracilis</i>	
desert snowberry	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	
desert spiny star	ESVID	<i>Escobaria</i>	<i>vivipara var. deserti</i>	
desert stickseed	LAOCO	<i>Lappula</i>	<i>occidentalis var. occidentalis</i>	
desert stingbush	EUUR	<i>Eucnide</i>	<i>urens</i>	
desert threadplant	NERU	<i>Nemacladus</i>	<i>rubescens</i>	
desert tobacco	NITRT	<i>Nicotiana</i>	<i>trigonophylla var. trigonophylla</i>	
desert woolstar	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	
desertsnow	LIDE2	<i>Linanthus</i>	<i>demissus</i>	
devil's spineflower	CHRI	<i>Chorizanthe</i>	<i>rigida</i>	
diffuse mountain trumpet	COTE	<i>Collomia</i>	<i>tenella</i>	
distant phacelia	PHDI	<i>Phacelia</i>	<i>distans</i>	
ditch polypogon	POIN7	<i>Polypogon</i>	<i>interruptus</i>	
Dorr's sage	SADOD3	<i>Salvia</i>	<i>dorii ssp. dorii var. dorii</i>	<i>Salvia dorii ssp. argentea, Salvia dorii ssp. gilmanii</i>
Douglas' dustymaiden	CHDO	<i>Chaenactis</i>	<i>douglasii</i>	

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Douglas groundsel	SENE5	Senecio	fiacidus var. douglasii	Senecio douglasii
Douglas' sedg	CADO2	Carex	douglasii	
droopflower thelypody	THLA4	Thelypodium	laxiflorum	
Dugway buckwheat	ERNUN2	Eriogonum	nutans var. nutans	
dwarf heathgolderod	ERNA7	Eriocaulis	nanus	Haplopappus nana
dwarf phlox	PHGRH	Phlox	gracilis ssp. humilis	Microrhiza gracilis ssp. humilis
dwarf whitewheat	ASDID	Astragalus	didymocarpus var. dispersus	
eastern Mojave buckwheat	ERFAP	Eriogonum	fasciculatum var. polifolium	
egg milkvetch	ASOOO2	Astragalus	oophorus var. oophorus	
eggless fiddleneck	NAPU	Nema	pusillum	
Emory's baccharis	BAEM	Baccharis	emoryi	
Emory's globemallow	SPEM	Sphaeralcea	emoryi	Sphaeralcea emoryi var. arida, S. emoryi var. variabilis
erogonum	ERIOG	Eriogonum		
Esmeralda buckwheat	ERESE	Eriogonum	esmeraldense var. esmeraldense	
evening snow	LIDI2	Linastrum	dichotomum	
eyed gilia	GIOP	Gilia	ophthalmoides	
false agoseris	AGOLL	Agoseris	glauca var. lacinata	
false buffalograss	MOSQ	Monarda	squarrosa	
false monkeyflower	MIPIS	Mimulus	pilosus	Mimulus pilosus
fanleaf crinklemat	TIPL2	Trifolium	plicata	Coldenia plicata
feather fingergrass	CHV4	Chloris	virgata	
Fendler threeawn	ARPUF	Arctostaphylos	purpurea var. fendleriana	
Fendler threeawn	ARPUL	Arctostaphylos	purpurea var. longiseta	Arctostaphylos longiseta var. robusta
Fendler's sandmat	CHFE3	Chamaesyce	fendleri	Euphorbia fendleri
fern bush, desert sweet	CHM12	Chamaebatiaria	milifolium	
Fertis' sandwort	ARMAF	Arenaria	macradenia ssp. ferrisae	
field bindweed	COAR4	Convolvulus	arvensis	
Filipes snapdragon	NEFI	Neogeeherium	filipes	Anthirrhinum filipes
finleaf hymenopappus	HYFIM	Hymenopappus	filifolius var. megaccephalus	
five needle pricklyleaf	THPEB	Thymophylla	pentachaeta var. belandrium	Dysodia pentachaeta var. belandrium
fivehorn smotherweed	BAHY	Bassia	hyssopifolia	
fiveleaf clover	TRAN	Trifolium	andersonii	
five-tooth spineflower	CHWA2	Chorizanthe	watsonii	
flatbud prickly poppy	ARMUR	Argemone	munita ssp. rotundata	
flatcrown buckwheat	ERDE6	Eriogonum	deflexum	
flatcrown buckwheat	ERDEB	Eriogonum	deflexum var. baratum	
flatcrown buckwheat	ERDED4	Eriogonum	deflexum var. deflexum	
flatspine burr ragweed	AMAC2	Ambrosia	acanthicarpa	
flattop broomrape	ORCO5	Orobancha	corymbosa	
flecked milkvetch	ASLEV	Astragalus	lentiginosus var. variabilis	
fleshcolor pincushion	CHXA	Chaenactis	xantiana	

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foothill bladderpod	LELU	<i>Lesquerella</i>	<i>ludoviciana</i>	
foothill deathcamas	ZIPA2	<i>Zigadenus</i>	<i>paniculatus</i>	
foothill deervetch	LOHU2	<i>Lotus</i>	<i>humistratus</i>	
four o'clock	MICO15	<i>Oxybaphus</i>	<i>comatus</i>	<i>Mirabilis comatus</i>
fourpart scorpionweed	PHTE	<i>Phacelia</i>	<i>tetramera</i>	
fourwing saltbush	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	
foxtail barley	HOJU	<i>Hordeum</i>	<i>jubatum</i>	
foxtail brome	BRRU2	<i>Bromus</i>	<i>rubens</i>	
Fremont chaffbush	AMFRF	<i>Amphipappus</i>	<i>fremontii</i> var. <i>fremontii</i>	
Fremont's cottonwood	POFRF3	<i>Populus</i>	<i>fremontii</i> ssp. <i>fremontii</i>	
Fremont's dalea	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	
Fremont's goosefoot	CHFR3	<i>Chenopodium</i>	<i>fremontii</i>	
Fremont's milkvetch	ASLEF2	<i>Astragalus</i>	<i>lentiginosus</i> var. <i>fremontii</i>	
Fremont's phacelia	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	
fringed amaranth	AMF1	<i>Amaranthus</i>	<i>fimbriatus</i>	
Funeral Mountain milkvetch	ASFU3	<i>Astragalus</i>	<i>funereus</i>	
galleta grass	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	<i>Hilaria jamesii</i>
Gambel oak	QUGA	<i>Quercus</i>	<i>gambelii</i>	
gilia	GILIA	<i>Gilia</i>		
Gilman's springparsley	CYGI	<i>Cymopterus</i>	<i>gilmanii</i>	
Gilman's suncup	CAKEG	<i>Camissonia</i>	<i>kernensis</i> ssp. <i>gilmanii</i>	
glandular brickellbush	BRAR2	<i>Brickellia</i>	<i>arguta</i>	
glandular threadplant	NEGLO	<i>Nemacladus</i>	<i>glanduliferus</i> var. <i>orientalis</i>	
globe springparsley	CYGL2	<i>Cymopterus</i>	<i>globosus</i>	
golden desert snapdragon	MOBR	<i>Mohavea</i>	<i>breviflora</i>	
golden suncup	CABRB4	<i>Camissonia</i>	<i>brevipes</i> ssp. <i>brevipes</i>	
Goodding's aster	MAPIG2	<i>Machaeranthera</i>	<i>gooddingii</i>	<i>Haplopappus pinnatifida</i> ssp. <i>gooddingii</i> var. <i>gooddingii</i>
Goodding's willow	SAGO	<i>Salix</i>	<i>gooddingii</i>	<i>Salix gooddingii</i> var. <i>gooddingii</i>
gooseberry leaf globemallow	SPGRP2	<i>Sphaeralcea</i>	<i>grossulariifolia</i> ssp. <i>pedata</i>	<i>Sphaeralcea grossulariifolia</i> var. <i>pedata</i>
granite pricklygilia	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	<i>Leptodactylon pungens</i> ssp. <i>pulcherrimum</i> , L. p. ssp. <i>hallii</i>
grassy rock goldenrod	PEPU7	<i>Petrorhiza</i>	<i>pumila</i>	
gray coldenia	TICAC	<i>Tiquilia</i>	<i>canescens</i> var. <i>canescens</i>	<i>Coldenia canescens</i> var. <i>canescens</i>
Great Basin langloisia	LASEP	<i>Langloisia</i>	<i>setosissima</i> ssp. <i>punctata</i>	<i>Langloisia punctata</i>
Great Basin popcornflower	PLKI	<i>Plagiobothrys</i>	<i>kingii</i>	
Great Basin woolstar	ERSP3	<i>Eriastrum</i>	<i>sparsiflorum</i>	
green rabbitbrush	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	
green rabbitbrush	CHVIS5	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i> var. <i>stenophyllus</i>	
green rabbitbrush	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	
Greene's rabbitbrush	CHGR6	<i>Chrysothamnus</i>	<i>greenii</i>	
greenmolly	KOAM	<i>Kochia</i>	<i>americana</i>	<i>Kochia americanavar vestita</i>
grizzly bear pricklypear	OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	

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grizzlybear pricklypear	OPERU	<i>Opuntia</i>	<i>erinacea</i> var. <i>ursina</i>	
ground nama	NAAR	<i>Nama</i>	<i>aretioides</i>	
Guadalupe catseye	CRMA7	<i>Cryptantha</i>	<i>maritima</i>	
hairspine pricklypear	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	
hairy crabgrass	DISA	<i>Digitaria</i>	<i>sanguinalis</i>	
hairy desert sunflower	GECA2	<i>Geraea</i>	<i>canescens</i>	
hairy purslane speedwell	VEPEX2	<i>Veronica</i>	<i>peregrina</i> ssp. <i>xalapensis</i>	
hairy wild cabbage	CAPI4	<i>Caulanthus</i>	<i>pilosus</i>	
hairy willowherb	EPCI	<i>Epilobium</i>	<i>ciliatum</i>	
hairy woollygrass	ERPI5	<i>Erioneuron</i>	<i>pilosum</i>	
hairyleaf caulanthus	GULA4	<i>Guillenia</i>	<i>lasiophylla</i>	<i>Caulanthus lasiophyllus</i>
Hall's hawksbeard	CRRUH	<i>Crepis</i>	<i>runcinata</i> ssp. <i>hallii</i>	
halogeton	HAGL	<i>Halogeton</i>	<i>glomeratus</i>	
handsome scorpionweed	PHPE2	<i>Phacelia</i>	<i>peirsoniana</i>	
hardheads	ACRE3	<i>Acroptilon</i>	<i>repens</i>	<i>Centaurea repens</i>
hardstem bulrush	SCACA	<i>Schoenoplectus</i>	<i>acutus</i> var. <i>acutus</i>	<i>Scirpus acutus</i>
heartleaf twistflower	STCOC	<i>Streptanthus</i>	<i>cordatus</i> var. <i>cordatus</i>	
hedgehog cactus	ECENE	<i>Echinocereus</i>	<i>engelmannii</i> var. <i>engelmannii</i>	
Heermann's buckwheat	ERHEA	<i>Eriogonum</i>	<i>heermannii</i> var. <i>argense</i>	
Heermann's buckwheat	ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>	
Heermann's buckwheat	ERHES2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>sulcatum</i>	
Henderson's desertparsley	PTHE	<i>Pteryxia</i>	<i>hendersonii</i>	
herb sophia	DESO2	<i>Descurainia</i>	<i>sophia</i>	
hiddenflower scorpionweed	PHCR2	<i>Phacelia</i>	<i>cryptantha</i>	
Hilend's bedstraw	GAHIH	<i>Galium</i>	<i>hilendiae</i> ssp. <i>hilendiae</i>	
Hilend's bedstraw	GAHIK	<i>Galium</i>	<i>hilendiae</i> ssp. <i>kingstonense</i>	
hoary aster	MACAC	<i>Machaeranthera</i>	<i>canescens</i> ssp. <i>canescens</i>	
hoary buckwheat	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	
Holboell's rockcress	ARHOP3	<i>Arabis</i>	<i>holboellii</i> var. <i>pinetorum</i>	
Holmgren's lupine	LUHO	<i>Lupinus</i>	<i>holmgrenanus</i>	
Hooker's buckwheat	ERHO6	<i>Eriogonum</i>	<i>hookeri</i>	
horehound	MAVU	<i>Marrubium</i>	<i>vulgare</i>	
horned pondweed	ZAPA	<i>Zannichellia</i>	<i>palustris</i>	
Howell's buckwheat	ERHO12	<i>Eriogonum</i>	<i>howellianum</i>	
inchhigh lupine	LUUN	<i>Lupinus</i>	<i>uncialis</i>	
Indian ricegrass	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	<i>Oryzopsis hymenoides</i>
Indian springparsley	CYAB	<i>Cymopterus</i>	<i>aboriginum</i>	
inland saltgrass	DISP	<i>Distichlis</i>	<i>spicata</i>	
intermediate suncup	CABOI	<i>Camissonia</i>	<i>boothii</i> ssp. <i>intermedia</i>	
Intermountain mousetail	IVSA	<i>Ivesia</i>	<i>sabulosa</i>	
Inyo rockcress	ARIN	<i>Arabis</i>	<i>inyoensis</i>	

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Iranian kochia	KOIR	<i>Kochia</i>	<i>iranica</i>	
Island fringe-pod	THLA3	<i>Thysanocarpus</i>	<i>laciniatus</i>	<i>Thysanocarpus laciniatus</i> var. <i>hitchcockii</i>
Italian ryegrass	LOPEM2	<i>Lolium</i>	<i>perenne</i> ssp. <i>multiflorum</i>	
Japanese brome	BRJA	<i>Bromus</i>	<i>japonicus</i>	
Johnsongrass	SOHA	<i>Sorghum</i>	<i>halepense</i>	
Johnston's knotweed	PODOJ2	<i>Polygonum</i>	<i>douglasii</i> ssp. <i>johnstonii</i>	<i>Polygonum douglasii</i> var. <i>johnstonii</i>
Jones' deserttrumpets	LIJO	<i>Linanthus</i>	<i>jonesii</i>	
Jones' falsecloak fern	ARJO2	<i>Argyrochosma</i>	<i>jonesii</i>	<i>Notholaena jonesii</i>
Joshua tree	YUBR	<i>Yucca</i>	<i>brevifolia</i>	
juniper mistletoe	PHJU	<i>Phoradendron</i>	<i>juniperinum</i>	
Kentucky bluegrass	POPR	<i>Poa</i>	<i>pratensis</i>	
kidney leaf buckwheat	ERRE3	<i>Eriogonum</i>	<i>reniforme</i>	
Kings bladderpod	LEKIK	<i>Lesquerella</i>	<i>kingii</i> ssp. <i>kingii</i>	
King's compact sandwort	ARKIC	<i>Arenaria</i>	<i>kingii</i> ssp. <i>Compacta</i>	<i>Arenaria congesta</i> var. <i>kingii</i>
King's eyelash grass	BLKI	<i>Blepharidachne</i>	<i>kingii</i>	
King's snapdragon	SAKI	<i>Sairocarpus</i>	<i>kingii</i>	<i>Anthirium kingii</i>
ladder buckwheat	ERIN10	<i>Eriogonum</i>	<i>insigne</i>	
lamb'squarters	CHALM2	<i>Chenopodium</i>	<i>album</i> var. <i>missouriense</i>	<i>Chenopodium missouriense</i>
largeflower hawkbeard	CROCO2	<i>Crepis</i>	<i>occidentalis</i> ssp. <i>occidentalis</i>	
largeflower suncup	CAME16	<i>Camissonia</i>	<i>megalantha</i>	
largeleaf bedstraw	GAMA3	<i>Galium</i>	<i>magnifolium</i>	
larkspur	DEAN	<i>Delphinium</i>	<i>andersonii</i>	
lateflowering goosefoot	CHSTG2	<i>Chenopodium</i>	<i>strictum</i> ssp. <i>glaucophyllum</i>	
leafy nama	NADE2	<i>Nama</i>	<i>densum</i>	
leafy nama	NADED	<i>Nama</i>	<i>demissum</i> var. <i>demissum</i>	
Lemmon's scorpionweed	PHLE	<i>Phacelia</i>	<i>lemmonii</i>	
Lemmon's scorpionweed	POBI	<i>Poa</i>	<i>bigelovii</i>	
Lewis River suncup	CAPA39	<i>Camissonia</i>	<i>parvula</i>	
limestone hawkbeard	CRIN4	<i>Crepis</i>	<i>intermedia</i>	
limestone rockdaisy	PEMEM	<i>Perityle</i>	<i>megaloccephala</i> var. <i>megaloccephala</i>	
limestone scorpionweed	PHAF	<i>Phacelia</i>	<i>affinis</i>	
little deserttrumpet	ERTR8	<i>Eriogonum</i>	<i>trichopes</i>	
little wiry suncup	CAPU16	<i>Camissonia</i>	<i>pusilla</i>	
littleleaf horsebrush	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	
littleleaf mountain mahogany	CEIN7	<i>Cercocarpus</i>	<i>intricatus</i>	
lobeleaf groundsel	SEMU3	<i>Senecio</i>	<i>multilobatus</i>	
Londonrocket	SIIR	<i>Sisymbrium</i>	<i>irio</i>	
long capsule suncup	CACH12	<i>Camissonia</i>	<i>chamaenerioides</i>	
longbeak streptanthella	STLO4	<i>Streptanthella</i>	<i>longirostris</i>	
longleaf brickellbush	BRLO	<i>Brickellia</i>	<i>longifolia</i>	
longleaf brickellbush	BRLOM	<i>Brickellia</i>	<i>longifolia</i> var. <i>multiflora</i>	
longspine horsebush	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	

Common Name	Code	Genus	Species	Older Name Used by Beatley
longstyle rush	JULO	Juncus	longistylis	
Louisiana sagewort	ARLU	Artemisia	ludoviciana	
low beardtongue	PEUH	Penstemon	humilis ssp. humilis	
low pussy-toes	AND2	Antennaria	dimorpha	
low woollygrass	ERP8	Eroneuron	pulchellum	
manybranched gilia	IPPO2	Ipomopsis	polycladon	
mapleleaf goosefoot	CHS12	Chenopodium	simplex	Chenopodium gigantospermum
Martin's waxyleaf Indian paintbrush	CAAPM	Castilleja	applegatei ssp. martinii	Castilleja martinii var. clokeyi
mat amaranth	AMBL	Amaranthus	biflorides	
mat mulhy	MURI	Muhlenbergia	richardsonis	
mat rockspirea	PECA12	Petrophytum	caespitosum	
matted buckwheat	ERCA8	Eriogonum	caespitosum	
meadow fescue	FEPR	Festuca	pratensis	
mealy goosefoot	CHIN2	Chenopodium	incanum	
Mediterranean lovegrass	ERBA2	Eragrostis	barlieri	
mesa dropseed	SPFL2	Sporobolus	flexuosus	
Mexican bladesage	SAME	Salazaria	mexicana	
Mexican sprangletop	LEUN2	Leptochloa	uniflora	
miners lettuce	CLPAU2	Claytonia	perfoliata ssp. perfoliata	Montia parviflora ssp. utahensis
Minthorn's milkvetch	ASMN	Astragalus	minthorniae var. villosus	
Modoc elkweed	FRALM	Frasera	pahutensis	Frasera albicaulis var. modocensis
Modoc gilia	GIMO	Gilia	modocensis	
Mojave ceanthus	CEGRV2	Ceanothus	greggii ssp. vestitus	
Mojave desertstar	MOBE2	Monopilion	bellioides	
Mojave milkvetch	ASMOM4	Astragalus	mohavensis var. mohavensis	
Mojave popcottonflower	PLJO	Pisagobothrys	jonesii	
Mojave prickly poppy	ARCO6	Argemone	corymbosa	
Mojave sandwort	ARMA3	Arenaria	macradenia	
Mojave sandwort	ARMA4	Arenaria	macradenia ssp. macradenia	
Mojave seabite	SUMO	Suaeda	moquini	Suaeda torreyana var. ramosissima, S.t. var. torreyana, S. intermedia
Mojave woodyster	XYTOT	Xylothiza	tortifolia var. imberbis	Machaeranthera tortifolia var. tortifolia
Mojave yucca	YUSC2	Yucca	schidigera	
money buckwheat	ERNU4	Eriogonum	nummularia	Eriogonum keameyi var. keameyi
monolepis bentgrass	AGEMX2	Agrostis	exarata var. monolepis	
Mormon tea	EPVI	Ephedra	viridis	
moth combed	PESE	Pectocarya	setosa	
moth langloisia	LASE3	Langloisia	setosissima	
mountain monkeyflower	MIMO2	Mimulus	montoides	
mountain pepperweed	LEMO2	Lepidium	montanum var. canescens	Lepidium montanum ssp. canescens
mountain sagewort	ARLU12	Artemisia	ludoviciana ssp. incompta	

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mountainbalm	MOGL	Monardella	glauca	
mourning buckwheat	ERCO18	Eriogonum	concinnum	
Muncl rockcress	ARPUM	Arabis	pulchra var. munclensis	
multongrass	POFE	Poa	tendrifera	
nakedstem sunray	ENNUN	Enceliopsis	nudicaulis var. nudicaulis	
narrowleaf brickellbush	BROBL	Brickellia	oblongifolia var. linifolia	
narrowleaf goosefoot	CHLE4	Chenopodium	leptophyllum	
narrowleaf heathgoldenrod	ERL16	Encameria	linearifolius	Haplopappus linearifolia
narrowleaf laphamia	PEMEI	Pensthe	megalocephala var. intricata	Perlye intricata
narrowleaf suncup	CARE2	Camissonia	refracta	
narrowstem catseye	CRGR3	Cryptantha	gracilis	
Native American pipeweed	ERIN4	Eriogonum	inflatum	
Navajo fleabane	ERCOC3	Erigeron	concinus var. concinns	Erigeron pumilus ssp. concinoides
neakstem four o'clock	MIB18	Mirabilis	bigelovii	
needle leaf rabbitbrush	ERTE18	Eriocameria	terretilia	Chrysothamnus terretilius
needle-and-thread	HECOC8	Hesperostipa	comata ssp. comata	Stipa comata
neglected balsamroot	BAHON	Balsamorhiza	hookeri var. neglecta	
Nevada biscuitroot	LONEN	Lomatium	nevadense var. nevadense	
Nevada buckwheat	ERDEN	Eriogonum	deflexum var. nevadense	
Nevada catseye	CRNEN	Cryptantha	nevadensis var. nevadensis	
Nevada gilia	GIBRB	Gilia	brecciarum ssp. brecciarum	
Nevada goldeneye	HEMUN	Helloments	multiflora var. nevadensis	Viguiera multiflora var. nevadensis
Nevada jointfir	EPNE	Ephedra	nevadensis	
Nevada onion	ALNE	Allium	nevadense	
Nevada pussypaws	CIPAN	Cistanthe	parryi var. nevadense	Calyptridium parryi var. nevadense
Nevada smokebush	PSPO	Psoralea	polydenus	
Nevada sunpewee	IVNE	Iva	nevadensis	
New Mexico plumseed	RANE	Rafinesquia	nevadensis	
New Mexico thistle	CINE	Cirsium	neomexicanum	
Newberry milkvetch	ASNEN	Astragalus	newberryi var. newberryi	
Newberry's milkvetch	ASNE6	Astragalus	newberryi	
Newberry's milkvetch	ASNEC	Astragalus	newberryi var. castoreus	
nodding brome	BRAN	Bromus	anomalus	
nodding buckwheat	ERCEC	Eriogonum	ceruum var. ceruum	
nodding buckwheat	ERCEV	Eriogonum	ceruum var. viminalis	
northern linanthus	LISE	Linanthus	septentrionalis	
Nuttall's coldenia	TINU2	Trigilia	nuttallii	Coldenia nuttallii
Nuttall's deserttrumpets	LINUN	Linanthus	nuttallii ssp. nuttallii	
Nye gilia	GINY	Gilia	nyensis	
Nye milkvetch	ASN2	Astragalus	nyensis	
oceanspray	HODI	Holodiscus	discolor	Holodiscus microphyllus var. microphyllus
orchardgrass	DAGL	Dactylis	glomerata	

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Orcutt's lupine	LUC002	Lupinus	concinus ssp. orcutti	Lupinus concinus var. orcutti
Oregon bitterroot	LEREM	Lewisia	rediviva var. minor	
Pacific blazingstar	MEOB3	Mentzelia	obscura	
Paiute beardtongue	PEPA23	Penstemon	pahutensis	
pale evening primrose	OEPAP	Oenothera	pallida ssp. pallida	
pale serviceberry	AMPA2	Amelanchier	pallida	Amelanchier utahensis
pallid suncup	CABRP	Camissonia	brevipes ssp. pallidula	
Palmer's buckwheat	ERPA11	Eriogonum	palmerianum	
Palmer's penstemon	PEPA8	Penstemon	palmeri	
Panamint cats-eye	CRAN4	Cryptantha	angustifolia	
Panamint princepsplume	STEL	Stanleya	elata	
Panamint rock goldenrod	CHGR13	Chrysothamnus	gramineus	Petradonia discoides
parachute plant	ATPL	Atrichosens	platyphylla	
Parish's larkspur	DEPA3	Delphinium	parishii ssp. parishii	
Parish's needlegrass	ACPA13	Achnatherum	parishii	
Parish's needlegrass	ACPA30	Chamaesyce	parishii	
Parish's sandmat	PHPA2	Phacelia	parishii	Euphorbia parishii
Parish's scorpionweed	SYROP	Symphoricarpos	rotundifolius var. parishii	Symphoricarpos parishii
Parish's spikeweed	ELPA4	Eleocharis	parishii	
Parish's buckwheat	ERBR8	Eriogonum	brachypodum	
Parish's liffern	CHPA4	Chellianthes	parryi	Notolaena parryi
Parish's rabbitbrush	ERPAN2	Eriocaulis	parryi var. nevadensis	Chrysothamnus parryi ssp. nevadensis
Parish's wirelettuce	STPA3	Stephanomeria	parryi	
pebble pincushion	CHCA	Chaenactis	carphoclinia	
pedicellate scorpionweed	PHPE	Phacelia	pedicellata	
Pennsylvania smartweed	POPE2	Polygonum	pennsylvanicum	
penstemon	PENST	Penstemon		
perennial rockcress	ARPE2	Arabis	perennans	
petiolate beardtongue	PEPE13	Penstemon	petiolatus	
pigweed, lambsquarters	CHAL7	Chenopodium	album	
pincushion flower	CHFR	Chaenactis	fremontii	
pinewoods needlegrass	ACPI2	Achnatherum	pinetorum	Stipa pinetorum
pink funnelily	ANBR4	Androstaphyllum	breviflorum	
pink sandverbena	ABEL	Abronia	elliptica	
pinate tansymustard	DEPI6	Descurainia	pinata ssp. glabra	
pinate tansymustard	DEPIH	Descurainia	pinata ssp. halictorum	
pinyon desert cats-eye	CRSC2	Cryptantha	scoparia	Cryptantha nevadensis
pinyon dwarf mistletoe	ARDI3	Arceuthobium	divaricatum	
pinyon goosefoot	CHAT	Chenopodium	atrovirens	
pinyon groundsmoke	GARA2	Gayophytum	ramosissimum	
pinyon rockcress	ARDI	Arabis	dispar	

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pitseed goosefoot	CHBS	Chenopodium	berlandieri var. sinuatum	
prairie flax	LILE3	Linum	lewisii	
prairie junegrass	KOMA	Koeleria	macrantha	Koeleria cristata
prairie sunflower	HEPEF	Helianthus	petiolaris ssp. fallax	
prairie sunflower	HEPEP	Helianthus	petiolaris ssp. petiolaris	
prickleaf	HESH	Hecastocleis	shockeyi	
prickly lettuce	LASE	Lactuca	serotia	
prickly russian thistle	SAKAT3	Salsola	kali ssp. tragus	Salsola ibenea
Pringle's woollysunflower	ERPR4	Eriophyllum	pinghei	
prostrate knotweed	POAV	Polygonum	aviculare	
prostrate pigweed	AMAL	Amaranthus	albus	
putticallyx gilia	GIALB	Gilia	aliquanta ssp. breviflora	
pumice alpinegold	HUVEI	Hulsea	vestita ssp. hyoensis	
puncturevine	TRTE	Tribulus	terrestris	
purple desert lupine	LUSH	Lupinus	shockeyi	
purple suncup	CAHE12	Camissonia	heterochroma	
purple threawn	ARPU9	Aristida	purpurea	
purpeshorn scorpionweed	PHAM8	Phacelia	ambigua	
pygmy goldenpoppy	ESMI	Eschscholzia	minutiflora	
Queen Anne's lace	DACA6	Daucus	carota	
rabbit thorn	LYPAO	Lycium	pallidum var. oligospermum	
rabbitear rockcress	ARPE	Arabis	pendulina	
range ratany	KRER	Krameria	erecta	Krameria parvifolia
rattail rescue	VUMY	Vulpia	myuros	
rayless shaggy fleabane	ERAP	Eriogon	aphanactis	
red grama	BOTR2	Bouteloua	trifida	
red monkeyflower	MIRU	Mimulus	rubellus	
red triangles	CETH3	Centrostegia	thurberi	Chorizanthe turberi
redroot buckwheat	ERRA3	Eriogonum	racemosum	
redroot catseye	CRMI	Cryptantha	micrantha	
redspined fishhook cactus	SCPO4	Sclerocactus	polyanctus	
redstem stork's bill	ERIC6	Erodium	cicutarium	
reflexed blazingstar	MERE	Mentzelia	reflexa	
rescuegrass	BRCA6	Bromus	cartharticus	
ripgut brome	BRD13	Bromus	dianthus	
Ripley's gilia	GIRI2	Gilia	ripleyi	
Ripley's springparsley	CYRI2	Cymopterus	ripleyi	
Rixford's rockwort	SCR12	Scopulophila	rixfordii	
rock gilia	GISC	Gilia	scopulorum	
rock whitefeather	IVARS	Ivesia	arizonica var. saxosa	Purpusia saxosa
Rocky Mountain rush	JUSA	Juncus	saximontanus	Juncus ensifolius var. montanus
rose heath	CHER2	Leuceleue	encoides	Chaetopappa encoides

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rose pussy-toes	ANR02	Antennaria	rosea	
Rothrock's penstemon	KER0R	Keckelia	rothrockii ssp. rothrockii	
rough brickellbush	BRMIS	Brickellia	microphylla var. scabra	
rough desertparsley	LOSC3	Lomatium	scabrum	
roughseed catseye	CRL6	Cryptantha	flavoculata	
roundleaf puncturebract	OXPE2	Oxytheca	perfoliata	
roundleaf scorpionweed	PHR02	Phacelia	rotundifolia	
roundspike catseye	CRH02	Cryptantha	humilis	
rubber rabbitbrush	ERNA10	Eriogonum	nauseosus	
rubber rabbitbrush	ERNAH	Eriogonum	nauseosus ssp. nauseosus var. hololeuca	Chrysothamnus nauseosus ssp. hololeucus
rubber rabbitbrush	ERNAL	Eriogonum	nauseosus ssp. consimilis var. leiosperma	
rugose globemallow	SPAMR	Sphaeralcea	ambigua var. rugosa	
sacred thornapple	DAWR2	Datura	wrightii	
sagebrush cholla	OPPU	Opuntia	puchella	
sago pondweed	POPE6	Potamogeton	pectinatus	
saints cactus	ECEN	Echinocereus	engelmannii	
saints cactus	ECENA2	Echinocereus	engelmannii var. armatus	
saints cactus	ECENC	Echinocereus	engelmannii var. chrysocentrus	
salicedar	TARA	Tamarix	ramosissima	
sand dropseed	SPCR	Sporobolus	cryptandrus	
sand fringe-pod	THCU	Thysanocarpus	curvipes	
sand leek	ALSC3	Allium	scorodoprasum	Thysanocarpus curvipes var. eradiatus
sandbar willow	SAEX	Salix	exigua	Salix exigua ssp. exigua var. stenophylla
Sandberg's bluegrass	POSE	Poa	secunda	Poa sandbergii, Poa scabrella, Poa nevadensis
sanddune deserttrumpets	LIAR2	Linanthus	arenicola	
scaled bud	ANAC	Anisocoma	acaulis	
scarlet bee-blossom	GAC05	Gaura	coccinea	
scarlet hedgehog cactus	ECTRM	Echinocereus	inglichidatus var. melanacanthus	Echinocereus coccineus var. coccineus
scented catseye	CRUT	Cryptantha	utahensis	
Schott's calico	LOSC6	Loeseliastrum	schottii	Langkotsia schottii
Schott's pigmycedar	PESC4	Peucephyllum	schottii	
Searts' prairieclover	DASE3	Dalea	searsiae	
seep monkeyflower	MIGU	Mimulus	guttatus	Mimulus guttatus var. guttatus
shadscale saltbush	ATCO	Atriplex	confertifolia	
shaggyfruit pepperweed	LELA	Lepidium	lasiocarpum	
sharp keel milkvetch	ASAC3	Astragalus	acutirostris	
shining blazingstar	MENI2	Mentzelia	nifens	
shinyleaf sandpaper plant	PENI	Petalonyx	nifidus	
Shockey goldenhead	ACSH	Acamptopappus	shockeyi	
Shockey's desertthorn	LYSH	Lythrum	shockeyi	
Shockey's rockcress	ARSH	Arabis	shockeyi	
shortflower buckwheat	ERBR7	Eriogonum	brachyanthum	

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shortpod mustard	BRGE	Brassica	geniculata	Hirschfeldia incana
shortpod mustard	HIIN3	Hirschfeldia	incana	
shortstem lupine	LUBR2	Lupinus	brevicaulis	
showy gilia	GICAS	Gilia	cana ssp. spectormis	
showy gilia	GICAT	Gilia	cana ssp. triceps	
shedding suncup	CABOC	Camissonia	boothii ssp. condensata	
shy gilia	GIIN2	Gilia	inconspectua	
sigmoid threadplant	NESI	Nemacladus	sigmoides	
silver puff	URLI2	Uropappus	linearifolia	Microrcentis linearifolius
silverscale saltbush	ATARE	Atriplex	argentea ssp. expansa	
silversheath knotweed	POAR5	Polygonum	argyrocoeleon	
Simpson's buckwheat	ERMIS2	Eriogonum	microthecum var. simpsonii	Eriogonum microthecum var. foliosum
single-leaf ash	FRAN2	Fraxinus	anomala	
singleleaf pinyon	PIMO	Pinus	monophylla	
six weeks grama	BOBA2	Bouteloua	barbata	
six weeks threawn	ARAD	Arctida	adscensionis	
sixweeks fescue	VUOC	Vulpia	octoflora	
skunkbush sumac	RHTRA	Rhus	trilobata var. anisophylla	
slender buckwheat	ERMIL	Eriogonum	microthecum var. lapidicola	
slender goldenweed	MAGR10	Machaeranthera	gracilis	Haplopappus gracilis
slender poreleaf	POGR5	Porophyllum	gracile	
slender woodlandstar	LITE4	Lithophragma	tenuillum	
slim tridens	TRMU	Tridens	muticus	
small fescue	VULMI	Vulpia	microstachys	
small flowered ricegrass	PIM17	Piptatherum	micrantha	Oryzopsis micranthum
small wire-lettuce	STEXE	Stephanomeria	exigua ssp. exigua	
smallflower blue eyed Mary	COPA3	Collinsia	parviflora	
smallflower globemallow	SPPA2	Sphaeralcea	parvifolia	
smooth barley	HOMUG	Hordeum	muntrum ssp. glaucum	Hordeum glaucum
smooth desertdandelion	MAGL3	Malacothrix	glabrata	
smooth willowweed	EPGL	Epilobium	glaberrimum	
smoothleaf elm	ULMI	Ulmus	minor	
snake's head	MACO3	Malacothrix	coulteri	
soft prairieclover	DAMO2	Dalea	mollissima	
Sonoran sandmat	CHMI7	Chamaesyce	micromera	Euphorbia micromera
southern cattail	TYDO	Typha	domingensis	
sowthistle desertdandelion	MASO	Malacothrix	sonchoides	
spearleaf brickellbush	BRAT	Brickellia	atractylodes	
speckledpod milkvetch	ASLEM3	Astragalus	lentiginosus var. micans	
spineless horsebrush	TECA2	Tetradymia	canescens	
spiny cliffbrake	PETR3	Pellaea	truncata	

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spiny greasesubsh	GLSPA	Glossopetalon	spinescens var. aridum	Forselesia nevadensis
spiny hopsage	GRSP	Grayia	spinosa	
spiny menodora	MESP2	Menodora	spinescens	
spiny polygala	POSU	Polygala	subspinoso	Polygala subspinoso var. subspinoso
spiny southistle	SOAS	Sonchus	asper	
spinystar	ESVIR2	Escobaria	Vilpura var. rosea	
spotted buckwheat	ERMA2	Eriogonum	maculatum	
spotted missionbells	FRAT	Fritillaria	atropurpurea	
spreading fleabane	ERD4	Erigeron	divergens	
spreading moonpod	SED3	Selinocarpus	nevadensis	Selinocarpus diffusus ssp. nevadensis
spur lupine	LUARL5	Lupinus	argenteus ssp. ardens var. laxiflorus	Lupinus argenteus ssp. argenteus var. laxiflorus
squaw apple	PERA4	Peraphyllum	ramosissimum	
spreading groundsmoke	GADP	Gayophytum	diffusum ssp. parviflorum	
staghorn cholla	OPECE	Opuntia	echinocarpa var. echinocarpa	
Stansbury cliffrose	PUST	Purshia	stansburiana	Cowania mexicana var stansburiana
star gilia	GIST	Gilia	stellata	
starry bedstraw	GAST	Galium	stellatum	
Steeves dukymaiden	CHST	Cheanactis	stevoides	
stickylily	GAAP2	Galium	aparine	
stonecrop scorpionweed	PHSA	Phacelia	saxicola	
straw falsecudweed	PSST7	Pseudognaphalium	stramineum	Gnaphalium stramineum
stretchberry	FOPUP	Forstera	pubescens var. pubescens	Forstera neomexicana
sturdy sedge	CAAL7	Carex	alba	
subcongesta sandwort	ARCOS2	Arenaria	congesta var. subcongesta	
Suksdorf's monkeyflower	MISU2	Mimulus	suksdorfii	
supineflower buckwheat	ERUMD3	Eriogonum	umbellatum var. dichrocephalum	
supineflower buckwheat	ERUMS2	Eriogonum	umbellatum var. subardum	
supineflower buckwheat	ERUMV	Eriogonum	umbellatum var. vernum	
supineflower buckwheat	ERUMV2	Eriogonum	umbellatum var. versicolor	
supinur wildbuckwheat	ERUM	Eriogonum	umbellatum	
tailcup lupine	LUCA	Lupinus	caudatus	
tall fescue	LOAR10	Lolium	arundinacea	Festuca arundinaceum
thickstem wild cabbage	CACRG	Caulanthus	crassicaulis var. glaber	Caulanthus crassicaulis glaber
Thomas' buckwheat	ERTH	Eriogonum	thomasi	
Thompson's petelia	PETH5	Petelia	thompsonae	
Thorn skeletonweed	STSP6	Stephanomeria	spinoso	
threaleaf snakeweed	GUMI	Gutierrezia	microccephala	
threastem carpetweed	MOCE	Mollugo	cerviana	
three-hearts	TRWA2	Tricardie	watsonii	
Thurber's needlegrass	ACTH7	Achnatherum	thurberiana	Stipa thurberianum
Thurber's pentstemon	PETH3	Pentstemon	thurberi	Pentstemon thurburi var. aneustus
Thurber's sandpaper plant	PETH1	Petalonyx	thurbert ssp. thurbert	

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thymeleaf sandmat	CHSE5	<i>Chamaesyce</i>	<i>serpyllifolia</i> ssp. <i>serpyllifolia</i>	<i>Euphorbia serpyllifolia</i>
Tidestrom's milkvetch	ASTI	<i>Astragalus</i>	<i>tidestromii</i>	
Torrey milkvetch	ASCAC5	<i>Astragalus</i>	<i>calycosus</i> var. <i>calycosus</i>	
Torrey's jointfir	EPTO	<i>Ephedra</i>	<i>torreyana</i>	
trailing windmills	ALIN	<i>Allionia</i>	<i>incarnata</i>	
transmontane gilia	GITR	<i>Gilia</i>	<i>transmontana</i>	
transmontane sandverbena	ABTU	<i>Abronia</i>	<i>turbinata</i>	
triangle eveningprimrose	OEDED4	<i>Oenothera</i>	<i>deltoides</i> ssp. <i>deltoides</i>	
tuber anemone	ANTU	<i>Anemone</i>	<i>tuberosa</i>	
tufted eveningprimrose	OCEM4	<i>Oenothera</i>	<i>caespitosa</i> ssp. <i>marginata</i>	
tufted hairgrass	DECA18	<i>Deschampsia</i>	<i>caespitosa</i>	
tufted townsend daisy	TOSC	<i>Townsendia</i>	<i>scapigera</i>	
tumblemustard	SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	
turpentinebroom	THMO	<i>Thamnosma</i>	<i>montana</i>	
twinleaf bedstraw	GABI	<i>Galium</i>	<i>bifolium</i>	
two color phacelia	PHBI	<i>Phacelia</i>	<i>bicolor</i>	
united blazingstar	MECO2	<i>Mentzelia</i>	<i>congesta</i>	
Utah agave	AGUTE	<i>Agave</i>	<i>utahensis</i> var. <i>eborispinata</i>	
Utah butterflybush	BUUT	<i>Buddleja</i>	<i>utahensis</i>	
Utah fendlerbush	FEUT	<i>Fendlerella</i>	<i>utahensis</i>	
Utah juniper	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	
Utah mortonia	MOUT	<i>Mortonia</i>	<i>utahensis</i>	
Utah serviceberry	AMUT	<i>Amelanchier</i>	<i>utahensis</i>	
Utah swallowwort	CYUT	<i>Cynanchum</i>	<i>utahense</i>	
valley lupine	LUMI	<i>Lupinus</i>	<i>microcarpus</i>	
valley lupine	LUSU10	<i>Lupinus</i>	<i>subvexus</i>	<i>Lupinus microcarpus</i>
variegatedbract blazingstar	MEMO4	<i>Mentzelia</i>	<i>montana</i>	
velvet ash	FRVE2	<i>Fraxinus</i>	<i>velutina</i>	<i>Fraxinus velutina</i> var. <i>coriacea</i>
velvet turtleback	PSRA	<i>Psathyrotes</i>	<i>ramosissima</i>	
Vetch's dodder	CUDEV	<i>Cuscuta</i>	<i>denticulata</i> var. <i>vetchii</i>	
Virgin River brittlebush	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	
Virgin River catseye	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	
Walker's suncup	CAWAT	<i>Camissonia</i>	<i>walkerii</i> ssp. <i>tortilis</i>	
Washoe scorpionweed	PHCU	<i>Phacelia</i>	<i>curvipes</i>	
water speedwell	VEAN2	<i>Veronica</i>	<i>anagallis-aquatica</i>	
Watson's bricklebrush	BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	
Watson's catseye	CRWA2	<i>Cryptantha</i>	<i>watsonii</i>	
Watson's heathgoldenrod	ERWA8	<i>Ericameria</i>	<i>watsonii</i>	<i>Haplopappus watsonii</i>
wavyleaf Indian paintbrush	CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	<i>Castilleja angustifolia</i> . <i>Castilleja chromosa</i>
wax currant	RICEC2	<i>Ribes</i>	<i>cereum</i> var. <i>cereum</i>	
weasel scorpionweed	PHMU	<i>Phacelia</i>	<i>mustelina</i>	

Common Name	Code	Genus	Species	Older Name Used by Beatley
wedge leaf whitlow grass	DRCUC	<i>Draba</i>	<i>cuneifolia</i> var. <i>cuneifolia</i>	
wedgeleaf whitlow grass	DRCUI	<i>Draba</i>	<i>cuneifolia</i> var. <i>integrifolia</i>	
weeping alkaligrass	PUDI	<i>Puccinellia</i>	<i>distans</i>	
western goldfern	PETR7	<i>Pentagama</i>	<i>triangularis</i>	
western goldfern	PETR7	<i>Pentagrama</i>	<i>triangularis</i> ssp. <i>triangularis</i>	<i>Pityrogramma triangularis</i> v ar. <i>triangularis</i>
western gromwell	LIRU4	<i>Lithospermum</i>	<i>ruderae</i>	
western honey mesquite	PRGLT	<i>Prosopis</i>	<i>glandulosa</i> var. <i>torreyana</i>	
western marsh cudweed	GNPA	<i>Gnaphalium</i>	<i>palustre</i>	
western sedge	CAOC2	<i>Carex</i>	<i>occidentalis</i>	
western wheatgrass	PASM	<i>Pascopyrum</i>	<i>smithii</i>	<i>Agropyrum smithii</i>
Wheeler's skeletonweed	CHWH	<i>Chaetodelphia</i>	<i>wheeleri</i>	
wheelscale saltbush	ATELF	<i>Atriplex</i>	<i>elegans</i> var. <i>fasciculata</i>	
white burrobrush	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	
white bursage	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	
white mallow	EREX3	<i>Eremalche</i>	<i>exilis</i>	
white tackstem	CAWR	<i>Calycoseris</i>	<i>wrightii</i>	
whitemargin beardtongue	PEAL3	<i>Penstemon</i>	<i>albomarginatus</i>	
whitemargin sandmat	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	<i>Euphorbia albomarginata</i>
whitestem blazingstar	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	
whitestem blazingstar	MEVE5	<i>Mentzelia</i>	<i>veatchiana</i>	
whitestem paperflower	PSCO2	<i>Psilostrophe</i>	<i>cooperi</i>	
widewing springparsley	CYPU	<i>Cymopterus</i>	<i>purpurascens</i>	
widows milkvetch	ASLA8	<i>Astragalus</i>	<i>layneae</i>	
Wilcox's woolstar	ERWI	<i>Eriastrum</i>	<i>wilcoxii</i>	
willow dock	RUSA	<i>Rumex</i>	<i>salicifolius</i>	
winding mariposa lily	CAFL	<i>Calochortus</i>	<i>flexuosus</i>	
wingfruit suncup	CAPT	<i>Camissonia</i>	<i>pterosperma</i>	
wingnut catseye	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	
winterfat	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	<i>Ceratoides lanata</i> , <i>Eurotia lanata</i>
Woods' rose	ROWO	<i>Rosa</i>	<i>woodsii</i>	
woolleepod milkvetch	ASPUL2	<i>Astragalus</i>	<i>purshii</i> var. <i>lectulus</i>	
woolly bluestar	AMTO2	<i>Amsonia</i>	<i>tomentosa</i>	
woolly brickellbush	BRIN	<i>Brickellia</i>	<i>incana</i>	
woolly desert marigold	BAPL3	<i>Baileya</i>	<i>pleniradiata</i>	
woolly fruit burr ragweed	AMER	<i>Ambrosia</i>	<i>erioncentra</i>	
woolly plantain	PLPA2	<i>Plantago</i>	<i>patagonica</i>	<i>Plantagopurshii</i> var. <i>oblonga</i>
woollyhead neststraw	STMI2	<i>Stylodine</i>	<i>micropoides</i>	
woollypod milkvetch	ASPUT	<i>Astragalus</i>	<i>purshii</i> var. <i>tinctus</i>	
wormwood	ARDR4	<i>Artemisia</i>	<i>dracunculus</i>	
Wright threeawn	ARPUW	<i>Aristida</i>	<i>purpurea</i> var. <i>wrightii</i>	<i>Aristida purpurea wrightii</i>
Wyoming Indian paintbrush	CALI4	<i>Castilleja</i>	<i>linariaefolia</i>	
yarrow, milfoil	ACMIL3	<i>Achillea</i>	<i>millefolium</i> var. <i>lanulosa</i>	

Common Name	Code	Genus	Species	Older Name Used by Beatley
yellow and purple monkeyflower	MIDE2	Mimulus	densus	
yellow bristlegrass	SEPU8	Setaria	pumila	Setaria glauca
yellow gilia	GIFI2	Gilia	filiformis	
yellow nightshade	PHCR4	Physalis	crassifolia	
yellow pepperweed	LEFLF2	Lepidium	flavum var. flavum	
yellow spiderflower	CLLU2	Cleome	lutea	
yellow sweetclover	MEOF	Melilotus	officinalis	Melilotus alba
yellow tackstem	CAPA7	Calycoseris	parryi	
yellow turbans	ERPU6	Eriogonum	pusillum	
yelloweyes	LUFL	Lupinus	flavoculatus	
yellowray fremontsgold	SYFR	Syntrichopappus	fremontii	
Yuma sandmat	CHSE8	Chamaesyce	setiloba	Chamaesyce setiloba
Zschack's goosefoot	CHBEZ	Chenopodium	berlandieri var. zschackei	
21-Sep-99			G:\EMAC\VEG\DATA\EGIS\Reports\Appendices\C_LstCommNames\CommName.xls	

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Appendix D

Percent Abundance of Woody Plants on the NTS by Alliance

Modoc elkweed (*Frasera pahutensis*) [photo by Susan Cochrane]

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Appendix D

Percent Abundance of Woody Plants on the NTS by Alliance

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Lycium spp. Shrubland Alliance

Short Shrubs (0.5-2 m)

Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	32.0%
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	29.2%
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	14.7%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	9.5%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	6.0%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	5.0%
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	2.0%
Perennial	HYS A	<i>Hymenoclea</i>	<i>salsola</i>	0.3%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	0.0%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	0.0%
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.0%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.0%

Dwarf Shrubs (<0.5 m)

Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	1.0%
Perennial	KOAM	<i>Kochia</i>	<i>americana</i>	0.3%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Larrea tridentata/Ambrosia dumosa Shrubland Alliance

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	12.7%
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Short Shrubs (0.5-2 m)

Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	43.1%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	7.0%
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	5.2%
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	3.9%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	3.3%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	3.1%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	2.5%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	2.1%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	1.7%
Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	1.4%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	0.8%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	0.6%
Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	0.5%
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	0.4%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	0.4%
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	0.4%
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	0.3%
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	0.3%
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	0.2%
Perennial	EPFU	<i>Ephedra</i>	<i>funerea</i>	0.2%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	0.2%
Perennial	PSPO	<i>Psoralea</i>	<i>polydenius</i>	0.1%
Perennial	ATPO	<i>Atriplex</i>	<i>polycarpa</i>	0.1%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	0.1%
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	0.0%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.0%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	AMER	<i>Ambrosia</i>	<i>eriacentra</i>	0.0%
	Perennial	EPTO	<i>Ephedra</i>	<i>torreyana</i>	0.0%
	Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	0.0%
	Perennial	ERPA29	<i>Ericameria</i>	<i>paniculata</i>	0.0%
	Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.0%
	Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.0%
	Perennial	BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	0.0%
	Perennial	ATHY	<i>Atriplex</i>	<i>hymenelytra</i>	0.0%
	Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	0.0%
	Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var.	0.0%

Dwarf Shrubs (<0.5 m)

	Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	6.7%
	Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	1.3%
	Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	0.1%
	Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	0.0%

Forbs

	Perennial	BRAT	<i>Brickellia</i>	<i>atractylodes</i>	0.0%
	Perennial	STPA3	<i>Stephanomeria</i>	<i>parryi</i>	0.0%

Succulents

	Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	0.2%
	Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.1%
	Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	0.0%
	Perennial	OPRA	<i>Opuntia</i>	<i>ramosissima</i>	0.0%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Atriplex confertifolia-Ambrosia dumosa Shrubland Alliance

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	4.3%
Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	0.0%

Short Shrubs (0.5-2 m)

Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	29.6%
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	20.3%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	10.1%
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	3.9%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	3.5%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	3.4%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	2.3%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	1.9%
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	1.8%
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	1.0%
Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	1.0%
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	1.0%
Perennial	EPTO	<i>Ephedra</i>	<i>torreyana</i>	0.9%
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	0.9%
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	0.9%
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	0.9%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	0.8%
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	0.7%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	0.6%
Perennial	ATHY	<i>Atriplex</i>	<i>hymenelytra</i>	0.4%
Perennial	BRLOM	<i>Brickellia</i>	<i>longifolia</i> var. <i>multiflora</i>	0.4%
Perennial	BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	0.4%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	0.3%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	0.2%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.2%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	0.2%
	Perennial	PSPO	<i>Psorothamnus</i>	<i>polydenius</i>	0.2%
	Perennial	ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>	0.1%
	Perennial	EPFU	<i>Ephedra</i>	<i>funerea</i>	0.1%
	Perennial	BUUT	<i>Buddleja</i>	<i>utahensis</i>	0.1%
	Perennial	SENE5	<i>Senecio</i>	<i>flaccidus</i> var. <i>douglasii</i>	0.1%
	Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.1%
	Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.0%
	Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	0.0%
	Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	0.0%
	Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var.	0.0%
	Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	0.0%
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	0.0%
	Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	0.0%

Dwarf Shrubs (<0.5 m)

Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	4.3%
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	1.5%
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	0.3%
Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	0.0%

Forbs

Perennial	BRAT	<i>Brickellia</i>	<i>atratyloides</i>	0.2%
Perennial	GAST	<i>Galium</i>	<i>stellatum</i>	0.0%

Succulents

Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	0.7%
Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.1%
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	0.0%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Hymenoclea-Lycium Shrubland Alliance

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	1.6%
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Short Shrubs (0.5-2 m)

Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	41.3%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	15.2%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	7.7%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	4.9%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	4.2%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	3.9%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	2.5%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	2.0%
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	1.9%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	1.7%
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	1.3%
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	1.1%
Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	1.0%
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	0.9%
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	0.9%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	0.9%
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	0.9%
Perennial	ERPA29	<i>Ericameria</i>	<i>paniculata</i>	0.8%
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	0.5%
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	0.4%
Perennial	PSPO	<i>Psoralea</i>	<i>polydenius</i>	0.4%
Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var.	0.3%
Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	0.3%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.3%
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.3%
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	0.3%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	AMER	<i>Ambrosia</i>	<i>ericaentra</i>	0.2%
	Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	0.1%
	Perennial	ATPO	<i>Atriplex</i>	<i>polycarpa</i>	0.1%
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	0.1%
	Perennial	BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>	0.1%
	Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var.	0.1%
	Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.1%
	Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	0.1%
	Perennial	BRIN	<i>Brickellia</i>	<i>incana</i>	0.1%
	Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	0.0%
	Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	0.0%
	Perennial	RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	0.0%
	Perennial	PENI	<i>Petalonyx</i>	<i>nitidus</i>	0.0%
	Perennial	STEL	<i>Stanleya</i>	<i>elata</i>	0.0%

Dwarf Shrubs (<0.5 m)

Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	0.6%
Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	0.3%
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	0.2%

Forbs

Perennial	ADCO2	<i>Adenophyllum</i>	<i>cooperi</i>	0.2%
Perennial	BRAT	<i>Brickellia</i>	<i>atractyloides</i>	0.0%
Perennial	POSU	<i>Polygala</i>	<i>subspinoso</i>	0.0%

Succulents

Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.1%
Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	0.0%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Ephedra nevadensis Shrubland Alliance

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	0.0%
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Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	1.5%
Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	0.7%

Short Shrubs (0.5-2 m)

Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	18.2%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	7.7%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	6.2%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	5.7%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	5.4%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	4.8%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	4.0%
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	3.9%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	3.9%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	3.6%
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	3.2%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	3.0%
Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	2.3%
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	2.1%
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	1.9%
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	1.6%
Perennial	SAME	<i>Salazania</i>	<i>mexicana</i>	1.3%
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	1.0%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	0.7%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.6%
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	0.6%
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	0.5%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
Perennial		LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	0.5%
Perennial		ARNO4	<i>Artemisia</i>	<i>nova</i>	0.4%
Perennial		TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.4%
Perennial		ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var.	0.4%
Perennial		CHVIS5	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i> var.	0.4%
Perennial		STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.3%
Perennial		ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var.	0.3%
Perennial		PSPO	<i>Psorothamnus</i>	<i>polydenius</i>	0.3%
Perennial		PUGL2	<i>Purshia</i>	<i>glandulosa</i>	0.2%
Perennial		CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	0.2%
Perennial		SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	0.2%
Perennial		EPFU	<i>Ephedra</i>	<i>funerea</i>	0.2%
Perennial		ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	0.1%
Perennial		PUST	<i>Purshia</i>	<i>stansburiana</i>	0.1%
Perennial		EPTO	<i>Ephedra</i>	<i>torreyana</i>	0.1%
Perennial		ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	0.1%
Perennial		BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	0.1%
Perennial		CHGR6	<i>Chrysothamnus</i>	<i>greenii</i>	0.1%
Perennial		STEL	<i>Stanleya</i>	<i>elata</i>	0.1%
Perennial		TEGL	<i>Tetradymia</i>	<i>glabrata</i>	0.1%
Perennial		PENI	<i>Petalonyx</i>	<i>nitidus</i>	0.1%
Perennial		ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	0.1%
Perennial		SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	0.0%
Perennial		BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>	0.0%
Perennial		ERPA29	<i>Ericameria</i>	<i>paniculata</i>	0.0%
Perennial		LYSH	<i>Lycium</i>	<i>shockleyi</i>	0.0%
Perennial		ERNA7	<i>Ericameria</i>	<i>nanus</i>	0.0%
Perennial		ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>	0.0%
Perennial		AMER	<i>Ambrosia</i>	<i>erioncentra</i>	0.0%
Perennial		GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	0.0%
Perennial		PRFA	<i>Prunus</i>	<i>fasciculata</i>	0.0%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Dwarf Shrubs (<0.5 m)

Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	3.8%
Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	2.0%
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	1.5%
Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	0.0%

Forbs

Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	0.1%
Perennial	ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	0.0%
Perennial	BRAT	<i>Brickellia</i>	<i>atractyloides</i>	0.0%
Perennial	ERNU4	<i>Eriogonum</i>	<i>nummularæ</i>	0.0%

Succulents

Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.5%
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	0.1%
Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	0.1%
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	0.0%
Perennial	OPERU	<i>Opuntia</i>	<i>erinacea</i> var. <i>ursina</i>	0.0%
Perennial	ECENE	<i>Echinocereus</i>	<i>engelmannii</i> var. <i>engelmannii</i>	0.0%
Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	0.0%
Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	0.0%
Perennial	OPRA	<i>Opuntia</i>	<i>ramosissima</i>	0.0%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Coleogyne ramosissima Shrubland Alliance

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	0.1%
Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	0.0%

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	1.9%
Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	1.3%
Perennial	CELEL	<i>Cercocarpus</i>	<i>ledifolius</i> var. <i>ledifolius</i>	0.0%
Perennial	CEGRV2	<i>Ceanothus</i>	<i>greggii</i> ssp. <i>vestitus</i>	0.0%

Short Shrubs (0.5-2 m)

Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	56.4%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	9.6%
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	3.5%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	3.2%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	2.5%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	2.0%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	1.5%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	1.4%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	1.4%
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	1.3%
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	1.0%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	0.8%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	0.7%
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	0.7%
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	0.7%
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	0.6%
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var.	0.6%
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	0.5%
Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	0.5%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>		0.5%
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>		0.4%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>		0.3%
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>		0.3%
Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>		0.3%
Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>		0.2%
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>		0.2%
Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var.		0.2%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>		0.2%
Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>		0.2%
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>		0.1%
Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>		0.1%
Perennial	EPFU	<i>Ephedra</i>	<i>funerea</i>		0.1%
Perennial	PSPO	<i>Psorothamnus</i>	<i>polydenius</i>		0.1%
Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>		0.1%
Perennial	ERNA10	<i>Ericameria</i>	<i>nauseosus</i>		0.1%
Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>		0.1%
Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>		0.1%
Perennial	BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>		0.1%
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>		0.1%
Perennial	STEL	<i>Stanleya</i>	<i>elata</i>		0.0%
Perennial	EPTO	<i>Ephedra</i>	<i>torreyana</i>		0.0%
Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>		0.0%
Perennial	AMER	<i>Ambrosia</i>	<i>erioncentra</i>		0.0%
Perennial	ARBI3	<i>Artemisia</i>	<i>bigelovii</i>		0.0%
Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>domii</i> var. <i>domii</i>		0.0%
Perennial	ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>		0.0%
Perennial	ERHEA	<i>Eriogonum</i>	<i>heermannii</i> var. <i>argense</i>		0.0%
Perennial	PERA4	<i>Peraphyllum</i>	<i>ramosissimum</i>		0.0%
Perennial	PENI	<i>Petalonyx</i>	<i>nitidus</i>		0.0%
Perennial	RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>		0.0%
Perennial	BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>		0.0%
Perennial	CHGR6	<i>Chrysothamnus</i>	<i>greenei</i>		0.0%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	BUUT	<i>Buddleja</i>	<i>utahensis</i>	0.0%
	Perennial	ERCUC	<i>Ericameria</i>	<i>cuneatus</i>	0.0%
	Perennial	GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	0.0%
	Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	0.0%
	Perennial	RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	0.0%

Dwarf Shrubs (<0.5 m)

Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	1.3%
Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	1.0%
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	0.2%
Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	0.0%
Perennial	KOAM	<i>Kochia</i>	<i>americana</i>	0.0%

Forbs

Perennial	ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	0.0%
Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	0.0%
Perennial	BRAT	<i>Brickellia</i>	<i>atractyloides</i>	0.0%
Perennial	ERNU4	<i>Eriogonum</i>	<i>nummularæ</i>	0.0%

Succulents

Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.3%
Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	0.1%
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	0.1%
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	0.0%
Perennial	OPRA	<i>Opuntia</i>	<i>ramosissima</i>	0.0%
Perennial	ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>	0.0%
Perennial	ECENE	<i>Echinocereus</i>	<i>engelmannii</i> var. <i>engelmannii</i>	0.0%
Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	0.0%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Atriplex spp. Shrubland Alliance

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	0.0%
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Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	0.6%
Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata ssp. tridentata</i>	0.2%

Short Shrubs (0.5-2 m)

Perennial	ATCAC	<i>Atriplex</i>	<i>canescens var. canescens</i>	39.2%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	18.3%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	8.9%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	5.5%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	2.7%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	2.4%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	1.9%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	1.2%
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	1.1%
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	0.9%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. viscidiflorus</i>	0.9%
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum var. oligospermum</i>	0.7%
Perennial	EPVI	<i>Ephedra</i>	<i>virdis</i>	0.6%
Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	0.5%
Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	0.5%
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	0.5%
Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus ssp. nauseosus var.</i>	0.2%
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.2%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris var. axillaris</i>	0.1%
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus ssp. consimilis var.</i>	0.1%
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	0.1%
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	0.1%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	0.1%
	Perennial	EPTO	<i>Ephedra</i>	<i>torreyana</i>	0.0%
	Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	0.0%
	Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.0%
	Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	0.0%
	Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	0.0%
	Perennial	PSPO	<i>Psoralea</i>	<i>polydenius</i>	0.0%
	Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	0.0%
	Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	0.0%
	Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	0.0%
	Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	0.0%
	Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	0.0%

Dwarf Shrubs (<0.5 m)

Perennial	KOAM	<i>Kochia</i>	<i>americana</i>	7.3%
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	2.6%
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	1.9%
Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	0.1%

Forbs

Perennial	POSU	<i>Polygala</i>	<i>subspinosa</i>	0.1%
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Succulents

Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.1%
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	0.1%
Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	0.0%
Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	0.0%
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	0.0%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Chrysothamnus-Ericameria Shrubland Alliance

Trees (>5 m)

Perennial	QUGA	<i>Quercus</i>	<i>gambelii</i>	0.1%
Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	0.1%
Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	0.0%

Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata ssp. tridentata</i>	5.2%
Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	0.1%
Perennial	AMUT	<i>Amelanchier</i>	<i>utahensis</i>	0.0%

Short Shrubs (0.5-2 m)

Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. viscidiflorus</i>	29.7%
Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus ssp. nauseosus var.</i>	11.5%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	11.3%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens var. canescens</i>	6.5%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	4.2%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	4.2%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	3.8%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	2.9%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	2.6%
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	1.6%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	1.3%
Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	0.9%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	0.8%
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus ssp. consimilis var.</i>	0.7%
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.7%
Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. puberulus</i>	0.7%
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	0.6%
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	0.6%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	0.5%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	PSPO	<i>Psorothamnus</i>	<i>polydenius</i>	0.5%
	Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	0.4%
	Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	0.4%
	Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	0.4%
	Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	0.4%
	Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	0.4%
	Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	0.3%
	Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.3%
	Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	0.3%
	Perennial	ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	0.3%
	Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	0.2%
	Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	0.2%
	Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.2%
	Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	0.2%
	Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	0.2%
	Perennial	PSFRF	<i>Psorothamnus</i>	<i>fremontii</i> var. <i>fremontii</i>	0.1%
	Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	0.1%
	Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	0.1%
	Perennial	RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	0.1%
	Perennial	CHGR6	<i>Chrysothamnus</i>	<i>greenei</i>	0.0%
	Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	0.0%
	Perennial	BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	0.0%
	Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	0.0%
	Perennial	HODI	<i>Holodiscus</i>	<i>discolor</i>	0.0%
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	0.0%
	Perennial	SADOD3	<i>Salvia</i>	<i>dorrii</i> ssp. <i>dorrii</i> var. <i>dorrii</i>	0.0%
	Perennial	STEL	<i>Stanleya</i>	<i>elata</i>	0.0%

Dwarf Shrubs (<0.5 m)

	Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	2.1%
	Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	0.2%
	Perennial	KOAM	<i>Kochia</i>	<i>americana</i>	0.2%
	Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	0.2%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	0.0%

Forbs

Perennial	ERNU4	<i>Eriogonum</i>	<i>nummularae</i>	0.5%
Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	0.3%
Perennial	STPA3	<i>Stephanomeria</i>	<i>parryi</i>	0.0%

Succulents

Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.5%
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	0.1%
Perennial	ECENE	<i>Echinocereus</i>	<i>engelmannii</i> var. <i>engelmannii</i>	0.0%
Perennial	OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	0.0%
Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	0.0%
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	0.0%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Artemisia spp. Shrubland Alliance

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	0.6%
Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	0.5%
Perennial	QUGA	<i>Quercus</i>	<i>gambelii</i>	0.0%

Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	33.0%
Perennial	AMUT	<i>Amelanchier</i>	<i>utahensis</i>	0.1%
Perennial	CEGRV2	<i>Ceanothus</i>	<i>greggii</i> ssp. <i>vestitus</i>	0.0%
Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	0.0%

Short Shrubs (0.5-2 m)

Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	28.3%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	6.6%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	6.0%
Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	3.5%
Perennial	EPVI	<i>Ephedra</i>	<i>vindis</i>	2.9%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	2.1%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	2.0%
Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	1.6%
Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	1.3%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	0.8%
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	0.8%
Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var.	0.7%
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	0.6%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	0.6%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	0.6%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	0.6%
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	0.5%
Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	0.5%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var.	0.5%
	Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	0.4%
	Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	0.4%
	Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.3%
	Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	0.3%
	Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	0.2%
	Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	0.2%
	Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	0.1%
	Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.1%
	Perennial	ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	0.1%
	Perennial	CHGR6	<i>Chrysothamnus</i>	<i>greenei</i>	0.1%
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	0.0%
	Perennial	RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	0.0%
	Perennial	PSPO	<i>Psorothamnus</i>	<i>polydenius</i>	0.0%
	Perennial	PERA4	<i>Peraphyllum</i>	<i>ramosissimum</i>	0.0%
	Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	0.0%
	Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	0.0%
	Perennial	CHVIS5	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i> var.	0.0%
	Perennial	GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	0.0%
	Perennial	RICEC2	<i>Ribes</i>	<i>cereum</i> var. <i>cereum</i>	0.0%
	Perennial	ERHEA	<i>Eriogonum</i>	<i>heermannii</i> var. <i>argense</i>	0.0%
	Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	0.0%
	Perennial	ERPA29	<i>Ericameria</i>	<i>paniculata</i>	0.0%
	Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	0.0%
	Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	0.0%
	Perennial	BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>	0.0%
	Perennial	ERPAN2	<i>Ericameria</i>	<i>parryi</i> var. <i>nevadensis</i>	0.0%
	Perennial	RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	0.0%
	Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	0.0%
	Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.0%
	Perennial	STEL	<i>Stanleya</i>	<i>elata</i>	0.0%
	Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	0.0%
	Perennial	PENI	<i>Petalonyx</i>	<i>nitidus</i>	0.0%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Dwarf Shrubs (<0.5 m)

Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	1.7%
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	0.4%
Perennial	KOAM	<i>Kochia</i>	<i>americana</i>	0.0%
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	0.0%

Forbs

Perennial	ERNU4	<i>Eriogonum</i>	<i>nummular</i>	0.2%
Perennial	ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	0.1%
Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	0.1%
Perennial	ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	0.0%
Perennial	CHGR13	<i>Chrysothamnus</i>	<i>gramineus</i>	0.0%
Perennial	HYCOC2	<i>Hymenoxys</i>	<i>cooperi</i> var. <i>cooperi</i>	0.0%
Perennial	ERUMV2	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>versicolor</i>	0.0%
Perennial	ARDR4	<i>Artemisia</i>	<i>dracunculus</i>	0.0%
Perennial	BRCA3	<i>Brickellia</i>	<i>californica</i>	0.0%
Perennial	ERCA8	<i>Eriogonum</i>	<i>caespitosum</i>	0.0%
Perennial	POSU	<i>Polygala</i>	<i>subspinosa</i>	0.0%

Succulents

Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	0.1%
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	0.1%
Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.1%
Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	0.0%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Pinus monophylla/Artemisia spp. Woodland Alliance

Trees (>5 m)

Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	17.0%
Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	6.3%
Perennial	QUGA	<i>Quercus</i>	<i>gambelii</i>	1.8%

Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	14.7%
Perennial	AMUT	<i>Amelanchier</i>	<i>utahensis</i>	0.3%
Perennial	CEGRV2	<i>Ceanothus</i>	<i>greggii</i> ssp. <i>vestitus</i>	0.0%
Perennial	AMPA2	<i>Amelanchier</i>	<i>pallida</i>	0.0%
Perennial	CEIN7	<i>Cercocarpus</i>	<i>intricatus</i>	0.0%
Perennial	CELEL	<i>Cercocarpus</i>	<i>ledifolius</i> var. <i>ledifolius</i>	0.0%

Short Shrubs (0.5-2 m)

Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	33.6%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	3.7%
Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	2.9%
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	2.9%
Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	2.2%
Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	1.9%
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	1.8%
Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	1.2%
Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	1.1%
Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	0.6%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	0.5%
Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	0.5%
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var.	0.5%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	0.3%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	0.3%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	0.3%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	0.2%
	Perennial	RICEC2	<i>Ribes</i>	<i>cereum</i> var. <i>cereum</i>	0.2%
	Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	0.2%
	Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	0.2%
	Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	0.2%
	Perennial	CHGR6	<i>Chrysothamnus</i>	<i>greenei</i>	0.1%
	Perennial	RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	0.1%
	Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	0.1%
	Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	0.1%
	Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var.	0.1%
	Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	0.0%
	Perennial	RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	0.0%
	Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	0.0%
	Perennial	ERPAN2	<i>Ericameria</i>	<i>parryi</i> var. <i>nevadensis</i>	0.0%
	Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.0%
	Perennial	ERPA29	<i>Ericameria</i>	<i>paniculata</i>	0.0%
	Perennial	HODI	<i>Holodiscus</i>	<i>discolor</i>	0.0%
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	0.0%
	Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	0.0%
	Perennial	GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	0.0%
	Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	0.0%
	Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.0%
	Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.0%

Dwarf Shrubs (<0.5 m)

	Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	3.5%
	Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	0.2%
	Perennial	ERMIL	<i>Eriogonum</i>	<i>microthecum</i> var. <i>lapidicola</i>	0.0%

Forbs

	Perennial	CHGR13	<i>Chrysothamnus</i>	<i>gramineus</i>	0.1%
	Perennial	PEPU7	<i>Petradoria</i>	<i>pumila</i>	0.0%
	Perennial	ERUMS2	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>subaridum</i>	0.0%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	0.0%
	Perennial	ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	0.0%
	Perennial	ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	0.0%
	Perennial	ERUMV	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>venum</i>	0.0%
	Perennial	ERUMV2	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>versicolor</i>	0.0%

Succulents

	Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	0.3%
	Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	0.1%
	Perennial	OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	0.0%
	Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	0.0%
	Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.0%

Appendix E

Percent Abundance of Woody Plants on the NTS by Association

Joshua tree (*Yucca brevifolia*) and other woody plants near Yucca Flat [photo by W. Kent Ostler]

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Appendix E

Percent Abundance of Woody Plants on the NTS by Association

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Lycium shockleyi-Lycium pallidum Shrubland

Short Shrubs (0.5-2 m)

Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	32.0%
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	29.2%
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	14.7%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	9.5%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	6.0%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	5.0%
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	2.0%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	0.3%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	0.0%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	0.0%
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.0%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.0%

Dwarf Shrubs (<0.5 m)

Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	1.0%
Perennial	KOAM	<i>Kochia</i>	<i>americana</i>	0.3%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Larrea Tridentata/Ambrosia dumosa Shrubland

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	12.7%
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Short Shrubs (0.5-2 m)

Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	43.1%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	7.0%
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	5.2%
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	3.9%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	3.3%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	3.1%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	2.5%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	2.1%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	1.7%
Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	1.4%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	0.8%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	0.6%
Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	0.5%
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	0.4%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	0.4%
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	0.4%
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	0.3%
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	0.3%
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	0.2%
Perennial	EPFU	<i>Ephedra</i>	<i>funerea</i>	0.2%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	0.2%
Perennial	PSPO	<i>Psoralea</i>	<i>polydenius</i>	0.1%
Perennial	ATPO	<i>Atriplex</i>	<i>polycarpa</i>	0.1%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	0.1%
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	0.0%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.0%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	AMER	<i>Ambrosia</i>	<i>erioncentra</i>	0.0%
	Perennial	EPTO	<i>Ephedra</i>	<i>torreyana</i>	0.0%
	Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	0.0%
	Perennial	ERPA29	<i>Ericameria</i>	<i>paniculata</i>	0.0%
	Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.0%
	Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.0%
	Perennial	BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	0.0%
	Perennial	ATHY	<i>Atriplex</i>	<i>hymenelytra</i>	0.0%
	Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	0.0%
	Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	0.0%

Dwarf Shrubs (<0.5 m)

Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	6.7%
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	1.3%
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	0.1%
Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	0.0%

Forbs

Perennial	BRAT	<i>Brickellia</i>	<i>atractylodes</i>	0.0%
Perennial	STPA3	<i>Stephanomeria</i>	<i>parryi</i>	0.0%

Succulents

Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	0.2%
Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.1%
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	0.0%
Perennial	OPRA	<i>Opuntia</i>	<i>ramosissima</i>	0.0%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Atriplex confertifolia-Ambrosia dumosa Shrubland

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	4.3%
Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	0.0%

Short Shrubs (0.5-2 m)

Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	29.6%
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	20.3%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	10.1%
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	3.9%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	3.5%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	3.4%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	2.3%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	1.9%
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	1.8%
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	1.0%
Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	1.0%
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	1.0%
Perennial	EPTO	<i>Ephedra</i>	<i>torreyana</i>	0.9%
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	0.9%
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	0.9%
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	0.9%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	0.8%
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	0.7%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	0.6%
Perennial	ATHY	<i>Atriplex</i>	<i>hymenelytra</i>	0.4%
Perennial	BRLOM	<i>Brickellia</i>	<i>longifolia</i> var. <i>multiflora</i>	0.4%
Perennial	BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	0.4%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	0.3%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	0.2%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.2%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	0.2%
	Perennial	PSPO	<i>Psoralea</i>	<i>polydenius</i>	0.2%
	Perennial	ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>	0.1%
	Perennial	EPFU	<i>Ephedra</i>	<i>funerea</i>	0.1%
	Perennial	BUUT	<i>Buddleja</i>	<i>utahensis</i>	0.1%
	Perennial	SENE5	<i>Senecio</i>	<i>flaccidus</i> var. <i>douglasii</i>	0.1%
	Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.1%
	Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.0%
	Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	0.0%
	Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	0.0%
	Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	0.0%
	Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	0.0%
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	0.0%
	Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	0.0%

Dwarf Shrubs (<0.5 m)

Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	4.3%
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	1.5%
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	0.3%
Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	0.0%

Forbs

Perennial	BRAT	<i>Brickellia</i>	<i>atractyloides</i>	0.2%
Perennial	GAST	<i>Galium</i>	<i>stellatum</i>	0.0%

Succulents

Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	0.7%
Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.1%
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	0.0%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Lycium andersonii-Hymenoclea salsola Shrubland

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	2.0%
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Short Shrubs (0.5-2 m)

Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	45.9%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	10.1%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	8.5%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	7.4%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	6.2%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	5.5%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	4.8%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	2.3%
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	1.5%
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	1.1%
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	0.6%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	0.5%
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	0.3%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	0.3%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.2%
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	0.2%
Perennial	AMER	<i>Ambrosia</i>	<i>erionocentra</i>	0.0%
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	0.0%

Dwarf Shrubs (<0.5 m)

Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	2.0%
Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	0.3%
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	0.3%

Succulents

Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.2%
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Hymenoclea salsola-Ephedra nevadensis Shrubland

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	1.5%
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Short Shrubs (0.5-2 m)

Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	51.5%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	8.5%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	5.4%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	4.6%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	4.5%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	2.5%
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	2.2%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	1.9%
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	1.7%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	1.5%
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	1.4%
Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	1.3%
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	1.2%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	1.0%
Perennial	ERPA29	<i>Ericameria</i>	<i>paniculata</i>	1.0%
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	1.0%
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	0.8%
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	0.6%
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	0.5%
Perennial	PSPO	<i>Psoralea</i>	<i>polydenius</i>	0.5%
Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	0.5%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	0.5%
Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	0.5%
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.4%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.4%
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	0.4%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	AMER	<i>Ambrosia</i>	<i>erioncentra</i>	0.3%
	Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	0.2%
	Perennial	ATPO	<i>Atriplex</i>	<i>polycarpa</i>	0.2%
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	0.2%
	Perennial	BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>	0.1%
	Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	0.1%
	Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.1%
	Perennial	BRIN	<i>Brickellia</i>	<i>incana</i>	0.1%
	Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	0.0%
	Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	0.0%
	Perennial	RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	0.0%
	Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	0.0%
	Perennial	PENI	<i>Petalonyx</i>	<i>nitidus</i>	0.0%
	Perennial	STEL	<i>Stanleya</i>	<i>elata</i>	0.0%

Dwarf Shrubs (<0.5 m)

Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	0.3%
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	0.2%
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	0.1%

Forbs

Perennial	ADCO2	<i>Adenophyllum</i>	<i>cooperi</i>	0.2%
Perennial	BRAT	<i>Brickellia</i>	<i>atractylodes</i>	0.0%
Perennial	POSU	<i>Polygala</i>	<i>subspinoso</i>	0.0%

Succulents

Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.1%
Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	0.0%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Menodora spinescens-Ephedra nevadensis Shrubland

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	3.1%
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Short Shrubs (0.5-2 m)

Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	11.8%
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	10.3%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	8.3%
Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	7.9%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	4.7%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	4.5%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	4.0%
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	3.0%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	2.7%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	2.6%
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	1.9%
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	1.8%
Perennial	CHVIS5	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i> var. <i>stenophyllus</i>	1.5%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	1.2%
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	1.1%
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	1.1%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	0.9%
Perennial	EPFU	<i>Ephedra</i>	<i>funerea</i>	0.6%
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.6%
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	0.6%
Perennial	EPTO	<i>Ephedra</i>	<i>torreyana</i>	0.5%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	0.5%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	0.5%
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.5%
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	0.4%
Perennial	PSPO	<i>Psoralea</i>	<i>polydenius</i>	0.4%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.4%
	Perennial	PENI	<i>Petalonyx</i>	<i>nitidus</i>	0.3%
	Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	0.2%
	Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	0.1%
	Perennial	ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>	0.1%
	Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	0.1%
	Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	0.1%
	Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	0.0%
	Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	0.0%
	Perennial	STEL	<i>Stanleya</i>	<i>elata</i>	0.0%
	Perennial	BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	0.0%

Dwarf Shrubs (<0.5 m)

Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	13.1%
Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	4.0%
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	0.9%
Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	0.0%

Succulents

Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.9%
Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	0.3%
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	0.2%
Perennial	OPERU	<i>Opuntia</i>	<i>erinacea</i> var. <i>ursina</i>	0.1%
Perennial	ECENE	<i>Echinocereus</i>	<i>engelmannii</i> var. <i>engelmannii</i>	0.1%
Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	0.0%
Perennial	OPRA	<i>Opuntia</i>	<i>ramosissima</i>	0.0%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Krascheninnikovia lanata-Ephedra nevadensis Shrubland

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	2.3%
Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata ssp. tridentata</i>	0.1%

Short Shrubs (0.5-2 m)

Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	28.5%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	12.0%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	8.0%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	7.7%
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	6.5%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	5.8%
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	3.9%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	3.6%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens var. canescens</i>	2.4%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. viscidiflorus</i>	2.2%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	2.1%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	1.2%
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	1.1%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris var. axillaris</i>	1.0%
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum var. oligospermum</i>	0.6%
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus ssp. consimilis var. leiosperma</i>	0.5%
Perennial	PSFRF	<i>Psorothamnus</i>	<i>fremontii var. fremontii</i>	0.3%
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata var. pinnata</i>	0.3%
Perennial	STEL	<i>Stanleya</i>	<i>elata</i>	0.3%
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	0.2%
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.2%
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	0.2%
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	0.2%
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum var. polifolium</i>	0.1%
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis var. virginensis</i>	0.1%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	0.0%
	Perennial	PENI	<i>Petalonyx</i>	<i>nitidus</i>	0.0%
	Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	0.0%
	Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	0.0%

Dwarf Shrubs (<0.5 m)

	Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	5.0%
	Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	2.1%
	Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	0.7%

Succulents

	Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.6%
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Eriogonum fasciculatum-Ephedra nevadensis Shrubland

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	0.3%
Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	0.1%

Short Shrubs (0.5-2 m)

Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	28.1%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	16.4%
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	12.1%
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	5.3%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	3.7%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	3.6%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	3.4%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	3.0%
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	3.0%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	2.6%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	2.3%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	2.2%
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	1.3%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	1.3%
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	1.1%
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	0.9%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.9%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	0.7%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	0.4%
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.4%
Perennial	BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	0.3%
Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	0.3%
Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	0.3%
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	0.1%
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	0.1%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	0.1%
	Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	0.0%
	Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	0.0%

Dwarf Shrubs (<0.5 m)

	Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	5.0%
	Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	0.3%
	Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	0.0%

Forbs

	Perennial	ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	0.1%
	Perennial	BRAT	<i>Brickellia</i>	<i>atractyloides</i>	0.0%

Succulents

	Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.1%
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<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Ephedra nevadensis-Grayia spinosa Shrubland

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	0.0%
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Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	1.4%
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Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	0.6%
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Short Shrubs (0.5-2 m)

Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	23.7%
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Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	8.4%
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Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	8.1%
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Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	8.0%
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Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	6.0%
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Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	5.5%
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Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	5.0%
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Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	4.5%
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Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	3.3%
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Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	2.2%
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Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	2.0%
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Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	1.7%
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Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	1.2%
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Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	0.9%
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Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	0.9%
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Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	0.8%
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Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	0.7%
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Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	0.7%
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Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	0.7%
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Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.6%
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Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	0.6%
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Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	0.6%
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Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.6%
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<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	0.5%
	Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	0.5%
	Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	0.5%
	Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	0.4%
	Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	0.4%
	Perennial	PSPO	<i>Psoralea</i>	<i>polydenius</i>	0.3%
	Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	0.3%
	Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	0.3%
	Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	0.3%
	Perennial	ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	0.3%
	Perennial	CHGR6	<i>Chrysothamnus</i>	<i>greenei</i>	0.2%
	Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	0.2%
	Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	0.2%
	Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.2%
	Perennial	BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	0.2%
	Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	0.1%
	Perennial	STEL	<i>Stanleya</i>	<i>elata</i>	0.1%
	Perennial	BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>	0.1%
	Perennial	ERPA29	<i>Ericameria</i>	<i>paniculata</i>	0.1%
	Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	0.1%
	Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	0.0%
	Perennial	AMER	<i>Ambrosia</i>	<i>erioncentra</i>	0.0%
	Perennial	GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	0.0%
	Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	0.0%
	Perennial	ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>	0.0%
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	0.0%

Dwarf Shrubs (<0.5 m)

	Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	0.9%
	Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	0.9%
	Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	0.5%
	Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	0.0%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Forbs

Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	0.2%
Perennial	ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	0.0%
Perennial	ERNU4	<i>Eriogonum</i>	<i>nummular</i>	0.0%

Succulents

Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.3%
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	0.2%
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	0.1%
Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	0.0%
Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	0.0%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Coleogyne ramosissima-Ephedra nevadensis Shrubland

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	0.1%
Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	0.0%

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	1.9%
Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	1.3%
Perennial	CELEL	<i>Cercocarpus</i>	<i>ledifolius</i> var. <i>ledifolius</i>	0.0%
Perennial	CEGRV2	<i>Ceanothus</i>	<i>greggii</i> ssp. <i>vestitus</i>	0.0%

Short Shrubs (0.5-2 m)

Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	56.4%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	9.6%
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	3.5%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	3.2%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	2.5%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	2.0%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	1.5%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	1.4%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	1.4%
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	1.3%
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	1.0%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	0.8%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	0.7%
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	0.7%
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	0.7%
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	0.6%
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	0.6%
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	0.5%
Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	0.5%
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	0.5%

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<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	0.4%
	Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.3%
	Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	0.3%
	Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	0.3%
	Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	0.2%
	Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.2%
	Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	0.2%
	Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	0.2%
	Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	0.2%
	Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	0.1%
	Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	0.1%
	Perennial	EPFU	<i>Ephedra</i>	<i>funerea</i>	0.1%
	Perennial	PSPO	<i>Psoralea</i>	<i>polydenius</i>	0.1%
	Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	0.1%
	Perennial	ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	0.1%
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	0.1%
	Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	0.1%
	Perennial	BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	0.1%
	Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.1%
	Perennial	STEL	<i>Stanleya</i>	<i>elata</i>	0.0%
	Perennial	EPTO	<i>Ephedra</i>	<i>torreyana</i>	0.0%
	Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	0.0%
	Perennial	AMER	<i>Ambrosia</i>	<i>erioncentra</i>	0.0%
	Perennial	ARB13	<i>Artemisia</i>	<i>bigelovii</i>	0.0%
	Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	0.0%
	Perennial	ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>	0.0%
	Perennial	ERHEA	<i>Eriogonum</i>	<i>heermannii</i> var. <i>argense</i>	0.0%
	Perennial	PERA4	<i>Peraphyllum</i>	<i>ramosissimum</i>	0.0%
	Perennial	PENI	<i>Petalonyx</i>	<i>nitidus</i>	0.0%
	Perennial	RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	0.0%
	Perennial	BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>	0.0%
	Perennial	CHGR6	<i>Chrysothamnus</i>	<i>greenei</i>	0.0%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	BUUT	<i>Buddleja</i>	<i>utahensis</i>	0.0%
	Perennial	ERCUC	<i>Ericameria</i>	<i>cuneatus</i>	0.0%
	Perennial	GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	0.0%
	Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	0.0%
	Perennial	RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	0.0%

Dwarf Shrubs (<0.5 m)

Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	1.3%
Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	1.0%
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	0.2%
Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	0.0%
Perennial	KOAM	<i>Kochia</i>	<i>americana</i>	0.0%

Forbs

Perennial	ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	0.0%
Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	0.0%
Perennial	BRAT	<i>Brickellia</i>	<i>atractyloides</i>	0.0%
Perennial	ERNU4	<i>Eriogonum</i>	<i>nummular</i>	0.0%

Succulents

Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.3%
Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	0.1%
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	0.1%
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	0.0%
Perennial	OPRA	<i>Opuntia</i>	<i>ramosissima</i>	0.0%
Perennial	ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>	0.0%
Perennial	ECENE	<i>Echinocereus</i>	<i>engelmannii</i> var. <i>engelmannii</i>	0.0%
Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	0.0%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Atriplex confertifolia-Kochia americana Shrubland

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	0.1%
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Short Shrubs (0.5-2 m)

Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	48.4%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	6.5%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	5.0%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	2.1%
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	1.5%
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	0.9%
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	0.8%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	0.7%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	0.7%
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	0.5%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.3%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	0.2%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	0.1%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	0.1%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	0.1%
Perennial	EPTO	<i>Ephedra</i>	<i>torreyana</i>	0.0%
Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	0.0%
Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	0.0%
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.0%

Dwarf Shrubs (<0.5 m)

Perennial	KOAM	<i>Kochia</i>	<i>americana</i>	20.1%
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	6.2%
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	5.2%
Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	0.0%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Succulents

Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	0.2%
Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.1%
Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	0.0%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Atriplex canescens-Krascheninnikovia lanata Shrubland

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	0.0%
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Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	0.9%
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Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata ssp. tridentata</i>	0.3%
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Short Shrubs (0.5-2 m)

Perennial	ATCAC	<i>Atriplex</i>	<i>canescens var. canescens</i>	57.8%
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Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	10.8%
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Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	4.9%
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Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	3.9%
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Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	3.3%
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Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	3.2%
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Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	2.8%
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Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	1.8%
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Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	1.1%
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Perennial	LYPAO	<i>Lycium</i>	<i>pallidum var. oligospermum</i>	1.0%
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Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. viscidiflorus</i>	0.9%
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Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	0.8%
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Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	0.7%
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Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	0.6%
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Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	0.4%
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Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	0.4%
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Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus ssp. nauseosus var. hololeuca</i>	0.3%
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Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.3%
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Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus ssp. consimilis var. leiosperma</i>	0.2%
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Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	0.2%
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Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	0.2%
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Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum var. polifolium</i>	0.1%
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Perennial	STPIP	<i>Stanleya</i>	<i>pinnata var. pinnata</i>	0.1%
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<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	EPTO	<i>Ephedra</i>	<i>torreyana</i>	0.1%
	Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	0.1%
	Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	0.1%
	Perennial	PSPO	<i>Psoralea</i>	<i>polydenius</i>	0.1%
	Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.0%
	Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	0.0%
	Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	0.0%
	Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	0.0%
	Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	0.0%

Dwarf Shrubs (<0.5 m)

Perennial	KOAM	<i>Kochia</i>	<i>americana</i>	0.9%
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	0.8%
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	0.3%
Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	0.2%

Forbs

Perennial	POSU	<i>Polygala</i>	<i>subspinosa</i>	0.1%
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Succulents

Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.2%
Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	0.1%
Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	0.1%
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	0.0%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Chrysothamnus viscidiflorus-Ephedra nevadensis Shrubland

Trees (>5 m)

Perennial	QUGA	<i>Quercus</i>	<i>gambelii</i>	0.1%
Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	0.1%
Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	0.0%

Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	5.0%
Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	0.1%

Short Shrubs (0.5-2 m)

Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	36.7%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	11.4%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	6.9%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	5.4%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	5.3%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	4.8%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	3.7%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	1.8%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	1.6%
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	1.3%
Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	1.0%
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.9%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	0.8%
Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	0.8%
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	0.7%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	0.6%
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	0.5%
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	0.4%
Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	0.4%
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	0.4%
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.3%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	0.3%
	Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	0.3%
	Perennial	ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	0.3%
	Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.3%
	Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	0.3%
	Perennial	PSPO	<i>Psoralea</i>	<i>polydenius</i>	0.3%
	Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	0.3%
	Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	0.3%
	Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	0.2%
	Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	0.2%
	Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	0.2%
	Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	0.1%
	Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	0.1%
	Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	0.1%
	Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	0.1%
	Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	0.1%
	Perennial	CHGR6	<i>Chrysothamnus</i>	<i>greenei</i>	0.1%
	Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	0.0%
	Perennial	BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	0.0%
	Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	0.0%
	Perennial	STEL	<i>Stanleya</i>	<i>elata</i>	0.0%

Dwarf Shrubs (<0.5 m)

Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	2.6%
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	0.3%
Perennial	KOAM	<i>Kochia</i>	<i>americana</i>	0.3%
Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	0.3%
Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	0.0%

Forbs

Perennial	ERNU4	<i>Eriogonum</i>	<i>nummulara</i>	0.6%
Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	0.3%
Perennial	STPA3	<i>Stephanomeria</i>	<i>parryi</i>	0.0%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Succulents

Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.5%
Perennial	ECENE	<i>Echinocereus</i>	<i>engelmannii</i> var. <i>engelmannii</i>	0.1%
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	0.0%
Perennial	OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	0.0%
Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	0.0%
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	0.0%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Ericameria nauseosa-Ephedra nevadensis Shrubland

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	0.1%
Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	0.1%

Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	6.0%
Perennial	AMUT	<i>Amelanchier</i>	<i>utahensis</i>	0.0%

Short Shrubs (0.5-2 m)

Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	51.7%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	11.1%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	5.3%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	5.2%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	4.4%
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	2.3%
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	2.2%
Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	1.4%
Perennial	PSPO	<i>Psoralea</i>	<i>polydenius</i>	1.3%
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	1.2%
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	1.1%
Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	0.8%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	0.7%
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	0.5%
Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	0.5%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	0.5%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	0.4%
Perennial	RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	0.4%
Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	0.3%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	0.2%
Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	0.2%
Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	0.1%

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<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	0.1%
	Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	0.1%
	Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	0.1%
	Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.1%
	Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	0.0%
	Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	0.0%
	Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	0.0%
	Perennial	HODI	<i>Holodiscus</i>	<i>discolor</i>	0.0%
	Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	0.0%
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	0.0%
	Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.0%

Dwarf Shrubs (<0.5 m)

Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	0.0%
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Forbs

Perennial	ERNU4	<i>Eriogonum</i>	<i>nummulari</i>	0.1%
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Succulents

Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.5%
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	0.4%
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	0.0%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Ephedra viridis-Artemisia tridentata Shrubland

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	0.6%
Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	0.2%
Perennial	QUGA	<i>Quercus</i>	<i>gambelii</i>	0.2%

Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata ssp. tridentata</i>	16.1%
Perennial	AMUT	<i>Amelanchier</i>	<i>utahensis</i>	0.5%
Perennial	CEGRV2	<i>Ceanothus</i>	<i>greggii ssp. vestitus</i>	0.1%

Short Shrubs (0.5-2 m)

Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	20.2%
Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	15.8%
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	9.0%
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum var. polifolium</i>	6.3%
Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. puberulus</i>	4.7%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens var. canescens</i>	3.7%
Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum var. simpsonii</i>	3.4%
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	2.9%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	2.2%
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus ssp. consimilis var. leiosperma</i>	2.0%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. viscidiflorus</i>	2.0%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	1.9%
Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	1.8%
Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	1.1%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	0.8%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	0.7%
Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	0.6%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris var. axillaris</i>	0.5%
Perennial	PERA4	<i>Peraphyllum</i>	<i>ramosissimum</i>	0.5%
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.3%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	0.2%
	Perennial	RICEC2	<i>Ribes</i>	<i>cereum</i> var. <i>cereum</i>	0.2%
	Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	0.1%
	Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	0.1%
	Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	0.1%
	Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	0.1%
	Perennial	BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>	0.1%
	Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	0.1%
	Perennial	RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	0.0%
	Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	0.0%
	Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	0.0%
	Perennial	PENI	<i>Petalonyx</i>	<i>nitidus</i>	0.0%

Dwarf Shrubs (<0.5 m)

Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	1.0%
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Forbs

Perennial	CHGR13	<i>Chrysothamnus</i>	<i>gramineus</i>	0.1%
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Succulents

Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	0.1%
Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.0%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Artemisia tridentata-Chrysothamnus viscidiflorus Shrubland

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	0.5%
Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	0.3%
Perennial	QUGA	<i>Quercus</i>	<i>gambelii</i>	0.0%

Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata ssp. tridentata</i>	58.3%
Perennial	AMUT	<i>Amelanchier</i>	<i>utahensis</i>	0.1%
Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	0.0%

Short Shrubs (0.5-2 m)

Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. viscidiflorus</i>	8.8%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	8.2%
Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. puberulus</i>	3.0%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	2.3%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens var. canescens</i>	2.2%
Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	2.0%
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	1.4%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	1.1%
Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus ssp. nauseosus var. hololeuca</i>	1.0%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	0.8%
Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	0.6%
Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum var. simpsonii</i>	0.6%
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	0.6%
Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	0.5%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	0.5%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	0.5%
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.4%
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus ssp. consimilis var. leioperma</i>	0.3%
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum var. polifolium</i>	0.3%
Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	0.3%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	0.2%
	Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	0.2%
	Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	0.2%
	Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	0.2%
	Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.1%
	Perennial	ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	0.1%
	Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	0.1%
	Perennial	RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	0.1%
	Perennial	PSPO	<i>Psoralea</i>	<i>polydenius</i>	0.1%
	Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	0.0%
	Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	0.0%
	Perennial	ERPA29	<i>Ericameria</i>	<i>paniculata</i>	0.0%
	Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	0.0%
	Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	0.0%
	Perennial	ERPAN2	<i>Ericameria</i>	<i>parryi</i> var. <i>nevadensis</i>	0.0%
	Perennial	ERHEA	<i>Eriogonum</i>	<i>heermannii</i> var. <i>argense</i>	0.0%
	Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	0.0%
	Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	0.0%
	Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	0.0%
	Perennial	RICEC2	<i>Ribes</i>	<i>cereum</i> var. <i>cereum</i>	0.0%
	Perennial	STEL	<i>Stanleya</i>	<i>elata</i>	0.0%
	Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	0.0%
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	0.0%
	Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.0%

Dwarf Shrubs (<0.5 m)

Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	2.6%
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	0.6%
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	0.0%

Forbs

Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	0.1%
Perennial	ERNU4	<i>Eriogonum</i>	<i>nummular</i>	0.1%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	0.1%
	Perennial	ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	0.1%
	Perennial	HYCOC2	<i>Hymenoxys</i>	<i>cooperi</i> var. <i>cooperi</i>	0.1%
	Perennial	CHGR13	<i>Chrysothamnus</i>	<i>gramineus</i>	0.0%

Succulents

	Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	0.2%
	Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.1%
	Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	0.0%
	Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	0.0%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Artemisia nova-Chrysothamnus viscidiflorus Shrubland

Trees (>5 m)

Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	0.8%
Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	0.6%
Perennial	QUGA	<i>Quercus</i>	<i>gambelii</i>	0.0%

Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	4.3%
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Short Shrubs (0.5-2 m)

Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	67.5%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	5.2%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	4.5%
Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	2.7%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	2.0%
Perennial	EPVI	<i>Ephedra</i>	<i>vindis</i>	1.7%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	1.4%
Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	0.9%
Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	0.9%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	0.8%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	0.7%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	0.6%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	0.6%
Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	0.4%
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	0.3%
Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	0.3%
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.3%
Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	0.3%
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	0.3%
Perennial	CHGR6	<i>Chrysothamnus</i>	<i>greenei</i>	0.3%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	0.2%
Perennial	ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	0.2%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	0.2%
	Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	0.2%
	Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	0.1%
	Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.1%
	Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	0.1%
	Perennial	GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	0.0%
	Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	0.0%
	Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	0.0%
	Perennial	ERHEA	<i>Eriogonum</i>	<i>heermannii</i> var. <i>argense</i>	0.0%
	Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	0.0%
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	0.0%
	Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	0.0%
	Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	0.0%
	Perennial	RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	0.0%
	Perennial	RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	0.0%
	Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.0%

Dwarf Shrubs (<0.5 m)

Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	0.5%
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	0.1%
Perennial	KOAM	<i>Kochia</i>	<i>americana</i>	0.1%
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	0.0%

Forbs

Perennial	ERNU4	<i>Eriogonum</i>	<i>nummular</i>	0.4%
Perennial	ERUMV2	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>versicolor</i>	0.0%
Perennial	ERCA8	<i>Eriogonum</i>	<i>caespitosum</i>	0.0%
Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	0.0%
Perennial	ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	0.0%

Succulents

Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	0.2%
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	0.0%
Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.0%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Artemisia nova-Artemisia tridentata Shrubland

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	0.9%
Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	0.3%

Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	25.3%
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Short Shrubs (0.5-2 m)

Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	34.2%
Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	8.0%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	4.7%
Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	4.3%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	3.3%
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	2.3%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	2.1%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	2.0%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	1.9%
Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	1.4%
Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	1.0%
Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	0.8%
Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	0.7%
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	0.7%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	0.5%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	0.5%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	0.3%
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	0.3%
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.3%
Perennial	CHVIS5	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i> var. <i>stenophyllus</i>	0.3%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	0.2%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.1%
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	0.1%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	0.1%
	Perennial	PSPO	<i>Psorothamnus</i>	<i>polydenius</i>	0.1%
	Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	0.1%
	Perennial	RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	0.0%
	Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	0.0%
	Perennial	GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	0.0%
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	0.0%
	Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	0.0%
	Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.0%

Dwarf Shrubs (<0.5 m)

Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	2.6%
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	0.0%

Forbs

Perennial	ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	0.3%
Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	0.1%
Perennial	ARDR4	<i>Artemisia</i>	<i>dracunculus</i>	0.0%
Perennial	BRCA3	<i>Brickellia</i>	<i>californica</i>	0.0%
Perennial	POSU	<i>Polygala</i>	<i>subspinosa</i>	0.0%

Succulents

Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	0.1%
Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	0.1%
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	0.0%
Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.0%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Pinus monophylla/Artemisia nova Woodland

Trees (>5 m)

Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	13.8%
Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	5.9%
Perennial	QUGA	<i>Quercus</i>	<i>gambelii</i>	0.5%

Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	2.7%
Perennial	AMUT	<i>Amelanchier</i>	<i>utahensis</i>	0.0%

Short Shrubs (0.5-2 m)

Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	55.3%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	3.6%
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	2.2%
Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	1.9%
Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	1.7%
Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	1.7%
Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	1.7%
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	1.0%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	0.8%
Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	0.8%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	0.5%
Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	0.5%
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	0.5%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	0.5%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	0.4%
Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	0.3%
Perennial	ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	0.2%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	0.1%
Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	0.1%
Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	0.1%
Perennial	RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	0.0%

Thursday, September 09, 1999

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<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	0.0%
	Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	0.0%
	Perennial	RICEC2	<i>Ribes</i>	<i>cereum</i> var. <i>cereum</i>	0.0%
	Perennial	ERPAN2	<i>Ericameria</i>	<i>parryi</i> var. <i>nevadensis</i>	0.0%
	Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	0.0%
	Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	0.0%
	Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	0.0%
	Perennial	GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	0.0%
	Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	0.0%
	Perennial	RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	0.0%
	Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.0%
	Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.0%
	Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.0%

Dwarf Shrubs (<0.5 m)

Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	2.5%
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	0.1%
Perennial	ERMIL	<i>Eriogonum</i>	<i>microthecum</i> var. <i>lapidicola</i>	0.0%

Forbs

Perennial	PEPU7	<i>Petradoria</i>	<i>pumila</i>	0.0%
Perennial	ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	0.0%
Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	0.0%
Perennial	ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	0.0%

Succulents

Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	0.4%
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	0.1%
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	0.0%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Pinus monophylla/Artemisia tridentata Woodland

Trees (>5 m)

Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	21.5%
Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	6.9%
Perennial	QUGA	<i>Quercus</i>	<i>gambelii</i>	3.6%

Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata ssp. tridentata</i>	31.1%
Perennial	AMUT	<i>Amelanchier</i>	<i>utahensis</i>	0.8%
Perennial	CEGRV2	<i>Ceanothus</i>	<i>greggii ssp. vestitus</i>	0.0%
Perennial	AMPA2	<i>Amelanchier</i>	<i>pallida</i>	0.0%
Perennial	CEIN7	<i>Cercocarpus</i>	<i>intricatus</i>	0.0%
Perennial	CELEL	<i>Cercocarpus</i>	<i>ledifolius var. ledifolius</i>	0.0%

Short Shrubs (0.5-2 m)

Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	4.6%
Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	3.9%
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	3.8%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. viscidiflorus</i>	3.7%
Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. puberulus</i>	2.9%
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	2.8%
Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	1.9%
Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum var. simpsonii</i>	1.8%
Perennial	SADOD3	<i>Salvia</i>	<i>dorii ssp. dorii var. dorii</i>	1.1%
Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	0.4%
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus ssp. consimilis var. leiosperma</i>	0.4%
Perennial	RICEC2	<i>Ribes</i>	<i>cereum var. cereum</i>	0.4%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	0.4%
Perennial	ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	0.3%
Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	0.3%
Perennial	CHGR6	<i>Chrysothamnus</i>	<i>greenei</i>	0.3%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	0.2%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
	Perennial	RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	0.2%
	Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	0.2%
	Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	0.1%
	Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	0.1%
	Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	0.1%
	Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	0.1%
	Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	0.1%
	Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	0.0%
	Perennial	RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	0.0%
	Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	0.0%
	Perennial	ERPA29	<i>Ericameria</i>	<i>paniculata</i>	0.0%
	Perennial	HODI	<i>Holodiscus</i>	<i>discolor</i>	0.0%
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	0.0%
	Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	0.0%
	Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	0.0%
	Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	0.0%
	Perennial	ERPAN2	<i>Ericameria</i>	<i>parryi</i> var. <i>nevadensis</i>	0.0%
	Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	0.0%

Dwarf Shrubs (<0.5 m)

Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	4.6%
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	0.4%
Perennial	ERMIL	<i>Eriogonum</i>	<i>microthecum</i> var. <i>lapidicola</i>	0.0%

Forbs

Perennial	CHGR13	<i>Chrysothamnus</i>	<i>gramineus</i>	0.1%
Perennial	ERUMS2	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>subaridum</i>	0.1%
Perennial	PEPU7	<i>Petradoria</i>	<i>pumila</i>	0.1%
Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	0.0%
Perennial	ERUMV	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>venum</i>	0.0%
Perennial	ERUMV2	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>versicolor</i>	0.0%

<i>Association</i>	<i>Longevity</i>	<i>ACODE2</i>	<i>Genus</i>	<i>Species</i>	<i>Abundance</i>
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Succulents

Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	0.2%
Perennial	OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	0.1%
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	0.1%
Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.0%

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Appendix F

Percent Frequency of NTS Plant Species by Alliance

Wavyleaf Indian paintbrush (*Castilleja applegatei*) [photo by Susan Cochrane]

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Appendix F

Percent Frequency of NTS Plant Species by Alliance

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
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Lycium spp. Shrubland Alliance

Short Shrubs (0.5-2 m)

Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	80.0%
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	60.0%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	60.0%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	60.0%
Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	60.0%
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	40.0%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	40.0%
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	40.0%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	20.0%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	20.0%
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	20.0%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	20.0%

Dwarf Shrubs (<0.5 m)

Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	40.0%
Perennial	KOAM	<i>Kochia</i>	<i>americana</i>	20.0%

Graminoids

Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	100.0%
Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	80.0%
Perennial	ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoides</i>	20.0%

Forbs

Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	40.0%
Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus</i> var. <i>fremontii</i>	40.0%
Perennial	BAMU	<i>Baileya</i>	<i>multiradiata</i>	40.0%
Annual	CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	40.0%
Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	40.0%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	40.0%
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	40.0%
	Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens ssp. canescens</i>	40.0%
	Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	40.0%
	Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	40.0%
	Perennial	MIPU5	<i>Mirabilis</i>	<i>pudica</i>	40.0%
	Annual	OEPR	<i>Oenothera</i>	<i>primiveris</i>	40.0%
	Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua ssp. ambigua</i>	40.0%
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	40.0%
	Perennial	ARPUM	<i>Arabis</i>	<i>pulchra var. munciensis</i>	20.0%
	Annual	CETH3	<i>Centrostegia</i>	<i>thurberi</i>	20.0%
	Annual	CHFR	<i>Chaenactis</i>	<i>fremontii</i>	20.0%
	Annual	CHST	<i>Chaenactis</i>	<i>stevioides</i>	20.0%
	Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	20.0%
	Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis var. nevadensis</i>	20.0%
	Annual	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	20.0%
	Annual	DEPIG	<i>Descurainia</i>	<i>pinnata ssp. glabra</i>	20.0%
	Annual	DESO2	<i>Descurainia</i>	<i>sophia</i>	20.0%
	Annual	ERMA2	<i>Eriogonum</i>	<i>maculatum</i>	20.0%
	Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	20.0%
	Annual	ESGL	<i>Eschscholzia</i>	<i>glyptosperma</i>	20.0%
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	20.0%
	Annual	LASE3	<i>Langloisia</i>	<i>setosissima</i>	20.0%
	Annual	LAOCO	<i>Lappula</i>	<i>occidentalis var. occidentalis</i>	20.0%
	Perennial	OECA2	<i>Oenothera</i>	<i>californica spp. avita</i>	20.0%
	Annual	OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	20.0%
	Perennial	POSU	<i>Polygala</i>	<i>subspinosa</i>	20.0%
	Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	20.0%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
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Larrea tridentata/Ambrosia dumosa Shrubland Alliance

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	97.2%
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Short Shrubs (0.5-2 m)

Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	99.3%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	80.2%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	58.7%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	53.4%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	51.6%
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	47.7%
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	44.2%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	32.9%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	29.7%
Perennial	PSFRF	<i>Psorothamnus</i>	<i>fremontii</i> var. <i>fremontii</i>	27.6%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	17.0%
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	16.3%
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	14.5%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	11.0%
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	9.2%
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	9.2%
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	8.8%
Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	8.8%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	7.4%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	4.6%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	4.6%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	3.2%
Perennial	EPFU	<i>Ephedra</i>	<i>funerea</i>	2.8%
Perennial	PSPO	<i>Psorothamnus</i>	<i>polydenius</i>	2.8%
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	2.8%
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	2.5%
Perennial	ATPO	<i>Atriplex</i>	<i>polycarpa</i>	1.4%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	EPTO	<i>Ephedra</i>	<i>torreyana</i>	1.4%
	Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	1.1%
	Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	1.1%
	Perennial	BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	0.7%
	Perennial	ERPA29	<i>Ericameria</i>	<i>paniculata</i>	0.7%
	Perennial	AMER	<i>Ambrosia</i>	<i>eriocentra</i>	0.4%
	Perennial	ATHY	<i>Atriplex</i>	<i>hymenelytra</i>	0.4%
	Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var.	0.4%
	Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	0.4%

Dwarf Shrubs (<0.5 m)

	Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	61.8%
	Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	21.2%
	Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	4.2%
	Perennial	ERWA8	<i>Ericameria</i>	<i>watsonii</i>	0.7%
	Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	0.4%

Graminoids

	Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	87.6%
	Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	51.9%
	Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	23.7%
	Annual	SCAR	<i>Schismus</i>	<i>arabicus</i>	10.6%
	Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	9.9%
	Perennial	ERPU8	<i>Erioneuron</i>	<i>pulchellum</i>	9.2%
	Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	3.9%
	Perennial	PLRI3	<i>Pleuraphis</i>	<i>rigida</i>	3.5%
	Perennial	ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoides</i>	2.5%
	Annual	BRCA6	<i>Bromus</i>	<i>cartharticus</i>	1.4%
	Perennial	ARPU9	<i>Aristida</i>	<i>purpurea</i>	0.4%

Forbs

	Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	59.4%
	Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	51.2%
	Perennial	XYTOT	<i>Xylorhiza</i>	<i>tortifolia</i> var. <i>imberbis</i>	33.6%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	26.5%
	Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua ssp. ambigua</i>	25.8%
	Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	25.4%
	Annual	CHRI	<i>Chorizanthe</i>	<i>rigida</i>	19.8%
	Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	17.7%
	Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis var. nevadensis</i>	15.2%
	Annual	CHFR	<i>Chaenactis</i>	<i>fremontii</i>	14.5%
	Annual	CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	14.1%
	Perennial	ASLA8	<i>Astragalus</i>	<i>layneae</i>	13.4%
	Annual	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	13.1%
	Annual	CHST	<i>Chaenactis</i>	<i>stevioides</i>	12.4%
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	12.0%
	Annual	OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	12.0%
	Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii ssp. parishii</i>	11.7%
	Annual	LUFL	<i>Lupinus</i>	<i>flavoculatus</i>	11.7%
	Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	11.7%
	Annual	LASE3	<i>Langloisia</i>	<i>setosissima</i>	11.0%
	Annual	DEPIG	<i>Descurainia</i>	<i>pinnata ssp. glabra</i>	10.6%
	Annual	RANE	<i>Rafinesquia</i>	<i>neomexicana</i>	9.5%
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua ssp. exigua</i>	9.5%
	Annual	PHVAV2	<i>Phacelia</i>	<i>vallis-mortae var. vallis-mortae</i>	9.2%
	Annual	CABRB4	<i>Camissonia</i>	<i>brevipes ssp. brevipes</i>	8.8%
	Annual	ERCI6	<i>Erodium</i>	<i>cicutarium</i>	8.8%
	Annual	ERPR4	<i>Eriophyllum</i>	<i>pringlei</i>	8.5%
	Annual	STLO4	<i>Streptanthella</i>	<i>longirostris</i>	8.5%
	Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus var. fremontii</i>	7.8%
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	7.1%
	Annual	ASAC3	<i>Astragalus</i>	<i>acutirostris</i>	6.7%
	Annual	ERTH	<i>Eriogonum</i>	<i>thomasii</i>	6.7%
	Annual	CABOC	<i>Camissonia</i>	<i>boothii ssp. condensata</i>	6.4%
	Annual	GILIA	<i>Gilia</i>		6.4%
	Annual	CETH3	<i>Centrostegia</i>	<i>thurberi</i>	5.3%
	Annual	MEOB3	<i>Mentzelia</i>	<i>obscura</i>	5.3%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Annual	CHCA	<i>Chaenactis</i>	<i>carphoclinia</i>	4.9%
	Annual	CHBRB	<i>Chorizanthe</i>	<i>brevicomu</i> var. <i>brevicomu</i>	4.9%
	Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum</i> ssp. <i>brecciarum</i>	4.9%
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	4.6%
	Perennial	BAMU	<i>Baileya</i>	<i>multiradiata</i>	4.2%
	Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	4.2%
	Annual	ERDE6	<i>Eriogonum</i>	<i>deflexum</i>	4.2%
	Perennial	MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	4.2%
	Annual	PESE	<i>Pectocarya</i>	<i>setosa</i>	4.2%
	Perennial	SPAMR	<i>Sphaeralcea</i>	<i>ambigua</i> var. <i>rugosa</i>	4.2%
	Annual	ESGL	<i>Eschscholzia</i>	<i>glyptosperma</i>	3.9%
	Perennial	GICAS	<i>Gilia</i>	<i>cana</i> ssp. <i>speciformis</i>	3.9%
	Annual	NAPU	<i>Nama</i>	<i>pusillum</i>	3.5%
	Annual	PLOV	<i>Plantago</i>	<i>ovata</i>	3.5%
	Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	3.2%
	Annual	CRM1	<i>Cryptantha</i>	<i>micrantha</i>	2.8%
	Annual	MOBE	<i>Monoptilon</i>	<i>bellidiforme</i>	2.8%
	Annual	OEPR	<i>Oenothera</i>	<i>primiveris</i>	2.8%
	Annual	ESMI	<i>Eschscholzia</i>	<i>minutiflora</i>	2.5%
	Annual	LIDE2	<i>Linanthus</i>	<i>demissus</i>	2.5%
	Annual	MASO	<i>Malacothrix</i>	<i>sonchoides</i>	2.5%
	Perennial	DIPU3	<i>Dichelostemma</i>	<i>pulchellum</i>	2.1%
	Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	2.1%
	Annual	PEPL	<i>Pectocarya</i>	<i>platycarpa</i>	2.1%
	Perennial	POSU	<i>Polygala</i>	<i>subspinosa</i>	2.1%
	Perennial	STPA3	<i>Stephanomeria</i>	<i>parryi</i>	2.1%
	Perennial	CAP14	<i>Caulanthus</i>	<i>pilosus</i>	1.8%
	Perennial	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	1.8%
	Annual	LOHU2	<i>Lotus</i>	<i>humistratus</i>	1.8%
	Perennial	CAFL	<i>Calochortus</i>	<i>flexuosus</i>	1.4%
	Annual	CAKEG	<i>Camissonia</i>	<i>kernensis</i> ssp. <i>gilmanii</i>	1.4%
	Perennial	CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	1.4%
	Perennial	LEMOC	<i>Lepidium</i>	<i>montanum</i> var. <i>canescens</i>	1.4%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens ssp. canescens</i>	1.4%
	Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	1.4%
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata var. crenulata</i>	1.4%
	Biennial	SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	1.4%
	Perennial	ARPUM	<i>Arabis</i>	<i>pulchra var. munciensis</i>	1.1%
	Annual	ASDID	<i>Astragalus</i>	<i>didymocarpus var. dispermus</i>	1.1%
	Annual	CACLI	<i>Camissonia</i>	<i>claviformis ssp. integrrior</i>	1.1%
	Perennial	DEAN	<i>Delphinium</i>	<i>andersonii</i>	1.1%
	Annual	ERSP3	<i>Eriastrum</i>	<i>sparsiflorum</i>	1.1%
	Annual	ERPU6	<i>Eriogonum</i>	<i>pusillum</i>	1.1%
	Annual	LUBR2	<i>Lupinus</i>	<i>brevicaulis</i>	1.1%
	Annual	MOBE2	<i>Monoptilon</i>	<i>belioides</i>	1.1%
	Annual	NEGLO	<i>Nemacladus</i>	<i>glanduliferus var. orientalis</i>	1.1%
	Annual	ANAC	<i>Anisocoma</i>	<i>acaulis</i>	0.7%
	Perennial	CAAPM	<i>Castilleja</i>	<i>aplegatei ssp. martinii</i>	0.7%
	Biennial	CINE	<i>Cirsium</i>	<i>neomexicanum</i>	0.7%
	Perennial	DAMO2	<i>Dalea</i>	<i>mollissima</i>	0.7%
	Annual	DESO2	<i>Descurainia</i>	<i>sophia</i>	0.7%
	Perennial	ERCOC3	<i>Erigeron</i>	<i>concinus var. concinns</i>	0.7%
	Annual	ERMA2	<i>Eriogonum</i>	<i>maculatum</i>	0.7%
	Annual	ERTR8	<i>Eriogonum</i>	<i>trichopes</i>	0.7%
	Perennial	GISC	<i>Gilia</i>	<i>scopulorum</i>	0.7%
	Perennial	OECA2	<i>Oenothera</i>	<i>californica spp. avita</i>	0.7%
	Annual	OEDED4	<i>Oenothera</i>	<i>deltoides ssp. deltoides</i>	0.7%
	Annual	PHSA	<i>Phacelia</i>	<i>saxicola</i>	0.7%
	Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	0.7%
	Perennial	ABEL	<i>Abronia</i>	<i>elliptica</i>	0.4%
	Perennial	ADCO2	<i>Adenophyllum</i>	<i>cooperi</i>	0.4%
	Perennial	ASER2	<i>Asclepias</i>	<i>erosa</i>	0.4%
	Perennial	ASTI	<i>Astragalus</i>	<i>tidestromii</i>	0.4%
	Perennial	BRAT	<i>Brickellia</i>	<i>atractylodes</i>	0.4%
	Annual	CAHE12	<i>Camissonia</i>	<i>heterochroma</i>	0.4%
	Annual	CARE2	<i>Camissonia</i>	<i>refracta</i>	0.4%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Annual	CACO18	<i>Caulanthus</i>	<i>cooperi</i>	0.4%
	Annual	CHMA	<i>Chaenactis</i>	<i>macrantha</i>	0.4%
	Annual	CRMA7	<i>Cryptantha</i>	<i>maritima</i>	0.4%
	Annual	CRRE5	<i>Cryptantha</i>	<i>recurvata</i>	0.4%
	Perennial	ERRA3	<i>Eriogonum</i>	<i>racemosum</i>	0.4%
	Perennial	GICAT	<i>Gilia</i>	<i>cana ssp. triceps</i>	0.4%
	Perennial	GILE3	<i>Gilia</i>	<i>leptomeria</i>	0.4%
	Perennial	HEMUN	<i>Helioomeris</i>	<i>multiflora var. nevadensis</i>	0.4%
	Annual	LEFLF2	<i>Lepidium</i>	<i>flavum var. flavum</i>	0.4%
	Annual	LIDI2	<i>Linanthus</i>	<i>dichotomus</i>	0.4%
	Annual	LOSC6	<i>Loeseliastrum</i>	<i>schottii</i>	0.4%
	Perennial	LOSC3	<i>Lomatium</i>	<i>scabrum</i>	0.4%
	Annual	MEVE5	<i>Mentzelia</i>	<i>veatchiana</i>	0.4%
	Perennial	MIPU5	<i>Mirabilis</i>	<i>pudica</i>	0.4%
	Annual	NADED	<i>Nama</i>	<i>demissum var. demissum</i>	0.4%
	Perennial	OECM4	<i>Oenothera</i>	<i>caespitosa ssp. marginata</i>	0.4%
	Annual	PERE	<i>Pectocarya</i>	<i>recurvata</i>	0.4%
	Annual	PREX	<i>Prenanthes</i>	<i>exigua</i>	0.4%
	Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	0.4%
	Annual	SACOC	<i>Salvia</i>	<i>columbariae var. columbariae</i>	0.4%
	Perennial	SPGRP2	<i>Sphaeralcea</i>	<i>grossulariaefolia ssp. pedata</i>	0.4%
	Perennial	STCOC	<i>Streptanthus</i>	<i>cordatus var. cordatus</i>	0.4%

Epiphytes

Perennial	CUDEV	<i>Cuscuta</i>	<i>denticulata var. vetchii</i>	4.2%
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Succulents

Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa var. echinocarpa</i>	28.6%
Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris var. basilaris</i>	12.0%
Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	11.3%
Perennial	ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>	8.8%
Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	8.1%
Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	3.5%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	OPRA	<i>Opuntia</i>	<i>ramosissima</i>	3.5%
	Perennial	OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	1.1%
	Perennial	ECTRM	<i>Echinocereus</i>	<i>triglochidiatus</i> var. <i>melanacanthus</i>	0.4%
	Perennial	MATE4	<i>Mammillaria</i>	<i>tetrancistra</i>	0.4%

Variable

Variable	ERIOG	<i>Eriogonum</i>	2.8%
Variable	MENTZ	<i>Mentzelia</i>	1.1%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
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Atriplex confertifolia-Ambrosia dumosa Shrubland Alliance

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	73.5%
Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	2.0%

Short Shrubs (0.5-2 m)

Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	100.0%
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	93.9%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	89.8%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	57.1%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	49.0%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	49.0%
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	42.9%
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	40.8%
Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	32.7%
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	24.5%
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	22.4%
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	22.4%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	20.4%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	18.4%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	14.3%
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	14.3%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	14.3%
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	14.3%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	12.2%
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	12.2%
Perennial	EPTO	<i>Ephedra</i>	<i>torreyana</i>	10.2%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	10.2%
Perennial	BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	8.2%
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	8.2%
Perennial	ATHY	<i>Atriplex</i>	<i>hymenelytra</i>	4.1%
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	4.1%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>	4.1%
	Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	2.0%
	Perennial	BRLOM	<i>Brickellia</i>	<i>longifolia</i> var. <i>multiflora</i>	2.0%
	Perennial	BUUT	<i>Buddleja</i>	<i>utahensis</i>	2.0%
	Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	2.0%
	Perennial	EPFU	<i>Ephedra</i>	<i>funerea</i>	2.0%
	Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var.	2.0%
	Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	2.0%
	Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	2.0%
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	2.0%
	Perennial	PSPO	<i>Psorothamnus</i>	<i>polydenius</i>	2.0%
	Perennial	SENE5	<i>Senecio</i>	<i>flaccidus</i> var. <i>douglasii</i>	2.0%
	Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	2.0%

Dwarf Shrubs (<0.5 m)

Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	65.3%
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	34.7%
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	16.3%
Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	2.0%

Graminoids

Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	87.8%
Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	38.8%
Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	38.8%
Perennial	ERPU8	<i>Erioneuron</i>	<i>pulchellum</i>	20.4%
Perennial	ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoides</i>	10.2%
Perennial	PLRI3	<i>Pleuraphis</i>	<i>rigida</i>	6.1%
Perennial	POSE	<i>Poa</i>	<i>secunda</i>	4.1%
Annual	SCAR	<i>Schismus</i>	<i>arabicus</i>	4.1%
Perennial	ARPU9	<i>Aristida</i>	<i>purpurea</i>	2.0%
Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	2.0%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
Forbs					
	Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	73.5%
	Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua ssp. ambigua</i>	38.8%
	Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	30.6%
	Annual	CHRI	<i>Chorizanthe</i>	<i>rigida</i>	24.5%
	Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii ssp. parishii</i>	18.4%
	Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	14.3%
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	12.2%
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	10.2%
	Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	10.2%
	Annual	PLOV	<i>Plantago</i>	<i>ovata</i>	10.2%
	Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis var. nevadensis</i>	8.2%
	Annual	ERDE6	<i>Eriogonum</i>	<i>deflexum</i>	8.2%
	Annual	ERCI6	<i>Erodium</i>	<i>cicutarium</i>	8.2%
	Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	8.2%
	Annual	PHVAV2	<i>Phacelia</i>	<i>vallis-mortae var. vallis-mortae</i>	8.2%
	Perennial	BAMU	<i>Baileya</i>	<i>multiradiata</i>	6.1%
	Perennial	BRAT	<i>Brickellia</i>	<i>atractyloides</i>	6.1%
	Annual	CABOC	<i>Camissonia</i>	<i>boothii ssp. condensata</i>	6.1%
	Annual	CHFR	<i>Chaenactis</i>	<i>fremontii</i>	6.1%
	Annual	CHST	<i>Chaenactis</i>	<i>stevioides</i>	6.1%
	Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	6.1%
	Perennial	GICAS	<i>Gilia</i>	<i>cana ssp. specifformis</i>	6.1%
	Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens ssp. canescens</i>	6.1%
	Perennial	STPA3	<i>Stephanomeria</i>	<i>parryi</i>	6.1%
	Perennial	ARME2	<i>Arctomecon</i>	<i>merriamii</i>	4.1%
	Annual	CABRB4	<i>Camissonia</i>	<i>brevipes ssp. brevipes</i>	4.1%
	Annual	CAKEG	<i>Camissonia</i>	<i>kernensis ssp. gilmanii</i>	4.1%
	Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	4.1%
	Annual	CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	4.1%
	Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	4.1%
	Annual	DEPIG	<i>Descurainia</i>	<i>pinnata ssp. glabra</i>	4.1%
	Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	4.1%
	Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum ssp. brecciarum</i>	4.1%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	4.1%
	Annual	OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	4.1%
	Annual	PEPL	<i>Pectocarya</i>	<i>platycarpa</i>	4.1%
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata</i> var. <i>crenulata</i>	4.1%
	Annual	RANE	<i>Rafinesquia</i>	<i>neomexicana</i>	4.1%
	Perennial	SPAMR	<i>Sphaeralcea</i>	<i>ambigua</i> var. <i>rugosa</i>	4.1%
	Perennial	ARPUM	<i>Arabis</i>	<i>pulchra</i> var. <i>munciensis</i>	2.0%
	Perennial	ARMA3	<i>Arenaria</i>	<i>macradenia</i>	2.0%
	Perennial	ASLA8	<i>Astragalus</i>	<i>layneae</i>	2.0%
	Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus</i> var. <i>fremontii</i>	2.0%
	Annual	CABRP	<i>Camissonia</i>	<i>brevipes</i> ssp. <i>pallidula</i>	2.0%
	Annual	CARE2	<i>Camissonia</i>	<i>refracta</i>	2.0%
	Perennial	CAAP4	<i>Castilleja</i>	<i>applegatei</i>	2.0%
	Annual	CHCA	<i>Chaenactis</i>	<i>carphoclinia</i>	2.0%
	Annual	CHMA	<i>Chaenactis</i>	<i>macrantha</i>	2.0%
	Perennial	CRFL6	<i>Cryptantha</i>	<i>flavoculata</i>	2.0%
	Annual	CRMI	<i>Cryptantha</i>	<i>micrantha</i>	2.0%
	Perennial	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	2.0%
	Perennial	DEAN	<i>Delphinium</i>	<i>andersonii</i>	2.0%
	Annual	ERSP3	<i>Eriastrum</i>	<i>sparsiflorum</i>	2.0%
	Perennial	ERCOC3	<i>Erigeron</i>	<i>concinus</i> var. <i>concinus</i>	2.0%
	Annual	ERMA2	<i>Eriogonum</i>	<i>maculatum</i>	2.0%
	Annual	ERTH	<i>Eriogonum</i>	<i>thomasi</i>	2.0%
	Annual	ERPR4	<i>Eriophyllum</i>	<i>pringlei</i>	2.0%
	Annual	ESGL	<i>Eschscholzia</i>	<i>glyptosperma</i>	2.0%
	Perennial	GAST	<i>Galium</i>	<i>stellatum</i>	2.0%
	Annual	GILIA	<i>Gilia</i>		2.0%
	Annual	HAGL	<i>Halogeton</i>	<i>glomeratus</i>	2.0%
	Annual	LOHU2	<i>Lotus</i>	<i>humistratus</i>	2.0%
	Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	2.0%
	Annual	MEOB3	<i>Mentzelia</i>	<i>obscura</i>	2.0%
	Perennial	MIB18	<i>Mirabilis</i>	<i>bigelovii</i>	2.0%
	Perennial	MIPU5	<i>Mirabilis</i>	<i>pudica</i>	2.0%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Annual	NIAT	<i>Nicotiana</i>	<i>attenuata</i>	2.0%
	Annual	OEDED4	<i>Oenothera</i>	<i>deltoides ssp. deltoides</i>	2.0%
	Annual	PESE	<i>Pectocarya</i>	<i>setosa</i>	2.0%
	Annual	PHPA2	<i>Phacelia</i>	<i>parishii</i>	2.0%
	Perennial	PHGRH	<i>Phlox</i>	<i>gracilis ssp. humilis</i>	2.0%
	Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	2.0%
	Perennial	POSU	<i>Polygala</i>	<i>subspinososa</i>	2.0%
	Biennial	SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	2.0%
	Perennial	SPGRP2	<i>Sphaeralcea</i>	<i>grossulariaefolia ssp. pedata</i>	2.0%
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua ssp. exigua</i>	2.0%
	Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	2.0%
	Perennial	THPEB	<i>Thymphylla</i>	<i>pentachaeta var. belenidium</i>	2.0%

Succulents

Perennial	ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>	34.7%
Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	28.6%
Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris var. basilaris</i>	20.4%
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa var. echinocarpa</i>	20.4%
Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	16.3%
Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	10.2%
Perennial	OPERE	<i>Opuntia</i>	<i>erinacea var. erinacea</i>	6.1%
Perennial	OPRA	<i>Opuntia</i>	<i>ramosissima</i>	4.1%
Perennial	ESVIR2	<i>Escobaria</i>	<i>vivipara var. rosea</i>	2.0%
Perennial	YUBAV	<i>Yucca</i>	<i>baccata var. vespertina</i>	2.0%

Variable

Variable	ERIOG	<i>Eriogonum</i>		2.0%
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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
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Hymenoclea-Lycium Shrubland Alliance

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	29.3%
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Short Shrubs (0.5-2 m)

Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	91.4%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	77.6%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	65.5%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	60.3%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	56.9%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	50.0%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	48.3%
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	41.4%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	29.3%
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	27.6%
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	22.4%
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	20.7%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	19.0%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	19.0%
Perennial	PSFRF	<i>Psorothamnus</i>	<i>fremontii</i> var. <i>fremontii</i>	17.2%
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	17.2%
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	15.5%
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	12.1%
Perennial	AMER	<i>Ambrosia</i>	<i>erioncentra</i>	10.3%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	10.3%
Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var.	10.3%
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	10.3%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	10.3%
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	8.6%
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	8.6%
Perennial	PSPO	<i>Psorothamnus</i>	<i>polydenius</i>	6.9%
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	5.2%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	ATPO	<i>Atriplex</i>	<i>polycarpa</i>	3.4%
	Perennial	ERPA29	<i>Ericameria</i>	<i>paniculata</i>	3.4%
	Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	3.4%
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	3.4%
	Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	3.4%
	Perennial	BRIN	<i>Brickellia</i>	<i>incana</i>	1.7%
	Perennial	BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>	1.7%
	Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	1.7%
	Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var.	1.7%
	Perennial	PENI	<i>Petalonyx</i>	<i>nitidus</i>	1.7%
	Perennial	RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	1.7%
	Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	1.7%
	Perennial	STEL	<i>Stanleya</i>	<i>elata</i>	1.7%

Dwarf Shrubs (<0.5 m)

	Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	15.5%
	Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	12.1%
	Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	12.1%

Graminoids

	Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	87.9%
	Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	70.7%
	Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	62.1%
	Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	22.4%
	Perennial	ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoides</i>	20.7%
	Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	13.8%
	Perennial	ERPU8	<i>Erioneuron</i>	<i>pulchellum</i>	10.3%
	Perennial	PLRI3	<i>Pleuraphis</i>	<i>rigida</i>	5.2%
	Perennial	ARPUL	<i>Aristida</i>	<i>purpurea</i> var. <i>longiseta</i>	3.4%
	Annual	BRCA6	<i>Bromus</i>	<i>cartharticus</i>	1.7%
	Annual	SCAR	<i>Schismus</i>	<i>arabicus</i>	1.7%
	Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	1.7%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
Forbs					
Perennial	SPAMA	<i>Sphaeralcea</i>		<i>ambigua</i> ssp. <i>ambigua</i>	55.2%
Annual	CHST	<i>Chaenactis</i>		<i>stevioides</i>	43.1%
Annual	MAGL3	<i>Malacothrix</i>		<i>glabrata</i>	34.5%
Annual	ERIC6	<i>Erodium</i>		<i>cicutarium</i>	31.0%
Perennial	MACAC	<i>Machaeranthera</i>		<i>canescens</i> ssp. <i>canescens</i>	25.9%
Perennial	CHAL11	<i>Chamaesyce</i>		<i>albomarginata</i>	22.4%
Perennial	MIPU5	<i>Mirabilis</i>		<i>pudica</i>	22.4%
Perennial	ERIN4	<i>Eriogonum</i>		<i>inflatum</i>	20.7%
Annual	ERER2	<i>Eriastrum</i>		<i>eremicum</i>	19.0%
Annual	ERDE6	<i>Eriogonum</i>		<i>deflexum</i>	19.0%
Annual	OXPE2	<i>Oxytheca</i>		<i>perfoliata</i>	17.2%
Annual	ERNI4	<i>Eriogonum</i>		<i>nidularium</i>	13.8%
Biennial	SIAL2	<i>Sisymbrium</i>		<i>altissimum</i>	13.8%
Perennial	ADCO2	<i>Adenophyllum</i>		<i>cooperi</i>	10.3%
Annual	CRNEN	<i>Cryptantha</i>		<i>nevadensis</i> var. <i>nevadensis</i>	10.3%
Perennial	DEPAP3	<i>Delphinium</i>		<i>parishii</i> ssp. <i>parishii</i>	8.6%
Annual	ERPR4	<i>Eriophyllum</i>		<i>pringlei</i>	8.6%
Perennial	POSU	<i>Polygala</i>		<i>subspinosa</i>	8.6%
Annual	STEXE	<i>Stephanomeria</i>		<i>exigua</i> ssp. <i>exigua</i>	8.6%
Perennial	STPA4	<i>Stephanomeria</i>		<i>pauciflora</i>	8.6%
Perennial	XYTOT	<i>Xylorhiza</i>		<i>tortifolia</i> var. <i>imberbis</i>	8.6%
Perennial	CAFL	<i>Calochortus</i>		<i>flexuosus</i>	6.9%
Annual	PHFR2	<i>Phacelia</i>		<i>fremontii</i>	6.9%
Annual	PHVAV2	<i>Phacelia</i>		<i>vallis-mortae</i> var. <i>vallis-mortae</i>	6.9%
Perennial	SPGRP2	<i>Sphaeralcea</i>		<i>grossulariaefolia</i> ssp. <i>pedata</i>	6.9%
Annual	ASLEF2	<i>Astragalus</i>		<i>lentiginosus</i> var. <i>fremontii</i>	5.2%
Perennial	BAMU	<i>Baileya</i>		<i>multiradiata</i>	5.2%
Annual	CAKEG	<i>Camissonia</i>		<i>kernensis</i> ssp. <i>gilmanii</i>	5.2%
Perennial	CAAP4	<i>Castilleja</i>		<i>applegatei</i>	5.2%
Perennial	HEMUN	<i>Heliomeris</i>		<i>multiflora</i> var. <i>nevadensis</i>	5.2%
Annual	LELA	<i>Lepidium</i>		<i>lasiocarpum</i>	5.2%
Annual	MEOB3	<i>Mentzelia</i>		<i>obscura</i>	5.2%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	ARPUM	<i>Arabis</i>	<i>pulchra</i> var. <i>munciensis</i>	3.4%
	Perennial	ASLA8	<i>Astragalus</i>	<i>layneae</i>	3.4%
	Perennial	BRAT	<i>Brickellia</i>	<i>atractyloides</i>	3.4%
	Annual	CHBRB	<i>Chorizanthe</i>	<i>brevicomu</i> var. <i>brevicomu</i>	3.4%
	Annual	CRMI	<i>Cryptantha</i>	<i>micrantha</i>	3.4%
	Annual	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	3.4%
	Perennial	GIIN2	<i>Gilia</i>	<i>inconspicua</i>	3.4%
	Annual	LASE3	<i>Langloisia</i>	<i>setosissima</i>	3.4%
	Perennial	MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	3.4%
	Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	3.4%
	Perennial	STPA3	<i>Stephanomeria</i>	<i>parryi</i>	3.4%
	Annual	CAWR	<i>Calycoseris</i>	<i>wrightii</i>	1.7%
	Annual	CABOC	<i>Camissonia</i>	<i>boothii</i> ssp. <i>condensata</i>	1.7%
	Annual	CABRB4	<i>Camissonia</i>	<i>brevipes</i> ssp. <i>brevipes</i>	1.7%
	Perennial	CAAPM	<i>Castilleja</i>	<i>aplegatei</i> ssp. <i>martinii</i>	1.7%
	Perennial	CAPI4	<i>Caulanthus</i>	<i>pilosus</i>	1.7%
	Annual	CHFR	<i>Chaenactis</i>	<i>fremontii</i>	1.7%
	Annual	CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	1.7%
	Perennial	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	1.7%
	Perennial	CYGL2	<i>Cymopterus</i>	<i>globosus</i>	1.7%
	Perennial	CYRI2	<i>Cymopterus</i>	<i>ripleyi</i>	1.7%
	Perennial	DIPU3	<i>Dichelostemma</i>	<i>pulchellum</i>	1.7%
	Perennial	ENNUN	<i>Enceliopsis</i>	<i>nudicaulis</i> var. <i>nudicaulis</i>	1.7%
	Perennial	EROVO5	<i>Eriogonum</i>	<i>ovalifolium</i> var. <i>ovalifolium</i>	1.7%
	Annual	ERPU6	<i>Eriogonum</i>	<i>pusillum</i>	1.7%
	Annual	GILIA	<i>Gilia</i>		1.7%
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	1.7%
	Perennial	LILE3	<i>Linum</i>	<i>lewisii</i>	1.7%
	Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	1.7%
	Annual	MEVE5	<i>Mentzelia</i>	<i>veatchiana</i>	1.7%
	Annual	NAPU	<i>Nama</i>	<i>pusillum</i>	1.7%
	Perennial	OCEM4	<i>Oenothera</i>	<i>caespitosa</i> ssp. <i>marginata</i>	1.7%
	Annual	PESE	<i>Pectocarya</i>	<i>setosa</i>	1.7%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	PENST	<i>Penstemon</i>		1.7%
	Perennial	PEPA8	<i>Penstemon</i>	<i>palmeri</i>	1.7%
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata</i> var. <i>crenulata</i>	1.7%
	Annual	PLOV	<i>Plantago</i>	<i>ovata</i>	1.7%
	Annual	SAKAT3	<i>Salsola</i>	<i>kali</i> ssp. <i>tragus</i>	1.7%
	Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	1.7%
	Perennial	SPAMR	<i>Sphaeralcea</i>	<i>ambigua</i> var. <i>rugosa</i>	1.7%
	Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	1.7%

Succulents

	Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	27.6%
	Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	24.1%
	Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	5.2%
	Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	3.4%
	Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	3.4%
	Perennial	ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>	1.7%
	Perennial	OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	1.7%
	Perennial	OPPU	<i>Opuntia</i>	<i>pulchella</i>	1.7%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
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Ephedra nevadensis Shrubland Alliance

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	1.1%
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Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	31.5%
Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata ssp. tridentata</i>	11.6%

Short Shrubs (0.5-2 m)

Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	93.9%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	79.0%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	72.4%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	68.5%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	65.2%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens var. canescens</i>	48.1%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. viscidiflorus</i>	47.0%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	45.3%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	36.5%
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	34.3%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris var. axillaris</i>	34.3%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	31.5%
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	26.5%
Perennial	PSFRF	<i>Psorothamnus</i>	<i>fremontii var. fremontii</i>	26.5%
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	26.5%
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum var. polifolium</i>	24.9%
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	23.8%
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	20.4%
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis var. virginensis</i>	19.9%
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata var. pinnata</i>	16.6%
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	16.6%
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus ssp. consimilis var.</i>	11.0%
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	10.5%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
Perennial		GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	8.8%
Perennial		LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	8.3%
Perennial		EPVI	<i>Ephedra</i>	<i>viridis</i>	7.7%
Perennial		PUGL2	<i>Purshia</i>	<i>glandulosa</i>	5.5%
Perennial		ARNO4	<i>Artemisia</i>	<i>nova</i>	5.0%
Perennial		ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	5.0%
Perennial		STEL	<i>Stanleya</i>	<i>elata</i>	5.0%
Perennial		ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	4.4%
Perennial		ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var.	4.4%
Perennial		PSPO	<i>Psoralea</i>	<i>polydenius</i>	4.4%
Perennial		SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	4.4%
Perennial		PUST	<i>Purshia</i>	<i>stansburiana</i>	3.9%
Perennial		TEGL	<i>Tetradymia</i>	<i>glabrata</i>	3.9%
Perennial		CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	3.3%
Perennial		BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	2.8%
Perennial		EPTO	<i>Ephedra</i>	<i>torreyana</i>	2.8%
Perennial		ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>	2.2%
Perennial		ERNA7	<i>Ericameria</i>	<i>nanus</i>	1.7%
Perennial		PENI	<i>Petalonyx</i>	<i>nitidus</i>	1.7%
Perennial		SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	1.7%
Perennial		AMER	<i>Ambrosia</i>	<i>eriacentra</i>	1.1%
Perennial		CHVIS5	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i> var.	1.1%
Perennial		EPFU	<i>Ephedra</i>	<i>funerea</i>	1.1%
Perennial		ERPA29	<i>Ericameria</i>	<i>paniculata</i>	1.1%
Perennial		LYSH	<i>Lycium</i>	<i>shockleyi</i>	1.1%
Perennial		SENE5	<i>Senecio</i>	<i>flaccidus</i> var. <i>douglasii</i>	1.1%
Perennial		BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>	0.6%
Perennial		CHGR6	<i>Chrysothamnus</i>	<i>greenei</i>	0.6%
Perennial		ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	0.6%
Perennial		GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	0.6%
Perennial		PRFA	<i>Prunus</i>	<i>fasciculata</i>	0.6%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
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Dwarf Shrubs (<0.5 m)

Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	33.7%
Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	24.9%
Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	4.4%

Graminoids

Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	88.4%
Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	58.0%
Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	52.5%
Perennial	ELELE	<i>Elymus</i>	<i>elymoides ssp. elymoides</i>	33.1%
Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	20.4%
Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	16.6%
Perennial	ERPU8	<i>Erioneuron</i>	<i>pulchellum</i>	9.9%
Perennial	POSE	<i>Poa</i>	<i>secunda</i>	5.0%
Perennial	ARPU9	<i>Aristida</i>	<i>purpurea</i>	3.3%
Perennial	HECOC8	<i>Hesperostipa</i>	<i>comata ssp. comata</i>	3.3%
Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	2.2%
Annual	BRCA6	<i>Bromus</i>	<i>cartharticus</i>	1.7%
Perennial	PLRI3	<i>Pleuraphis</i>	<i>rigida</i>	1.7%
Perennial	BOGR2	<i>Bouteloua</i>	<i>gracilis</i>	1.1%
Perennial	SPCR	<i>Sporobolus</i>	<i>cryptandrus</i>	0.6%

Forbs

Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua ssp. ambigua</i>	65.2%
Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	63.5%
Annual	CHST	<i>Chaenactis</i>	<i>stevioides</i>	37.0%
Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	36.5%
Perennial	XYTOT	<i>Xylorhiza</i>	<i>tortifolia var. imberbis</i>	25.4%
Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii ssp. parishii</i>	23.8%
Annual	ERIC6	<i>Erodium</i>	<i>cicutarium</i>	23.2%
Perennial	CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	21.5%
Annual	ERDE6	<i>Eriogonum</i>	<i>deflexum</i>	19.3%
Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	19.3%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens</i> ssp. <i>canescens</i>	19.3%
	Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	17.7%
	Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	17.1%
	Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	16.6%
	Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	16.0%
	Annual	ERPR4	<i>Eriophyllum</i>	<i>pringlei</i>	13.3%
	Perennial	MIPU5	<i>Mirabilis</i>	<i>pudica</i>	13.3%
	Annual	OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	13.3%
	Annual	PHVAV2	<i>Phacelia</i>	<i>vallis-mortae</i> var. <i>vallis-mortae</i>	12.2%
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	11.6%
	Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus</i> var. <i>fremontii</i>	10.5%
	Annual	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	9.9%
	Perennial	CAFL	<i>Calochortus</i>	<i>flexuosus</i>	9.4%
	Perennial	HEMUN	<i>Heliomeris</i>	<i>multiflora</i> var. <i>nevadensis</i>	9.4%
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	8.8%
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata</i> var. <i>crenulata</i>	8.3%
	Annual	CHRI	<i>Chorizanthe</i>	<i>rigida</i>	7.7%
	Perennial	ARPUM	<i>Arabis</i>	<i>pulchra</i> var. <i>munciensis</i>	7.2%
	Annual	GILIA	<i>Gilia</i>		7.2%
	Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis</i> var. <i>nevadensis</i>	6.6%
	Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	6.6%
	Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	6.6%
	Biennial	CINE	<i>Cirsium</i>	<i>neomexicanum</i>	6.1%
	Annual	DEPIG	<i>Descurainia</i>	<i>pinnata</i> ssp. <i>glabra</i>	6.1%
	Perennial	MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	6.1%
	Annual	CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	5.5%
	Perennial	POSU	<i>Polygala</i>	<i>subspinosa</i>	5.5%
	Annual	CABRB4	<i>Camissonia</i>	<i>brevipes</i> ssp. <i>brevipes</i>	5.0%
	Annual	LOHU2	<i>Lotus</i>	<i>humistratus</i>	5.0%
	Perennial	ASLA8	<i>Astragalus</i>	<i>layneae</i>	4.4%
	Perennial	BAMU	<i>Baileya</i>	<i>multiradiata</i>	4.4%
	Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum</i> ssp. <i>brecciarum</i>	4.4%
	Annual	LUFL	<i>Lupinus</i>	<i>flavoculatus</i>	4.4%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	4.4%
	Annual	PESE	<i>Pectocarya</i>	<i>setosa</i>	4.4%
	Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	4.4%
	Annual	SACOC	<i>Salvia</i>	<i>columbariae</i> var. <i>columbariae</i>	4.4%
	Biennial	SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	4.4%
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua</i> ssp. <i>exigua</i>	4.4%
	Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	4.4%
	Perennial	ADCO2	<i>Adenophyllum</i>	<i>cooperi</i>	3.9%
	Annual	CAKEG	<i>Camissonia</i>	<i>kemensis</i> ssp. <i>gilmanii</i>	3.9%
	Annual	CETH3	<i>Centrostegia</i>	<i>thurberi</i>	3.9%
	Annual	CHFR	<i>Chaenactis</i>	<i>fremontii</i>	3.9%
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	3.9%
	Perennial	SPAMR	<i>Sphaeralcea</i>	<i>ambigua</i> var. <i>rugosa</i>	3.9%
	Perennial	DIPU3	<i>Dichelostemma</i>	<i>pulchellum</i>	3.3%
	Perennial	ERCOC3	<i>Erigeron</i>	<i>concinus</i> var. <i>concinus</i>	3.3%
	Perennial	STPA3	<i>Stephanomeria</i>	<i>parryi</i>	3.3%
	Annual	CRMI	<i>Cryptantha</i>	<i>micrantha</i>	2.8%
	Annual	ESGL	<i>Eschscholzia</i>	<i>glyptosperma</i>	2.8%
	Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	2.8%
	Perennial	OECM4	<i>Oenothera</i>	<i>caespitosa</i> ssp. <i>marginata</i>	2.8%
	Perennial	PEFLA2	<i>Penstemon</i>	<i>floridus</i> var. <i>austinii</i>	2.8%
	Perennial	SEMU3	<i>Senecio</i>	<i>multilobatus</i>	2.8%
	Annual	STLO4	<i>Streptanthella</i>	<i>longirostris</i>	2.8%
	Annual	ASAC3	<i>Astragalus</i>	<i>acutirostris</i>	2.2%
	Perennial	ASTI	<i>Astragalus</i>	<i>tidestromii</i>	2.2%
	Annual	CACLI	<i>Camissonia</i>	<i>claviformis</i> ssp. <i>integrior</i>	2.2%
	Perennial	CAAPM	<i>Castilleja</i>	<i>aplegatei</i> ssp. <i>martinii</i>	2.2%
	Annual	CHMA	<i>Chaenactis</i>	<i>macrantha</i>	2.2%
	Annual	LASE3	<i>Langloisia</i>	<i>setosissima</i>	2.2%
	Perennial	LILE3	<i>Linum</i>	<i>lewisii</i>	2.2%
	Annual	MEOB3	<i>Mentzelia</i>	<i>obscura</i>	2.2%
	Annual	OEPR	<i>Oenothera</i>	<i>primiveris</i>	2.2%
	Annual	RANE	<i>Rafinesquia</i>	<i>neomexicana</i>	2.2%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	1.7%
	Perennial	ASPUT	<i>Astragalus</i>	<i>purshii</i> var. <i>tinctus</i>	1.7%
	Annual	CAPA7	<i>Calycoseris</i>	<i>parryi</i>	1.7%
	Annual	CABOC	<i>Camissonia</i>	<i>boothii</i> ssp. <i>condensata</i>	1.7%
	Perennial	CAPI4	<i>Caulanthus</i>	<i>pilosus</i>	1.7%
	Perennial	CRCO12	<i>Cryptantha</i>	<i>confertiflora</i>	1.7%
	Annual	CRGR3	<i>Cryptantha</i>	<i>gracilis</i>	1.7%
	Perennial	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	1.7%
	Annual	DESO2	<i>Descurainia</i>	<i>sophia</i>	1.7%
	Perennial	EROVO5	<i>Eriogonum</i>	<i>ovalifolium</i> var. <i>ovalifolium</i>	1.7%
	Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	1.7%
	Annual	ESMI	<i>Eschscholzia</i>	<i>minutiflora</i>	1.7%
	Perennial	GIIN2	<i>Gilia</i>	<i>inconspicua</i>	1.7%
	Annual	LAOCO	<i>Lappula</i>	<i>occidentalis</i> var. <i>occidentalis</i>	1.7%
	Annual	LUBR2	<i>Lupinus</i>	<i>brevicaulis</i>	1.7%
	Annual	MEVE5	<i>Mentzelia</i>	<i>veatchiana</i>	1.7%
	Annual	MISP	<i>Mimulus</i>	<i>spissus</i>	1.7%
	Annual	NAPU	<i>Nama</i>	<i>pusillum</i>	1.7%
	Annual	PLPA2	<i>Plantago</i>	<i>patagonica</i>	1.7%
	Annual	SAKAT3	<i>Salsola</i>	<i>kali</i> ssp. <i>tragus</i>	1.7%
	Perennial	STCOC	<i>Streptanthus</i>	<i>cordatus</i> var. <i>cordatus</i>	1.7%
	Annual	AMAC2	<i>Ambrosia</i>	<i>acanthicarpa</i>	1.1%
	Perennial	ARPUG	<i>Arabis</i>	<i>pulchra</i> var. <i>gracilis</i>	1.1%
	Perennial	ARCOS2	<i>Arenaria</i>	<i>congesta</i> var. <i>subcongesta</i>	1.1%
	Perennial	ARMA3	<i>Arenaria</i>	<i>macradenia</i>	1.1%
	Perennial	ARDR4	<i>Artemisia</i>	<i>dracunculus</i>	1.1%
	Perennial	ASCA14	<i>Astragalus</i>	<i>casei</i>	1.1%
	Perennial	BRAT	<i>Brickellia</i>	<i>atractyloides</i>	1.1%
	Annual	CAHE12	<i>Camissonia</i>	<i>heterochroma</i>	1.1%
	Annual	CHBRB	<i>Chorizanthe</i>	<i>brevicornu</i> var. <i>brevicornu</i>	1.1%
	Perennial	CRFL6	<i>Cryptantha</i>	<i>flavoculata</i>	1.1%
	Perennial	CYRI2	<i>Cymopterus</i>	<i>ripleyi</i>	1.1%
	Perennial	DEAN	<i>Delphinium</i>	<i>andersonii</i>	1.1%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	LONEN	<i>Lomatium</i>	<i>nevadense</i> var. <i>nevadense</i>	1.1%
	Annual	MOBE	<i>Monoptilon</i>	<i>bellidiforme</i>	1.1%
	Annual	NIAT	<i>Nicotiana</i>	<i>attenuata</i>	1.1%
	Perennial	OEPAP	<i>Oenothera</i>	<i>pallida</i> ssp. <i>pallida</i>	1.1%
	Annual	PHSA	<i>Phacelia</i>	<i>saxicola</i>	1.1%
	Perennial	SPAMM	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>monticola</i>	1.1%
	Perennial	SPGRP2	<i>Sphaeralcea</i>	<i>grossulariaefolia</i> ssp. <i>pedata</i>	1.1%
	Annual	URLI2	<i>Uropappus</i>	<i>linearifolia</i>	1.1%
	Perennial	ABEL	<i>Abronia</i>	<i>elliptica</i>	0.6%
	Perennial	ALNE	<i>Allium</i>	<i>nevadense</i>	0.6%
	Annual	ANAC	<i>Anisocoma</i>	<i>acaulis</i>	0.6%
	Annual	ATPL	<i>Atrichoseris</i>	<i>platyphylla</i>	0.6%
	Annual	CAPT	<i>Camissonia</i>	<i>pterosperma</i>	0.6%
	Annual	CHSES	<i>Chamaesyce</i>	<i>serpyllifolia</i> ssp. <i>serpyllifolia</i>	0.6%
	Annual	CHWA2	<i>Chorizanthe</i>	<i>watsonii</i>	0.6%
	Perennial	CROCO2	<i>Crepis</i>	<i>occidentalis</i> ssp. <i>occidentalis</i>	0.6%
	Annual	CRAM3	<i>Cryptantha</i>	<i>ambigua</i>	0.6%
	Annual	CRMA7	<i>Cryptantha</i>	<i>maritima</i>	0.6%
	Annual	CRRE5	<i>Cryptantha</i>	<i>recurvata</i>	0.6%
	Perennial	CYGL2	<i>Cymopterus</i>	<i>globosus</i>	0.6%
	Perennial	CYPU	<i>Cymopterus</i>	<i>purpurascens</i>	0.6%
	Perennial	ENNUN	<i>Enceliopsis</i>	<i>nudicaulis</i> var. <i>nudicaulis</i>	0.6%
	Annual	ERDI4	<i>Erigeron</i>	<i>divergens</i>	0.6%
	Annual	ERESE	<i>Eriogonum</i>	<i>esmeraldense</i> var. <i>esmeraldense</i>	0.6%
	Perennial	ERNU4	<i>Eriogonum</i>	<i>nummularae</i>	0.6%
	Annual	ERRE3	<i>Eriogonum</i>	<i>reniforme</i>	0.6%
	Perennial	ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	0.6%
	Annual	GARA	<i>Gayophytum</i>	<i>racemosum</i>	0.6%
	Perennial	GICAT	<i>Gilia</i>	<i>cana</i> ssp. <i>triceps</i>	0.6%
	Perennial	GISC	<i>Gilia</i>	<i>scopulorum</i>	0.6%
	Annual	GLMA2	<i>Glyptopleura</i>	<i>marginata</i>	0.6%
	Annual	HAGL	<i>Halogeton</i>	<i>glomeratus</i>	0.6%
	Annual	LOSC6	<i>Loeseliastrum</i>	<i>schottii</i>	0.6%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Annual	MASO	<i>Malacothrix</i>	<i>sonchoides</i>	0.6%
	Annual	MIBIB2	<i>Mimulus</i>	<i>bigelovii</i> var. <i>bigelovii</i>	0.6%
	Annual	MISU2	<i>Mimulus</i>	<i>suksdorfii</i>	0.6%
	Perennial	MIMUG	<i>Mirabilis</i>	<i>multiflora</i> var. <i>glandulosa</i>	0.6%
	Annual	PEPL	<i>Pectocarya</i>	<i>platycarpa</i>	0.6%
	Annual	PHCA2	<i>Phacelia</i>	<i>calthifolia</i>	0.6%
	Perennial	PHGRH	<i>Phlox</i>	<i>gracilis</i> ssp. <i>humilis</i>	0.6%
	Annual	PLOV	<i>Plantago</i>	<i>ovata</i>	0.6%
	Annual	PSAN	<i>Psathyrotes</i>	<i>annua</i>	0.6%
	Biennial	THLA4	<i>Thelypodium</i>	<i>laxiflorum</i>	0.6%
	Perennial	TRWA2	<i>Tricardia</i>	<i>watsonii</i>	0.6%

Succulents

Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	48.1%
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	35.4%
Perennial	ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>	15.5%
Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	13.8%
Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	13.3%
Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	7.7%
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	5.5%
Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	3.3%
Perennial	OPPU	<i>Opuntia</i>	<i>pulchella</i>	3.3%
Perennial	ESVIR2	<i>Escobaria</i>	<i>vivipara</i> var. <i>rosea</i>	2.2%
Perennial	OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	1.7%
Perennial	OPRA	<i>Opuntia</i>	<i>ramosissima</i>	1.1%
Perennial	SCPO4	<i>Sclerocactus</i>	<i>polyancistrus</i>	1.1%
Perennial	ECENE	<i>Echinocereus</i>	<i>engelmannii</i> var. <i>engelmannii</i>	0.6%
Perennial	ECTRM	<i>Echinocereus</i>	<i>triglochidiatus</i> var. <i>melanacanthus</i>	0.6%
Perennial	ESVID	<i>Escobaria</i>	<i>vivipara</i> var. <i>deserti</i>	0.6%
Perennial	MATE4	<i>Mammillaria</i>	<i>tetrancistra</i>	0.6%
Perennial	OPERU	<i>Opuntia</i>	<i>erinacea</i> var. <i>ursina</i>	0.6%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
Variable					
	Variable	MENTZ	<i>Mentzelia</i>		0.6%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
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Coleogyne ramosissima Shrubland Alliance

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	6.5%
Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	3.4%

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	33.4%
Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	13.9%
Perennial	CELEL	<i>Cercocarpus</i>	<i>ledifolius</i> var. <i>ledifolius</i>	0.6%
Perennial	CEGRV2	<i>Ceanothus</i>	<i>greggii</i> ssp. <i>vestitus</i>	0.3%

Short Shrubs (0.5-2 m)

Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	100.0%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	91.3%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	66.6%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	55.4%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	52.6%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	47.1%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	32.2%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	28.5%
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	28.2%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	27.6%
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	25.4%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	24.5%
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	22.0%
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	22.0%
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	19.2%
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	17.6%
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	17.0%
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var.	16.7%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	15.5%
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	15.2%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
Perennial		LEFR2	<i>Lepidium</i>	<i>fremontii</i>	14.6%
Perennial		PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	13.9%
Perennial		THMO	<i>Thamnosma</i>	<i>montana</i>	12.7%
Perennial		TECA2	<i>Tetradymia</i>	<i>canescens</i>	10.8%
Perennial		LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	7.4%
Perennial		SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	6.8%
Perennial		STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	6.5%
Perennial		ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	5.9%
Perennial		ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var.	5.6%
Perennial		ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	5.6%
Perennial		STEL	<i>Stanleya</i>	<i>elata</i>	5.6%
Perennial		BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	4.6%
Perennial		CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	4.3%
Perennial		GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	3.7%
Perennial		PRFA	<i>Prunus</i>	<i>fasciculata</i>	3.7%
Perennial		PUGL2	<i>Purshia</i>	<i>glandulosa</i>	3.1%
Perennial		ARNO4	<i>Artemisia</i>	<i>nova</i>	2.8%
Perennial		TEGL	<i>Tetradymia</i>	<i>glabrata</i>	2.5%
Perennial		ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	1.5%
Perennial		PSPO	<i>Psoralea</i>	<i>polydenius</i>	1.5%
Perennial		EPFU	<i>Ephedra</i>	<i>funerea</i>	1.2%
Perennial		ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>	1.2%
Perennial		PENI	<i>Petalonyx</i>	<i>nitidus</i>	1.2%
Perennial		EPTO	<i>Ephedra</i>	<i>torreyana</i>	0.9%
Perennial		RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	0.9%
Perennial		AMER	<i>Ambrosia</i>	<i>erioncentra</i>	0.6%
Perennial		BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>	0.6%
Perennial		CHGR6	<i>Chrysothamnus</i>	<i>greenei</i>	0.6%
Perennial		SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	0.6%
Perennial		ARBI3	<i>Artemisia</i>	<i>bigelovii</i>	0.3%
Perennial		BUUT	<i>Buddleja</i>	<i>utahensis</i>	0.3%
Perennial		ERCUC	<i>Ericameria</i>	<i>cuneatus</i>	0.3%
Perennial		ERHEA	<i>Eriogonum</i>	<i>heermannii</i> var. <i>argense</i>	0.3%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	0.3%
	Perennial	PERA4	<i>Peraphyllum</i>	<i>ramosissimum</i>	0.3%
	Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	0.3%
	Perennial	RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	0.3%
	Perennial	SENE5	<i>Senecio</i>	<i>flaccidus</i> var. <i>douglasii</i>	0.3%

Dwarf Shrubs (<0.5 m)

	Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	24.8%
	Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	21.7%
	Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	11.5%
	Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	1.5%
	Perennial	ERMIL	<i>Eriogonum</i>	<i>microthecum</i> var. <i>lapidicola</i>	0.3%
	Perennial	KOAM	<i>Kochia</i>	<i>americana</i>	0.3%

Graminoids

	Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	86.7%
	Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	44.9%
	Perennial	ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoides</i>	30.7%
	Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	29.1%
	Perennial	POSE	<i>Poa</i>	<i>secunda</i>	16.1%
	Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	11.5%
	Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	9.0%
	Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	5.9%
	Perennial	ERPU8	<i>Erioneuron</i>	<i>pulchellum</i>	4.0%
	Perennial	POFE	<i>Poa</i>	<i>fendleriana</i>	2.8%
	Perennial	ARPU9	<i>Aristida</i>	<i>purpurea</i>	2.2%
	Perennial	HECOC8	<i>Hesperostipa</i>	<i>comata</i> ssp. <i>comata</i>	1.5%
	Annual	SCAR	<i>Schismus</i>	<i>arabicus</i>	1.2%
	Perennial	PLRI3	<i>Pleuraphis</i>	<i>rigida</i>	0.9%
	Annual	VUMI	<i>Vulpia</i>	<i>microstachys</i>	0.9%
	Perennial	ACAR14	<i>Achnatherum</i>	<i>aridum</i>	0.6%
	Perennial	ACCO21	<i>Achnatherum</i>	<i>coronata</i>	0.3%
	Perennial	BOGR2	<i>Bouteloua</i>	<i>gracilis</i>	0.3%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Annual	BRBE2	<i>Bromus</i>	<i>berterianus</i>	0.3%
	Annual	BRCA6	<i>Bromus</i>	<i>cartharticus</i>	0.3%
	Perennial	LECI4	<i>Leymus</i>	<i>cinereus</i>	0.3%

Forbs

Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	65.9%
Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua ssp. ambigua</i>	36.8%
Annual	CHST	<i>Chaenactis</i>	<i>stevioides</i>	32.2%
Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii ssp. parishii</i>	28.5%
Perennial	XYTOT	<i>Xylorhiza</i>	<i>tortifolia var. imberbis</i>	24.1%
Perennial	CAFL	<i>Calochortus</i>	<i>flexuosus</i>	23.8%
Annual	OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	22.6%
Annual	PHVAV2	<i>Phacelia</i>	<i>vallis-mortae var. vallis-mortae</i>	22.3%
Annual	ERCI6	<i>Erodium</i>	<i>cicutarium</i>	21.7%
Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	19.2%
Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	17.0%
Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	13.9%
Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	13.6%
Perennial	ARPUM	<i>Arabis</i>	<i>pulchra var. munciensis</i>	13.0%
Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis var. nevadensis</i>	12.4%
Perennial	CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	12.1%
Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	11.8%
Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens ssp. canescens</i>	11.1%
Perennial	HEMUN	<i>Heliomeris</i>	<i>multiflora var. nevadensis</i>	10.8%
Annual	ERDE6	<i>Eriogonum</i>	<i>deflexum</i>	7.7%
Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	7.7%
Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	7.7%
Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	7.4%
Annual	ERPR4	<i>Eriophyllum</i>	<i>pringlei</i>	7.4%
Annual	CHRI	<i>Chorizanthe</i>	<i>rigida</i>	6.8%
Perennial	STPA3	<i>Stephanomeria</i>	<i>parryi</i>	6.8%
Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	6.8%
Annual	CRMI	<i>Cryptantha</i>	<i>micrantha</i>	6.2%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Annual	PESE	<i>Pectocarya</i>	<i>setosa</i>	6.2%
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua</i> ssp. <i>exigua</i>	6.2%
	Annual	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	5.9%
	Annual	GILIA	<i>Gilia</i>		5.6%
	Perennial	GIIN2	<i>Gilia</i>	<i>inconspicua</i>	5.6%
	Annual	LOHU2	<i>Lotus</i>	<i>humistratus</i>	5.3%
	Annual	MEVE5	<i>Mentzelia</i>	<i>veatchiana</i>	5.3%
	Perennial	ARMA3	<i>Arenaria</i>	<i>macradenia</i>	5.0%
	Annual	CAKEG	<i>Camissonia</i>	<i>kemensis</i> ssp. <i>gilmanii</i>	5.0%
	Annual	CETH3	<i>Centrostegia</i>	<i>thurberi</i>	4.6%
	Annual	DEPIG	<i>Descurainia</i>	<i>pinnata</i> ssp. <i>glabra</i>	4.6%
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	4.6%
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	4.6%
	Perennial	ADCO2	<i>Adenophyllum</i>	<i>cooperi</i>	4.3%
	Perennial	DIPU3	<i>Dichelostemma</i>	<i>pulchellum</i>	4.3%
	Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus</i> var. <i>fremontii</i>	4.0%
	Perennial	ERCOC3	<i>Erigeron</i>	<i>concinus</i> var. <i>concinus</i>	4.0%
	Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	3.7%
	Annual	LASE3	<i>Langloisia</i>	<i>setosissima</i>	3.7%
	Annual	LUBR2	<i>Lupinus</i>	<i>brevicaulis</i>	3.7%
	Annual	LUFL	<i>Lupinus</i>	<i>flavoculatus</i>	3.7%
	Annual	CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	3.4%
	Perennial	EROVO5	<i>Eriogonum</i>	<i>ovalifolium</i> var. <i>ovalifolium</i>	3.4%
	Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum</i> ssp. <i>brecciarum</i>	3.4%
	Perennial	ASLA8	<i>Astragalus</i>	<i>layneae</i>	3.1%
	Perennial	LONEN	<i>Lomatium</i>	<i>nevadense</i> var. <i>nevadense</i>	3.1%
	Annual	RANE	<i>Rafinesquia</i>	<i>neomexicana</i>	3.1%
	Perennial	SPAMR	<i>Sphaeralcea</i>	<i>ambigua</i> var. <i>rugosa</i>	3.1%
	Annual	ERMA2	<i>Eriogonum</i>	<i>maculatum</i>	2.8%
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	2.8%
	Perennial	MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	2.8%
	Perennial	CRCO12	<i>Cryptantha</i>	<i>confertiflora</i>	2.5%
	Perennial	ARCOS2	<i>Arenaria</i>	<i>congesta</i> var. <i>subcongesta</i>	2.2%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Annual	ASAC3	<i>Astragalus</i>	<i>acutirostris</i>	2.2%
	Biennial	CINE	<i>Cirsium</i>	<i>neomexicanum</i>	2.2%
	Perennial	MIPU5	<i>Mirabilis</i>	<i>pudica</i>	2.2%
	Annual	PLPA2	<i>Plantago</i>	<i>patagonica</i>	2.2%
	Annual	STLO4	<i>Streptanthella</i>	<i>longirostris</i>	2.2%
	Annual	CABOC	<i>Camissonia</i>	<i>boothii</i> ssp. <i>condensata</i>	1.9%
	Annual	CHFR	<i>Chaenactis</i>	<i>fremontii</i>	1.9%
	Annual	CHBRB	<i>Chorizanthe</i>	<i>brevicornu</i> var. <i>brevicornu</i>	1.9%
	Annual	NADED	<i>Nama</i>	<i>demissum</i> var. <i>demissum</i>	1.9%
	Annual	URLI2	<i>Uropappus</i>	<i>linearifolia</i>	1.9%
	Perennial	ALNE	<i>Allium</i>	<i>nevadense</i>	1.5%
	Perennial	ARIN	<i>Arabis</i>	<i>inyoensis</i>	1.5%
	Perennial	ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	1.5%
	Perennial	ASPUT	<i>Astragalus</i>	<i>purshii</i> var. <i>tinctus</i>	1.5%
	Annual	CAPA7	<i>Calycoseris</i>	<i>parryi</i>	1.5%
	Annual	CABRB4	<i>Camissonia</i>	<i>brevipes</i> ssp. <i>brevipes</i>	1.5%
	Perennial	OECM4	<i>Oenothera</i>	<i>caespitosa</i> ssp. <i>marginata</i>	1.5%
	Annual	PEPL	<i>Pectocarya</i>	<i>platycarpa</i>	1.5%
	Annual	PSAN	<i>Psathyrotes</i>	<i>annua</i>	1.5%
	Biennial	SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	1.5%
	Perennial	SPGRP2	<i>Sphaeralcea</i>	<i>grossulariaefolia</i> ssp. <i>pedata</i>	1.5%
	Perennial	ARPUG	<i>Arabis</i>	<i>pulchra</i> var. <i>gracilis</i>	1.2%
	Perennial	BAMU	<i>Baileya</i>	<i>multiradiata</i>	1.2%
	Perennial	ERCA8	<i>Eriogonum</i>	<i>caespitosum</i>	1.2%
	Annual	LIDI2	<i>Linanthus</i>	<i>dichotomus</i>	1.2%
	Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	1.2%
	Annual	MEOB3	<i>Mentzelia</i>	<i>obscura</i>	1.2%
	Perennial	PEFLA2	<i>Penstemon</i>	<i>floridus</i> var. <i>austinii</i>	1.2%
	Annual	SACOC	<i>Salvia</i>	<i>columbariae</i> var. <i>columbariae</i>	1.2%
	Perennial	ASER2	<i>Asclepias</i>	<i>erosa</i>	0.9%
	Annual	CHCA	<i>Chaenactis</i>	<i>carphoclinia</i>	0.9%
	Annual	CLPAU2	<i>Claytonia</i>	<i>perfoliata</i> ssp. <i>perfoliata</i>	0.9%
	Perennial	CYGL2	<i>Cymopterus</i>	<i>globosus</i>	0.9%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Annual	DESO2	<i>Descurainia</i>	<i>sophia</i>	0.9%
	Annual	ERPU6	<i>Eriogonum</i>	<i>pusillum</i>	0.9%
	Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	0.9%
	Annual	ERTH	<i>Eriogonum</i>	<i>thomasii</i>	0.9%
	Annual	LEFLF2	<i>Lepidium</i>	<i>flavum</i> var. <i>flavum</i>	0.9%
	Annual	LOSC6	<i>Loeseliastrum</i>	<i>schottii</i>	0.9%
	Annual	MISU2	<i>Mimulus</i>	<i>suksdorfii</i>	0.9%
	Annual	MOBE	<i>Monoptilon</i>	<i>bellidiforme</i>	0.9%
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata</i> var. <i>crenulata</i>	0.9%
	Perennial	POSU	<i>Polygala</i>	<i>subspinoso</i>	0.9%
	Perennial	STCOC	<i>Streptanthus</i>	<i>cordatus</i> var. <i>cordatus</i>	0.9%
	Annual	AMAC2	<i>Ambrosia</i>	<i>acanthicarpa</i>	0.6%
	Perennial	ARHOP3	<i>Arabis</i>	<i>holboellii</i> var. <i>pinetorum</i>	0.6%
	Annual	ASDID	<i>Astragalus</i>	<i>didymocarpus</i> var. <i>dispermus</i>	0.6%
	Perennial	BRAT	<i>Brickellia</i>	<i>atractyloides</i>	0.6%
	Annual	CACLI	<i>Camissonia</i>	<i>claviformis</i> ssp. <i>integrrior</i>	0.6%
	Annual	CHMA	<i>Chaenactis</i>	<i>macrantha</i>	0.6%
	Perennial	CRFL6	<i>Cryptantha</i>	<i>flavoculata</i>	0.6%
	Annual	CRGR3	<i>Cryptantha</i>	<i>gracilis</i>	0.6%
	Annual	CRRE5	<i>Cryptantha</i>	<i>recurvata</i>	0.6%
	Perennial	CYAB	<i>Cymopterus</i>	<i>aboriginum</i>	0.6%
	Annual	ERSP3	<i>Eriastrum</i>	<i>sparsiflorum</i>	0.6%
	Annual	ERDI4	<i>Erigeron</i>	<i>divergens</i>	0.6%
	Perennial	ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	0.6%
	Annual	ESGL	<i>Eschscholzia</i>	<i>glyptosperma</i>	0.6%
	Annual	HAGL	<i>Halogeton</i>	<i>glomeratus</i>	0.6%
	Annual	LAOCO	<i>Lappula</i>	<i>occidentalis</i> var. <i>occidentalis</i>	0.6%
	Annual	LIDE2	<i>Linanthus</i>	<i>demissus</i>	0.6%
	Annual	MASO	<i>Malacothrix</i>	<i>sonchoides</i>	0.6%
	Annual	MENI2	<i>Mentzelia</i>	<i>nitens</i>	0.6%
	Annual	NAPU	<i>Nama</i>	<i>pusillum</i>	0.6%
	Perennial	OEPAP	<i>Oenothera</i>	<i>pallida</i> ssp. <i>pallida</i>	0.6%
	Perennial	PHGRH	<i>Phlox</i>	<i>gracilis</i> ssp. <i>humilis</i>	0.6%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	SEMU3	<i>Senecio</i>	<i>multilobatus</i>	0.6%
	Annual	THCU	<i>Thysanocarpus</i>	<i>curvipes</i>	0.6%
	Annual	ANAC	<i>Anisocoma</i>	<i>acaulis</i>	0.3%
	Perennial	ARSH	<i>Arabis</i>	<i>shockleyi</i>	0.3%
	Perennial	ARMUR	<i>Argemone</i>	<i>munita ssp. rotundata</i>	0.3%
	Perennial	ASCA14	<i>Astragalus</i>	<i>casei</i>	0.3%
	Annual	BAPL3	<i>Baileya</i>	<i>pleniradiata</i>	0.3%
	Annual	CAHE12	<i>Camissonia</i>	<i>heterochroma</i>	0.3%
	Annual	CAME16	<i>Camissonia</i>	<i>megalantha</i>	0.3%
	Perennial	CALI4	<i>Castilleja</i>	<i>linariaefolia</i>	0.3%
	Annual	CHWA2	<i>Chorizanthe</i>	<i>watsonii</i>	0.3%
	Annual	CIPAN	<i>Cistanthe</i>	<i>parryi var. nevadense</i>	0.3%
	Annual	COPA3	<i>Collinsia</i>	<i>parviflora</i>	0.3%
	Perennial	CROCO2	<i>Crepis</i>	<i>occidentalis ssp. occidentalis</i>	0.3%
	Perennial	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	0.3%
	Annual	CRWA2	<i>Cryptantha</i>	<i>watsonii</i>	0.3%
	Perennial	CYPU	<i>Cymopterus</i>	<i>purpurascens</i>	0.3%
	Perennial	CYRI2	<i>Cymopterus</i>	<i>ripleyi</i>	0.3%
	Perennial	DEAN	<i>Delphinium</i>	<i>andersonii</i>	0.3%
	Annual	ERBR7	<i>Eriogonum</i>	<i>brachyanthum</i>	0.3%
	Annual	ERGL4	<i>Eriogonum</i>	<i>glandulosum</i>	0.3%
	Perennial	ERNU4	<i>Eriogonum</i>	<i>nummular</i>	0.3%
	Annual	ERTR8	<i>Eriogonum</i>	<i>trichopes</i>	0.3%
	Perennial	GIALB	<i>Gilia</i>	<i>aliquanta ssp. Breviloba</i>	0.3%
	Perennial	GIHU	<i>Gilia</i>	<i>hutchinsifolia</i>	0.3%
	Perennial	GILA2	<i>Gilia</i>	<i>latifolia</i>	0.3%
	Perennial	GIOP	<i>Gilia</i>	<i>ophthalmoides</i>	0.3%
	Perennial	GISC	<i>Gilia</i>	<i>scopulorum</i>	0.3%
	Perennial	LILE3	<i>Linum</i>	<i>lewisii</i>	0.3%
	Perennial	LOSC3	<i>Lomatium</i>	<i>scabrum</i>	0.3%
	Annual	LUCOO2	<i>Lupinus</i>	<i>concinus ssp. orcuttii</i>	0.3%
	Annual	MECO2	<i>Mentzelia</i>	<i>congesta</i>	0.3%
	Annual	MISP	<i>Mimulus</i>	<i>spissus</i>	0.3%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Annual	NEGLO	<i>Nemacladus</i>	<i>glanduliferus</i> var. <i>orientalis</i>	0.3%
	Perennial	ORFA	<i>Orobanche</i>	<i>fasciculata</i>	0.3%
	Annual	PERE	<i>Pectocarya</i>	<i>recurvata</i>	0.3%
	Perennial	PEPA8	<i>Penstemon</i>	<i>palmeri</i>	0.3%
	Annual	PHCU	<i>Phacelia</i>	<i>curvipes</i>	0.3%
	Annual	PHSA	<i>Phacelia</i>	<i>saxicola</i>	0.3%
	Annual	PLOV	<i>Plantago</i>	<i>ovata</i>	0.3%
	Annual	PREX	<i>Prenanthes</i>	<i>exigua</i>	0.3%
	Annual	SAKAT3	<i>Salsola</i>	<i>kali</i> ssp. <i>tragus</i>	0.3%
	Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	0.3%
	Perennial	SPAMM	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>monticola</i>	0.3%
	Annual	STMI2	<i>Stylocline</i>	<i>micropoides</i>	0.3%
	Perennial	THPEB	<i>Thymophylla</i>	<i>pentachaeta</i> var. <i>belenidium</i>	0.3%
	Annual	TINU2	<i>Tiquilia</i>	<i>nuttallii</i>	0.3%

Epiphytes

Perennial	CUDEV	<i>Cuscuta</i>	<i>denticulata</i> var. <i>vetchii</i>	0.9%
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Succulents

Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	55.7%
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	35.6%
Perennial	ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>	16.4%
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	15.2%
Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	13.0%
Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	8.7%
Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	6.2%
Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	4.6%
Perennial	OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	4.0%
Perennial	OPPU	<i>Opuntia</i>	<i>pulchella</i>	2.2%
Perennial	ESVIR2	<i>Escobaria</i>	<i>vivipara</i> var. <i>rosea</i>	1.5%
Perennial	ESVID	<i>Escobaria</i>	<i>vivipara</i> var. <i>deserti</i>	1.2%
Perennial	OPRA	<i>Opuntia</i>	<i>ramosissima</i>	0.9%
Perennial	SCPO4	<i>Sclerocactus</i>	<i>polyancistrus</i>	0.9%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	MATE4	<i>Mammillaria</i>	<i>tetrancistra</i>	0.6%
	Perennial	ECENE	<i>Echinocereus</i>	<i>engelmannii</i> var. <i>engelmannii</i>	0.3%
Variable					
	Variable	ERIOG	<i>Eriogonum</i>		0.6%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
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Atriplex spp. Shrubland Alliance

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	1.8%
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Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	9.1%
Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata ssp. tridentata</i>	7.3%

Short Shrubs (0.5-2 m)

Perennial	ATCAC	<i>Atriplex</i>	<i>canescens var. canescens</i>	81.8%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	56.4%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	56.4%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	49.1%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	41.8%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	40.0%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	36.4%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. viscidiflorus</i>	27.3%
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	16.4%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris var. axillaris</i>	14.5%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	10.9%
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	10.9%
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	7.3%
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	7.3%
Perennial	EPTO	<i>Ephedra</i>	<i>torreyana</i>	5.5%
Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	5.5%
Perennial	PSFRF	<i>Psorothamnus</i>	<i>fremontii var. fremontii</i>	5.5%
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata var. pinnata</i>	5.5%
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	3.6%
Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus ssp. nauseosus var.</i>	3.6%
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum var. oligospermum</i>	3.6%
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis var. virginensis</i>	1.8%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	1.8%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	1.8%
	Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var.	1.8%
	Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	1.8%
	Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	1.8%
	Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	1.8%
	Perennial	PSPO	<i>Psorothamnus</i>	<i>polydenius</i>	1.8%
	Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	1.8%
	Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	1.8%
	Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	1.8%
	Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	1.8%
	Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	1.8%

Dwarf Shrubs (<0.5 m)

Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	34.5%
Perennial	KOAM	<i>Kochia</i>	<i>americana</i>	29.1%
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	10.9%
Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	3.6%

Graminoids

Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	78.2%
Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	69.1%
Perennial	ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoides</i>	41.8%
Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	40.0%
Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	23.6%
Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	10.9%
Perennial	ERPU8	<i>Erioneuron</i>	<i>pulchellum</i>	7.3%
Perennial	POSE	<i>Poa</i>	<i>secunda</i>	3.6%
Perennial	LECI4	<i>Leymus</i>	<i>cinereus</i>	1.8%
Perennial	POFE	<i>Poa</i>	<i>fendleriana</i>	1.8%
Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	1.8%

Forbs

Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	70.9%
Annual	CHST	<i>Chaenactis</i>	<i>steviodes</i>	45.5%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
Perennial		SPAMA	<i>Sphaeralcea</i>	<i>ambigua ssp. ambigua</i>	45.5%
Annual		ERDE6	<i>Eriogonum</i>	<i>deflexum</i>	38.2%
Perennial		MIPU5	<i>Mirabilis</i>	<i>pudica</i>	38.2%
Biennial		SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	36.4%
Perennial		MACAC	<i>Machaeranthera</i>	<i>canescens ssp. canescens</i>	30.9%
Annual		ERCI6	<i>Erodium</i>	<i>cicutarium</i>	18.2%
Annual		SAPA8	<i>Salsola</i>	<i>paulsenii</i>	18.2%
Annual		CHRI	<i>Chorizanthe</i>	<i>rigida</i>	16.4%
Annual		ASLEF2	<i>Astragalus</i>	<i>lentiginosus var. fremontii</i>	14.5%
Perennial		CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	14.5%
Perennial		ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	14.5%
Annual		ERPR4	<i>Eriophyllum</i>	<i>pringlei</i>	10.9%
Perennial		HEMUN	<i>Helioeris</i>	<i>multiflora var. nevadensis</i>	10.9%
Annual		MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	10.9%
Annual		ERER2	<i>Eriastrum</i>	<i>eremicum</i>	9.1%
Annual		MEOB3	<i>Mentzelia</i>	<i>obscura</i>	9.1%
Perennial		MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	9.1%
Annual		OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	9.1%
Annual		PHFR2	<i>Phacelia</i>	<i>fremontii</i>	9.1%
Perennial		BAMU	<i>Baileya</i>	<i>multiradiata</i>	7.3%
Annual		CRMI	<i>Cryptantha</i>	<i>micrantha</i>	7.3%
Perennial		CYGL2	<i>Cymopterus</i>	<i>globosus</i>	7.3%
Annual		ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	7.3%
Perennial		OECM4	<i>Oenothera</i>	<i>caespitosa ssp. marginata</i>	7.3%
Annual		STEXE	<i>Stephanomeria</i>	<i>exigua ssp. exigua</i>	7.3%
Perennial		CAFL	<i>Calochortus</i>	<i>flexuosus</i>	5.5%
Annual		CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	5.5%
Annual		MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	5.5%
Perennial		CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	3.6%
Annual		CHMA	<i>Chaenactis</i>	<i>macrantha</i>	3.6%
Annual		CHBRB	<i>Chorizanthe</i>	<i>brevicomu var. brevicomu</i>	3.6%
Perennial		DEPAP3	<i>Delphinium</i>	<i>parishii ssp. parishii</i>	3.6%
Annual		DEPIG	<i>Descurainia</i>	<i>pinnata ssp. glabra</i>	3.6%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Annual	ERPU6	<i>Eriogonum</i>	<i>pusillum</i>	3.6%
	Annual	ESGL	<i>Eschscholzia</i>	<i>glyptosperma</i>	3.6%
	Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum</i> ssp. <i>brecciarum</i>	3.6%
	Perennial	GIIN2	<i>Gilia</i>	<i>inconspicua</i>	3.6%
	Annual	HAGL	<i>Halogeton</i>	<i>glomeratus</i>	3.6%
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	3.6%
	Annual	LUFL	<i>Lupinus</i>	<i>flavoculatus</i>	3.6%
	Annual	MISP	<i>Mimulus</i>	<i>spissus</i>	3.6%
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata</i> var. <i>crenulata</i>	3.6%
	Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	3.6%
	Perennial	POSU	<i>Polygala</i>	<i>subspinosa</i>	3.6%
	Annual	SAKAT3	<i>Salsola</i>	<i>kali</i> ssp. <i>tragus</i>	3.6%
	Perennial	ARME2	<i>Arctomecon</i>	<i>merriamii</i>	1.8%
	Perennial	ARDR4	<i>Artemisia</i>	<i>dracunculus</i>	1.8%
	Annual	ASAC3	<i>Astragalus</i>	<i>acutirostris</i>	1.8%
	Perennial	ASCA14	<i>Astragalus</i>	<i>casei</i>	1.8%
	Perennial	ASPUT	<i>Astragalus</i>	<i>purshii</i> var. <i>tinctus</i>	1.8%
	Perennial	ASTI	<i>Astragalus</i>	<i>tidestromii</i>	1.8%
	Annual	CAPA7	<i>Calycoseris</i>	<i>parryi</i>	1.8%
	Annual	CABRB4	<i>Camissonia</i>	<i>brevipes</i> ssp. <i>brevipes</i>	1.8%
	Annual	CAKEG	<i>Camissonia</i>	<i>kemensis</i> ssp. <i>gilmanii</i>	1.8%
	Annual	CAME16	<i>Camissonia</i>	<i>megalantha</i>	1.8%
	Annual	CETH3	<i>Centrostegia</i>	<i>thurberi</i>	1.8%
	Annual	CHFR	<i>Chaenactis</i>	<i>fremontii</i>	1.8%
	Annual	CHAL7	<i>Chenopodium</i>	<i>album</i>	1.8%
	Annual	CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	1.8%
	Perennial	CRCO12	<i>Cryptantha</i>	<i>confertiflora</i>	1.8%
	Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis</i> var. <i>nevadensis</i>	1.8%
	Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	1.8%
	Perennial	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	1.8%
	Perennial	ERCOC3	<i>Erigeron</i>	<i>concinus</i> var. <i>concinus</i>	1.8%
	Perennial	ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	1.8%
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	1.8%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	LILE3	<i>Linum</i>	<i>lewisii</i>	1.8%
	Annual	LUBR2	<i>Lupinus</i>	<i>brevicaulis</i>	1.8%
	Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	1.8%
	Annual	MEVE5	<i>Mentzelia</i>	<i>veatchiana</i>	1.8%
	Annual	NADED	<i>Nama</i>	<i>demissum</i> var. <i>demissum</i>	1.8%
	Annual	OEPR	<i>Oenothera</i>	<i>primiveris</i>	1.8%
	Annual	PLPA2	<i>Plantago</i>	<i>patagonica</i>	1.8%
	Annual	PSAN	<i>Psathyrotes</i>	<i>annua</i>	1.8%
	Annual	SACOC	<i>Salvia</i>	<i>columbariae</i> var. <i>columbariae</i>	1.8%
	Perennial	SPAMM	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>monticola</i>	1.8%
	Perennial	SPGRP2	<i>Sphaeralcea</i>	<i>grossulariaefolia</i> ssp. <i>pedata</i>	1.8%
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	1.8%
	Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	1.8%
	Annual	URLI2	<i>Uropappus</i>	<i>linearifolia</i>	1.8%

Succulents

	Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	29.1%
	Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	18.2%
	Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	9.1%
	Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	5.5%
	Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	3.6%
	Perennial	ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>	1.8%
	Perennial	ESVIR2	<i>Escobaria</i>	<i>vivipara</i> var. <i>rosea</i>	1.8%
	Perennial	OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	1.8%
	Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	1.8%
	Perennial	SCPO4	<i>Sclerocactus</i>	<i>polyancistrus</i>	1.8%
	Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	1.8%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
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Chrysothamnus-Ericameria Shrubland Alliance

Trees (>5 m)

Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	5.2%
Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	4.1%
Perennial	QUGA	<i>Quercus</i>	<i>gambelii</i>	1.0%

Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	40.2%
Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	8.2%
Perennial	AMUT	<i>Amelanchier</i>	<i>utahensis</i>	1.0%

Short Shrubs (0.5-2 m)

Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	87.6%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	81.4%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	70.1%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	64.9%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	60.8%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	58.8%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	35.1%
Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var.	30.9%
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	25.8%
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	24.7%
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	23.7%
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	22.7%
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	21.6%
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	20.6%
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	17.5%
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	15.5%
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	13.4%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	13.4%
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var.	11.3%
Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	11.3%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	10.3%
	Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	10.3%
	Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	10.3%
	Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	9.3%
	Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	9.3%
	Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	8.2%
	Perennial	PSPO	<i>Psorothamnus</i>	<i>polydenius</i>	8.2%
	Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	7.2%
	Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	7.2%
	Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	7.2%
	Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	6.2%
	Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	5.2%
	Perennial	PSFRF	<i>Psorothamnus</i>	<i>fremontii</i> var. <i>fremontii</i>	5.2%
	Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	5.2%
	Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	5.2%
	Perennial	ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	3.1%
	Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	3.1%
	Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	2.1%
	Perennial	BRMIS	<i>Brickellia</i>	<i>microphylla</i> var. <i>scabra</i>	1.0%
	Perennial	BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	1.0%
	Perennial	BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>	1.0%
	Perennial	CHGR6	<i>Chrysothamnus</i>	<i>greenei</i>	1.0%
	Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	1.0%
	Perennial	HODI	<i>Holodiscus</i>	<i>discolor</i>	1.0%
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	1.0%
	Perennial	RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	1.0%
	Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	1.0%
	Perennial	STEL	<i>Stanleya</i>	<i>elata</i>	1.0%

Dwarf Shrubs (<0.5 m)

	Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	40.2%
	Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	11.3%
	Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	8.2%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	KOAM	<i>Kochia</i>	<i>americana</i>	4.1%
	Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	2.1%

Graminoids

	Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	76.3%
	Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	74.2%
	Perennial	ELELE	<i>Elymus</i>	<i>elymoides ssp. elymoides</i>	60.8%
	Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	43.3%
	Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	42.3%
	Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	34.0%
	Perennial	POSE	<i>Poa</i>	<i>secunda</i>	14.4%
	Perennial	HECOC8	<i>Hesperostipa</i>	<i>comata ssp. comata</i>	7.2%
	Perennial	ARPU9	<i>Aristida</i>	<i>purpurea</i>	5.2%
	Perennial	ERPU8	<i>Erioneuron</i>	<i>pulchellum</i>	4.1%
	Perennial	POFE	<i>Poa</i>	<i>fendleriana</i>	2.1%
	Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	2.1%
	Perennial	ACPI2	<i>Achnatherum</i>	<i>pinetorum</i>	1.0%
	Perennial	AGGLL	<i>Agoseris</i>	<i>glauca var. laciniata</i>	1.0%
	Perennial	ARPUL	<i>Aristida</i>	<i>purpurea var. longiseta</i>	1.0%
	Perennial	BOGR2	<i>Bouteloua</i>	<i>gracilis</i>	1.0%
	Annual	BRBE2	<i>Bromus</i>	<i>berterianus</i>	1.0%
	Perennial	KOMA	<i>Koeleria</i>	<i>macrantha</i>	1.0%
	Perennial	LECI4	<i>Leymus</i>	<i>cinereus</i>	1.0%
	Perennial	SPCR	<i>Sporobolus</i>	<i>cryptandrus</i>	1.0%

Forbs

	Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua ssp. ambigua</i>	76.3%
	Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	56.7%
	Annual	CHST	<i>Chaenactis</i>	<i>steviodes</i>	51.5%
	Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens ssp. canescens</i>	44.3%
	Perennial	CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	37.1%
	Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii ssp. parishii</i>	37.1%
	Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	35.1%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus</i> var. <i>fremontii</i>	34.0%
	Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	25.8%
	Annual	CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	24.7%
	Annual	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	23.7%
	Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum</i> ssp. <i>brecciarum</i>	22.7%
	Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	21.6%
	Annual	ERCI6	<i>Erodium</i>	<i>cicutarium</i>	21.6%
	Annual	DEPIG	<i>Descurainia</i>	<i>pinnata</i> ssp. <i>glabra</i>	20.6%
	Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	20.6%
	Perennial	ARPUM	<i>Arabis</i>	<i>pulchra</i> var. <i>munciensis</i>	19.6%
	Perennial	CAFL	<i>Calochortus</i>	<i>flexuosus</i>	19.6%
	Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	19.6%
	Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	19.6%
	Perennial	ERCOC3	<i>Erigeron</i>	<i>concinus</i> var. <i>concinus</i>	18.6%
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	18.6%
	Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	17.5%
	Perennial	HEMUN	<i>Heliomeris</i>	<i>multiflora</i> var. <i>nevadensis</i>	17.5%
	Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	15.5%
	Annual	ERDE6	<i>Eriogonum</i>	<i>deflexum</i>	13.4%
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	13.4%
	Annual	PHVAV2	<i>Phacelia</i>	<i>vallis-mortae</i> var. <i>vallis-mortae</i>	12.4%
	Perennial	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	11.3%
	Perennial	EROVO5	<i>Eriogonum</i>	<i>ovalifolium</i> var. <i>ovalifolium</i>	11.3%
	Annual	PESE	<i>Pectocarya</i>	<i>setosa</i>	11.3%
	Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis</i> var. <i>nevadensis</i>	10.3%
	Perennial	LILE3	<i>Linum</i>	<i>lewisii</i>	10.3%
	Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	10.3%
	Perennial	OECM4	<i>Oenothera</i>	<i>caespitosa</i> ssp. <i>marginata</i>	10.3%
	Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	9.3%
	Perennial	DIPU3	<i>Dichelostemma</i>	<i>pulchellum</i>	9.3%
	Perennial	MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	9.3%
	Annual	OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	9.3%
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata</i> var. <i>crenulata</i>	9.3%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Annual	PLPA2	<i>Plantago</i>	<i>patagonica</i>	9.3%
	Annual	LUBR2	<i>Lupinus</i>	<i>brevicaulis</i>	8.2%
	Annual	MEVE5	<i>Mentzelia</i>	<i>veatchiana</i>	8.2%
	Perennial	SEMU3	<i>Senecio</i>	<i>multilobatus</i>	8.2%
	Annual	CETH3	<i>Centrostegia</i>	<i>thurberi</i>	7.2%
	Biennial	CINE	<i>Cirsium</i>	<i>neomexicanum</i>	7.2%
	Annual	CABRB4	<i>Camissonia</i>	<i>brevipes</i> ssp. <i>brevipes</i>	6.2%
	Annual	CRMI	<i>Cryptantha</i>	<i>micrantha</i>	6.2%
	Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	6.2%
	Annual	MEOB3	<i>Mentzelia</i>	<i>obscura</i>	6.2%
	Biennial	SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	6.2%
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua</i> ssp. <i>exigua</i>	6.2%
	Perennial	ASPUT	<i>Astragalus</i>	<i>purshii</i> var. <i>tinctus</i>	5.2%
	Annual	CAPT	<i>Camissonia</i>	<i>pterosperma</i>	5.2%
	Annual	LOSC6	<i>Loeseliastrum</i>	<i>schottii</i>	5.2%
	Perennial	LONEN	<i>Lomatium</i>	<i>nevadense</i> var. <i>nevadense</i>	5.2%
	Perennial	MIPU5	<i>Mirabilis</i>	<i>pudica</i>	5.2%
	Perennial	OEPAP	<i>Oenothera</i>	<i>pallida</i> ssp. <i>pallida</i>	5.2%
	Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	5.2%
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	5.2%
	Perennial	ABTU	<i>Abronia</i>	<i>turbinata</i>	4.1%
	Perennial	ARPUG	<i>Arabis</i>	<i>pulchra</i> var. <i>gracilis</i>	4.1%
	Perennial	ARMA3	<i>Arenaria</i>	<i>macradenia</i>	4.1%
	Perennial	CRCO12	<i>Cryptantha</i>	<i>confertiflora</i>	4.1%
	Perennial	CYRI2	<i>Cymopterus</i>	<i>ripleyi</i>	4.1%
	Perennial	ERNU4	<i>Eriogonum</i>	<i>nummulari</i>	4.1%
	Annual	ERPR4	<i>Eriophyllum</i>	<i>pringlei</i>	4.1%
	Annual	LOHU2	<i>Lotus</i>	<i>humistratus</i>	4.1%
	Annual	MISP	<i>Mimulus</i>	<i>spissus</i>	4.1%
	Annual	MOBE	<i>Monoptilon</i>	<i>bellidiforme</i>	4.1%
	Perennial	PEFLA2	<i>Penstemon</i>	<i>floridus</i> var. <i>austinii</i>	4.1%
	Perennial	POSU	<i>Polygala</i>	<i>subspinosa</i>	4.1%
	Perennial	XYTOT	<i>Xylorhiza</i>	<i>tortifolia</i> var. <i>imberbis</i>	4.1%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	ADCO2	<i>Adenophyllum</i>	<i>cooperi</i>	3.1%
	Annual	ASAC3	<i>Astragalus</i>	<i>acutirostris</i>	3.1%
	Perennial	ASCAC5	<i>Astragalus</i>	<i>calycosus</i> var. <i>calycosus</i>	3.1%
	Perennial	ASFU3	<i>Astragalus</i>	<i>funereus</i>	3.1%
	Perennial	BAMU	<i>Baileya</i>	<i>multiradiata</i>	3.1%
	Annual	CAPA7	<i>Calycoseris</i>	<i>parryi</i>	3.1%
	Annual	CABOI	<i>Camissonia</i>	<i>boothii</i> ssp. <i>intermedia</i>	3.1%
	Annual	CHRI	<i>Chorizanthe</i>	<i>ngida</i>	3.1%
	Perennial	CRFL6	<i>Cryptantha</i>	<i>flavocolata</i>	3.1%
	Annual	CRGR3	<i>Cryptantha</i>	<i>gracilis</i>	3.1%
	Annual	CRRE5	<i>Cryptantha</i>	<i>recurvata</i>	3.1%
	Perennial	CYGL2	<i>Cymopterus</i>	<i>globosus</i>	3.1%
	Perennial	DASE3	<i>Dalea</i>	<i>searlsiae</i>	3.1%
	Annual	ERDI4	<i>Erigeron</i>	<i>divergens</i>	3.1%
	Perennial	GIIN2	<i>Gilia</i>	<i>inconspicua</i>	3.1%
	Annual	LASE3	<i>Langloisia</i>	<i>setosissima</i>	3.1%
	Annual	MASO	<i>Malacothrix</i>	<i>sonchoides</i>	3.1%
	Annual	NAPU	<i>Nama</i>	<i>pusillum</i>	3.1%
	Annual	SAKAT3	<i>Salsola</i>	<i>kali</i> ssp. <i>tragus</i>	3.1%
	Annual	URLI2	<i>Uropappus</i>	<i>linearifolia</i>	3.1%
	Perennial	ABEL	<i>Abronia</i>	<i>elliptica</i>	2.1%
	Annual	AMAC2	<i>Ambrosia</i>	<i>acanthicarpa</i>	2.1%
	Annual	ANAC	<i>Anisocoma</i>	<i>acaulis</i>	2.1%
	Perennial	ARIN	<i>Arabis</i>	<i>inyoensis</i>	2.1%
	Annual	BAPL3	<i>Baileya</i>	<i>pleniradiata</i>	2.1%
	Perennial	BRAT	<i>Brickellia</i>	<i>atractyloides</i>	2.1%
	Annual	CACLI	<i>Camissonia</i>	<i>claviformis</i> ssp. <i>integrior</i>	2.1%
	Annual	CAKEG	<i>Camissonia</i>	<i>kernensis</i> ssp. <i>gilmanii</i>	2.1%
	Perennial	CAPI4	<i>Caulanthus</i>	<i>pilosus</i>	2.1%
	Annual	CHFR	<i>Chaenactis</i>	<i>fremontii</i>	2.1%
	Annual	CHSES	<i>Chamaesyce</i>	<i>serpyllifolia</i> ssp. <i>serpyllifolia</i>	2.1%
	Annual	CHWA2	<i>Chorizanthe</i>	<i>watsonii</i>	2.1%
	Annual	ERSP3	<i>Eriastrum</i>	<i>sparsiflorum</i>	2.1%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Annual	ERPU6	<i>Eriogonum</i>	<i>pusillum</i>	2.1%
	Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	2.1%
	Perennial	ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	2.1%
	Annual	GILIA	<i>Gilia</i>		2.1%
	Perennial	GISI	<i>Gilia</i>	<i>sinuata</i>	2.1%
	Perennial	HUVEI	<i>Hulsea</i>	<i>vestita</i> ssp. <i>inyoensis</i>	2.1%
	Annual	LAOCO	<i>Lappula</i>	<i>occidentalis</i> var. <i>occidentalis</i>	2.1%
	Annual	LIDI2	<i>Linanthus</i>	<i>dichotomus</i>	2.1%
	Perennial	LUARL5	<i>Lupinus</i>	<i>argenteus</i> ssp. <i>artenteus</i> var. <i>laxiflorus</i>	2.1%
	Annual	LUFL	<i>Lupinus</i>	<i>flavoculatus</i>	2.1%
	Annual	RANE	<i>Rafinesquia</i>	<i>neomexicana</i>	2.1%
	Annual	SACOC	<i>Salvia</i>	<i>columbariae</i> var. <i>columbariae</i>	2.1%
	Perennial	SPAMR	<i>Sphaeralcea</i>	<i>ambigua</i> var. <i>rugosa</i>	2.1%
	Perennial	STPA3	<i>Stephanomeria</i>	<i>parryi</i>	2.1%
	Annual	STLO4	<i>Streptanthella</i>	<i>longirostris</i>	2.1%
	Perennial	ANDI2	<i>Antennaria</i>	<i>dimorpha</i>	1.0%
	Perennial	ARCOS2	<i>Arenaria</i>	<i>congesta</i> var. <i>subcongesta</i>	1.0%
	Perennial	ARMUR	<i>Argemone</i>	<i>munita</i> ssp. <i>rotundata</i>	1.0%
	Perennial	ARDR4	<i>Artemisia</i>	<i>dracunculus</i>	1.0%
	Annual	CAME16	<i>Camissonia</i>	<i>megalantha</i>	1.0%
	Annual	CARE2	<i>Camissonia</i>	<i>refracta</i>	1.0%
	Perennial	CALI4	<i>Castilleja</i>	<i>linariaefolia</i>	1.0%
	Annual	CHMA	<i>Chaenactis</i>	<i>macrantha</i>	1.0%
	Annual	CHLE4	<i>Chenopodium</i>	<i>leptophyllum</i>	1.0%
	Perennial	ERAP	<i>Erigeron</i>	<i>aphanactis</i>	1.0%
	Annual	ERHO6	<i>Eriogonum</i>	<i>hookeri</i>	1.0%
	Perennial	ERRA3	<i>Eriogonum</i>	<i>racemosum</i>	1.0%
	Annual	ERTH	<i>Eriogonum</i>	<i>thomasi</i>	1.0%
	Perennial	GIOP	<i>Gilia</i>	<i>ophthalmoides</i>	1.0%
	Perennial	CHER2	<i>Leucelene</i>	<i>ericoides</i>	1.0%
	Perennial	LOSC3	<i>Lomatium</i>	<i>scabrum</i>	1.0%
	Annual	MISU2	<i>Mimulus</i>	<i>suksdorfii</i>	1.0%
	Annual	NADED	<i>Nama</i>	<i>demissum</i> var. <i>demissum</i>	1.0%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	ORFA	<i>Orobanche</i>	<i>fasciculata</i>	1.0%
	Annual	PEPL	<i>Pectocarya</i>	<i>platycarpa</i>	1.0%
	Perennial	PEHUH	<i>Penstemon</i>	<i>humilis ssp. humilis</i>	1.0%
	Perennial	PEPA23	<i>Penstemon</i>	<i>pahutensis</i>	1.0%
	Perennial	PERO10	<i>Penstemon</i>	<i>rostriflorus</i>	1.0%
	Annual	PHSA	<i>Phacelia</i>	<i>saxicola</i>	1.0%
	Perennial	PHGRH	<i>Phlox</i>	<i>gracilis ssp. humilis</i>	1.0%
	Perennial	PHHOL	<i>Phlox</i>	<i>hoodii ssp. lanata</i>	1.0%
	Perennial	PHCH2	<i>Physaria</i>	<i>chambersii</i>	1.0%
	Annual	PSAN	<i>Psathyrotes</i>	<i>annua</i>	1.0%
	Perennial	SIVEA	<i>Silene</i>	<i>verecunda ssp. andersonii</i>	1.0%
	Perennial	SPAMM	<i>Sphaeralcea</i>	<i>ambigua ssp. monticola</i>	1.0%
	Perennial	SPGRP2	<i>Sphaeralcea</i>	<i>grossulariaefolia ssp. pedata</i>	1.0%
	Perennial	STSP6	<i>Stephanomeria</i>	<i>spinosa</i>	1.0%
	Perennial	STCOC	<i>Streptanthus</i>	<i>cordatus var. cordatus</i>	1.0%

Succulents

	Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	42.3%
	Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa var. echinocarpa</i>	38.1%
	Perennial	OPERE	<i>Opuntia</i>	<i>erinacea var. erinacea</i>	14.4%
	Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	12.4%
	Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris var. basilaris</i>	10.3%
	Perennial	YUBAV	<i>Yucca</i>	<i>baccata var. vespertina</i>	8.2%
	Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha var. rufispina</i>	6.2%
	Perennial	SCPO4	<i>Sclerocactus</i>	<i>polyancistrus</i>	6.2%
	Perennial	ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>	5.2%
	Perennial	ECENE	<i>Echinocereus</i>	<i>engelmannii var. engelmannii</i>	1.0%
	Perennial	ESVID	<i>Escobaria</i>	<i>vivipara var. deserti</i>	1.0%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
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Artemisia spp. Shrubland Alliance

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	47.9%
Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	33.2%
Perennial	QUGA	<i>Quercus</i>	<i>gambelii</i>	3.1%

Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	80.5%
Perennial	AMUT	<i>Amelanchier</i>	<i>utahensis</i>	1.7%
Perennial	CEGRV2	<i>Ceanothus</i>	<i>greggii</i> ssp. <i>vestitus</i>	0.7%
Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	0.3%

Short Shrubs (0.5-2 m)

Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	65.8%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	59.9%
Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	57.9%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	50.0%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	47.6%
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	46.6%
Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	42.1%
Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	29.1%
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	28.1%
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	20.5%
Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	19.2%
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var.	16.1%
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	12.7%
Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var.	12.3%
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	11.6%
Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	11.6%
Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	11.0%
Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	11.0%
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	8.6%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
Perennial		ATCO	<i>Atriplex</i>	<i>confertifolia</i>	8.2%
Perennial		TECA2	<i>Tetradymia</i>	<i>canescens</i>	8.2%
Perennial		ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	7.9%
Perennial		PUTR2	<i>Purshia</i>	<i>tridentata</i>	7.9%
Perennial		ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	7.5%
Perennial		TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	6.2%
Perennial		ERCO23	<i>Ericameria</i>	<i>cooperi</i>	5.8%
Perennial		ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	5.8%
Perennial		ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	2.7%
Perennial		HYSA	<i>Hymenoclea</i>	<i>salsola</i>	2.7%
Perennial		RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	2.7%
Perennial		ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	2.4%
Perennial		GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	2.4%
Perennial		SADOD3	<i>Salvia</i>	<i>doni</i> ssp. <i>dorrii</i> var. <i>dorrii</i>	2.4%
Perennial		LEFR2	<i>Lepidium</i>	<i>fremontii</i>	2.1%
Perennial		PRFA	<i>Prunus</i>	<i>fasciculata</i>	1.4%
Perennial		PSPO	<i>Psoralea</i>	<i>polydenius</i>	1.4%
Perennial		CHGR6	<i>Chrysothamnus</i>	<i>greenei</i>	1.0%
Perennial		ERHEA	<i>Eriogonum</i>	<i>heermannii</i> var. <i>argense</i>	1.0%
Perennial		RICEC2	<i>Ribes</i>	<i>cereum</i> var. <i>cereum</i>	1.0%
Perennial		RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	1.0%
Perennial		SAME	<i>Salazaria</i>	<i>mexicana</i>	1.0%
Perennial		STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	1.0%
Perennial		BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>	0.7%
Perennial		STEL	<i>Stanleya</i>	<i>elata</i>	0.7%
Perennial		THMO	<i>Thamnosma</i>	<i>montana</i>	0.7%
Perennial		AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	0.3%
Perennial		BRMIS	<i>Brickellia</i>	<i>microphylla</i> var. <i>scabra</i>	0.3%
Perennial		CHVIS5	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i> var.	0.3%
Perennial		ERPA29	<i>Ericameria</i>	<i>paniculata</i>	0.3%
Perennial		ERPAN2	<i>Ericameria</i>	<i>parryi</i> var. <i>nevadensis</i>	0.3%
Perennial		PERA4	<i>Peraphyllum</i>	<i>ramosissimum</i>	0.3%
Perennial		PENI	<i>Petalonyx</i>	<i>nitidus</i>	0.3%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
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Dwarf Shrubs (<0.5 m)

Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	31.5%
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	14.4%
Perennial	ERMIL	<i>Eriogonum</i>	<i>microthecum</i> var. <i>lapidicola</i>	1.0%
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	0.7%
Perennial	ERWA8	<i>Ericameria</i>	<i>watsonii</i>	0.3%
Perennial	KOAM	<i>Kochia</i>	<i>americana</i>	0.3%

Graminoids

Perennial	ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoides</i>	81.8%
Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	73.3%
Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	71.9%
Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	58.6%
Perennial	POSE	<i>Poa</i>	<i>secunda</i>	48.3%
Perennial	HECOC8	<i>Hesperostipa</i>	<i>comata</i> ssp. <i>comata</i>	39.7%
Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	29.8%
Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	24.3%
Perennial	ARPU9	<i>Aristida</i>	<i>purpurea</i>	17.5%
Perennial	POFE	<i>Poa</i>	<i>fendleriana</i>	15.8%
Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	15.1%
Perennial	LECI4	<i>Leymus</i>	<i>cinereus</i>	9.2%
Annual	VUMI	<i>Vulpia</i>	<i>microstachys</i>	6.5%
Perennial	AGLL	<i>Agoseris</i>	<i>glauca</i> var. <i>laciniata</i>	3.1%
Perennial	ACTH7	<i>Achnatherum</i>	<i>thurberiana</i>	2.1%
Perennial	KOMA	<i>Koeleria</i>	<i>macrantha</i>	2.1%
Perennial	BOGR2	<i>Bouteloua</i>	<i>gracilis</i>	1.0%
Annual	BRCA6	<i>Bromus</i>	<i>cartharticus</i>	0.7%
Perennial	ERPU8	<i>Erioneuron</i>	<i>pulchellum</i>	0.7%
Perennial	SPCR	<i>Sporobolus</i>	<i>cryptandrus</i>	0.7%
Variable	ACHNA	<i>Achnatherum</i>		0.3%
Perennial	ACAR14	<i>Achnatherum</i>	<i>aridum</i>	0.3%
Perennial	ACCO21	<i>Achnatherum</i>	<i>coronata</i>	0.3%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	HOJU	<i>Hordeum</i>	<i>jubatum</i>	0.3%
	Perennial	JUBA	<i>Juncus</i>	<i>balticus</i>	0.3%

Forbs

	Perennial	CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	58.6%
	Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	57.2%
	Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens</i> ssp. <i>canescens</i>	53.4%
	Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>ambigua</i>	53.1%
	Perennial	EROVO5	<i>Eriogonum</i>	<i>ovalifolium</i> var. <i>ovalifolium</i>	49.7%
	Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum</i> ssp. <i>brecciarum</i>	49.3%
	Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus</i> var. <i>fremontii</i>	49.0%
	Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	49.0%
	Annual	CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	45.9%
	Annual	DEPIG	<i>Descurainia</i>	<i>pinnata</i> ssp. <i>glabra</i>	44.5%
	Perennial	CAFL	<i>Calochortus</i>	<i>flexuosus</i>	39.7%
	Annual	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	39.0%
	Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	37.7%
	Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	37.3%
	Perennial	ERCOC3	<i>Erigeron</i>	<i>concinus</i> var. <i>concinus</i>	37.3%
	Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	33.2%
	Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii</i> ssp. <i>parishii</i>	31.2%
	Annual	CHST	<i>Chaenactis</i>	<i>steviodoides</i>	30.1%
	Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	29.5%
	Annual	CAPT	<i>Camissonia</i>	<i>pterosperma</i>	28.4%
	Perennial	ASPUT	<i>Astragalus</i>	<i>purshii</i> var. <i>tinctus</i>	26.4%
	Annual	CRGR3	<i>Cryptantha</i>	<i>gracilis</i>	25.0%
	Perennial	SEMU3	<i>Senecio</i>	<i>multilobatus</i>	24.7%
	Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	23.6%
	Perennial	ARPUG	<i>Arabis</i>	<i>pulchra</i> var. <i>gracilis</i>	20.9%
	Annual	LUFL	<i>Lupinus</i>	<i>flavoculatus</i>	20.2%
	Perennial	DEAN	<i>Delphinium</i>	<i>andersonii</i>	18.5%
	Perennial	DIPU3	<i>Dichelostemma</i>	<i>pulchellum</i>	18.5%
	Perennial	LILE3	<i>Linum</i>	<i>lewisii</i>	17.1%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	ERCA8	<i>Eriogonum</i>	<i>caespitosum</i>	15.4%
	Annual	PLPA2	<i>Plantago</i>	<i>patagonica</i>	15.4%
	Annual	CETH3	<i>Centrostegia</i>	<i>thurberi</i>	14.4%
	Perennial	LONEN	<i>Lomatium</i>	<i>nevadense</i> var. <i>nevadense</i>	14.0%
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata</i> var. <i>crenulata</i>	13.0%
	Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	12.7%
	Annual	LAOCO	<i>Lappula</i>	<i>occidentalis</i> var. <i>occidentalis</i>	12.7%
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	12.3%
	Perennial	OCEM4	<i>Oenothera</i>	<i>caespitosa</i> ssp. <i>marginata</i>	12.0%
	Annual	CHMA	<i>Chaenactis</i>	<i>macrantha</i>	11.6%
	Perennial	CRFL6	<i>Cryptantha</i>	<i>flavoculata</i>	11.6%
	Annual	ERDI4	<i>Erigeron</i>	<i>divergens</i>	11.3%
	Annual	ERIC6	<i>Erodium</i>	<i>cicutarium</i>	11.3%
	Perennial	HEMUN	<i>Heliomeris</i>	<i>multiflora</i> var. <i>nevadensis</i>	11.3%
	Annual	PESE	<i>Pectocarya</i>	<i>setosa</i>	11.3%
	Perennial	CALI4	<i>Castilleja</i>	<i>linariaefolia</i>	10.3%
	Perennial	HYCOC2	<i>Hymenoxys</i>	<i>cooperi</i> var. <i>cooperi</i>	10.3%
	Annual	PHVAV2	<i>Phacelia</i>	<i>vallis-mortae</i> var. <i>vallis-mortae</i>	10.3%
	Perennial	CROCO2	<i>Crepis</i>	<i>occidentalis</i> ssp. <i>occidentalis</i>	9.9%
	Annual	LUBR2	<i>Lupinus</i>	<i>brevicaulis</i>	9.9%
	Annual	PHSA	<i>Phacelia</i>	<i>saxicola</i>	9.9%
	Perennial	STCOC	<i>Streptanthus</i>	<i>cordatus</i> var. <i>cordatus</i>	9.9%
	Perennial	CHDO	<i>Chaenactis</i>	<i>douglasii</i>	9.6%
	Perennial	SPAMM	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>monticola</i>	9.6%
	Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis</i> var. <i>nevadensis</i>	9.2%
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua</i> ssp. <i>exigua</i>	9.2%
	Annual	CHWA2	<i>Chorizanthe</i>	<i>watsonii</i>	8.9%
	Annual	CAPU16	<i>Camissonia</i>	<i>pusilla</i>	8.6%
	Perennial	ORFA	<i>Orobanche</i>	<i>fasciculata</i>	8.6%
	Perennial	ASCAC5	<i>Astragalus</i>	<i>calycosus</i> var. <i>calycosus</i>	8.2%
	Biennial	CINE	<i>Cirsium</i>	<i>neomexicanum</i>	8.2%
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	8.2%
	Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	8.2%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	ARPUM	<i>Arabis</i>	<i>pulchra</i> var. <i>munciensis</i>	7.9%
	Perennial	ARCOS2	<i>Arenaria</i>	<i>congesta</i> var. <i>subcongesta</i>	7.9%
	Annual	MISP	<i>Mimulus</i>	<i>spissus</i>	7.9%
	Annual	MISU2	<i>Mimulus</i>	<i>suksdorfii</i>	7.9%
	Perennial	ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	7.5%
	Annual	MEVE5	<i>Mentzelia</i>	<i>veatchiana</i>	7.5%
	Perennial	PHGRH	<i>Phlox</i>	<i>gracilis</i> ssp. <i>humilis</i>	7.5%
	Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	6.8%
	Annual	GILIA	<i>Gilia</i>		6.5%
	Annual	LIDI2	<i>Linanthus</i>	<i>dichotomus</i>	6.5%
	Perennial	LUARL5	<i>Lupinus</i>	<i>argenteus</i> ssp. <i>artenteus</i> var. <i>laxiflorus</i>	6.5%
	Perennial	CRCO12	<i>Cryptantha</i>	<i>confertiflora</i>	6.2%
	Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	6.2%
	Perennial	MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	5.8%
	Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	5.5%
	Annual	URLI2	<i>Uropappus</i>	<i>linearifolia</i>	5.5%
	Perennial	TOSC	<i>Townsendia</i>	<i>scapigera</i>	5.1%
	Annual	LOHU2	<i>Lotus</i>	<i>humistratus</i>	4.8%
	Perennial	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	4.5%
	Perennial	PEFLA2	<i>Penstemon</i>	<i>floridus</i> var. <i>austinii</i>	4.5%
	Perennial	ALNE	<i>Allium</i>	<i>nevadense</i>	4.1%
	Perennial	ASNE6	<i>Astragalus</i>	<i>newberryi</i>	4.1%
	Annual	CABRB4	<i>Camissonia</i>	<i>brevipes</i> ssp. <i>brevipes</i>	4.1%
	Perennial	MIMUG	<i>Mirabilis</i>	<i>multiflora</i> var. <i>glandulosa</i>	4.1%
	Perennial	CYPU	<i>Cymopterus</i>	<i>purpurascens</i>	3.8%
	Annual	ERDE6	<i>Eriogonum</i>	<i>deflexum</i>	3.8%
	Biennial	SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	3.8%
	Perennial	ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	3.4%
	Perennial	CAPI4	<i>Caulanthus</i>	<i>pilosus</i>	3.4%
	Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	3.4%
	Annual	OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	3.4%
	Perennial	PEPA23	<i>Penstemon</i>	<i>pahutensis</i>	3.4%
	Annual	MASO	<i>Malacothrix</i>	<i>sonchoides</i>	3.1%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Annual	CACLI	<i>Camissonia</i>	<i>claviformis</i> ssp. <i>integrior</i>	2.7%
	Annual	CHIN2	<i>Chenopodium</i>	<i>incanum</i>	2.7%
	Annual	CRMI	<i>Cryptantha</i>	<i>micrantha</i>	2.7%
	Annual	ERSP3	<i>Eriastrum</i>	<i>sparsiflorum</i>	2.7%
	Perennial	OEPAP	<i>Oenothera</i>	<i>pallida</i> ssp. <i>pallida</i>	2.7%
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	2.7%
	Perennial	ABEL	<i>Abronia</i>	<i>elliptica</i>	2.4%
	Annual	CHXA	<i>Chaenactis</i>	<i>xantiana</i>	2.4%
	Perennial	ERAP	<i>Erigeron</i>	<i>aphanactis</i>	2.4%
	Perennial	ERRA3	<i>Eriogonum</i>	<i>racemosum</i>	2.4%
	Perennial	LEKIK	<i>Lesquerella</i>	<i>kingii</i> ssp. <i>kingii</i>	2.4%
	Annual	ASAC3	<i>Astragalus</i>	<i>acutirostris</i>	2.1%
	Annual	CHBRB	<i>Chorizanthe</i>	<i>brevicomu</i> var. <i>brevicomu</i>	2.1%
	Annual	ERESE	<i>Eriogonum</i>	<i>esmeraldense</i> var. <i>esmeraldense</i>	2.1%
	Perennial	GIIN2	<i>Gilia</i>	<i>inconspicua</i>	2.1%
	Annual	PEPL	<i>Pectocarya</i>	<i>platycarpa</i>	2.1%
	Perennial	STSP6	<i>Stephanomeria</i>	<i>spinosa</i>	2.1%
	Annual	AMAC2	<i>Ambrosia</i>	<i>acanthicarpa</i>	1.7%
	Annual	ANAC	<i>Anisocoma</i>	<i>acaulis</i>	1.7%
	Perennial	ASCA14	<i>Astragalus</i>	<i>casei</i>	1.7%
	Annual	ERBR7	<i>Eriogonum</i>	<i>brachyanthum</i>	1.7%
	Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	1.7%
	Perennial	GINY	<i>Gilia</i>	<i>nyensis</i>	1.7%
	Annual	MEOB3	<i>Mentzelia</i>	<i>obscura</i>	1.7%
	Annual	NADED	<i>Nama</i>	<i>demissum</i> var. <i>demissum</i>	1.7%
	Perennial	ORCO5	<i>Orobanche</i>	<i>corymbosa</i>	1.7%
	Perennial	PEHUH	<i>Penstemon</i>	<i>humilis</i> ssp. <i>humilis</i>	1.7%
	Annual	SACOC	<i>Salvia</i>	<i>columbariae</i> var. <i>columbariae</i>	1.7%
	Perennial	STPA3	<i>Stephanomeria</i>	<i>parryi</i>	1.7%
	Annual	THCU	<i>Thysanocarpus</i>	<i>curvipes</i>	1.7%
	Perennial	ZIPA2	<i>Zigadenus</i>	<i>paniculatus</i>	1.7%
	Perennial	ADCO2	<i>Adenophyllum</i>	<i>cooperi</i>	1.4%
	Annual	CABOI	<i>Camissonia</i>	<i>boothii</i> ssp. <i>intermedia</i>	1.4%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
Perennial		CACRG	<i>Caulanthus</i>	<i>crassicaulis</i> var. <i>glaber</i>	1.4%
Annual		CRRE5	<i>Cryptantha</i>	<i>recurvata</i>	1.4%
Annual		GADIP	<i>Gayophytum</i>	<i>diffusum</i> ssp. <i>parviflorum</i>	1.4%
Perennial		GISI	<i>Gilia</i>	<i>sinuata</i>	1.4%
Annual		HAGL	<i>Halogeton</i>	<i>glomeratus</i>	1.4%
Perennial		CHER2	<i>Leucelene</i>	<i>ericoides</i>	1.4%
Perennial		PENST	<i>Penstemon</i>		1.4%
Perennial		POSU	<i>Polygala</i>	<i>subspinoso</i>	1.4%
Perennial		SPGRP2	<i>Sphaeralcea</i>	<i>grossulariaefolia</i> ssp. <i>pedata</i>	1.4%
Annual		STLO4	<i>Streptanthella</i>	<i>longirostris</i>	1.4%
Perennial		TRWA2	<i>Tricardia</i>	<i>watsonii</i>	1.4%
Perennial		ASFU3	<i>Astragalus</i>	<i>funereus</i>	1.0%
Annual		CARE2	<i>Camissonia</i>	<i>refracta</i>	1.0%
Annual		CHLE4	<i>Chenopodium</i>	<i>leptophyllum</i>	1.0%
Annual		CHRI	<i>Chorizanthe</i>	<i>rigida</i>	1.0%
Annual		ERMA2	<i>Eriogonum</i>	<i>maculatum</i>	1.0%
Perennial		ERNU4	<i>Eriogonum</i>	<i>nummularo</i>	1.0%
Perennial		HUVE1	<i>Hulsea</i>	<i>vestita</i> ssp. <i>inyoensis</i>	1.0%
Perennial		LINUN	<i>Linanthus</i>	<i>nuttallii</i> ssp. <i>nuttallii</i>	1.0%
Perennial		MIPU5	<i>Mirabilis</i>	<i>pudica</i>	1.0%
Perennial		PEPU7	<i>Petradoria</i>	<i>pumila</i>	1.0%
Annual		PHCU	<i>Phacelia</i>	<i>curvipes</i>	1.0%
Annual		STMI2	<i>Stylocline</i>	<i>micropoides</i>	1.0%
Perennial		ARMA3	<i>Arenaria</i>	<i>macradenia</i>	0.7%
Perennial		ARDR4	<i>Artemisia</i>	<i>dracunculus</i>	0.7%
Perennial		ASBE5	<i>Astragalus</i>	<i>beatleyae</i>	0.7%
Perennial		BAHON	<i>Balsamorhiza</i>	<i>hookeri</i> var. <i>neglecta</i>	0.7%
Annual		CAKEG	<i>Camissonia</i>	<i>kernensis</i> ssp. <i>gilmanii</i>	0.7%
Annual		CAPA39	<i>Camissonia</i>	<i>parvula</i>	0.7%
Annual		CHFR	<i>Chaenactis</i>	<i>fremontii</i>	0.7%
Annual		CHAL7	<i>Chenopodium</i>	<i>album</i>	0.7%
Perennial		CHGR13	<i>Chrysothamnus</i>	<i>gramineus</i>	0.7%
Annual		CIPAN	<i>Cistanthe</i>	<i>parryi</i> var. <i>nevadense</i>	0.7%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Annual	CLPAU2	<i>Claytonia</i>	<i>perfoliata</i> ssp. <i>perfoliata</i>	0.7%
	Perennial	CYGL2	<i>Cymopterus</i>	<i>globosus</i>	0.7%
	Annual	ERWI	<i>Eriastrum</i>	<i>wilcoxii</i>	0.7%
	Annual	ERCO18	<i>Eriogonum</i>	<i>concinnum</i>	0.7%
	Annual	ERHO6	<i>Eriogonum</i>	<i>hookeri</i>	0.7%
	Perennial	IPCO5	<i>Ipomopsis</i>	<i>congesta</i>	0.7%
	Annual	NABR	<i>Navarretia</i>	<i>breweri</i>	0.7%
	Annual	SAKAT3	<i>Salsola</i>	<i>kali</i> ssp. <i>tragus</i>	0.7%
	Perennial	SIVEA	<i>Silene</i>	<i>verecunda</i> ssp. <i>andersonii</i>	0.7%
	Perennial	SPAMR	<i>Sphaeralcea</i>	<i>ambigua</i> var. <i>rugosa</i>	0.7%
	Perennial	ANDI2	<i>Antennaria</i>	<i>dimorpha</i>	0.3%
	Perennial	ARHOP3	<i>Arabis</i>	<i>holboellii</i> var. <i>pinetorum</i>	0.3%
	Perennial	ARIN	<i>Arabis</i>	<i>inyoensis</i>	0.3%
	Perennial	ARMUR	<i>Argemone</i>	<i>munita</i> ssp. <i>rotundata</i>	0.3%
	Perennial	ASER2	<i>Asclepias</i>	<i>erosa</i>	0.3%
	Perennial	ASBE3	<i>Astragalus</i>	<i>beckwithii</i>	0.3%
	Perennial	ASMIV	<i>Astragalus</i>	<i>minthomiae</i> var. <i>villosus</i>	0.3%
	Perennial	BRCA3	<i>Brickellia</i>	<i>californica</i>	0.3%
	Annual	CAPA7	<i>Calycoseris</i>	<i>parryi</i>	0.3%
	Annual	CHSES	<i>Chamaesyce</i>	<i>serpyllifolia</i> ssp. <i>serpyllifolia</i>	0.3%
	Annual	CRAM3	<i>Cryptantha</i>	<i>ambigua</i>	0.3%
	Annual	CRDE	<i>Cryptantha</i>	<i>decipiens</i>	0.3%
	Perennial	CYRI2	<i>Cymopterus</i>	<i>ripleyi</i>	0.3%
	Annual	ERPU6	<i>Eriogonum</i>	<i>pusillum</i>	0.3%
	Perennial	ERUMV2	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>versicolor</i>	0.3%
	Annual	ERPR4	<i>Eriophyllum</i>	<i>pringlei</i>	0.3%
	Annual	ESMI	<i>Eschscholzia</i>	<i>minutiflora</i>	0.3%
	Perennial	FRAT	<i>Fritillaria</i>	<i>atropurpurea</i>	0.3%
	Annual	GARA	<i>Gayophytum</i>	<i>racemosum</i>	0.3%
	Annual	GARA2	<i>Gayophytum</i>	<i>ramosissimum</i>	0.3%
	Perennial	GIHU	<i>Gilia</i>	<i>hutchinsifolia</i>	0.3%
	Perennial	LEREM	<i>Lewisia</i>	<i>rediviva</i> var. <i>minor</i>	0.3%
	Annual	LIBI2	<i>Linanthus</i>	<i>bigelovii</i>	0.3%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Annual	LUCOO2	<i>Lupinus</i>	<i>concinus ssp. orcuttii</i>	0.3%
	Annual	LUMI	<i>Lupinus</i>	<i>microcarpus</i>	0.3%
	Annual	LUSU10	<i>Lupinus</i>	<i>subvexus</i>	0.3%
	Annual	MECO2	<i>Mentzelia</i>	<i>congesta</i>	0.3%
	Annual	NAAR	<i>Nama</i>	<i>aretioides</i>	0.3%
	Annual	NAPU	<i>Nama</i>	<i>pusillum</i>	0.3%
	Perennial	OECA2	<i>Oenothera</i>	<i>californica spp. avita</i>	0.3%
	Annual	OEPR	<i>Oenothera</i>	<i>primiveris</i>	0.3%
	Perennial	PEPA8	<i>Penstemon</i>	<i>palmeri</i>	0.3%
	Annual	PHBI	<i>Phacelia</i>	<i>bicolor</i>	0.3%
	Annual	PHMU	<i>Phacelia</i>	<i>mustelina</i>	0.3%
	Perennial	PHHOL	<i>Phlox</i>	<i>hoodii ssp. lanata</i>	0.3%
	Perennial	POHE7	<i>Polygala</i>	<i>heterorhyncha</i>	0.3%
	Perennial	SESP3	<i>Senecio</i>	<i>spartioides</i>	0.3%
	Annual	TINU2	<i>Tiquilia</i>	<i>nuttallii</i>	0.3%

Succulents

	Perennial	OPERE	<i>Opuntia</i>	<i>erinacea var. erinacea</i>	28.8%
	Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa var. echinocarpa</i>	28.1%
	Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha var. rufispina</i>	14.7%
	Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	13.7%
	Perennial	YUBAV	<i>Yucca</i>	<i>baccata var. vespertina</i>	11.0%
	Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	6.5%
	Perennial	ESVIR2	<i>Escobaria</i>	<i>vivipara var. rosea</i>	5.5%
	Perennial	SCPO4	<i>Sclerocactus</i>	<i>polyancistrus</i>	4.1%
	Perennial	OPERU	<i>Opuntia</i>	<i>erinacea var. ursina</i>	2.1%
	Perennial	MATE4	<i>Mammillaria</i>	<i>tetrancistra</i>	1.4%
	Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris var. basilaris</i>	1.0%
	Perennial	ESVID	<i>Escobaria</i>	<i>vivipara var. deserti</i>	0.7%
	Perennial	OPPU	<i>Opuntia</i>	<i>pulchella</i>	0.7%
	Perennial	ECTRM	<i>Echinocereus</i>	<i>triglochidiatus var. melanacanthus</i>	0.3%
	Perennial	OPRA	<i>Opuntia</i>	<i>ramosissima</i>	0.3%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
Variable					
	Variable	MENTZ	<i>Mentzelia</i>		0.3%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
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Pinus monophylla/Artemisia spp. Woodland Alliance

Trees (>5 m)

Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	94.9%
Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	94.2%
Perennial	QUGA	<i>Quercus</i>	<i>gambelii</i>	28.5%

Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	63.5%
Perennial	AMUT	<i>Amelanchier</i>	<i>utahensis</i>	5.8%
Perennial	CEGRV2	<i>Ceanothus</i>	<i>greggii</i> ssp. <i>vestitus</i>	1.5%
Perennial	AMPA2	<i>Amelanchier</i>	<i>pallida</i>	0.7%
Perennial	CEIN7	<i>Cercocarpus</i>	<i>intricatus</i>	0.7%
Perennial	CELEL	<i>Cercocarpus</i>	<i>ledifolius</i> var. <i>ledifolius</i>	0.7%

Short Shrubs (0.5-2 m)

Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	71.5%
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	69.3%
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	63.5%
Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	45.3%
Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	44.5%
Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	42.3%
Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	29.9%
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	25.5%
Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	21.9%
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	17.5%
Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	17.5%
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	15.3%
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	13.9%
Perennial	RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	11.7%
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var.	8.8%
Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	8.8%
Perennial	RICEC2	<i>Ribes</i>	<i>cereum</i> var. <i>cereum</i>	8.0%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
Perennial		GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	5.1%
Perennial		TEGL	<i>Tetradymia</i>	<i>glabrata</i>	4.4%
Perennial		ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	3.6%
Perennial		ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	2.9%
Perennial		ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	2.9%
Perennial		KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	2.9%
Perennial		RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	2.9%
Perennial		ATCO	<i>Atriplex</i>	<i>confertifolia</i>	1.5%
Perennial		CHGR6	<i>Chrysothamnus</i>	<i>greenii</i>	1.5%
Perennial		CORA	<i>Coleogyne</i>	<i>ramosissima</i>	1.5%
Perennial		ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var.	1.5%
Perennial		ERPAN2	<i>Ericameria</i>	<i>parryi</i> var. <i>nevadensis</i>	1.5%
Perennial		ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	1.5%
Perennial		TECA2	<i>Tetradymia</i>	<i>canescens</i>	1.5%
Perennial		BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	0.7%
Perennial		ERCO23	<i>Ericameria</i>	<i>cooperi</i>	0.7%
Perennial		ERPA29	<i>Ericameria</i>	<i>paniculata</i>	0.7%
Perennial		GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	0.7%
Perennial		HODI	<i>Holodiscus</i>	<i>discolor</i>	0.7%
Perennial		KEROR	<i>Keckiella</i>	<i>rothrockii</i> ssp. <i>rothrockii</i>	0.7%
Perennial		LYAN	<i>Lycium</i>	<i>andersonii</i>	0.7%
Perennial		PRFA	<i>Prunus</i>	<i>fasciculata</i>	0.7%
Perennial		STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.7%
Perennial		TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	0.7%

Dwarf Shrubs (<0.5 m)

Perennial		LEPU	<i>Leptodactylon</i>	<i>pungens</i>	59.9%
Perennial		ERMIL	<i>Eriogonum</i>	<i>microthecum</i> var. <i>lapidicola</i>	9.5%
Perennial		ARSP5	<i>Artemisia</i>	<i>spinescens</i>	2.2%
Perennial		ERWA8	<i>Ericameria</i>	<i>watsonii</i>	0.7%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
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Graminoids

Perennial	ELELE	<i>Elymus</i>	<i>elymoides ssp. elymoides</i>	83.9%
Perennial	POSE	<i>Poa</i>	<i>secunda</i>	81.0%
Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	72.3%
Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	64.2%
Perennial	POFE	<i>Poa</i>	<i>fendleriana</i>	48.2%
Perennial	HECOC8	<i>Hesperostipa</i>	<i>comata ssp. comata</i>	43.1%
Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	24.8%
Perennial	ACTH7	<i>Achnatherum</i>	<i>thurberiana</i>	19.0%
Perennial	KOMA	<i>Koeleria</i>	<i>macrantha</i>	19.0%
Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	13.9%
Perennial	ARPU9	<i>Aristida</i>	<i>purpurea</i>	10.9%
Perennial	AGGLL	<i>Agoseris</i>	<i>glauca var. laciniata</i>	8.8%
Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	3.6%
Perennial	LECI4	<i>Leymus</i>	<i>cinereus</i>	3.6%
Perennial	ACCO21	<i>Achnatherum</i>	<i>coronata</i>	2.2%
Perennial	ACPI2	<i>Achnatherum</i>	<i>pinetorum</i>	2.2%
Perennial	ACAR14	<i>Achnatherum</i>	<i>aridum</i>	1.5%
Perennial	BOGR2	<i>Bouteloua</i>	<i>gracilis</i>	1.5%
Perennial	CADO2	<i>Carex</i>	<i>douglasii</i>	1.5%
Perennial	CAOC2	<i>Carex</i>	<i>occidentalis</i>	1.5%
Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	1.5%
Perennial	SPCR	<i>Sporobolus</i>	<i>cryptandrus</i>	0.7%
Annual	VUMI	<i>Vulpia</i>	<i>microstachys</i>	0.7%

Forbs

Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	56.2%
Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus var. fremontii</i>	54.7%
Perennial	STCOC	<i>Streptanthus</i>	<i>cordatus var. cordatus</i>	54.0%
Perennial	ERCA8	<i>Eriogonum</i>	<i>caespitosum</i>	53.3%
Perennial	CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	50.4%
Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum ssp. brecciarum</i>	48.2%
Perennial	ARCOS2	<i>Arenaria</i>	<i>congesta var. subcongesta</i>	46.7%
Perennial	SEMU3	<i>Senecio</i>	<i>multilobatus</i>	46.7%
Perennial	EROVO5	<i>Eriogonum</i>	<i>ovalifolium var. ovalifolium</i>	44.5%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
Perennial		CHDO	<i>Chaenactis</i>	<i>douglasii</i>	43.8%
Perennial		MACAC	<i>Machaeranthera</i>	<i>canescens ssp. canescens</i>	41.6%
Perennial		CAFL	<i>Calochortus</i>	<i>flexuosus</i>	40.1%
Perennial		ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	36.5%
Perennial		CRFL6	<i>Cryptantha</i>	<i>flavoculata</i>	35.8%
Annual		PHVAV2	<i>Phacelia</i>	<i>vallis-mortae var. vallis-mortae</i>	34.3%
Annual		CRGR3	<i>Cryptantha</i>	<i>gracilis</i>	32.8%
Annual		CAPU16	<i>Camissonia</i>	<i>pusilla</i>	29.9%
Perennial		ASCAC5	<i>Astragalus</i>	<i>calycosus var. calycosus</i>	28.5%
Perennial		PEHUH	<i>Penstemon</i>	<i>humilis ssp. humilis</i>	27.7%
Annual		DEPIG	<i>Descurainia</i>	<i>pinnata ssp. glabra</i>	27.0%
Annual		PHFR2	<i>Phacelia</i>	<i>fremontii</i>	26.3%
Perennial		HYCOC2	<i>Hymenoxys</i>	<i>cooperi var. cooperi</i>	24.8%
Perennial		ASPUT	<i>Astragalus</i>	<i>purshii var. tinctus</i>	24.1%
Perennial		ERCOC3	<i>Erigeron</i>	<i>concinus var. concinnus</i>	24.1%
Annual		MISP	<i>Mimulus</i>	<i>spissus</i>	23.4%
Annual		ERER2	<i>Eriastrum</i>	<i>eremicum</i>	22.6%
Perennial		CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	21.2%
Perennial		PEFLA2	<i>Penstemon</i>	<i>floridus var. austinii</i>	20.4%
Annual		PHSA	<i>Phacelia</i>	<i>saxicola</i>	20.4%
Perennial		ARPUG	<i>Arabis</i>	<i>pulchra var. gracilis</i>	19.7%
Perennial		CROCO2	<i>Crepis</i>	<i>occidentalis ssp. occidentalis</i>	19.7%
Perennial		DIPU3	<i>Dichelostemma</i>	<i>pulchellum</i>	19.7%
Annual		ERDI4	<i>Erigeron</i>	<i>divergens</i>	19.7%
Perennial		CALI4	<i>Castilleja</i>	<i>linanaefolia</i>	19.0%
Perennial		DEAN	<i>Delphinium</i>	<i>andersonii</i>	19.0%
Annual		CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	18.2%
Annual		LUSH	<i>Lupinus</i>	<i>shockleyi</i>	18.2%
Perennial		SPAMA	<i>Sphaeralcea</i>	<i>ambigua ssp. ambigua</i>	17.5%
Perennial		LONEN	<i>Lomatium</i>	<i>nevadense var. nevadense</i>	16.8%
Perennial		PEPU7	<i>Petradoria</i>	<i>pumila</i>	16.8%
Perennial		LEKIK	<i>Lesquerella</i>	<i>kingii ssp. kingii</i>	16.1%
Annual		MEVE5	<i>Mentzelia</i>	<i>veatchiana</i>	15.3%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Annual	MISU2	<i>Mimulus</i>	<i>suksdorfii</i>	15.3%
	Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii</i> ssp. <i>parishii</i>	14.6%
	Perennial	HEMUN	<i>Heliomeris</i>	<i>multiflora</i> var. <i>nevadensis</i>	14.6%
	Perennial	PEPA23	<i>Penstemon</i>	<i>pahutensis</i>	14.6%
	Perennial	PHGRH	<i>Phlox</i>	<i>gracilis</i> ssp. <i>humilis</i>	14.6%
	Annual	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	13.9%
	Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	13.9%
	Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	12.4%
	Annual	CAPT	<i>Camissonia</i>	<i>pterosperma</i>	12.4%
	Perennial	ERRA3	<i>Eriogonum</i>	<i>racemosum</i>	12.4%
	Perennial	LILE3	<i>Linum</i>	<i>lewisii</i>	12.4%
	Perennial	CRCO12	<i>Cryptantha</i>	<i>confertiflora</i>	11.7%
	Perennial	ORFA	<i>Orobanche</i>	<i>fasciculata</i>	10.9%
	Annual	CHIN2	<i>Chenopodium</i>	<i>incanum</i>	10.2%
	Perennial	OCEM4	<i>Oenothera</i>	<i>caespitosa</i> ssp. <i>marginata</i>	10.2%
	Annual	PHCU	<i>Phacelia</i>	<i>curvipes</i>	10.2%
	Perennial	SPAMM	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>monticola</i>	9.5%
	Annual	GILIA	<i>Gilia</i>		8.8%
	Perennial	LUARL5	<i>Lupinus</i>	<i>argenteus</i> ssp. <i>artenteus</i> var. <i>laxiflorus</i>	8.8%
	Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	8.8%
	Perennial	MIMUG	<i>Mirabilis</i>	<i>multiflora</i> var. <i>glandulosa</i>	7.3%
	Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	6.6%
	Perennial	ALNE	<i>Allium</i>	<i>nevadense</i>	5.8%
	Annual	CHST	<i>Chaenactis</i>	<i>stevioides</i>	5.8%
	Perennial	LEREM	<i>Lewisia</i>	<i>rediviva</i> var. <i>minor</i>	5.8%
	Annual	LIDI2	<i>Linanthus</i>	<i>dichotomus</i>	5.8%
	Annual	MECO2	<i>Mentzelia</i>	<i>congesta</i>	5.8%
	Perennial	SIVEA	<i>Silene</i>	<i>verecunda</i> ssp. <i>andersonii</i>	5.8%
	Biennial	CINE	<i>Cirsium</i>	<i>neomexicanum</i>	5.1%
	Annual	ERSP3	<i>Eriastrum</i>	<i>sparsiflorum</i>	5.1%
	Annual	ERESE	<i>Eriogonum</i>	<i>esmeraldense</i> var. <i>esmeraldense</i>	5.1%
	Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	5.1%
	Perennial	IPCO5	<i>Ipomopsis</i>	<i>congesta</i>	4.4%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	4.4%
	Annual	LAOCO	<i>Lappula</i>	<i>occidentalis</i> var. <i>occidentalis</i>	4.4%
	Annual	LUFL	<i>Lupinus</i>	<i>flavoculatus</i>	4.4%
	Annual	NABR	<i>Navarretia</i>	<i>breweri</i>	4.4%
	Perennial	STSP6	<i>Stephanomeria</i>	<i>spinosa</i>	4.4%
	Perennial	ABEL	<i>Abronia</i>	<i>elliptica</i>	3.6%
	Perennial	ASNE6	<i>Astragalus</i>	<i>newberryi</i>	3.6%
	Perennial	CACRG	<i>Caulanthus</i>	<i>crassicaulis</i> var. <i>glaber</i>	3.6%
	Annual	CETH3	<i>Centrostegia</i>	<i>thurberi</i>	3.6%
	Annual	CHMA	<i>Chaenactis</i>	<i>macrantha</i>	3.6%
	Annual	CHWA2	<i>Chorizanthe</i>	<i>watsonii</i>	3.6%
	Perennial	HUVEI	<i>Hulsea</i>	<i>vestita</i> ssp. <i>inyoensis</i>	3.6%
	Annual	PESE	<i>Pectocarya</i>	<i>setosa</i>	3.6%
	Perennial	PEPA8	<i>Penstemon</i>	<i>palmeri</i>	3.6%
	Annual	URLI2	<i>Uropappus</i>	<i>linearifolia</i>	3.6%
	Perennial	ZIPA2	<i>Zigadenus</i>	<i>paniculatus</i>	3.6%
	Perennial	ARPUM	<i>Arabis</i>	<i>pulchra</i> var. <i>munciensis</i>	2.9%
	Perennial	ARMA3	<i>Arenaria</i>	<i>macradenia</i>	2.9%
	Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	2.9%
	Annual	COPA3	<i>Collinsia</i>	<i>parviflora</i>	2.9%
	Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis</i> var. <i>nevadensis</i>	2.9%
	Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	2.9%
	Perennial	CYAB	<i>Cymopterus</i>	<i>aboriginum</i>	2.9%
	Annual	ERWI	<i>Eriastrum</i>	<i>wilcoxii</i>	2.9%
	Annual	ERCI6	<i>Erodium</i>	<i>cicutarium</i>	2.9%
	Perennial	GINY	<i>Gilia</i>	<i>nyensis</i>	2.9%
	Perennial	LINUN	<i>Linanthus</i>	<i>nuttallii</i> ssp. <i>nuttallii</i>	2.9%
	Annual	LUBR2	<i>Lupinus</i>	<i>brevicaulis</i>	2.9%
	Perennial	MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	2.9%
	Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	2.9%
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua</i> ssp. <i>exigua</i>	2.9%
	Annual	THCU	<i>Thysanocarpus</i>	<i>curvipes</i>	2.9%
	Perennial	ANDI2	<i>Antennaria</i>	<i>dimorpha</i>	2.2%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Annual	CABRB4	<i>Camissonia</i>	<i>brevipes</i> ssp. <i>brevipes</i>	2.2%
	Annual	CRAM3	<i>Cryptantha</i>	<i>ambigua</i>	2.2%
	Annual	GADIP	<i>Gayophytum</i>	<i>diffusum</i> ssp. <i>parviflorum</i>	2.2%
	Perennial	ORCO5	<i>Orobanche</i>	<i>corymbosa</i>	2.2%
	Perennial	PENST	<i>Penstemon</i>		2.2%
	Perennial	PERO10	<i>Penstemon</i>	<i>rostriflorus</i>	2.2%
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata</i> var. <i>crenulata</i>	2.2%
	Annual	PLPA2	<i>Plantago</i>	<i>patagonica</i>	2.2%
	Perennial	POSU	<i>Polygala</i>	<i>subspinoso</i>	2.2%
	Perennial	SPGRP2	<i>Sphaeralcea</i>	<i>grossulariaefolia</i> ssp. <i>pedata</i>	2.2%
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	2.2%
	Perennial	TOSC	<i>Townsendia</i>	<i>scapigera</i>	2.2%
	Annual	ANAC	<i>Anisocoma</i>	<i>acaulis</i>	1.5%
	Perennial	ARKIC	<i>Arenaria</i>	<i>kingii</i> ssp. <i>Compacta</i>	1.5%
	Annual	ASAC3	<i>Astragalus</i>	<i>acutirostris</i>	1.5%
	Perennial	ASBE5	<i>Astragalus</i>	<i>beatleyae</i>	1.5%
	Perennial	ASBE3	<i>Astragalus</i>	<i>beckwithii</i>	1.5%
	Annual	CHAL7	<i>Chenopodium</i>	<i>album</i>	1.5%
	Annual	CHLE4	<i>Chenopodium</i>	<i>leptophyllum</i>	1.5%
	Perennial	CHGR13	<i>Chrysothamnus</i>	<i>gramineus</i>	1.5%
	Annual	CLPAU2	<i>Claytonia</i>	<i>perfoliata</i> ssp. <i>perfoliata</i>	1.5%
	Annual	ERDE6	<i>Eriogonum</i>	<i>deflexum</i>	1.5%
	Perennial	HYFIM	<i>Hymenopappus</i>	<i>filifolius</i> var. <i>megacephalus</i>	1.5%
	Perennial	LOFOF	<i>Lomatium</i>	<i>foeniculaceum</i> ssp. <i>fimbriatum</i>	1.5%
	Perennial	TRWA2	<i>Tricardia</i>	<i>watsonii</i>	1.5%
	Perennial	TRAN	<i>Trifolium</i>	<i>andersonii</i>	1.5%
	Perennial	XYTOT	<i>Xylorhiza</i>	<i>tortifolia</i> var. <i>imberbis</i>	1.5%
	Annual	AMAC2	<i>Ambrosia</i>	<i>acanthicarpa</i>	0.7%
	Perennial	ANRO2	<i>Antennaria</i>	<i>rosea</i>	0.7%
	Perennial	ARHOP3	<i>Arabis</i>	<i>holboellii</i> var. <i>pinetorum</i>	0.7%
	Perennial	ARCO6	<i>Argemone</i>	<i>corymbosa</i>	0.7%
	Perennial	ARDR4	<i>Artemisia</i>	<i>dracunculus</i>	0.7%
	Perennial	ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	0.7%

<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	BAHON	<i>Balsamorhiza</i>	<i>hookeri</i> var. <i>neglecta</i>	0.7%
	Annual	CAPA7	<i>Calycoseris</i>	<i>parryi</i>	0.7%
	Annual	CABOC	<i>Camissonia</i>	<i>boothii</i> ssp. <i>condensata</i>	0.7%
	Annual	CACLI	<i>Camissonia</i>	<i>claviformis</i> ssp. <i>integrior</i>	0.7%
	Annual	CHXA	<i>Chaenactis</i>	<i>xantiana</i>	0.7%
	Perennial	CRIN4	<i>Crepis</i>	<i>intermedia</i>	0.7%
	Perennial	CRHU2	<i>Cryptantha</i>	<i>humilis</i>	0.7%
	Annual	CRMI	<i>Cryptantha</i>	<i>micrantha</i>	0.7%
	Perennial	EPCI	<i>Epilobium</i>	<i>ciliatum</i>	0.7%
	Perennial	ERAP	<i>Erigeron</i>	<i>aphanactis</i>	0.7%
	Annual	ERBR7	<i>Eriogonum</i>	<i>brachyanthum</i>	0.7%
	Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	0.7%
	Perennial	ERUMS2	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>subaridum</i>	0.7%
	Perennial	ERUMV	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>vernum</i>	0.7%
	Perennial	ERUMV2	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>versicolor</i>	0.7%
	Perennial	FRALM	<i>Frasera</i>	<i>pahutensis</i>	0.7%
	Perennial	GIHU	<i>Gilia</i>	<i>hutchinsifolia</i>	0.7%
	Perennial	GIIN2	<i>Gilia</i>	<i>inconspicua</i>	0.7%
	Annual	IPDE	<i>Ipomopsis</i>	<i>depressa</i>	0.7%
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	0.7%
	Perennial	LIRU4	<i>Lithospermum</i>	<i>ruderae</i>	0.7%
	Perennial	LUCA	<i>Lupinus</i>	<i>caudatus</i>	0.7%
	Perennial	LUPA3	<i>Lupinus</i>	<i>palmeri</i>	0.7%
	Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	0.7%
	Annual	MASO	<i>Malacothrix</i>	<i>sonchoides</i>	0.7%
	Annual	NAPU	<i>Nama</i>	<i>pusillum</i>	0.7%
	Perennial	OEPAP	<i>Oenothera</i>	<i>pallida</i> ssp. <i>pallida</i>	0.7%
	Annual	PEPL	<i>Pectocarya</i>	<i>platycarpa</i>	0.7%
	Annual	PHAF	<i>Phacelia</i>	<i>affinis</i>	0.7%
	Annual	PHPE2	<i>Phacelia</i>	<i>peirsoniana</i>	0.7%
	Perennial	PHHOL	<i>Phlox</i>	<i>hoodii</i> ssp. <i>lanata</i>	0.7%
	Perennial	PHCH2	<i>Physaria</i>	<i>chambersii</i>	0.7%
	Perennial	POHE7	<i>Polygala</i>	<i>heterorhyncha</i>	0.7%

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<i>Lifeform</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Frequency</i>
	Perennial	SESP3	<i>Senecio</i>	<i>spartioides</i>	0.7%
	Annual	STLO4	<i>Streptanthella</i>	<i>longirostris</i>	0.7%
Ferns					
	Perennial	PETR7	<i>Pentagama</i>	<i>triangularis</i>	0.7%
Epiphytes					
	Perennial	ARDI3	<i>Arceuthobium</i>	<i>divaricatum</i>	2.2%
Succulents					
	Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	51.1%
	Perennial	OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	46.7%
	Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	17.5%
	Perennial	ESVIR2	<i>Escobaria</i>	<i>vivipara</i> var. <i>rosea</i>	12.4%
	Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	7.3%
	Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	4.4%
	Perennial	MATE4	<i>Mammillaria</i>	<i>tetrancistra</i>	1.5%
	Perennial	ECTRIM	<i>Echinocereus</i>	<i>triglochidiatus</i> var. <i>melanacanthus</i>	0.7%
	Perennial	SCPO4	<i>Sclerocactus</i>	<i>polyancistrus</i>	0.7%
	Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	0.7%

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Appendix G

Percent Frequency of NTS Plant Species by Association

Mojave woodyaster (*Xylorhiza tortifolia*) [photo by Susan Cochrane]

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Appendix G. Percent Frequency of NTS Plant Species by Association

Association	Longevity	ACODE	Genus	Species	% Frequency
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Lycium shockleyi-Lycium pallidum Shrubland

Short Shrubs (0.5-2 m)

Perennial	KRLA2	Krascheninnikovia	lanata	80.0
Perennial	AMDU2	Ambrosia	dumosa	60.0
Perennial	ATCAC	Atriplex	canescens var. canescens	60.0
Perennial	ATCO	Atriplex	confertifolia	60.0
Perennial	LYSH	Lycium	shockleyi	60.0
Perennial	ACSH	Acamptopappus	shockleyi	40.0
Perennial	HYSa	Hymenoclea	salsola	40.0
Perennial	LYPAO	Lycium	pallidum var. oligospermum	40.0
Perennial	CHVIV2	Chrysothamnus	viscidiflorus ssp. viscidiflorus	20.0
Perennial	GRSP	Grayia	spinosa	20.0
Perennial	STPIP	Stanleya	pinnata var. pinnata	20.0
Perennial	TEAXA	Tetradymia	axillaris var. axillaris	20.0

Dwarf Shrubs (<0.5 m)

Perennial	ARSP5	Artemisia	spinescens	40.0
Perennial	KOAM	Kochia	americana	20.0

Graminoids

Perennial	ACHY	Achnatherum	hymenoides	100.0
Annual	BRRU2	Bromus	rubens	80.0
Perennial	ELELE	Elymus	elymoides ssp. elymoides	20.0

Forbs

Annual	AMTE3	Amsinckia	tessellata	40.0
Annual	ASLEF2	Astragalus	lentiginosus var. fremontii	40.0
Perennial	BAMU	Baileya	multiradiata	40.0
Annual	CRCI2	Cryptantha	circumscissa	40.0
Annual	ERER2	Eriastrum	eremicum	40.0
Perennial	ERIN4	Eriogonum	inflatum	40.0
Annual	LELA	Lepidium	lasiocarpum	40.0
Perennial	MACAC	Machaeranthera	canescens ssp. canescens	40.0
Annual	MAGL3	Malacothrix	glabrata	40.0

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	40.0
	Perennial	MIPU5	<i>Mirabilis</i>	<i>pudica</i>	40.0
	Annual	OEPR	<i>Oenothera</i>	<i>primiveris</i>	40.0
	Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua ssp. ambigua</i>	40.0
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	40.0
	Perennial	ARPUM	<i>Arabis</i>	<i>pulchra var. munciensis</i>	20.0
	Annual	CETH3	<i>Centrostegia</i>	<i>thurberi</i>	20.0
	Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	20.0
	Annual	CHFR	<i>Chaenactis</i>	<i>fremontii</i>	20.0
	Annual	CHST	<i>Chaenactis</i>	<i>steviodes</i>	20.0
	Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis var. nevadensis</i>	20.0
	Annual	CRPT	<i>Cryptantha</i>	<i>ptercarya</i>	20.0
	Annual	DEPIG	<i>Descurainia</i>	<i>pinnata ssp. glabra</i>	20.0
	Annual	DESO2	<i>Descurainia</i>	<i>sophia</i>	20.0
	Annual	ERMA2	<i>Eriogonum</i>	<i>maculatum</i>	20.0
	Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	20.0
	Annual	ESGL	<i>Eschscholzia</i>	<i>glyptosperma</i>	20.0
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	20.0
	Annual	LAOCO	<i>Lappula</i>	<i>occidentalis var. occidentalis</i>	20.0
	Annual	LASE3	<i>Langloisia</i>	<i>setosissima</i>	20.0
	Perennial	OECA2	<i>Oenothera</i>	<i>californica spp avita</i>	20.0
	Annual	OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	20.0
	Perennial	POSU	<i>Polygala</i>	<i>subspinoso</i>	20.0
	Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	20.0

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Larrea Tridentata/Ambrosia dumosa Shrubland

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	97.2
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Short Shrubs (0.5-2 m)

Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	99.3
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	80.2
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	58.7
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	53.4
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	51.6
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	47.7
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	44.2
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	32.9
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	29.7
Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	27.6
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	17.0
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	16.3
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	14.5
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	11.0
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	9.2
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	9.2
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	8.8
Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	8.8
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	7.4
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	4.6
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	4.6
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	3.2
Perennial	EPFU	<i>Ephedra</i>	<i>funerea</i>	2.8
Perennial	PSPO	<i>Psoralea</i>	<i>polydenius</i>	2.8
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	2.8
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	2.5
Perennial	ATPO	<i>Atriplex</i>	<i>polycarpa</i>	1.4
Perennial	EPTO	<i>Ephedra</i>	<i>torreyana</i>	1.4
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	1.1
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	1.1
Perennial	BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	0.7

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	ERPA29	<i>Ericameria</i>	<i>paniculata</i>	0.7
	Perennial	AMER	<i>Ambrosia</i>	<i>eriocentra</i>	0.4
	Perennial	ATHY	<i>Atriplex</i>	<i>hymenelytra</i>	0.4
	Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus ssp. consimilis var. leiosperma</i>	0.4
	Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	0.4

Dwarf Shrubs (<0.5 m)

Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	61.8
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	21.2
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	4.2
Perennial	ERWA8	<i>Ericameria</i>	<i>watsonii</i>	0.7
Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	0.4

Graminoids

Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	87.6
Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	51.6
Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	23.7
Annual	SCAR	<i>Schismus</i>	<i>arabicus</i>	10.6
Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	9.9
Perennial	ERPU8	<i>Erioneuron</i>	<i>pulchellum</i>	9.2
Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	3.9
Perennial	PLRI3	<i>Pleuraphis</i>	<i>rigida</i>	3.5
Perennial	ELELE	<i>Elymus</i>	<i>elymoides ssp. elymoides</i>	2.5
Annual	BRCA6	<i>Bromus</i>	<i>cartharticus</i>	1.4
Perennial	ARPU9	<i>Aristida</i>	<i>purpurea</i>	0.4

Forbs

Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	59.4
Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	51.2
Perennial	XYTOT	<i>Xylorhiza</i>	<i>tortifolia var. imberbis</i>	33.6
Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	26.5
Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua ssp. ambigua</i>	25.8
Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	25.4
Annual	CHRI	<i>Chorizanthe</i>	<i>rigida</i>	19.8
Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	17.7
Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis var. nevadensis</i>	15.2
Annual	CHFR	<i>Chaenactis</i>	<i>fremontii</i>	14.5

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	14.1
	Perennial	ASLA8	<i>Astragalus</i>	<i>layneae</i>	13.4
	Annual	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	13.1
	Annual	CHST	<i>Chaenactis</i>	<i>stevioides</i>	12.4
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	12.0
	Annual	OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	12.0
	Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii</i> ssp. <i>parishii</i>	11.7
	Annual	LUFL	<i>Lupinus</i>	<i>flavoculatus</i>	11.7
	Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	11.7
	Annual	LASE3	<i>Langloisia</i>	<i>setosissima</i>	11.0
	Annual	DEPIG	<i>Descurainia</i>	<i>pinnata</i> ssp. <i>glabra</i>	10.6
	Annual	RANE	<i>Rafinesquia</i>	<i>neomexicana</i>	9.5
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua</i> ssp. <i>exigua</i>	9.5
	Annual	PHVAV2	<i>Phacelia</i>	<i>vallis-mortae</i> var. <i>vallis-mortae</i>	9.2
	Annual	CABRB4	<i>Camissonia</i>	<i>brevipes</i> ssp. <i>brevipes</i>	8.8
	Annual	ERIC6	<i>Erodium</i>	<i>cicutarium</i>	8.8
	Annual	ERPR4	<i>Eriophyllum</i>	<i>pringlei</i>	8.5
	Annual	STLO4	<i>Streptanthella</i>	<i>longirostris</i>	8.5
	Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus</i> var. <i>fremontii</i>	7.8
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	7.1
	Annual	ASAC3	<i>Astragalus</i>	<i>acutirostris</i>	6.7
	Annual	ERTH	<i>Eriogonum</i>	<i>thomasi</i>	6.7
	Annual	CABOC	<i>Camissonia</i>	<i>boothii</i> ssp. <i>condensata</i>	6.4
	Annual	GILIA	<i>Gilia</i>		6.4
	Annual	CETH3	<i>Centrostegia</i>	<i>thurberi</i>	5.3
	Annual	MEOB3	<i>Mentzelia</i>	<i>obscura</i>	5.3
	Annual	CHBRB	<i>Chorizanthe</i>	<i>brevicomu</i> var. <i>brevicomu</i>	4.9
	Annual	CHCA	<i>Chaenactis</i>	<i>carphoclinia</i>	4.9
	Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum</i> ssp. <i>brecciarum</i>	4.9
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	4.6
	Perennial	BAMU	<i>Baileya</i>	<i>multiradiata</i>	4.2
	Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	4.2
	Annual	ERDE6	<i>Eriogonum</i>	<i>deflexum</i>	4.2
	Perennial	MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	4.2
	Annual	PESE	<i>Pectocarya</i>	<i>setosa</i>	4.2
	Perennial	SPAMR	<i>Sphaeralcea</i>	<i>ambigua</i> var. <i>rugosa</i>	4.2

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	ESGL	<i>Eschscholzia</i>	<i>glyptosperma</i>	3.9
	Perennial	GICAS	<i>Gilia</i>	<i>cana ssp. speciformis</i>	3.9
	Annual	NAPU	<i>Nama</i>	<i>pusillum</i>	3.5
	Annual	PLOV	<i>Plantago</i>	<i>ovata</i>	3.5
	Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	3.2
	Annual	CRMI	<i>Cryptantha</i>	<i>micrantha</i>	2.8
	Annual	MOBE	<i>Monoptilon</i>	<i>bellidiforme</i>	2.8
	Annual	OEPR	<i>Oenothera</i>	<i>primiveris</i>	2.8
	Annual	ESMI	<i>Eschscholzia</i>	<i>minutiflora</i>	2.5
	Annual	LIDE2	<i>Linanthus</i>	<i>demissus</i>	2.5
	Annual	MASO	<i>Malacothrix</i>	<i>sonchoides</i>	2.5
	Perennial	DIPU3	<i>Dichelostemma</i>	<i>pulchellum</i>	2.1
	Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	2.1
	Annual	PEPL	<i>Pectocarya</i>	<i>platycarpa</i>	2.1
	Perennial	POSU	<i>Polygala</i>	<i>subspinoso</i>	2.1
	Perennial	STPA3	<i>Stephanomeria</i>	<i>parryi</i>	2.1
	Perennial	CAPI4	<i>Caulanthus</i>	<i>pilosus</i>	1.8
	Perennial	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	1.8
	Annual	LOHU2	<i>Lotus</i>	<i>humistratus</i>	1.8
	Perennial	CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	1.4
	Perennial	CAFL	<i>Calochortus</i>	<i>flexuosus</i>	1.4
	Annual	CAKEG	<i>Camissonia</i>	<i>kernensis ssp. gilmanii</i>	1.4
	Perennial	LEMOC	<i>Lepidium</i>	<i>montanum var. canescens</i>	1.4
	Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens ssp. canescens</i>	1.4
	Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	1.4
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata var. crenulata</i>	1.4
	Biennial	SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	1.4
	Perennial	ARPUM	<i>Arabis</i>	<i>pulchra var. munciensis</i>	1.1
	Annual	ASDID	<i>Astragalus</i>	<i>didymocarpus var. dispermus</i>	1.1
	Annual	CACLI	<i>Camissonia</i>	<i>claviformis ssp. integror</i>	1.1
	Perennial	DEAN	<i>Delphinium</i>	<i>andersonii</i>	1.1
	Annual	ERPU6	<i>Eriogonum</i>	<i>pusillum</i>	1.1
	Annual	ERSP3	<i>Eriastrum</i>	<i>sparsiflorum</i>	1.1
	Annual	LUBR2	<i>Lupinus</i>	<i>brevicaulis</i>	1.1
	Annual	MOBE2	<i>Monoptilon</i>	<i>bellioides</i>	1.1
	Annual	NEGLO	<i>Nemacladus</i>	<i>glanduliferus var. orientalis</i>	1.1

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	ANAC	<i>Anisocoma</i>	<i>acaulis</i>	0.7
	Perennial	CAAPM	<i>Castilleja</i>	<i>aplegatei ssp. martinii</i>	0.7
	Biennial	CINE	<i>Cirsium</i>	<i>neomexicanum</i>	0.7
	Perennial	DAMO2	<i>Dalea</i>	<i>mollissima</i>	0.7
	Annual	DESO2	<i>Descurainia</i>	<i>sophia</i>	0.7
	Perennial	ERCOC3	<i>Erigeron</i>	<i>concinus var. concinns</i>	0.7
	Annual	ERMA2	<i>Eriogonum</i>	<i>maculatum</i>	0.7
	Annual	ERTR8	<i>Eriogonum</i>	<i>trichopes</i>	0.7
	Perennial	GISC	<i>Gilia</i>	<i>scopulorum</i>	0.7
	Perennial	OECA2	<i>Oenothera</i>	<i>californica spp avita</i>	0.7
	Annual	OEDED4	<i>Oenothera</i>	<i>deltoides ssp. deltoides</i>	0.7
	Annual	PHSA	<i>Phacelia</i>	<i>saxicola</i>	0.7
	Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	0.7
	Perennial	ABEL	<i>Abronia</i>	<i>elliptica</i>	0.4
	Perennial	ADCO2	<i>Adenophyllum</i>	<i>cooperi</i>	0.4
	Perennial	ASER2	<i>Asclepias</i>	<i>erosa</i>	0.4
	Perennial	ASTI	<i>Astragalus</i>	<i>tidestromii</i>	0.4
	Perennial	BRAT	<i>Brickellia</i>	<i>atractylodes</i>	0.4
	Annual	CACO18	<i>Caulanthus</i>	<i>cooperi</i>	0.4
	Annual	CAHE12	<i>Camissonia</i>	<i>heterochroma</i>	0.4
	Annual	CARE2	<i>Camissonia</i>	<i>refracta</i>	0.4
	Annual	CHMA	<i>Chaenactis</i>	<i>macrantha</i>	0.4
	Annual	CRMA7	<i>Cryptantha</i>	<i>maritima</i>	0.4
	Annual	CRRE5	<i>Cryptantha</i>	<i>recurvata</i>	0.4
	Perennial	ERRA3	<i>Eriogonum</i>	<i>racemosum</i>	0.4
	Perennial	GICAT	<i>Gilia</i>	<i>cana ssp. triceps</i>	0.4
	Perennial	GILE3	<i>Gilia</i>	<i>leptomeria</i>	0.4
	Perennial	HEMUN	<i>Hellomeris</i>	<i>multiflora var. nevadensis</i>	0.4
	Annual	LEFLF2	<i>Lepidium</i>	<i>flavum var. flavum</i>	0.4
	Annual	LIDI2	<i>Linanthus</i>	<i>dichotomus</i>	0.4
	Perennial	LOSC3	<i>Lomatium</i>	<i>scabrum</i>	0.4
	Annual	LOSC6	<i>Loeseliastrum</i>	<i>schottii</i>	0.4
	Annual	MEVE5	<i>Mentzelia</i>	<i>veatchiana</i>	0.4
	Perennial	MIPU5	<i>Mirabilis</i>	<i>pudica</i>	0.4
	Annual	NADED	<i>Nama</i>	<i>demissum var. demissum</i>	0.4
	Perennial	OCEM4	<i>Oenothera</i>	<i>caespitosa ssp. marginata</i>	0.4

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	PERE	<i>Pectocarya</i>	<i>recurvata</i>	0.4
	Annual	PREX	<i>Prenanthes</i>	<i>exigua</i>	0.4
	Annual	SACOC	<i>Salvia</i>	<i>columbariae</i> var. <i>columbariae</i>	0.4
	Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	0.4
	Perennial	SPGRP2	<i>Sphaeralcea</i>	<i>grossulariaefolia</i> ssp. <i>pedata</i>	0.4
	Perennial	STCOC	<i>Streptanthus</i>	<i>cordatus</i> var. <i>cordatus</i>	0.4

Epiphytes

Perennial	CUDEV	<i>Cuscuta</i>	<i>denticulata</i> var. <i>vetchii</i>	4.2
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Succulents

Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	28.6
Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	12.0
Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	11.3
Perennial	ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>	8.8
Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	8.1
Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	3.5
Perennial	OPRA	<i>Opuntia</i>	<i>ramosissima</i>	3.5
Perennial	OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	1.1
Perennial	ECTRM	<i>Echinocereus</i>	<i>triglochidiatus</i> var. <i>melanacanthus</i>	0.4
Perennial	MATE4	<i>Mammillaria</i>	<i>tetrancistra</i>	0.4

Variable

Variable	ERIOG	<i>Eriogonum</i>		2.8
Variable	MENTZ	<i>Mentzelia</i>		1.1

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Atriplex confertifolia-Ambrosia dumosa Shrubland

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	73.5
Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata ssp. tridentata</i>	2.0

Short Shrubs (0.5-2 m)

Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	100.0
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	93.9
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	89.8
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	57.1
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	49.0
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	49.0
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum var. oligospermum</i>	42.9
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	40.8
Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii var. fremontii</i>	32.7
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	24.5
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis var. virginensis</i>	22.4
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	22.4
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	20.4
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	18.4
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. viscidiflorus</i>	14.3
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum var. polifolium</i>	14.3
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	14.3
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	14.3
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	12.2
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	12.2
Perennial	EPTO	<i>Ephedra</i>	<i>torreyana</i>	10.2
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris var. axillaris</i>	10.2
Perennial	BRMIW	<i>Brickellia</i>	<i>microphylla var. watsonii</i>	8.2
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata var. pinnata</i>	8.2
Perennial	ATHY	<i>Atriplex</i>	<i>hymenelytra</i>	4.1
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	4.1
Perennial	ERHEH2	<i>Eriogonum</i>	<i>heermannii var. heermannii</i>	4.1
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens var. canescens</i>	2.0
Perennial	BRLOM	<i>Brickellia</i>	<i>longifolia var. multiflora</i>	2.0
Perennial	BUUT	<i>Buddleja</i>	<i>utahensis</i>	2.0

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. puberulus</i>	2.0
	Perennial	EPFU	<i>Ephedra</i>	<i>funerea</i>	2.0
	Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum var. simpsonii</i>	2.0
	Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus ssp. consimilis var. leiosperma</i>	2.0
	Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	2.0
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	2.0
	Perennial	PSPO	<i>Psorothamnus</i>	<i>polydenius</i>	2.0
	Perennial	SENE5	<i>Senecio</i>	<i>flaccidus var. douglasii</i>	2.0
	Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	2.0

Dwarf Shrubs (<0.5 m)

Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	65.3
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	34.7
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	16.3
Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	2.0

Graminoids

Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	87.8
Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	38.8
Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	38.8
Perennial	ERPU8	<i>Erioneuron</i>	<i>pulchellum</i>	20.4
Perennial	ELELE	<i>Elymus</i>	<i>elymoides ssp. elymoides</i>	10.2
Perennial	PLRI3	<i>Pleuraphis</i>	<i>rigida</i>	6.1
Perennial	POSE	<i>Poa</i>	<i>secunda</i>	4.1
Annual	SCAR	<i>Schismus</i>	<i>arabicus</i>	4.1
Perennial	ARPU9	<i>Aristida</i>	<i>purpurea</i>	2.0
Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	2.0

Forbs

Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	73.5
Perennial	XYTOT	<i>Xylorhiza</i>	<i>tortifolia var. imberbis</i>	57.1
Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua ssp. ambigua</i>	38.8
Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	30.6
Annual	CHRI	<i>Chorizanthe</i>	<i>rigida</i>	24.5
Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii ssp. parishii</i>	18.4
Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	14.3
Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	12.2

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	10.2
	Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	10.2
	Annual	PLOV	<i>Plantago</i>	<i>ovata</i>	10.2
	Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis</i> var. <i>nevadensis</i>	8.2
	Annual	ERC16	<i>Erodium</i>	<i>cicutarium</i>	8.2
	Annual	ERDE6	<i>Eriogonum</i>	<i>deflexum</i>	8.2
	Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	8.2
	Annual	PHVAV2	<i>Phacelia</i>	<i>vallis-mortae</i> var. <i>vallis-mortae</i>	8.2
	Perennial	BAMU	<i>Baileya</i>	<i>multiradiata</i>	6.1
	Perennial	BRAT	<i>Brickellia</i>	<i>atractylodes</i>	6.1
	Annual	CABOC	<i>Camissonia</i>	<i>boothii</i> ssp. <i>condensata</i>	6.1
	Annual	CHFR	<i>Chaenactis</i>	<i>fremontii</i>	6.1
	Annual	CHST	<i>Chaenactis</i>	<i>stevioides</i>	6.1
	Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	6.1
	Perennial	GICAS	<i>Gilia</i>	<i>cana</i> ssp. <i>speciformis</i>	6.1
	Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens</i> ssp. <i>canescens</i>	6.1
	Perennial	STPA3	<i>Stephanomeria</i>	<i>parryi</i>	6.1
	Perennial	ARME2	<i>Arctomecon</i>	<i>merriamii</i>	4.1
	Annual	CABRB4	<i>Camissonia</i>	<i>brevipes</i> ssp. <i>brevipes</i>	4.1
	Annual	CAKEG	<i>Camissonia</i>	<i>kernensis</i> ssp. <i>gilmanii</i>	4.1
	Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	4.1
	Annual	CRC12	<i>Cryptantha</i>	<i>circumscissa</i>	4.1
	Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	4.1
	Annual	DEPIG	<i>Descurainia</i>	<i>pinnata</i> ssp. <i>glabra</i>	4.1
	Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	4.1
	Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum</i> ssp. <i>brecciarum</i>	4.1
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	4.1
	Annual	OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	4.1
	Annual	PEPL	<i>Pectocarya</i>	<i>platycarpa</i>	4.1
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata</i> var. <i>crenulata</i>	4.1
	Annual	RANE	<i>Rafinesquia</i>	<i>neomexicana</i>	4.1
	Perennial	SPAMR	<i>Sphaeralcea</i>	<i>ambigua</i> var. <i>rugosa</i>	4.1
	Perennial	ARMA3	<i>Arenaria</i>	<i>macradenia</i>	2.0
	Perennial	ARPUM	<i>Arabis</i>	<i>pulchra</i> var. <i>munciensis</i>	2.0
	Perennial	ASLA8	<i>Astragalus</i>	<i>layneae</i>	2.0
	Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus</i> var. <i>fremontii</i>	2.0

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	2.0
	Annual	CABRP	<i>Camissonia</i>	<i>brevipes ssp. pallidula</i>	2.0
	Annual	CARE2	<i>Camissonia</i>	<i>refracta</i>	2.0
	Annual	CHCA	<i>Chaenactis</i>	<i>carphoclinia</i>	2.0
	Annual	CHMA	<i>Chaenactis</i>	<i>macrantha</i>	2.0
	Perennial	CRFL6	<i>Cryptantha</i>	<i>flavocolata</i>	2.0
	Annual	CRMI	<i>Cryptantha</i>	<i>micrantha</i>	2.0
	Perennial	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	2.0
	Perennial	DEAN	<i>Delphinium</i>	<i>andersonii</i>	2.0
	Perennial	ERCOC3	<i>Erigeron</i>	<i>concinus var. concinns</i>	2.0
	Annual	ERMA2	<i>Eriogonum</i>	<i>maculatum</i>	2.0
	Annual	ERPR4	<i>Eriophyllum</i>	<i>pringlei</i>	2.0
	Annual	ERSP3	<i>Eriastrum</i>	<i>sparsiflorum</i>	2.0
	Annual	ERTH	<i>Eriogonum</i>	<i>thomasii</i>	2.0
	Annual	ESGL	<i>Eschscholzia</i>	<i>glyptosperma</i>	2.0
	Perennial	GAST	<i>Galium</i>	<i>stellatum</i>	2.0
	Annual	GILIA	<i>Gilia</i>		2.0
	Annual	HAGL	<i>Halogeton</i>	<i>glomeratus</i>	2.0
	Annual	LOHU2	<i>Lotus</i>	<i>humistratus</i>	2.0
	Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	2.0
	Annual	MEOB3	<i>Mentzelia</i>	<i>obscura</i>	2.0
	Perennial	MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	2.0
	Perennial	MIPU5	<i>Mirabilis</i>	<i>pudica</i>	2.0
	Annual	NIAT	<i>Nicotiana</i>	<i>attenuata</i>	2.0
	Annual	OEDDED4	<i>Oenothera</i>	<i>deltoides ssp. deltoides</i>	2.0
	Annual	PESE	<i>Pectocarya</i>	<i>setosa</i>	2.0
	Perennial	PHGRH	<i>Phlox</i>	<i>gracilis ssp. humilis</i>	2.0
	Annual	PHPA2	<i>Phacelia</i>	<i>parishii</i>	2.0
	Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	2.0
	Perennial	POSU	<i>Polygala</i>	<i>subspinosa</i>	2.0
	Biennial	SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	2.0
	Perennial	SPGRP2	<i>Sphaeralcea</i>	<i>grossulariaefolia ssp. pedata</i>	2.0
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua ssp. exigua</i>	2.0
	Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	2.0
	Perennial	THPEB	<i>Thymphylla</i>	<i>pentachaeta var. belenidium</i>	2.0

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Succulents

Perennial	ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>	34.7
Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	28.6
Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	20.4
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	20.4
Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	16.3
Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	10.2
Perennial	OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	6.1
Perennial	OPRA	<i>Opuntia</i>	<i>ramosissima</i>	4.1
Perennial	ESVIR2	<i>Escobaria</i>	<i>vivipara</i> var. <i>rosea</i>	2.0
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	2.0

Variable

Variable	ERIOG	<i>Eriogonum</i>		2.0
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<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Lycium andersonii-Hymenoclea salsola Shrubland

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	14.3
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Short Shrubs (0.5-2 m)

Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	100.0
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	78.6
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	64.3
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	57.1
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	50.0
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	50.0
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	50.0
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	35.7
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	28.6
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	28.6
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	21.4
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	21.4
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	14.3
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	14.3
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	14.3
Perennial	AMER	<i>Ambrosia</i>	<i>eriocentra</i>	7.1
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	7.1
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	7.1
Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	7.1

Dwarf Shrubs (<0.5 m)

Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	42.9
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	14.3
Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	7.1

Graminoids

Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	92.9
Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	78.6
Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	42.9
Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	42.9
Perennial	ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoides</i>	28.6

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	14.3
	Perennial	ERPU8	<i>Erioneuron</i>	<i>pulchellum</i>	7.1

Forbs

Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	85.7
Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>ambigua</i>	57.1
Annual	CHST	<i>Chaenactis</i>	<i>stevioides</i>	50.0
Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	42.9
Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens</i> ssp. <i>canescens</i>	35.7
Annual	ERDE6	<i>Eriogonum</i>	<i>deflexum</i>	28.6
Perennial	MIPU5	<i>Mirabilis</i>	<i>pudica</i>	28.6
Biennial	SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	28.6
Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis</i> var. <i>nevadensis</i>	21.4
Annual	ERC16	<i>Erodium</i>	<i>cicutarium</i>	21.4
Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	21.4
Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus</i> var. <i>fremontii</i>	14.3
Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	14.3
Annual	MEOB3	<i>Mentzelia</i>	<i>obscura</i>	14.3
Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	14.3
Perennial	STPA3	<i>Stephanomeria</i>	<i>parryi</i>	14.3
Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	14.3
Perennial	ADCO2	<i>Adenophyllum</i>	<i>cooperi</i>	7.1
Annual	CAKEG	<i>Camissonia</i>	<i>kernensis</i> ssp. <i>gilmanii</i>	7.1
Annual	CRM1	<i>Cryptantha</i>	<i>micrantha</i>	7.1
Annual	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	7.1
Perennial	CYRI2	<i>Cymopterus</i>	<i>ripleyi</i>	7.1
Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii</i> ssp. <i>parishii</i>	7.1
Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	7.1
Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	7.1
Annual	ERPR4	<i>Eriophyllum</i>	<i>pringlei</i>	7.1
Annual	ERPU6	<i>Eriogonum</i>	<i>pusillum</i>	7.1
Perennial	GIIN2	<i>Gilia</i>	<i>inconspicua</i>	7.1
Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	7.1
Annual	MEVE5	<i>Mentzelia</i>	<i>veatchiana</i>	7.1
Perennial	PENST	<i>Penstemon</i>		7.1

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	SPGRP2	<i>Sphaeralcea</i>	<i>grossulariaefolia</i> ssp. <i>pedata</i>	7.1
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua</i> ssp. <i>exigua</i>	7.1
	Perennial	XYTOT	<i>Xylorhiza</i>	<i>tortifolia</i> var. <i>imberbis</i>	7.1

Succulents

	Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	35.7
	Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	21.4
	Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	7.1

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Hymenoclea salsola-Ephedra nevadensis Shrubland

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	34.1
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Short Shrubs (0.5-2 m)

Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	100.0
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	70.5
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	70.5
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	61.4
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	50.0
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	50.0
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	47.7
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	43.2
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	29.5
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	27.3
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	27.3
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	22.7
Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	22.7
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	22.7
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	20.5
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	20.5
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	18.2
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	13.6
Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	13.6
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	13.6
Perennial	AMER	<i>Ambrosia</i>	<i>erionema</i>	11.4
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	11.4
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	11.4
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	9.1
Perennial	PSPO	<i>Psoralea</i>	<i>polydenius</i>	9.1
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	6.8
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	6.8
Perennial	ATPO	<i>Atriplex</i>	<i>polycarpa</i>	4.5
Perennial	ERPA29	<i>Ericameria</i>	<i>paniculata</i>	4.5
Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	4.5
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	4.5

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	BRIN	<i>Brickellia</i>	<i>incana</i>	2.3
	Perennial	BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>	2.3
	Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	2.3
	Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	2.3
	Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	2.3
	Perennial	PENI	<i>Petalonyx</i>	<i>nitidus</i>	2.3
	Perennial	RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	2.3
	Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	2.3
	Perennial	STEL	<i>Stanleya</i>	<i>elata</i>	2.3

Dwarf Shrubs (<0.5 m)

Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	13.6
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	11.4
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	6.8

Graminoids

Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	90.9
Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	68.2
Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	63.6
Perennial	ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoides</i>	18.2
Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	15.9
Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	13.6
Perennial	ERPU8	<i>Erioneuron</i>	<i>pulchellum</i>	11.4
Perennial	PLRI3	<i>Pleuraphis</i>	<i>rigida</i>	6.8
Perennial	ARPUL	<i>Aristida</i>	<i>purpurea</i> var. <i>longiseta</i>	4.5
Annual	BRCA6	<i>Bromus</i>	<i>cartharticus</i>	2.3
Annual	SCAR	<i>Schismus</i>	<i>arabicus</i>	2.3
Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	2.3

Forbs

Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	75.0
Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>ambigua</i>	54.5
Annual	CHST	<i>Chaenactis</i>	<i>steviodes</i>	40.9
Annual	ERIC6	<i>Erodium</i>	<i>cicutarium</i>	34.1
Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	31.8
Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	25.0
Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	25.0

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens ssp. canescens</i>	22.7
	Annual	OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	22.7
	Perennial	MIPU5	<i>Mirabilis</i>	<i>pudica</i>	20.5
	Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	18.2
	Annual	ERDE6	<i>Eriogonum</i>	<i>deflexum</i>	15.9
	Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	15.9
	Perennial	ADCO2	<i>Adenophyllum</i>	<i>cooperi</i>	11.4
	Perennial	POSU	<i>Polygala</i>	<i>subspinoso</i>	11.4
	Perennial	CAFL	<i>Calochortus</i>	<i>flexuosus</i>	9.1
	Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii ssp. parishii</i>	9.1
	Annual	ERPR4	<i>Eriophyllum</i>	<i>pringlei</i>	9.1
	Annual	PHVAV2	<i>Phacelia</i>	<i>vallis-mortae var. vallis-mortae</i>	9.1
	Biennial	SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	9.1
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua ssp. exigua</i>	9.1
	Perennial	XYTOT	<i>Xylorhiza</i>	<i>tortifolia var. imberbis</i>	9.1
	Perennial	BAMU	<i>Baileya</i>	<i>multiradiata</i>	6.8
	Perennial	CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	6.8
	Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis var. nevadensis</i>	6.8
	Perennial	HEMUN	<i>Helioomeris</i>	<i>multiflora var. nevadensis</i>	6.8
	Perennial	SPGRP2	<i>Sphaeralcea</i>	<i>grossulariaefolia ssp. pedata</i>	6.8
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	6.8
	Perennial	ARPUM	<i>Arabis</i>	<i>pulchra var. munciensis</i>	4.5
	Perennial	ASLA8	<i>Astragalus</i>	<i>layneae</i>	4.5
	Perennial	BRAT	<i>Brickellia</i>	<i>atractyloides</i>	4.5
	Annual	CAKEG	<i>Camissonia</i>	<i>kernensis ssp. gilmanii</i>	4.5
	Annual	CHBRB	<i>Chorizanthe</i>	<i>brevicornu var. brevicornu</i>	4.5
	Annual	LASE3	<i>Langloisia</i>	<i>setosissima</i>	4.5
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	4.5
	Perennial	MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	4.5
	Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	4.5
	Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	4.5
	Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus var. fremontii</i>	2.3
	Perennial	CAAPM	<i>Castilleja</i>	<i>aplegatei ssp. martinii</i>	2.3
	Annual	CABOC	<i>Camissonia</i>	<i>boothii ssp. condensata</i>	2.3
	Annual	CABRB4	<i>Camissonia</i>	<i>brevipes ssp. brevipes</i>	2.3
	Perennial	CAPI4	<i>Caulanthus</i>	<i>pilosus</i>	2.3

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	CAWR	<i>Calycoseris</i>	<i>wrightii</i>	2.3
	Annual	CHFR	<i>Chaenactis</i>	<i>fremontii</i>	2.3
	Annual	CRC12	<i>Cryptantha</i>	<i>circumscissa</i>	2.3
	Annual	CRMI	<i>Cryptantha</i>	<i>micrantha</i>	2.3
	Annual	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	2.3
	Perennial	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	2.3
	Perennial	CYGL2	<i>Cymopterus</i>	<i>globosus</i>	2.3
	Perennial	DIPU3	<i>Dichelostemma</i>	<i>pulchellum</i>	2.3
	Perennial	ENNUN	<i>Enceliopsis</i>	<i>nudicaulis</i> var. <i>nudicaulis</i>	2.3
	Perennial	EROVO5	<i>Eriogonum</i>	<i>ovalifolium</i> var. <i>ovalifolium</i>	2.3
	Perennial	GIIN2	<i>Gilia</i>	<i>inconspicua</i>	2.3
	Annual	GILIA	<i>Gilia</i>		2.3
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	2.3
	Perennial	LILE3	<i>Linum</i>	<i>lewisii</i>	2.3
	Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	2.3
	Annual	MEOB3	<i>Mentzelia</i>	<i>obscura</i>	2.3
	Annual	NAPU	<i>Nama</i>	<i>pusillum</i>	2.3
	Perennial	OECM4	<i>Oenothera</i>	<i>caespitosa</i> ssp. <i>marginata</i>	2.3
	Perennial	PEPA8	<i>Penstemon</i>	<i>palmeri</i>	2.3
	Annual	PESE	<i>Pectocarya</i>	<i>setosa</i>	2.3
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata</i> var. <i>crenulata</i>	2.3
	Annual	PLOV	<i>Plantago</i>	<i>ovata</i>	2.3
	Annual	SAKAT3	<i>Salsola</i>	<i>kali</i> ssp. <i>tragus</i>	2.3
	Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	2.3
	Perennial	SPAMR	<i>Sphaeralcea</i>	<i>ambigua</i> var. <i>rugosa</i>	2.3
	Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	2.3

Succulents

Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	25.0
Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	25.0
Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	4.5
Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	4.5
Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	4.5
Perennial	ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>	2.3
Perennial	OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	2.3
Perennial	OPPU	<i>Opuntia</i>	<i>pulchella</i>	2.3

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Menodora spinescens-Ephedra nevadensis Shrubland

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	60.0
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Short Shrubs (0.5-2 m)

Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	95.6
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	75.6
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	71.1
Perennial	HYS A	<i>Hymenoclea</i>	<i>salsola</i>	66.7
Perennial	PSFRF	<i>Psorothamnus</i>	<i>fremontii</i> var. <i>fremontii</i>	66.7
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	64.4
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	60.0
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	53.3
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	40.0
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	37.8
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	35.6
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	26.7
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	24.4
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	24.4
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	22.2
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	22.2
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	20.0
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	17.8
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	17.8
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	15.6
Perennial	EPTO	<i>Ephedra</i>	<i>torreyana</i>	11.1
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	11.1
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	8.9
Perennial	STEL	<i>Stanleya</i>	<i>elata</i>	8.9
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	6.7
Perennial	ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>	6.7
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	6.7
Perennial	CHVIS5	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i> var. <i>stenophyllus</i>	4.4
Perennial	EPFU	<i>Ephedra</i>	<i>funerea</i>	4.4
Perennial	PENI	<i>Petalonyx</i>	<i>nitidus</i>	4.4
Perennial	PSPO	<i>Psorothamnus</i>	<i>polydenius</i>	4.4

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	4.4
	Perennial	BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	2.2
	Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	2.2
	Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	2.2
	Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	2.2
	Perennial	SENE5	<i>Senecio</i>	<i>flaccidus</i> var. <i>douglasii</i>	2.2
	Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	2.2

Dwarf Shrubs (<0.5 m)

Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	75.6
Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	44.4
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	26.7
Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	4.4

Graminoids

Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	82.2
Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	53.3
Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	28.9
Perennial	ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoides</i>	15.6
Perennial	ERPU8	<i>Erioneuron</i>	<i>pulchellum</i>	13.3
Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	8.9
Annual	BRCA6	<i>Bromus</i>	<i>cartharticus</i>	4.4
Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	4.4
Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	4.4
Perennial	PLRI3	<i>Pleuraphis</i>	<i>rigida</i>	2.2

Forbs

Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	64.4
Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>ambigua</i>	57.8
Perennial	XYTOT	<i>Xylorhiza</i>	<i>tortifolia</i> var. <i>imberbis</i>	44.4
Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	40.0
Annual	CHRI	<i>Chorizanthe</i>	<i>rigida</i>	26.7
Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii</i> ssp. <i>parishii</i>	24.4
Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	22.2
Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	17.8
Annual	ERDE6	<i>Eriogonum</i>	<i>deflexum</i>	17.8
Annual	CABRB4	<i>Camissonia</i>	<i>brevipes</i> ssp. <i>brevipes</i>	15.6

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	CHST	<i>Chaenactis</i>	<i>stevioides</i>	15.6
	Perennial	BAMU	<i>Baileya</i>	<i>multiradiata</i>	13.3
	Annual	ERC16	<i>Erodium</i>	<i>cicutarium</i>	13.3
	Annual	GILIA	<i>Gilia</i>		13.3
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	13.3
	Annual	PHVAV2	<i>Phacelia</i>	<i>vallis-mortae</i> var. <i>vallis-mortae</i>	13.3
	Perennial	CAFL	<i>Calochortus</i>	<i>flexuosus</i>	11.1
	Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis</i> var. <i>nevadensis</i>	11.1
	Annual	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	11.1
	Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	11.1
	Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens</i> ssp. <i>canescens</i>	11.1
	Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	11.1
	Annual	OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	11.1
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	11.1
	Perennial	ARPUM	<i>Arabis</i>	<i>pulchra</i> var. <i>munciensis</i>	8.9
	Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus</i> var. <i>fremontii</i>	8.9
	Perennial	CAAPM	<i>Castilleja</i>	<i>applegatei</i> ssp. <i>martinii</i>	8.9
	Annual	CHFR	<i>Chaenactis</i>	<i>fremontii</i>	8.9
	Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	8.9
	Perennial	MIPU5	<i>Mirabilis</i>	<i>pudica</i>	8.9
	Annual	STLO4	<i>Streptanthella</i>	<i>longirostris</i>	8.9
	Perennial	ASTI	<i>Astragalus</i>	<i>tidestromii</i>	6.7
	Perennial	CAAP4	<i>Castilleja</i>	<i>applegatei</i>	6.7
	Annual	DEPIG	<i>Descurainia</i>	<i>pinnata</i> ssp. <i>glabra</i>	6.7
	Annual	ESGL	<i>Eschscholzia</i>	<i>glyptosperma</i>	6.7
	Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum</i> ssp. <i>brecciarum</i>	6.7
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	6.7
	Annual	MEOB3	<i>Mentzelia</i>	<i>obscura</i>	6.7
	Perennial	MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	6.7
	Perennial	POSU	<i>Polygala</i>	<i>subspinoso</i>	6.7
	Perennial	SPAMR	<i>Sphaeralcea</i>	<i>ambigua</i> var. <i>rugosa</i>	6.7
	Perennial	CAPI4	<i>Caulanthus</i>	<i>pilosus</i>	4.4
	Annual	CHBRB	<i>Chorizanthe</i>	<i>brevicomu</i> var. <i>brevicomu</i>	4.4
	Perennial	DIPU3	<i>Dichelostemma</i>	<i>pulchellum</i>	4.4
	Annual	ERPR4	<i>Eriophyllum</i>	<i>pringlei</i>	4.4
	Annual	OEPR	<i>Oenothera</i>	<i>primiveris</i>	4.4

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	PESE	<i>Pectocarya</i>	<i>setosa</i>	4.4
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata</i> var. <i>crenulata</i>	4.4
	Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	4.4
	Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	4.4
	Biennial	SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	4.4
	Perennial	STCOC	<i>Streptanthus</i>	<i>cordatus</i> var. <i>cordatus</i>	4.4
	Perennial	ALNE	<i>Allium</i>	<i>nevadense</i>	2.2
	Perennial	ARCOS2	<i>Arenaria</i>	<i>congesta</i> var. <i>subcongesta</i>	2.2
	Perennial	ARMA3	<i>Arenaria</i>	<i>macradenia</i>	2.2
	Perennial	ASLA8	<i>Astragalus</i>	<i>layneae</i>	2.2
	Perennial	ASPUT	<i>Astragalus</i>	<i>purshii</i> var. <i>tinctus</i>	2.2
	Annual	ATPL	<i>Atrichoseris</i>	<i>platyphylla</i>	2.2
	Annual	CABOC	<i>Camissonia</i>	<i>boothii</i> ssp. <i>condensata</i>	2.2
	Annual	CACLI	<i>Camissonia</i>	<i>claviformis</i> ssp. <i>integrrior</i>	2.2
	Annual	CAHE12	<i>Camissonia</i>	<i>heterochroma</i>	2.2
	Annual	CAKEG	<i>Camissonia</i>	<i>kernensis</i> ssp. <i>gilmanii</i>	2.2
	Annual	CETH3	<i>Centrostegia</i>	<i>thurberi</i>	2.2
	Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	2.2
	Annual	CHMA	<i>Chaenactis</i>	<i>macrantha</i>	2.2
	Annual	CRAM3	<i>Cryptantha</i>	<i>ambigua</i>	2.2
	Annual	CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	2.2
	Annual	CRMA7	<i>Cryptantha</i>	<i>maritima</i>	2.2
	Annual	CRRE5	<i>Cryptantha</i>	<i>recurvata</i>	2.2
	Perennial	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	2.2
	Perennial	ENNUN	<i>Enceliopsis</i>	<i>nudicaulis</i> var. <i>nudicaulis</i>	2.2
	Perennial	ERCOC3	<i>Erigeron</i>	<i>concinus</i> var. <i>concinus</i>	2.2
	Annual	ERRE3	<i>Eriogonum</i>	<i>reniforme</i>	2.2
	Perennial	ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	2.2
	Annual	GARA	<i>Gayophytum</i>	<i>racemosum</i>	2.2
	Perennial	GISC	<i>Gilia</i>	<i>scopulorum</i>	2.2
	Annual	LASE3	<i>Langloisia</i>	<i>setosissima</i>	2.2
	Annual	LOHU2	<i>Lotus</i>	<i>humistratus</i>	2.2
	Annual	LOSC6	<i>Loeselistrum</i>	<i>schottii</i>	2.2
	Annual	LUFL	<i>Lupinus</i>	<i>flavoculatus</i>	2.2
	Annual	MISP	<i>Mimulus</i>	<i>spissus</i>	2.2
	Annual	MOBE	<i>Monoptilon</i>	<i>bellidiforme</i>	2.2

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	OECM4	<i>Oenothera</i>	<i>caespitosa ssp. marginata</i>	2.2
	Perennial	OEPAP	<i>Oenothera</i>	<i>pallida ssp. pallida</i>	2.2
	Perennial	PEFLA2	<i>Penstemon</i>	<i>floridus var. austinii</i>	2.2
	Annual	PHSA	<i>Phacelia</i>	<i>saxicola</i>	2.2
	Annual	PLOV	<i>Plantago</i>	<i>ovata</i>	2.2
	Annual	PSAN	<i>Psathyrotes</i>	<i>annua</i>	2.2
	Annual	RANE	<i>Rafinesquia</i>	<i>neomexicana</i>	2.2
	Annual	SACOC	<i>Salvia</i>	<i>columbariae var. columbariae</i>	2.2
	Perennial	SPGRP2	<i>Sphaeralcea</i>	<i>grossulariaefolia ssp. pedata</i>	2.2
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua ssp. exigua</i>	2.2
	Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	2.2

Succulents

Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	48.9
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa var. echinocarpa</i>	35.6
Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	26.7
Perennial	ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>	17.8
Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	8.9
Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris var. basilaris</i>	6.7
Perennial	ECENE	<i>Echinocereus</i>	<i>engelmannii var. engelmannii</i>	2.2
Perennial	ESVID	<i>Escobaria</i>	<i>vivipara var. deserti</i>	2.2
Perennial	OPERE	<i>Opuntia</i>	<i>erinacea var. erinacea</i>	2.2
Perennial	OPERU	<i>Opuntia</i>	<i>erinacea var. ursina</i>	2.2
Perennial	OPPU	<i>Opuntia</i>	<i>pulchella</i>	2.2
Perennial	OPRA	<i>Opuntia</i>	<i>ramosissima</i>	2.2

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Krascheninnikovia lanata-Ephedra nevadensis Shrubland

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	40.0
Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata ssp. tridentata</i>	3.3

Short Shrubs (0.5-2 m)

Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	100.0
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	86.7
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	86.7
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	83.3
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	66.7
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	60.0
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	56.7
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris var. axillaris</i>	56.7
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. viscidiflorus</i>	53.3
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	36.7
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens var. canescens</i>	36.7
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	26.7
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	23.3
Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii var. fremontii</i>	23.3
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata var. pinnata</i>	23.3
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	16.7
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	16.7
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	13.3
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis var. virginensis</i>	10.0
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum var. oligospermum</i>	10.0
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	10.0
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum var. polifolium</i>	6.7
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus ssp. consimilis var. leiosperma</i>	6.7
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	3.3
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	3.3
Perennial	PENI	<i>Petalonyx</i>	<i>nitidus</i>	3.3
Perennial	STEL	<i>Stanleya</i>	<i>elata</i>	3.3
Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	3.3
Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	3.3

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Dwarf Shrubs (<0.5 m)

Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	56.7
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	50.0
Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	10.0

Graminoids

Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	100.0
Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	90.0
Perennial	ELELE	<i>Elymus</i>	<i>elymoides ssp. elymoides</i>	53.3
Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	36.7
Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	20.0
Perennial	ERPU8	<i>Erioneuron</i>	<i>pulchellum</i>	6.7
Perennial	ARPU9	<i>Aristida</i>	<i>purpurea</i>	3.3
Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	3.3
Perennial	PLRI3	<i>Pleuraphis</i>	<i>rigida</i>	3.3
Perennial	POSE	<i>Poa</i>	<i>secunda</i>	3.3
Perennial	SPCR	<i>Sporobolus</i>	<i>cryptandrus</i>	3.3
Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	3.3

Forbs

Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua ssp. ambigua</i>	80.0
Annual	CHST	<i>Chaenactis</i>	<i>steviodes</i>	60.0
Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	56.7
Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	36.7
Annual	ERDE6	<i>Eriogonum</i>	<i>deflexum</i>	33.3
Annual	ERPR4	<i>Eriophyllum</i>	<i>pringlei</i>	30.0
Annual	OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	30.0
Perennial	MIPU5	<i>Mirabilis</i>	<i>pudica</i>	23.3
Perennial	XYTOT	<i>Xylorhiza</i>	<i>tortifolia var. imberbis</i>	23.3
Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii ssp. parishii</i>	20.0
Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	20.0
Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	20.0
Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	16.7
Perennial	POSU	<i>Polygala</i>	<i>subspinoso</i>	16.7
Perennial	CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	13.3
Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens ssp. canescens</i>	13.3

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	13.3
	Perennial	GIIN2	<i>Gilia</i>	<i>inconspicua</i>	10.0
	Annual	GILIA	<i>Gilia</i>		10.0
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	10.0
	Perennial	ASLA8	<i>Astragalus</i>	<i>layneae</i>	6.7
	Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	6.7
	Annual	ERIC6	<i>Erodium</i>	<i>cicutarium</i>	6.7
	Annual	PHVAV2	<i>Phacelia</i>	<i>vallis-mortae</i> var. <i>vallis-mortae</i>	6.7
	Annual	CRMI	<i>Cryptantha</i>	<i>micrantha</i>	3.3
	Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis</i> var. <i>nevadensis</i>	3.3
	Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	3.3
	Perennial	DIPU3	<i>Dichelostemma</i>	<i>pulchellum</i>	3.3
	Perennial	ERCOC3	<i>Erigeron</i>	<i>concinus</i> var. <i>concinus</i>	3.3
	Annual	ESMI	<i>Eschscholzia</i>	<i>minutiflora</i>	3.3
	Perennial	HEMUN	<i>Heliomeris</i>	<i>multiflora</i> var. <i>nevadensis</i>	3.3
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	3.3
	Annual	LUBR2	<i>Lupinus</i>	<i>brevicaulis</i>	3.3
	Annual	LUFL	<i>Lupinus</i>	<i>flavoculatus</i>	3.3
	Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	3.3
	Annual	MIBIB2	<i>Mimulus</i>	<i>bigelovii</i> var. <i>bigelovii</i>	3.3
	Annual	OEPR	<i>Oenothera</i>	<i>primiveris</i>	3.3
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata</i> var. <i>crenulata</i>	3.3
	Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	3.3
	Annual	RANE	<i>Rafinesquia</i>	<i>neomexicana</i>	3.3
	Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	3.3
	Biennial	SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	3.3
	Perennial	SPAMR	<i>Sphaeralcea</i>	<i>ambigua</i> var. <i>rugosa</i>	3.3
	Perennial	SPGRP2	<i>Sphaeralcea</i>	<i>grossulariaefolia</i> ssp. <i>pedata</i>	3.3
	Annual	STLO4	<i>Streptanthella</i>	<i>longirostris</i>	3.3
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	3.3
	Biennial	THLA4	<i>Thelypodium</i>	<i>laxiflorum</i>	3.3

Succulents

Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	63.3
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	30.0
Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	20.0
Perennial	ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>	6.7

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	3.3
	Perennial	OPPU	<i>Opuntia</i>	<i>pulchella</i>	3.3

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Eriogonum fasciculatum-Ephedra nevadensis Shrubland

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	42.9
Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata ssp. tridentata</i>	14.3

Short Shrubs (0.5-2 m)

Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum var. polifolium</i>	100.0
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	92.9
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	85.7
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	85.7
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	71.4
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	71.4
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	64.3
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis var. virginensis</i>	50.0
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	50.0
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	35.7
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	35.7
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. viscidiflorus</i>	28.6
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	28.6
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	28.6
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	28.6
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	28.6
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris var. axillaris</i>	21.4
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens var. canescens</i>	14.3
Perennial	BRMIW	<i>Brickellia</i>	<i>microphylla var. watsonii</i>	14.3
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus ssp. consimilis var. leiosperma</i>	14.3
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	14.3
Perennial	PSFRF	<i>Psorothamnus</i>	<i>fremontii var. fremontii</i>	14.3
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata var. pinnata</i>	14.3
Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	7.1
Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus ssp. nauseosus var. hololeuca</i>	7.1
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	7.1
Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	7.1
Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	7.1

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Dwarf Shrubs (<0.5 m)

Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	71.4
Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	14.3
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	14.3

Graminoids

Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	100.0
Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	92.9
Perennial	ERPU8	<i>Erioneuron</i>	<i>pulchellum</i>	35.7
Perennial	ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoides</i>	14.3
Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	7.1
Perennial	ARPU9	<i>Aristida</i>	<i>purpurea</i>	7.1
Perennial	BOGR2	<i>Bouteloua</i>	<i>gracilis</i>	7.1
Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	7.1
Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	7.1

Forbs

Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>ambigua</i>	78.6
Perennial	XYTOT	<i>Xylorhiza</i>	<i>tortifolia</i> var. <i>imberbis</i>	42.9
Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	35.7
Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii</i> ssp. <i>parishii</i>	28.6
Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	28.6
Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	28.6
Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	21.4
Perennial	CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	21.4
Perennial	BRAT	<i>Brickellia</i>	<i>atractyloides</i>	14.3
Biennial	CINE	<i>Cirsium</i>	<i>neomexicanum</i>	14.3
Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum</i> ssp. <i>brecciarum</i>	14.3
Annual	LOHU2	<i>Lotus</i>	<i>humistratus</i>	14.3
Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	14.3
Annual	PHVAV2	<i>Phacelia</i>	<i>vallis-mortae</i> var. <i>vallis-mortae</i>	14.3
Perennial	ADCO2	<i>Adenophyllum</i>	<i>cooperi</i>	7.1
Perennial	ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	7.1
Perennial	ARPUM	<i>Arabis</i>	<i>pulchra</i> var. <i>munciensis</i>	7.1
Annual	ASAC3	<i>Astragalus</i>	<i>acutirostris</i>	7.1
Perennial	ASCA14	<i>Astragalus</i>	<i>casei</i>	7.1

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	ASLA8	<i>Astragalus</i>	<i>layneae</i>	7.1
	Annual	CABRB4	<i>Camissonia</i>	<i>brevipes</i> ssp. <i>brevipes</i>	7.1
	Annual	CAHE12	<i>Camissonia</i>	<i>heterochroma</i>	7.1
	Annual	CAPA7	<i>Calycoseris</i>	<i>parryi</i>	7.1
	Annual	CETH3	<i>Centrostegia</i>	<i>thurberi</i>	7.1
	Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	7.1
	Annual	CHMA	<i>Chaenactis</i>	<i>macrantha</i>	7.1
	Annual	CHST	<i>Chaenactis</i>	<i>stevioides</i>	7.1
	Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis</i> var. <i>nevadensis</i>	7.1
	Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	7.1
	Perennial	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	7.1
	Annual	ERCI6	<i>Erodium</i>	<i>cicutarium</i>	7.1
	Annual	ESGL	<i>Eschscholzia</i>	<i>glyptosperma</i>	7.1
	Annual	ESMI	<i>Eschscholzia</i>	<i>minutiflora</i>	7.1
	Perennial	HEMUN	<i>Heliomeris</i>	<i>multiflora</i> var. <i>nevadensis</i>	7.1
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	7.1
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	7.1
	Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	7.1
	Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	7.1
	Perennial	MIPU5	<i>Mirabilis</i>	<i>pudica</i>	7.1
	Annual	NAPU	<i>Nama</i>	<i>pusillum</i>	7.1
	Annual	NIAT	<i>Nicotiana</i>	<i>attenuata</i>	7.1
	Perennial	OECEM4	<i>Oenothera</i>	<i>caespitosa</i> ssp. <i>marginata</i>	7.1
	Annual	PEPL	<i>Pectocarya</i>	<i>platycarpa</i>	7.1
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata</i> var. <i>crenulata</i>	7.1
	Annual	RANE	<i>Rafinesquia</i>	<i>neomexicana</i>	7.1
	Annual	SACOC	<i>Salvia</i>	<i>columbariae</i> var. <i>columbariae</i>	7.1
	Perennial	SPAMR	<i>Sphaeralcea</i>	<i>ambigua</i> var. <i>rugosa</i>	7.1

Succulents

Perennial	ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>	64.3
Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	42.9
Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	35.7
Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	21.4
Perennial	MATE4	<i>Mammillaria</i>	<i>tetrancistra</i>	7.1

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Ephedra nevadensis-Grayia spinosa Shrubland

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	2.2
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Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	19.6
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Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	13.0
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Short Shrubs (0.5-2 m)

Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	96.7
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Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	83.7
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Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	78.3
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Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	72.8
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Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	69.6
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Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	67.4
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Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	58.7
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Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	50.0
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Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	44.6
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Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	35.9
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Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	28.3
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Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	27.2
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Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	23.9
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Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	18.5
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Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	18.5
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Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	17.4
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Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	16.3
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Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	13.0
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Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	10.9
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Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	10.9
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Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	10.9
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Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	10.9
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Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	10.9
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Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	9.8
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Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	9.8
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Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	9.8
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Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	9.8
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<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	7.6
	Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	7.6
	Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	7.6
	Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	6.5
	Perennial	PSPO	<i>Psorothamnus</i>	<i>polydenius</i>	6.5
	Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	5.4
	Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	5.4
	Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	5.4
	Perennial	STEL	<i>Stanleya</i>	<i>elata</i>	4.3
	Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	3.3
	Perennial	AMER	<i>Ambrosia</i>	<i>eriocentra</i>	2.2
	Perennial	BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	2.2
	Perennial	ERPA29	<i>Ericameria</i>	<i>paniculata</i>	2.2
	Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	2.2
	Perennial	BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>	1.1
	Perennial	CHGR6	<i>Chrysothamnus</i>	<i>greenei</i>	1.1
	Perennial	ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>	1.1
	Perennial	ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	1.1
	Perennial	GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	1.1
	Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	1.1
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	1.1
	Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	1.1
	Perennial	SENE5	<i>Senecio</i>	<i>flaccidus</i> var. <i>douglasii</i>	1.1

Dwarf Shrubs (<0.5 m)

Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	34.8
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	17.4
Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	13.0
Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	4.3

Graminoids

Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	87.0
Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	62.0
Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	57.6
Perennial	ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoides</i>	38.0
Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	35.9
Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	20.7

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	POSE	<i>Poa</i>	<i>secunda</i>	8.7
	Perennial	HECOC8	<i>Hesperostipa</i>	<i>comata ssp. comata</i>	6.5
	Perennial	ERPU8	<i>Erioneuron</i>	<i>pulchellum</i>	5.4
	Perennial	ARPU9	<i>Aristida</i>	<i>purpurea</i>	4.3
	Perennial	BOGR2	<i>Bouteloua</i>	<i>gracilis</i>	1.1
	Annual	BRCA6	<i>Bromus</i>	<i>cartharticus</i>	1.1
	Perennial	PLRI3	<i>Pleuraphis</i>	<i>rigida</i>	1.1
	Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	1.1

Forbs

Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	83.7
Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua ssp. ambigua</i>	62.0
Annual	CHST	<i>Chaenactis</i>	<i>stevioides</i>	44.6
Annual	ERIC6	<i>Erodium</i>	<i>cicutarium</i>	35.9
Perennial	CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	31.5
Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	30.4
Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens ssp. canescens</i>	28.3
Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii ssp. parishii</i>	23.9
Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	23.9
Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	22.8
Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	21.7
Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	20.7
Annual	ERDE6	<i>Eriogonum</i>	<i>deflexum</i>	18.5
Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus var. fremontii</i>	16.3
Perennial	HEMUN	<i>Heliomeris</i>	<i>multiflora var. nevadensis</i>	16.3
Annual	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	14.1
Annual	ERPR4	<i>Eriophyllum</i>	<i>pringlei</i>	14.1
Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	14.1
Perennial	XYTOT	<i>Xylorhiza</i>	<i>tortifolia var. imberbis</i>	14.1
Perennial	CAFL	<i>Calochortus</i>	<i>flexuosus</i>	13.0
Perennial	MIPU5	<i>Mirabilis</i>	<i>pudica</i>	13.0
Annual	PHVAV2	<i>Phacelia</i>	<i>vallis-mortae var. vallis-mortae</i>	13.0
Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	12.0
Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata var. crenulata</i>	12.0
Annual	OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	10.9
Biennial	CINE	<i>Cirsium</i>	<i>neomexicanum</i>	9.8
Annual	CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	9.8

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	9.8
	Perennial	ARPUM	<i>Arabis</i>	<i>pulchra</i> var. <i>munciensis</i>	8.7
	Annual	DEPIG	<i>Descurainia</i>	<i>pinnata</i> ssp. <i>glabra</i>	8.7
	Perennial	MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	8.7
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua</i> ssp. <i>exigua</i>	7.6
	Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	7.6
	Perennial	ADCO2	<i>Adenophyllum</i>	<i>cooperi</i>	6.5
	Annual	CAKEG	<i>Camissonia</i>	<i>kemensis</i> ssp. <i>gilmanii</i>	6.5
	Annual	LOHU2	<i>Lotus</i>	<i>humistratus</i>	6.5
	Annual	LUFL	<i>Lupinus</i>	<i>flavoculatus</i>	6.5
	Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	6.5
	Annual	PESE	<i>Pectocarya</i>	<i>setosa</i>	6.5
	Annual	SACOC	<i>Salvia</i>	<i>columbariae</i> var. <i>columbariae</i>	6.5
	Perennial	STPA3	<i>Stephanomeria</i>	<i>parryi</i>	6.5
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	6.5
	Annual	CETH3	<i>Centrostegia</i>	<i>thurberi</i>	5.4
	Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis</i> var. <i>nevadensis</i>	5.4
	Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	5.4
	Perennial	SEMU3	<i>Senecio</i>	<i>multilobatus</i>	5.4
	Biennial	SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	5.4
	Perennial	ASLA8	<i>Astragalus</i>	<i>layneae</i>	4.3
	Annual	CRMI	<i>Cryptantha</i>	<i>micrantha</i>	4.3
	Perennial	ERCOC3	<i>Erigeron</i>	<i>concinus</i> var. <i>concinus</i>	4.3
	Annual	GILIA	<i>Gilia</i>		4.3
	Perennial	LILE3	<i>Linum</i>	<i>lewisii</i>	4.3
	Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	4.3
	Perennial	PEFLA2	<i>Penstemon</i>	<i>floridus</i> var. <i>austinii</i>	4.3
	Annual	ASAC3	<i>Astragalus</i>	<i>acutirostris</i>	3.3
	Annual	CACLI	<i>Camissonia</i>	<i>claviformis</i> ssp. <i>integrrior</i>	3.3
	Annual	CHFR	<i>Chaenactis</i>	<i>fremontii</i>	3.3
	Perennial	CRCO12	<i>Cryptantha</i>	<i>confertiflora</i>	3.3
	Annual	CRGR3	<i>Cryptantha</i>	<i>gracilis</i>	3.3
	Annual	DESO2	<i>Descurainia</i>	<i>sophia</i>	3.3
	Perennial	DIPU3	<i>Dichelostemma</i>	<i>pulchellum</i>	3.3
	Perennial	EROVO5	<i>Eriogonum</i>	<i>ovalifolium</i> var. <i>ovalifolium</i>	3.3
	Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	3.3

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum</i> ssp. <i>brecciarum</i>	3.3
	Annual	LAOCO	<i>Lappula</i>	<i>occidentalis</i> var. <i>occidentalis</i>	3.3
	Annual	LASE3	<i>Langloisia</i>	<i>setosissima</i>	3.3
	Annual	MEVE5	<i>Mentzelia</i>	<i>veatchiana</i>	3.3
	Perennial	OECM4	<i>Oenothera</i>	<i>caespitosa</i> ssp. <i>marginata</i>	3.3
	Annual	PLPA2	<i>Plantago</i>	<i>patagonica</i>	3.3
	Annual	SAKAT3	<i>Salsola</i>	<i>kali</i> ssp. <i>tragus</i>	3.3
	Annual	AMAC2	<i>Ambrosia</i>	<i>acanthicarpa</i>	2.2
	Perennial	ARDR4	<i>Artemisia</i>	<i>dracunculus</i>	2.2
	Perennial	ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	2.2
	Perennial	ARPUG	<i>Arabis</i>	<i>pulchra</i> var. <i>gracilis</i>	2.2
	Perennial	ASPUT	<i>Astragalus</i>	<i>purshii</i> var. <i>tinctus</i>	2.2
	Perennial	BAMU	<i>Baileya</i>	<i>multiradiata</i>	2.2
	Annual	CABOC	<i>Camissonia</i>	<i>boothii</i> ssp. <i>condensata</i>	2.2
	Annual	CAPA7	<i>Calycoseris</i>	<i>parryi</i>	2.2
	Annual	CHMA	<i>Chaenactis</i>	<i>macrantha</i>	2.2
	Annual	CHRI	<i>Chorizanthe</i>	<i>rigida</i>	2.2
	Perennial	CRFL6	<i>Cryptantha</i>	<i>flavoculata</i>	2.2
	Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	2.2
	Perennial	CYRI2	<i>Cymopterus</i>	<i>ripleyi</i>	2.2
	Perennial	DEAN	<i>Delphinium</i>	<i>andersonii</i>	2.2
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	2.2
	Perennial	LONEN	<i>Lomatium</i>	<i>nevadense</i> var. <i>nevadense</i>	2.2
	Annual	LUBR2	<i>Lupinus</i>	<i>brevicaulis</i>	2.2
	Annual	MISP	<i>Mimulus</i>	<i>spissus</i>	2.2
	Annual	NAPU	<i>Nama</i>	<i>pusillum</i>	2.2
	Perennial	POSU	<i>Polygala</i>	<i>subspinoso</i>	2.2
	Perennial	SPAMM	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>monticola</i>	2.2
	Perennial	SPAMR	<i>Sphaeralcea</i>	<i>ambigua</i> var. <i>rugosa</i>	2.2
	Annual	URLI2	<i>Uropappus</i>	<i>linearifolia</i>	2.2
	Perennial	ABEL	<i>Abronia</i>	<i>elliptica</i>	1.1
	Annual	ANAC	<i>Anisocoma</i>	<i>acaulis</i>	1.1
	Perennial	ARCOS2	<i>Arenaria</i>	<i>congesta</i> var. <i>subcongesta</i>	1.1
	Perennial	ARMA3	<i>Arenaria</i>	<i>macradenia</i>	1.1
	Perennial	ASCA14	<i>Astragalus</i>	<i>casei</i>	1.1
	Perennial	ASTI	<i>Astragalus</i>	<i>tidestromii</i>	1.1

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	CABRB4	<i>Camissonia</i>	<i>brevipes ssp. brevipes</i>	1.1
	Perennial	CAPI4	<i>Caulanthus</i>	<i>pilosus</i>	1.1
	Annual	CAPT	<i>Camissonia</i>	<i>pterosperma</i>	1.1
	Annual	CHSES	<i>Chamaesyce</i>	<i>serpyllifolia ssp. serpyllifolia</i>	1.1
	Annual	CHWA2	<i>Chorizanthe</i>	<i>watsonii</i>	1.1
	Perennial	CROCO2	<i>Crepis</i>	<i>occidentalis ssp. occidentalis</i>	1.1
	Perennial	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	1.1
	Perennial	CYGL2	<i>Cymopterus</i>	<i>globosus</i>	1.1
	Perennial	CYPU	<i>Cymopterus</i>	<i>purpurascens</i>	1.1
	Annual	ERDI4	<i>Erigeron</i>	<i>divergens</i>	1.1
	Annual	ERESE	<i>Eriogonum</i>	<i>esmeraldense var. esmeraldense</i>	1.1
	Perennial	ERNU4	<i>Eriogonum</i>	<i>nummular</i>	1.1
	Annual	ESGL	<i>Eschscholzia</i>	<i>glyptosperma</i>	1.1
	Annual	ESMI	<i>Eschscholzia</i>	<i>minutiflora</i>	1.1
	Perennial	GICAT	<i>Gilia</i>	<i>cana ssp. triceps</i>	1.1
	Annual	GLMA2	<i>Glyptopleura</i>	<i>marginata</i>	1.1
	Annual	HAGL	<i>Halogeton</i>	<i>glomeratus</i>	1.1
	Annual	MASO	<i>Malacothrix</i>	<i>sonchoides</i>	1.1
	Annual	MEOB3	<i>Mentzelia</i>	<i>obscura</i>	1.1
	Perennial	MIMUG	<i>Mirabilis</i>	<i>multiflora var. glandulosa</i>	1.1
	Annual	MISU2	<i>Mimulus</i>	<i>suksdorfii</i>	1.1
	Annual	MOBE	<i>Monoptilon</i>	<i>bellidiforme</i>	1.1
	Annual	NIAT	<i>Nicotiana</i>	<i>attenuata</i>	1.1
	Perennial	OEPAP	<i>Oenothera</i>	<i>pallida ssp. pallida</i>	1.1
	Annual	OEPR	<i>Oenothera</i>	<i>primiveris</i>	1.1
	Annual	PHCA2	<i>Phacelia</i>	<i>calthifolia</i>	1.1
	Perennial	PHGRH	<i>Phlox</i>	<i>gracilis ssp. humilis</i>	1.1
	Annual	PHSA	<i>Phacelia</i>	<i>saxicola</i>	1.1
	Annual	RANE	<i>Rafinesquia</i>	<i>neomexicana</i>	1.1
	Perennial	STCOC	<i>Streptanthus</i>	<i>cordatus var. cordatus</i>	1.1
	Perennial	TRWA2	<i>Tricardia</i>	<i>watsonii</i>	1.1

Succulents

	Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	44.6
	Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa var. echinocarpa</i>	40.2
	Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	14.1
	Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris var. basilaris</i>	13.0

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	YUBAV	<i>Yucca</i>	<i>baccata var. vespertina</i>	10.9
	Perennial	ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>	9.8
	Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha var. rufispina</i>	5.4
	Perennial	ESVIR2	<i>Escobaria</i>	<i>vivipara var. rosea</i>	4.3
	Perennial	OPPU	<i>Opuntia</i>	<i>pulchella</i>	4.3
	Perennial	OPERE	<i>Opuntia</i>	<i>erinacea var. erinacea</i>	2.2
	Perennial	SCPO4	<i>Sclerocactus</i>	<i>polyancistrus</i>	2.2
	Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	2.2
	Perennial	ECTRМ	<i>Echinocereus</i>	<i>triglochidiatus var. melanacanthus</i>	1.1
	Perennial	OPRA	<i>Opuntia</i>	<i>ramosissima</i>	1.1
Variable					
	Variable	MENTZ	<i>Mentzelia</i>		1.1

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Coleogyne ramosissima-Ephedra nevadensis Shrubland

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	6.5
Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	3.4

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	33.4
Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	13.9
Perennial	CELEL	<i>Cercocarpus</i>	<i>ledifolius</i> var. <i>ledifolius</i>	0.6
Perennial	CEGRV2	<i>Ceanothus</i>	<i>greggii</i> ssp. <i>vestitus</i>	0.3

Short Shrubs (0.5-2 m)

Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	100.0
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	91.3
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	66.6
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	55.4
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	52.6
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	47.1
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	32.2
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	28.5
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	28.2
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	27.6
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	25.4
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	24.5
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	22.0
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	22.0
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	19.2
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	17.6
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	17.0
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	16.7
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	15.5
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	15.2
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	14.6
Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	13.9
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	12.7
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	10.8

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	7.4
	Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	6.8
	Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	6.5
	Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	5.9
	Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	5.6
	Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	5.6
	Perennial	STEL	<i>Stanleya</i>	<i>elata</i>	5.6
	Perennial	BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	4.6
	Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	4.3
	Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	3.7
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	3.7
	Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	3.1
	Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	2.8
	Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	2.5
	Perennial	ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	1.5
	Perennial	PSPO	<i>Psoralea</i>	<i>polydenius</i>	1.5
	Perennial	EPFU	<i>Ephedra</i>	<i>funerea</i>	1.2
	Perennial	ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>	1.2
	Perennial	PENI	<i>Petalonyx</i>	<i>nitidus</i>	1.2
	Perennial	EPTO	<i>Ephedra</i>	<i>torreyana</i>	0.9
	Perennial	RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	0.9
	Perennial	AMER	<i>Ambrosia</i>	<i>eriantha</i>	0.6
	Perennial	BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>	0.6
	Perennial	CHGR6	<i>Chrysothamnus</i>	<i>greenei</i>	0.6
	Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	0.6
	Perennial	ARBI3	<i>Artemisia</i>	<i>bigelovii</i>	0.3
	Perennial	BUUT	<i>Buddleja</i>	<i>utahensis</i>	0.3
	Perennial	ERCUC	<i>Ericameria</i>	<i>cuneatus</i>	0.3
	Perennial	ERHEA	<i>Eriogonum</i>	<i>heermannii</i> var. <i>argense</i>	0.3
	Perennial	GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	0.3
	Perennial	PERA4	<i>Peraphyllum</i>	<i>ramosissimum</i>	0.3
	Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	0.3
	Perennial	RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	0.3
	Perennial	SENE5	<i>Senecio</i>	<i>flaccidus</i> var. <i>douglasii</i>	0.3

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Dwarf Shrubs (<0.5 m)

Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	24.8
Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	21.7
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	11.5
Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	1.5
Perennial	ERMIL	<i>Eriogonum</i>	<i>microthecum</i> var. <i>lapidicola</i>	0.3
Perennial	KOAM	<i>Kochia</i>	<i>americana</i>	0.3

Graminoids

Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	86.4
Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	44.9
Perennial	ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoides</i>	30.7
Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	29.1
Perennial	POSE	<i>Poa</i>	<i>secunda</i>	16.1
Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	11.5
Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	9.0
Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	5.9
Perennial	ERPU8	<i>Erioneuron</i>	<i>pulchellum</i>	4.0
Perennial	POFE	<i>Poa</i>	<i>fendleriana</i>	2.8
Perennial	ARPU9	<i>Aristida</i>	<i>purpurea</i>	2.2
Perennial	HECOC8	<i>Hesperostipa</i>	<i>comata</i> ssp. <i>comata</i>	1.5
Annual	SCAR	<i>Schismus</i>	<i>arabicus</i>	1.2
Perennial	PLRI3	<i>Pleuraphis</i>	<i>rigida</i>	0.9
Annual	VUMI	<i>Vulpia</i>	<i>microstachys</i>	0.9
Perennial	ACAR14	<i>Achnatherum</i>	<i>arida</i>	0.6
Perennial	ACCO21	<i>Achnatherum</i>	<i>coronata</i>	0.3
Perennial	BOGR2	<i>Bouteloua</i>	<i>gracilis</i>	0.3
Annual	BRBE2	<i>Bromus</i>	<i>berterianus</i>	0.3
Annual	BRCA6	<i>Bromus</i>	<i>cartharticus</i>	0.3
Perennial	LECI4	<i>Leymus</i>	<i>cinereus</i>	0.3

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Forbs

Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	65.9
Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>ambigua</i>	36.8
Annual	CHST	<i>Chaenactis</i>	<i>stevioides</i>	32.2
Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii</i> ssp. <i>parishii</i>	28.5
Perennial	XYTOT	<i>Xylorhiza</i>	<i>tortifolia</i> var. <i>imberbis</i>	24.1
Perennial	CAFL	<i>Calochortus</i>	<i>flexuosus</i>	23.8
Annual	OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	22.6
Annual	PHVAV2	<i>Phacelia</i>	<i>vallis-mortae</i> var. <i>vallis-mortae</i>	22.3
Annual	ERCI6	<i>Erodium</i>	<i>cicutarium</i>	21.7
Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	19.2
Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	17.0
Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	13.9
Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	13.6
Perennial	ARPUM	<i>Arabis</i>	<i>pulchra</i> var. <i>munciensis</i>	13.0
Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis</i> var. <i>nevadensis</i>	12.4
Perennial	CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	12.1
Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	11.8
Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens</i> ssp. <i>canescens</i>	11.1
Perennial	HEMUN	<i>Heliomeris</i>	<i>multiflora</i> var. <i>nevadensis</i>	10.8
Annual	ERDE6	<i>Eriogonum</i>	<i>deflexum</i>	7.7
Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	7.7
Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	7.7
Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	7.4
Annual	ERPR4	<i>Eriophyllum</i>	<i>pringlei</i>	7.4
Annual	CHRI	<i>Chorizanthe</i>	<i>rigida</i>	6.8
Perennial	STPA3	<i>Stephanomeria</i>	<i>parryi</i>	6.8
Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	6.8
Annual	CRMI	<i>Cryptantha</i>	<i>micrantha</i>	6.2
Annual	PESE	<i>Pectocarya</i>	<i>setosa</i>	6.2
Annual	STEXE	<i>Stephanomeria</i>	<i>exigua</i> ssp. <i>exigua</i>	6.2
Annual	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	5.9
Perennial	GIIN2	<i>Gilia</i>	<i>inconspicua</i>	5.6
Annual	GILIA	<i>Gilia</i>		5.6
Annual	LOHU2	<i>Lotus</i>	<i>humistratus</i>	5.3
Annual	MEVE5	<i>Mentzelia</i>	<i>veatchiana</i>	5.3

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<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	ARMA3	<i>Arenaria</i>	<i>macradenia</i>	5.0
	Annual	CAKEG	<i>Camissonia</i>	<i>kernensis ssp. gilmanii</i>	5.0
	Annual	CETH3	<i>Centrostegia</i>	<i>thurberi</i>	4.6
	Annual	DEPIG	<i>Descurainia</i>	<i>pinnata ssp. glabra</i>	4.6
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	4.6
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	4.6
	Perennial	ADCO2	<i>Adenophyllum</i>	<i>cooperi</i>	4.3
	Perennial	DIPU3	<i>Dichelostemma</i>	<i>pulchellum</i>	4.3
	Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus var. fremontii</i>	4.0
	Perennial	ERCOC3	<i>Erigeron</i>	<i>concinus var. concinus</i>	4.0
	Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	3.7
	Annual	LASE3	<i>Langloisia</i>	<i>setosissima</i>	3.7
	Annual	LUBR2	<i>Lupinus</i>	<i>brevicaulis</i>	3.7
	Annual	LUFL	<i>Lupinus</i>	<i>flavoculatus</i>	3.7
	Annual	CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	3.4
	Perennial	EROVO5	<i>Eriogonum</i>	<i>ovalifolium var. ovalifolium</i>	3.4
	Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum ssp. brecciarum</i>	3.4
	Perennial	ASLA8	<i>Astragalus</i>	<i>layneae</i>	3.1
	Perennial	LONEN	<i>Lomatium</i>	<i>nevadense var. nevadense</i>	3.1
	Annual	RANE	<i>Rafinesquia</i>	<i>neomexicana</i>	3.1
	Perennial	SPAMR	<i>Sphaeralcea</i>	<i>ambigua var. rugosa</i>	3.1
	Annual	ERMA2	<i>Eriogonum</i>	<i>maculatum</i>	2.8
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	2.8
	Perennial	MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	2.8
	Perennial	CRCO12	<i>Cryptantha</i>	<i>confertiflora</i>	2.5
	Perennial	ARCOS2	<i>Arenaria</i>	<i>congesta var. subcongesta</i>	2.2
	Annual	ASAC3	<i>Astragalus</i>	<i>acutirostris</i>	2.2
	Biennial	CINE	<i>Cirsium</i>	<i>neomexicanum</i>	2.2
	Perennial	MIPU5	<i>Mirabilis</i>	<i>pudica</i>	2.2
	Annual	PLPA2	<i>Plantago</i>	<i>patagonica</i>	2.2
	Annual	STLO4	<i>Streptanthella</i>	<i>longirostris</i>	2.2
	Annual	CABOC	<i>Camissonia</i>	<i>boothii ssp. condensata</i>	1.9
	Annual	CHBRB	<i>Chorizanthe</i>	<i>brevicornu var. brevicornu</i>	1.9
	Annual	CHFR	<i>Chaenactis</i>	<i>fremontii</i>	1.9
	Annual	NADED	<i>Nama</i>	<i>demissum var. demissum</i>	1.9
	Annual	URLI2	<i>Uropappus</i>	<i>linearifolia</i>	1.9
	Perennial	ALNE	<i>Allium</i>	<i>nevadense</i>	1.5

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	ARIN	<i>Arabis</i>	<i>inyoensis</i>	1.5
	Perennial	ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	1.5
	Perennial	ASPUT	<i>Astragalus</i>	<i>purshii</i> var. <i>tinctus</i>	1.5
	Annual	CABRB4	<i>Camissonia</i>	<i>brevipes</i> ssp. <i>brevipes</i>	1.5
	Annual	CAPA7	<i>Calycoseris</i>	<i>parryi</i>	1.5
	Perennial	OECM4	<i>Oenothera</i>	<i>caespitosa</i> ssp. <i>marginata</i>	1.5
	Annual	PEPL	<i>Pectocarya</i>	<i>platycarpa</i>	1.5
	Annual	PSAN	<i>Psathyrotes</i>	<i>annua</i>	1.5
	Biennial	SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	1.5
	Perennial	SPGRP2	<i>Sphaeralcea</i>	<i>grossulariaefolia</i> ssp. <i>pedata</i>	1.5
	Perennial	ARPUG	<i>Arabis</i>	<i>pulchra</i> var. <i>gracilis</i>	1.2
	Perennial	BAMU	<i>Baileya</i>	<i>multiradiata</i>	1.2
	Perennial	ERCA8	<i>Eriogonum</i>	<i>caespitosum</i>	1.2
	Annual	LIDI2	<i>Linanthus</i>	<i>dichotomus</i>	1.2
	Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	1.2
	Annual	MEOB3	<i>Mentzelia</i>	<i>obscura</i>	1.2
	Perennial	PEFLA2	<i>Penstemon</i>	<i>floridus</i> var. <i>austinii</i>	1.2
	Annual	SACOC	<i>Salvia</i>	<i>columbariae</i> var. <i>columbariae</i>	1.2
	Perennial	ASER2	<i>Asclepias</i>	<i>erosa</i>	0.9
	Annual	CHCA	<i>Chaenactis</i>	<i>carphoclinia</i>	0.9
	Annual	CLPAU2	<i>Claytonia</i>	<i>perfoliata</i> ssp. <i>perfoliata</i>	0.9
	Perennial	CYGL2	<i>Cymopterus</i>	<i>globosus</i>	0.9
	Annual	DESO2	<i>Descurainia</i>	<i>sophia</i>	0.9
	Annual	ERPU6	<i>Eriogonum</i>	<i>pusillum</i>	0.9
	Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	0.9
	Annual	ERTH	<i>Eriogonum</i>	<i>thomasii</i>	0.9
	Annual	LEFLF2	<i>Lepidium</i>	<i>flavum</i> var. <i>flavum</i>	0.9
	Annual	LOSC6	<i>Loeseliastrum</i>	<i>schottii</i>	0.9
	Annual	MISU2	<i>Mimulus</i>	<i>suksdorfii</i>	0.9
	Annual	MOBE	<i>Monoptilon</i>	<i>bellidiforme</i>	0.9
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata</i> var. <i>crenulata</i>	0.9
	Perennial	POSU	<i>Polygala</i>	<i>subspinosa</i>	0.9
	Perennial	STCOC	<i>Streptanthus</i>	<i>cordatus</i> var. <i>cordatus</i>	0.9
	Annual	AMAC2	<i>Ambrosia</i>	<i>acanthicarpa</i>	0.6
	Perennial	ARHOP3	<i>Arabis</i>	<i>holboellii</i> var. <i>pinetorum</i>	0.6
	Annual	ASDID	<i>Astragalus</i>	<i>didymocarpus</i> var. <i>dispermus</i>	0.6
	Perennial	BRAT	<i>Brickellia</i>	<i>atractyloides</i>	0.6

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	CACLI	<i>Camissonia</i>	<i>claviformis ssp. integrior</i>	0.6
	Annual	CHMA	<i>Chaenactis</i>	<i>macrantha</i>	0.6
	Perennial	CRFL6	<i>Cryptantha</i>	<i>flavocolata</i>	0.6
	Annual	CRGR3	<i>Cryptantha</i>	<i>gracilis</i>	0.6
	Annual	CRRE5	<i>Cryptantha</i>	<i>recurvata</i>	0.6
	Perennial	CYAB	<i>Cymopterus</i>	<i>aboriginum</i>	0.6
	Annual	ERDI4	<i>Erigeron</i>	<i>divergens</i>	0.6
	Annual	ERSP3	<i>Eriastrum</i>	<i>sparsiflorum</i>	0.6
	Perennial	ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	0.6
	Annual	ESGL	<i>Eschscholzia</i>	<i>glyptosperma</i>	0.6
	Annual	HAGL	<i>Halogeton</i>	<i>glomeratus</i>	0.6
	Annual	LAOCO	<i>Lappula</i>	<i>occidentalis var. occidentalis</i>	0.6
	Annual	LIDE2	<i>Linanthus</i>	<i>demissus</i>	0.6
	Annual	MASO	<i>Malacothrix</i>	<i>sonchoides</i>	0.6
	Annual	MENI2	<i>Mentzelia</i>	<i>nitens</i>	0.6
	Annual	NAPU	<i>Nama</i>	<i>pusillum</i>	0.6
	Perennial	OEPAP	<i>Oenothera</i>	<i>pallida ssp. pallida</i>	0.6
	Perennial	PHGRH	<i>Phlox</i>	<i>gracilis ssp. humilis</i>	0.6
	Perennial	SEMU3	<i>Senecio</i>	<i>multilobatus</i>	0.6
	Annual	THCU	<i>Thysanocarpus</i>	<i>curvipes</i>	0.6
	Annual	ANAC	<i>Anisocoma</i>	<i>acaulis</i>	0.3
	Perennial	ARMUR	<i>Argemone</i>	<i>munita ssp. rotundata</i>	0.3
	Perennial	ARSH	<i>Arabis</i>	<i>shockleyi</i>	0.3
	Perennial	ASCA14	<i>Astragalus</i>	<i>casei</i>	0.3
	Annual	BAPL3	<i>Baileya</i>	<i>pleniradiata</i>	0.3
	Annual	CAHE12	<i>Camissonia</i>	<i>heterochroma</i>	0.3
	Perennial	CALI4	<i>Castilleja</i>	<i>linariaefolia</i>	0.3
	Annual	CAME16	<i>Camissonia</i>	<i>megalantha</i>	0.3
	Annual	CHWA2	<i>Chorizanthe</i>	<i>watsonii</i>	0.3
	Annual	CIPAN	<i>Cistanthe</i>	<i>parryi var. nevadense</i>	0.3
	Annual	COPA3	<i>Collinsia</i>	<i>parviflora</i>	0.3
	Perennial	CROCO2	<i>Crepis</i>	<i>occidentalis ssp. occidentalis</i>	0.3
	Perennial	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	0.3
	Annual	CRWA2	<i>Cryptantha</i>	<i>watsonii</i>	0.3
	Perennial	CYPU	<i>Cymopterus</i>	<i>purpurascens</i>	0.3
	Perennial	CYRI2	<i>Cymopterus</i>	<i>ripleyi</i>	0.3
	Perennial	DEAN	<i>Delphinium</i>	<i>andersonii</i>	0.3

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	ERBR7	<i>Eriogonum</i>	<i>brachyanthum</i>	0.3
	Annual	ERGL4	<i>Eriogonum</i>	<i>glandulosum</i>	0.3
	Perennial	ERNU4	<i>Eriogonum</i>	<i>nummular</i>	0.3
	Annual	ERTR8	<i>Eriogonum</i>	<i>trichopes</i>	0.3
	Perennial	GIALB	<i>Gilia</i>	<i>aliquanta</i> ssp. <i>Breviloba</i>	0.3
	Perennial	GIHU	<i>Gilia</i>	<i>hutchinsifolia</i>	0.3
	Perennial	GILA2	<i>Gilia</i>	<i>latifolia</i>	0.3
	Perennial	GIOP	<i>Gilia</i>	<i>ophthalmoides</i>	0.3
	Perennial	GISC	<i>Gilia</i>	<i>scopulorum</i>	0.3
	Perennial	LILE3	<i>Linum</i>	<i>lewisii</i>	0.3
	Perennial	LOSC3	<i>Lomatium</i>	<i>scabrum</i>	0.3
	Annual	LUCOO2	<i>Lupinus</i>	<i>concinus</i> ssp. <i>orcuttii</i>	0.3
	Annual	MECO2	<i>Mentzelia</i>	<i>congesta</i>	0.3
	Annual	MISP	<i>Mimulus</i>	<i>spissus</i>	0.3
	Annual	NEGLO	<i>Nemacladus</i>	<i>glanduliferus</i> var. <i>orientalis</i>	0.3
	Perennial	ORFA	<i>Orobanche</i>	<i>fasciculata</i>	0.3
	Perennial	PEPA8	<i>Penstemon</i>	<i>palmeri</i>	0.3
	Annual	PERE	<i>Pectocarya</i>	<i>recurvata</i>	0.3
	Annual	PHCU	<i>Phacelia</i>	<i>curvipes</i>	0.3
	Annual	PHSA	<i>Phacelia</i>	<i>saxicola</i>	0.3
	Annual	PLOV	<i>Plantago</i>	<i>ovata</i>	0.3
	Annual	PREX	<i>Prenanthea</i>	<i>exigua</i>	0.3
	Annual	SAKAT3	<i>Salsola</i>	<i>kali</i> ssp. <i>tragus</i>	0.3
	Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	0.3
	Perennial	SPAMM	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>monticola</i>	0.3
	Annual	STMI2	<i>Stylocline</i>	<i>micropoides</i>	0.3
	Perennial	THPEB	<i>Thymphylla</i>	<i>pentachaeta</i> var. <i>belenidium</i>	0.3
	Annual	TINU2	<i>Tiquilia</i>	<i>nuttallii</i>	0.3

Epiphytes

Perennial	CUDEV	<i>Cuscuta</i>	<i>denticulata</i> var. <i>vetchii</i>	0.9
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Succulents

Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	54.5
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	33.4
Perennial	ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>	16.1
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	15.2

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	13.0
	Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	8.7
	Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	6.2
	Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	4.3
	Perennial	OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	4.0
	Perennial	OPPU	<i>Opuntia</i>	<i>pulchella</i>	2.2
	Perennial	ESVIR2	<i>Escobaria</i>	<i>vivipara</i> var. <i>rosea</i>	1.5
	Perennial	ESVID	<i>Escobaria</i>	<i>vivipara</i> var. <i>deserti</i>	1.2
	Perennial	OPRA	<i>Opuntia</i>	<i>ramosissima</i>	0.9
	Perennial	SCPO4	<i>Sclerocactus</i>	<i>polyancistrus</i>	0.9
	Perennial	MATE4	<i>Mammillaria</i>	<i>tetrancistra</i>	0.6
	Perennial	ECENE	<i>Echinocereus</i>	<i>engelmannii</i> var. <i>engelmannii</i>	0.3
Variable					
	Variable	ERIOG	<i>Eriogonum</i>		0.6

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Atriplex confertifolia-Kochia americana Shrubland

Tall Shrubs (2-5 m)

Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	5.3
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Short Shrubs (0.5-2 m)

Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	100.0
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	57.9
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	42.1
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	36.8
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	21.1
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	21.1
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	21.1
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	21.1
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	15.8
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	15.8
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	10.5
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	10.5
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	5.3
Perennial	EPTO	<i>Ephedra</i>	<i>torreyana</i>	5.3
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	5.3
Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	5.3
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	5.3
Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	5.3
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	5.3

Dwarf Shrubs (<0.5 m)

Perennial	KOAM	<i>Kochia</i>	<i>americana</i>	57.9
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	42.1
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	10.5
Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	5.3

Graminoids

Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	84.2
Perennial	ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoides</i>	47.4
Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	36.8
Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	26.3

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<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	5.3
	Perennial	ERPU8	<i>Erioneuron</i>	<i>pulchellum</i>	5.3

Forbs

Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	63.2
Biennial	SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	57.9
Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua ssp. ambigua</i>	42.1
Annual	CHRI	<i>Chorizanthe</i>	<i>rigida</i>	31.6
Annual	CHST	<i>Chaenactis</i>	<i>stevioides</i>	31.6
Annual	ERDE6	<i>Eriogonum</i>	<i>deflexum</i>	31.6
Perennial	MIPU5	<i>Mirabilis</i>	<i>pudica</i>	26.3
Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus var. fremontii</i>	21.1
Perennial	CYGL2	<i>Cymopterus</i>	<i>globosus</i>	21.1
Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	21.1
Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	21.1
Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	15.8
Perennial	BAMU	<i>Baileya</i>	<i>multiradiata</i>	10.5
Annual	ERIC6	<i>Erodium</i>	<i>cicutarium</i>	10.5
Annual	ERPR4	<i>Eriophyllum</i>	<i>pringlei</i>	10.5
Annual	LUFL	<i>Lupinus</i>	<i>flavoculatus</i>	10.5
Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens ssp. canescens</i>	10.5
Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	10.5
Perennial	ASTI	<i>Astragalus</i>	<i>tidestromii</i>	5.3
Perennial	CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	5.3
Annual	CABRB4	<i>Camissonia</i>	<i>brevipes ssp. brevipes</i>	5.3
Perennial	CAFL	<i>Calochortus</i>	<i>flexuosus</i>	5.3
Annual	CAME16	<i>Camissonia</i>	<i>megalantha</i>	5.3
Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	5.3
Annual	CHBRB	<i>Chorizanthe</i>	<i>brevicomu var. brevicomu</i>	5.3
Annual	CHMA	<i>Chaenactis</i>	<i>macrantha</i>	5.3
Annual	CRMI	<i>Cryptantha</i>	<i>micrantha</i>	5.3
Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis var. nevadensis</i>	5.3
Annual	CRPT	<i>Cryptantha</i>	<i>pteroarya</i>	5.3
Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	5.3
Annual	ERPU6	<i>Eriogonum</i>	<i>pusillum</i>	5.3
Perennial	ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	5.3
Annual	ESGL	<i>Eschscholzia</i>	<i>glyptosperma</i>	5.3

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	HAGL	<i>Halogeton</i>	<i>glomeratus</i>	5.3
	Perennial	HEMUN	<i>Heliomeris</i>	<i>multiflora</i> var. <i>nevadensis</i>	5.3
	Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	5.3
	Perennial	MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	5.3
	Annual	NADED	<i>Nama</i>	<i>demissum</i> var. <i>demissum</i>	5.3
	Perennial	OECEM4	<i>Oenothera</i>	<i>caespitosa</i> ssp. <i>marginata</i>	5.3
	Annual	OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	5.3
	Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	5.3
	Annual	PSAN	<i>Psathyrotes</i>	<i>annua</i>	5.3
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua</i> ssp. <i>exigua</i>	5.3

Succulents

	Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	31.6
	Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	15.8
	Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	10.5
	Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	5.3
	Perennial	OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	5.3
	Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	5.3

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Atriplex canescens-Krascheninnikovia lanata Shrubland

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	2.6
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Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	10.5
Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	10.5

Short Shrubs (0.5-2 m)

Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	100.0
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	60.5
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	52.6
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	52.6
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	47.4
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	42.1
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	28.9
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	21.1
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	15.8
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	13.2
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	13.2
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	10.5
Perennial	LYSH	<i>Lycium</i>	<i>shockleyi</i>	7.9
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	7.9
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	5.3
Perennial	EPTO	<i>Ephedra</i>	<i>torreyana</i>	5.3
Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	5.3
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	5.3
Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	5.3
Perennial	PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	5.3
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	2.6
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	2.6
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	2.6
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	2.6
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	2.6
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	2.6
Perennial	PSPO	<i>Psoralea</i>	<i>polydenius</i>	2.6

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	2.6
	Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	2.6
	Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	2.6
	Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	2.6
	Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	2.6

Dwarf Shrubs (<0.5 m)

Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	28.9
Perennial	KOAM	<i>Kochia</i>	<i>americana</i>	13.2
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	10.5
Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	2.6

Graminoids

Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	81.6
Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	71.1
Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	44.7
Perennial	ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoides</i>	36.8
Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	31.6
Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	15.8
Perennial	ERPU8	<i>Erioneuron</i>	<i>pulchellum</i>	7.9
Perennial	POSE	<i>Poa</i>	<i>secunda</i>	5.3
Perennial	LECI4	<i>Leymus</i>	<i>cinereus</i>	2.6
Perennial	POFE	<i>Poa</i>	<i>fendleriana</i>	2.6
Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	2.6

Forbs

Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	71.1
Annual	CHST	<i>Chaenactis</i>	<i>stevioides</i>	50.0
Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>ambigua</i>	44.7
Perennial	MIPU5	<i>Mirabilis</i>	<i>pudica</i>	42.1
Annual	ERDE6	<i>Eriogonum</i>	<i>deflexum</i>	39.5
Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens</i> ssp. <i>canescens</i>	39.5
Biennial	SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	23.7
Annual	ERIC6	<i>Erodium</i>	<i>cicutarium</i>	21.1
Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	18.4
Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	15.8
Perennial	HEMUN	<i>Helioomeris</i>	<i>multiflora</i> var. <i>nevadensis</i>	13.2

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	MEOB3	<i>Mentzelia</i>	<i>obscura</i>	13.2
	Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus</i> var. <i>fremontii</i>	10.5
	Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	10.5
	Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	10.5
	Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	10.5
	Annual	ERPR4	<i>Eriophyllum</i>	<i>pringlei</i>	10.5
	Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	10.5
	Perennial	MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	10.5
	Annual	OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	10.5
	Annual	CHRI	<i>Chorizanthe</i>	<i>rigida</i>	7.9
	Annual	CRMI	<i>Cryptantha</i>	<i>micrantha</i>	7.9
	Perennial	OECM4	<i>Oenothera</i>	<i>caespitosa</i> ssp. <i>marginata</i>	7.9
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua</i> ssp. <i>exigua</i>	7.9
	Perennial	BAMU	<i>Baileya</i>	<i>multiradiata</i>	5.3
	Perennial	CAFL	<i>Calochortus</i>	<i>flexuosus</i>	5.3
	Annual	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	5.3
	Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii</i> ssp. <i>parishii</i>	5.3
	Annual	DEPIG	<i>Descurainia</i>	<i>pinnata</i> ssp. <i>glabra</i>	5.3
	Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum</i> ssp. <i>brecciarum</i>	5.3
	Perennial	GIIN2	<i>Gilia</i>	<i>inconspicua</i>	5.3
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	5.3
	Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	5.3
	Annual	MISP	<i>Mimulus</i>	<i>spissus</i>	5.3
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata</i> var. <i>crenulata</i>	5.3
	Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	5.3
	Perennial	POSU	<i>Polygala</i>	<i>subspinosa</i>	5.3
	Annual	SAKAT3	<i>Salsola</i>	<i>kali</i> ssp. <i>tragus</i>	5.3
	Perennial	ARDR4	<i>Artemisia</i>	<i>dracunculus</i>	2.6
	Perennial	ARME2	<i>Arctomecon</i>	<i>merriamii</i>	2.6
	Annual	ASAC3	<i>Astragalus</i>	<i>acutirostris</i>	2.6
	Perennial	ASCA14	<i>Astragalus</i>	<i>casei</i>	2.6
	Perennial	ASPUT	<i>Astragalus</i>	<i>purshii</i> var. <i>tinctus</i>	2.6
	Perennial	CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	2.6
	Annual	CAKEG	<i>Camissonia</i>	<i>kemensis</i> ssp. <i>gilmanii</i>	2.6
	Annual	CAPA7	<i>Calycoseris</i>	<i>parryi</i>	2.6
	Annual	CETH3	<i>Centrostegia</i>	<i>thurberi</i>	2.6

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	CHAL7	<i>Chenopodium</i>	<i>album</i>	2.6
	Annual	CHBRB	<i>Chorizanthe</i>	<i>brevicomu var. brevicomu</i>	2.6
	Annual	CHFR	<i>Chaenactis</i>	<i>fremontii</i>	2.6
	Annual	CHMA	<i>Chaenactis</i>	<i>macrantha</i>	2.6
	Annual	CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	2.6
	Perennial	CRCO12	<i>Cryptantha</i>	<i>confertiflora</i>	2.6
	Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	2.6
	Perennial	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	2.6
	Perennial	ERCOC3	<i>Erigeron</i>	<i>concinus var. concinus</i>	2.6
	Annual	ERPU6	<i>Eriogonum</i>	<i>pusillum</i>	2.6
	Annual	ESGL	<i>Eschscholzia</i>	<i>glyptosperma</i>	2.6
	Annual	HAGL	<i>Halogeton</i>	<i>glomeratus</i>	2.6
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	2.6
	Perennial	LILE3	<i>Linum</i>	<i>lewisii</i>	2.6
	Annual	LUBR2	<i>Lupinus</i>	<i>brevicaulis</i>	2.6
	Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	2.6
	Annual	MEVE5	<i>Mentzelia</i>	<i>veatchiana</i>	2.6
	Annual	OEPR	<i>Oenothera</i>	<i>primiveris</i>	2.6
	Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	2.6
	Annual	PLPA2	<i>Plantago</i>	<i>patagonica</i>	2.6
	Annual	SACOC	<i>Salvia</i>	<i>columbariae var. columbariae</i>	2.6
	Perennial	SPAMM	<i>Sphaeralcea</i>	<i>ambigua ssp. monticola</i>	2.6
	Perennial	SPGRP2	<i>Sphaeralcea</i>	<i>grossulariaefolia ssp. pedata</i>	2.6
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	2.6
	Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	2.6
	Annual	URLI2	<i>Uropappus</i>	<i>linearifolia</i>	2.6

Succulents

Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	26.3
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa var. echinocarpa</i>	18.4
Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris var. basilaris</i>	5.3
Perennial	YUSC2	<i>Yucca</i>	<i>schidigera</i>	5.3
Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	2.6
Perennial	ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>	2.6
Perennial	ESVIR2	<i>Escobaria</i>	<i>vivipara var. rosea</i>	2.6

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	2.6
	Perennial	SCPO4	<i>Sclerocactus</i>	<i>polyancistrus</i>	2.6
	Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	2.6

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Chrysothamnus viscidiflorus-Ephedra nevadensis Shrubland

Trees (>5 m)

Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	3.9
Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	2.6
Perennial	QUGA	<i>Quercus</i>	<i>gambellii</i>	1.3

Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	39.5
Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	10.5

Short Shrubs (0.5-2 m)

Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	98.7
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	85.5
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	80.3
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	80.3
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	75.0
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	59.2
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	32.9
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	30.3
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	30.3
Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	30.3
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	28.9
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	26.3
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	18.4
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	18.4
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	14.5
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	13.2
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	11.8
Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	11.8
Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	11.8
Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	10.5
Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	10.5
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	10.5
Perennial	ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	9.2
Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	9.2
Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	9.2

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<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	7.9
	Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	7.9
	Perennial	PSPO	<i>Psorothamnus</i>	<i>polydenius</i>	7.9
	Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	6.6
	Perennial	PSFRF	<i>Psorothamnus</i>	<i>fremontii</i> var. <i>fremontii</i>	6.6
	Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	6.6
	Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	6.6
	Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	5.3
	Perennial	ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	3.9
	Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	3.9
	Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	2.6
	Perennial	LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	2.6
	Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	2.6
	Perennial	BRMIS	<i>Brickellia</i>	<i>microphylla</i> var. <i>scabra</i>	1.3
	Perennial	BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	1.3
	Perennial	BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>	1.3
	Perennial	CHGR6	<i>Chrysothamnus</i>	<i>greenei</i>	1.3
	Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	1.3
	Perennial	STEL	<i>Stanleya</i>	<i>elata</i>	1.3

Dwarf Shrubs (<0.5 m)

Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	51.3
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	14.5
Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	7.9
Perennial	KOAM	<i>Kochia</i>	<i>americana</i>	5.3
Perennial	KRER	<i>Krameria</i>	<i>erecta</i>	2.6

Graminoids

Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	81.6
Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	76.3
Perennial	ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoides</i>	61.8
Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	40.8
Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	40.8
Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	39.5
Perennial	POSE	<i>Poa</i>	<i>secunda</i>	10.5
Perennial	ARPU9	<i>Aristida</i>	<i>purpurea</i>	6.6
Perennial	HECOC8	<i>Hesperostipa</i>	<i>comata</i> ssp. <i>comata</i>	6.6

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	ERPU8	<i>Erioneuron</i>	<i>pulchellum</i>	5.3
	Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	2.6
	Perennial	ACPI2	<i>Achnatherum</i>	<i>pinetorum</i>	1.3
	Perennial	BOGR2	<i>Bouteloua</i>	<i>gracilis</i>	1.3
	Annual	BRBE2	<i>Bromus</i>	<i>berterianus</i>	1.3
	Perennial	KOMA	<i>Koeleria</i>	<i>macrantha</i>	1.3
	Perennial	POFE	<i>Poa</i>	<i>fendleriana</i>	1.3
	Perennial	SPCR	<i>Sporobolus</i>	<i>cryptandrus</i>	1.3

Forbs

	Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua ssp. ambigua</i>	78.9
	Annual	CHST	<i>Chaenactis</i>	<i>stevioides</i>	59.2
	Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	53.9
	Perennial	CAAP4	<i>Castilleja</i>	<i>applegatei</i>	46.1
	Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii ssp. parishii</i>	46.1
	Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens ssp. canescens</i>	40.8
	Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	39.5
	Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus var. fremontii</i>	34.2
	Annual	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	26.3
	Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum ssp. brecciarum</i>	26.3
	Annual	CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	25.0
	Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	25.0
	Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	23.7
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	22.4
	Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	21.1
	Perennial	ERCOC3	<i>Erigeron</i>	<i>concinus var. concinnus</i>	21.1
	Perennial	CAFL	<i>Calochortus</i>	<i>flexuosus</i>	19.7
	Annual	DEPIG	<i>Descurainia</i>	<i>pinnata ssp. glabra</i>	19.7
	Annual	ERIC6	<i>Erodium</i>	<i>cicutarium</i>	19.7
	Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	19.7
	Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	19.7
	Perennial	ARPUM	<i>Arabis</i>	<i>pulchra var. munciensis</i>	18.4
	Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	18.4
	Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	18.4
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	15.8
	Annual	PHVAV2	<i>Phacelia</i>	<i>vallis-mortae var. vallis-mortae</i>	15.8
	Perennial	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	14.5

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis</i> var. <i>nevadensis</i>	13.2
	Perennial	HEMUN	<i>Heliomeris</i>	<i>multiflora</i> var. <i>nevadensis</i>	13.2
	Perennial	EROVO5	<i>Eriogonum</i>	<i>ovalifolium</i> var. <i>ovalifolium</i>	11.8
	Perennial	LILE3	<i>Linum</i>	<i>lewisii</i>	11.8
	Perennial	MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	11.8
	Annual	OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	11.8
	Annual	ERDE6	<i>Eriogonum</i>	<i>deflexum</i>	10.5
	Annual	LUBR2	<i>Lupinus</i>	<i>brevicaulis</i>	10.5
	Annual	PLPA2	<i>Plantago</i>	<i>patagonica</i>	10.5
	Annual	CETH3	<i>Centrostegia</i>	<i>thurberi</i>	9.2
	Annual	PESE	<i>Pectocarya</i>	<i>setosa</i>	9.2
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata</i> var. <i>crenulata</i>	9.2
	Annual	CRMI	<i>Cryptantha</i>	<i>micrantha</i>	7.9
	Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	7.9
	Perennial	DIPU3	<i>Dichelostemma</i>	<i>pulchellum</i>	7.9
	Annual	MEOB3	<i>Mentzelia</i>	<i>obscura</i>	7.9
	Perennial	OCEM4	<i>Oenothera</i>	<i>caespitosa</i> ssp. <i>marginata</i>	7.9
	Perennial	SEMU3	<i>Senecio</i>	<i>multilobatus</i>	7.9
	Perennial	ASPUT	<i>Astragalus</i>	<i>purshii</i> var. <i>tinctus</i>	6.6
	Annual	CAPT	<i>Camissonia</i>	<i>pterosperma</i>	6.6
	Biennial	CINE	<i>Cirsium</i>	<i>neomexicanum</i>	6.6
	Annual	LOSC6	<i>Loeseliastrum</i>	<i>schottii</i>	6.6
	Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	6.6
	Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	6.6
	Perennial	MIPU5	<i>Mirabilis</i>	<i>pubica</i>	6.6
	Perennial	OEPAP	<i>Oenothera</i>	<i>pallida</i> ssp. <i>pallida</i>	6.6
	Perennial	ARMA3	<i>Arenaria</i>	<i>macradenia</i>	5.3
	Perennial	ARPUG	<i>Arabis</i>	<i>pulchra</i> var. <i>gracilis</i>	5.3
	Annual	CABRB4	<i>Camissonia</i>	<i>brevipes</i> ssp. <i>brevipes</i>	5.3
	Perennial	CRCO12	<i>Cryptantha</i>	<i>confertiflora</i>	5.3
	Perennial	CYRI2	<i>Cymopterus</i>	<i>ripleyi</i>	5.3
	Annual	ERPR4	<i>Eriophyllum</i>	<i>pringlei</i>	5.3
	Annual	LOHU2	<i>Lotus</i>	<i>humistratus</i>	5.3
	Annual	MEVE5	<i>Mentzelia</i>	<i>veatchiana</i>	5.3
	Annual	MISP	<i>Mimulus</i>	<i>spissus</i>	5.3
	Annual	MOBE	<i>Monoptilon</i>	<i>bellidiforme</i>	5.3

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	POSU	<i>Polygala</i>	<i>subspinos</i>	5.3
	Biennial	SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	5.3
	Perennial	XYTOT	<i>Xylorhiza</i>	<i>tortifolia</i> var. <i>imberbis</i>	5.3
	Perennial	ASCAC5	<i>Astragalus</i>	<i>calycosus</i> var. <i>calycosus</i>	3.9
	Annual	CABOI	<i>Camissonia</i>	<i>boothii</i> ssp. <i>intermedia</i>	3.9
	Annual	CAPA7	<i>Calycoseris</i>	<i>parryi</i>	3.9
	Annual	CHRI	<i>Chorizanthe</i>	<i>rigida</i>	3.9
	Annual	CRRE5	<i>Cryptantha</i>	<i>recurvata</i>	3.9
	Perennial	CYGL2	<i>Cymopterus</i>	<i>globosus</i>	3.9
	Annual	ERDI4	<i>Erigeron</i>	<i>divergens</i>	3.9
	Perennial	ERNU4	<i>Eriogonum</i>	<i>nummular</i>	3.9
	Annual	LASE3	<i>Langloisia</i>	<i>setosissima</i>	3.9
	Annual	NAPU	<i>Nama</i>	<i>pusillum</i>	3.9
	Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	3.9
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua</i> ssp. <i>exigua</i>	3.9
	Perennial	ABEL	<i>Abronia</i>	<i>elliptica</i>	2.6
	Perennial	ABTU	<i>Abronia</i>	<i>turbinata</i>	2.6
	Annual	AMAC2	<i>Ambrosia</i>	<i>acanthicarpa</i>	2.6
	Annual	ANAC	<i>Anisocoma</i>	<i>acaulis</i>	2.6
	Perennial	ARIN	<i>Arabis</i>	<i>inyoensis</i>	2.6
	Annual	ASAC3	<i>Astragalus</i>	<i>acutirostris</i>	2.6
	Annual	CACLI	<i>Camissonia</i>	<i>claviformis</i> ssp. <i>integrior</i>	2.6
	Annual	CAKEG	<i>Camissonia</i>	<i>kernensis</i> ssp. <i>gilmanii</i>	2.6
	Perennial	CAPI4	<i>Caulanthus</i>	<i>pilosus</i>	2.6
	Annual	CHFR	<i>Chaenactis</i>	<i>fremontii</i>	2.6
	Perennial	CRFL6	<i>Cryptantha</i>	<i>flavoculata</i>	2.6
	Annual	CRGR3	<i>Cryptantha</i>	<i>gracilis</i>	2.6
	Perennial	DASE3	<i>Dalea</i>	<i>searlsiae</i>	2.6
	Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	2.6
	Annual	ERSP3	<i>Eriastrum</i>	<i>sparsiflorum</i>	2.6
	Perennial	ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	2.6
	Annual	GILIA	<i>Gilia</i>		2.6
	Perennial	HUVEI	<i>Hulsea</i>	<i>vestita</i> ssp. <i>inyoensis</i>	2.6
	Annual	LAOCO	<i>Lappula</i>	<i>occidentalis</i> var. <i>occidentalis</i>	2.6
	Annual	LIDI2	<i>Linanthus</i>	<i>dichotomus</i>	2.6
	Perennial	LONEN	<i>Lomatium</i>	<i>nevadense</i> var. <i>nevadense</i>	2.6

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	MASO	<i>Malacothrix</i>	<i>sonchoides</i>	2.6
	Annual	RANE	<i>Rafinesquia</i>	<i>neomexicana</i>	2.6
	Annual	SACOC	<i>Salvia</i>	<i>columbariae</i> var. <i>columbariae</i>	2.6
	Perennial	SPAMR	<i>Sphaeralcea</i>	<i>ambigua</i> var. <i>rugosa</i>	2.6
	Annual	STLO4	<i>Streptanthella</i>	<i>longirostris</i>	2.6
	Perennial	STPA3	<i>Stephanomeria</i>	<i>parryi</i>	2.6
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	2.6
	Annual	URLI2	<i>Uropappus</i>	<i>linearifolia</i>	2.6
	Perennial	ADCO2	<i>Adenophyllum</i>	<i>cooperi</i>	1.3
	Perennial	ANDI2	<i>Antennaria</i>	<i>dimorpha</i>	1.3
	Perennial	ARCOS2	<i>Arenaria</i>	<i>congesta</i> var. <i>subcongesta</i>	1.3
	Perennial	ASFU3	<i>Astragalus</i>	<i>funereus</i>	1.3
	Perennial	BAMU	<i>Baileya</i>	<i>multiradiata</i>	1.3
	Annual	BAPL3	<i>Baileya</i>	<i>pleniradiata</i>	1.3
	Perennial	BRAT	<i>Brickellia</i>	<i>atractylodes</i>	1.3
	Perennial	CALI4	<i>Castilleja</i>	<i>linariaefolia</i>	1.3
	Annual	CAME16	<i>Camissonia</i>	<i>megalantha</i>	1.3
	Annual	CARE2	<i>Camissonia</i>	<i>refracta</i>	1.3
	Perennial	CHER2	<i>Leucelene</i>	<i>ericoides</i>	1.3
	Annual	CHMA	<i>Chaenactis</i>	<i>macrantha</i>	1.3
	Annual	CHSES	<i>Chamaesyce</i>	<i>serpyllifolia</i> ssp. <i>serpyllifolia</i>	1.3
	Annual	CHWA2	<i>Chorizanthe</i>	<i>watsonii</i>	1.3
	Annual	ERHO6	<i>Eriogonum</i>	<i>hookeri</i>	1.3
	Annual	ERPU6	<i>Eriogonum</i>	<i>pusillum</i>	1.3
	Perennial	ERRA3	<i>Eriogonum</i>	<i>racemosum</i>	1.3
	Annual	ERTH	<i>Eriogonum</i>	<i>thomasii</i>	1.3
	Perennial	GIIN2	<i>Gilia</i>	<i>inconspicua</i>	1.3
	Perennial	GIOP	<i>Gilia</i>	<i>ophthalmoides</i>	1.3
	Perennial	GISI	<i>Gilia</i>	<i>sinuata</i>	1.3
	Perennial	LUARL5	<i>Lupinus</i>	<i>argenteus</i> ssp. <i>artenteus</i> var. <i>laxiflorus</i>	1.3
	Annual	LUFL	<i>Lupinus</i>	<i>flavoculatus</i>	1.3
	Annual	MISU2	<i>Mimulus</i>	<i>suksdorfii</i>	1.3
	Annual	NADED	<i>Nama</i>	<i>demissum</i> var. <i>demissum</i>	1.3
	Perennial	ORFA	<i>Orobanche</i>	<i>fasciculata</i>	1.3
	Perennial	PEFLA2	<i>Penstemon</i>	<i>floridus</i> var. <i>austinii</i>	1.3
	Perennial	PEHUH	<i>Penstemon</i>	<i>humilis</i> ssp. <i>humilis</i>	1.3

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	PEPA23	<i>Penstemon</i>	<i>pahutensis</i>	1.3
	Annual	PEPL	<i>Pectocarya</i>	<i>platycarpa</i>	1.3
	Perennial	PHCH2	<i>Physaria</i>	<i>chambersii</i>	1.3
	Perennial	PHHOL	<i>Phlox</i>	<i>hoodii ssp. lanata</i>	1.3
	Annual	PHSA	<i>Phacelia</i>	<i>saxicola</i>	1.3
	Annual	SAKAT3	<i>Salsola</i>	<i>kali ssp. tragus</i>	1.3
	Perennial	SIVEA	<i>Silene</i>	<i>verecunda ssp. andersonii</i>	1.3
	Perennial	SPAMM	<i>Sphaeralcea</i>	<i>ambigua ssp. monticola</i>	1.3
	Perennial	SPGRP2	<i>Sphaeralcea</i>	<i>grossulariaefolia ssp. pedata</i>	1.3
	Perennial	STCOC	<i>Streptanthus</i>	<i>cordatus var. cordatus</i>	1.3
	Perennial	STSP6	<i>Stephanomeria</i>	<i>spinosa</i>	1.3

Succulents

	Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	46.1
	Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa var. echinocarpa</i>	35.5
	Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris var. basilaris</i>	13.2
	Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	11.8
	Perennial	OPERE	<i>Opuntia</i>	<i>erinacea var. erinacea</i>	11.8
	Perennial	SCPO4	<i>Sclerocactus</i>	<i>polyancistrus</i>	7.9
	Perennial	ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>	6.6
	Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha var. rufispina</i>	5.3
	Perennial	YUBAV	<i>Yucca</i>	<i>baccata var. vespertina</i>	5.3
	Perennial	ECENE	<i>Echinocereus</i>	<i>engelmannii var. engelmannii</i>	1.3

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Ericameria nauseosa-Ephedra nevadensis Shrubland

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	9.5
Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	9.5

Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata ssp. tridentata</i>	42.9
Perennial	AMUT	<i>Amelanchier</i>	<i>utahensis</i>	4.8

Short Shrubs (0.5-2 m)

Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus ssp. nauseosus var. hololeuca</i>	100.0
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	66.7
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens var. canescens</i>	57.1
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. viscidiflorus</i>	47.6
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	42.9
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	42.9
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	33.3
Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	23.8
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus ssp. consimilis var. leioperma</i>	23.8
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	23.8
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	23.8
Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	19.0
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	14.3
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	14.3
Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. puberulus</i>	9.5
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis var. virginensis</i>	9.5
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	9.5
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	9.5
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	9.5
Perennial	PSPO	<i>Psoralea</i>	<i>polydenius</i>	9.5
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	9.5
Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	4.8
Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	4.8
Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum var. simpsonii</i>	4.8
Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	4.8
Perennial	HODI	<i>Holodiscus</i>	<i>discolor</i>	4.8

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	4.8
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	4.8
	Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	4.8
	Perennial	RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	4.8
	Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	4.8
	Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	4.8
	Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	4.8

Dwarf Shrubs (<0.5 m)

Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	9.5
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Graminoids

Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	76.2
Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	57.1
Perennial	ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoides</i>	57.1
Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	47.6
Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	47.6
Perennial	POSE	<i>Poa</i>	<i>secunda</i>	28.6
Perennial	HECOC8	<i>Hesperostipa</i>	<i>comata</i> ssp. <i>comata</i>	9.5
Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	9.5
Perennial	AGGLL	<i>Agoseris</i>	<i>glauca</i> var. <i>laciniata</i>	4.8
Perennial	ARPUL	<i>Aristida</i>	<i>purpurea</i> var. <i>longiseta</i>	4.8
Perennial	LEC14	<i>Leymus</i>	<i>cinereus</i>	4.8
Perennial	POFE	<i>Poa</i>	<i>fendleriana</i>	4.8

Forbs

Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	66.7
Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>ambigua</i>	66.7
Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens</i> ssp. <i>canescens</i>	57.1
Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus</i> var. <i>fremontii</i>	33.3
Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	33.3
Perennial	HEMUN	<i>Heliomeris</i>	<i>multiflora</i> var. <i>nevadensis</i>	33.3
Annual	ERC16	<i>Erodium</i>	<i>cicutarium</i>	28.6
Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	28.6
Perennial	ARPUM	<i>Arabis</i>	<i>pulchra</i> var. <i>munciensis</i>	23.8
Annual	CHST	<i>Chaenactis</i>	<i>stevioides</i>	23.8
Annual	CRC12	<i>Cryptantha</i>	<i>circumscissa</i>	23.8

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	DEPIG	<i>Descurainia</i>	<i>pinnata ssp. glabra</i>	23.8
	Annual	ERDE6	<i>Eriogonum</i>	<i>deflexum</i>	23.8
	Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	23.8
	Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	23.8
	Perennial	CAFL	<i>Calochortus</i>	<i>flexuosus</i>	19.0
	Annual	MEVE5	<i>Mentzelia</i>	<i>veatchiana</i>	19.0
	Perennial	OECM4	<i>Oenothera</i>	<i>caespitosa ssp. marginata</i>	19.0
	Annual	PESE	<i>Pectocarya</i>	<i>setosa</i>	19.0
	Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	19.0
	Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	14.3
	Annual	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	14.3
	Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	14.3
	Perennial	DIPU3	<i>Dichelostemma</i>	<i>pulchellum</i>	14.3
	Perennial	LONEN	<i>Lomatium</i>	<i>nevadense var. nevadense</i>	14.3
	Perennial	PEFLA2	<i>Penstemon</i>	<i>floridus var. austinii</i>	14.3
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua ssp. exigua</i>	14.3
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	14.3
	Perennial	ABTU	<i>Abronia</i>	<i>turbinata</i>	9.5
	Perennial	ADCO2	<i>Adenophyllum</i>	<i>cooperi</i>	9.5
	Perennial	ASFU3	<i>Astragalus</i>	<i>funereus</i>	9.5
	Perennial	BAMU	<i>Baileya</i>	<i>multiradiata</i>	9.5
	Annual	CABRB4	<i>Camissonia</i>	<i>brevipes ssp. brevipes</i>	9.5
	Biennial	CINE	<i>Cirsium</i>	<i>neomexicanum</i>	9.5
	Perennial	ERCOC3	<i>Erigeron</i>	<i>concinus var. concinus</i>	9.5
	Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	9.5
	Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	9.5
	Perennial	EROVO5	<i>Eriogonum</i>	<i>ovalifolium var. ovalifolium</i>	9.5
	Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum ssp. brecciarum</i>	9.5
	Perennial	GIIN2	<i>Gilia</i>	<i>inconspicua</i>	9.5
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata var. crenulata</i>	9.5
	Annual	SAKAT3	<i>Salsola</i>	<i>kali ssp. tragus</i>	9.5
	Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	9.5
	Perennial	SEMU3	<i>Senecio</i>	<i>multilobatus</i>	9.5
	Biennial	SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	9.5
	Perennial	ARDR4	<i>Artemisia</i>	<i>dracunculus</i>	4.8
	Perennial	ARMUR	<i>Argemone</i>	<i>munita ssp. rotundata</i>	4.8

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	ASAC3	<i>Astragalus</i>	<i>acutirostris</i>	4.8
	Annual	BAPL3	<i>Baileya</i>	<i>pleniradiata</i>	4.8
	Perennial	BRAT	<i>Brickellia</i>	<i>atractyloides</i>	4.8
	Perennial	CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	4.8
	Annual	CHLE4	<i>Chenopodium</i>	<i>leptophyllum</i>	4.8
	Annual	CHSE5	<i>Chamaesyce</i>	<i>serpyllifolia</i> ssp. <i>serpyllifolia</i>	4.8
	Annual	CHWA2	<i>Chorizanthe</i>	<i>watsonii</i>	4.8
	Perennial	CRFL6	<i>Cryptantha</i>	<i>flavoculata</i>	4.8
	Annual	CRGR3	<i>Cryptantha</i>	<i>gracilis</i>	4.8
	Perennial	DASE3	<i>Dalea</i>	<i>searlsiae</i>	4.8
	Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii</i> ssp. <i>parishii</i>	4.8
	Perennial	ERAP	<i>Erigeron</i>	<i>aphanactis</i>	4.8
	Perennial	ERNU4	<i>Eriogonum</i>	<i>nummular</i>	4.8
	Annual	ERPU6	<i>Eriogonum</i>	<i>pusillum</i>	4.8
	Perennial	GISI	<i>Gilia</i>	<i>sinuata</i>	4.8
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	4.8
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	4.8
	Perennial	LILE3	<i>Linum</i>	<i>lewisii</i>	4.8
	Perennial	LOSC3	<i>Lomatium</i>	<i>scabrum</i>	4.8
	Perennial	LUARL5	<i>Lupinus</i>	<i>argenteus</i> ssp. <i>artenteus</i> var. <i>laxiflorus</i>	4.8
	Annual	LUFL	<i>Lupinus</i>	<i>flavoculatus</i>	4.8
	Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	4.8
	Annual	MASO	<i>Malacothrix</i>	<i>sonchoides</i>	4.8
	Perennial	PERO10	<i>Penstemon</i>	<i>rostriflorus</i>	4.8
	Perennial	PHGRH	<i>Phlox</i>	<i>gracilis</i> ssp. <i>humilis</i>	4.8
	Annual	PLPA2	<i>Plantago</i>	<i>patagonica</i>	4.8
	Annual	PSAN	<i>Psathyrotes</i>	<i>annua</i>	4.8
	Annual	URLI2	<i>Uropappus</i>	<i>linearifolia</i>	4.8

Succulents

Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	33.3
Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	28.6
Perennial	OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	19.0
Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	14.3
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	14.3
Perennial	ESVID	<i>Escobaria</i>	<i>vivipara</i> var. <i>deserti</i>	4.8
Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	4.8

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Ephedra viridis-Artemisia tridentata Shrubland

Trees (>5 m)

Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	35.0
Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	30.0
Perennial	QUGA	<i>Quercus</i>	<i>gambelii</i>	25.0

Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	95.0
Perennial	AMUT	<i>Amelanchier</i>	<i>utahensis</i>	20.0
Perennial	CEGRV2	<i>Ceanothus</i>	<i>greggii</i> ssp. <i>vestitus</i>	10.0

Short Shrubs (0.5-2 m)

Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	100.0
Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	65.0
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	55.0
Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	55.0
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	45.0
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	40.0
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	40.0
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	35.0
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	35.0
Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	35.0
Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	35.0
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	30.0
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	25.0
Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	15.0
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	15.0
Perennial	RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	15.0
Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	15.0
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	15.0
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	10.0
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	10.0
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	10.0
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	10.0
Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	10.0
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	10.0

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	10.0
	Perennial	BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>	5.0
	Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	5.0
	Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	5.0
	Perennial	PENI	<i>Petalonyx</i>	<i>nitidus</i>	5.0
	Perennial	PERA4	<i>Peraphyllum</i>	<i>ramosissimum</i>	5.0
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	5.0
	Perennial	RICEC2	<i>Ribes</i>	<i>cereum</i> var. <i>cereum</i>	5.0

Dwarf Shrubs (<0.5 m)

Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	35.0
Perennial	ERMIL	<i>Eriogonum</i>	<i>microthecum</i> var. <i>lapidicola</i>	5.0

Graminoids

Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	100.0
Perennial	ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoides</i>	90.0
Perennial	POSE	<i>Poa</i>	<i>secunda</i>	80.0
Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	50.0
Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	50.0
Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	45.0
Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	40.0
Perennial	POFE	<i>Poa</i>	<i>fendleriana</i>	35.0
Perennial	ARPU9	<i>Aristida</i>	<i>purpurea</i>	20.0
Perennial	HECOC8	<i>Hesperostipa</i>	<i>comata</i> ssp. <i>comata</i>	20.0
Perennial	LECI4	<i>Leymus</i>	<i>cinereus</i>	10.0
Variable	ACHNA	<i>Achnatherum</i>		5.0
Annual	BRCA6	<i>Bromus</i>	<i>cartharticus</i>	5.0
Annual	VUMI	<i>Vulpia</i>	<i>microstachys</i>	5.0
Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	5.0

Forbs

Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	75.0
Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	70.0
Annual	ERIC6	<i>Erodium</i>	<i>cicutarium</i>	60.0
Perennial	HEMUN	<i>Helioomeris</i>	<i>multiflora</i> var. <i>nevadensis</i>	55.0
Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens</i> ssp. <i>canescens</i>	55.0
Perennial	CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	50.0

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	50.0
	Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum</i> ssp. <i>brecciarum</i>	50.0
	Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	50.0
	Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii</i> ssp. <i>parishii</i>	45.0
	Perennial	ERCA8	<i>Eriogonum</i>	<i>caespitosum</i>	45.0
	Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>ambigua</i>	45.0
	Perennial	ERCOC3	<i>Erigeron</i>	<i>concinus</i> var. <i>concinus</i>	40.0
	Perennial	EROVO5	<i>Eriogonum</i>	<i>ovalifolium</i> var. <i>ovalifolium</i>	40.0
	Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	40.0
	Annual	PHVAV2	<i>Phacelia</i>	<i>vallis-mortae</i> var. <i>vallis-mortae</i>	40.0
	Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	35.0
	Biennial	CINE	<i>Cirsium</i>	<i>neomexicanum</i>	35.0
	Annual	DEPIG	<i>Descurainia</i>	<i>pinnata</i> ssp. <i>glabra</i>	35.0
	Perennial	SEMU3	<i>Senecio</i>	<i>multilobatus</i>	35.0
	Annual	CHST	<i>Chaenactis</i>	<i>stevioides</i>	30.0
	Annual	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	30.0
	Perennial	STCOC	<i>Streptanthus</i>	<i>cordatus</i> var. <i>cordatus</i>	30.0
	Perennial	CROCO2	<i>Crepis</i>	<i>occidentalis</i> ssp. <i>occidentalis</i>	25.0
	Annual	MEVE5	<i>Mentzelia</i>	<i>veatchiana</i>	25.0
	Annual	PESE	<i>Pectocarya</i>	<i>setosa</i>	25.0
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata</i> var. <i>crenulata</i>	25.0
	Annual	PLPA2	<i>Plantago</i>	<i>patagonica</i>	25.0
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua</i> ssp. <i>exigua</i>	25.0
	Perennial	CAFL	<i>Calochortus</i>	<i>flexuosus</i>	20.0
	Perennial	DIPU3	<i>Dichelostemma</i>	<i>pulchellum</i>	20.0
	Annual	ERDI4	<i>Erigeron</i>	<i>divergens</i>	20.0
	Perennial	ERRA3	<i>Eriogonum</i>	<i>racemosum</i>	20.0
	Annual	LOHU2	<i>Lotus</i>	<i>humistratus</i>	20.0
	Perennial	LONEN	<i>Lomatium</i>	<i>nevadense</i> var. <i>nevadense</i>	20.0
	Perennial	LUARL5	<i>Lupinus</i>	<i>argenteus</i> ssp. <i>argenteus</i> var. <i>laxiflorus</i>	20.0
	Perennial	MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	20.0
	Perennial	OECM4	<i>Oenothera</i>	<i>caespitosa</i> ssp. <i>marginata</i>	20.0
	Annual	THCU	<i>Thysanocarpus</i>	<i>curvipes</i>	20.0
	Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus</i> var. <i>fremontii</i>	15.0
	Annual	CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	15.0
	Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis</i> var. <i>nevadensis</i>	15.0

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	15.0
	Annual	LUBR2	<i>Lupinus</i>	<i>brevicaulis</i>	15.0
	Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	15.0
	Perennial	MIMUG	<i>Mirabilis</i>	<i>multiflora</i> var. <i>glandulosa</i>	15.0
	Annual	MISP	<i>Mimulus</i>	<i>spissus</i>	15.0
	Perennial	PEFLA2	<i>Penstemon</i>	<i>floridus</i> var. <i>austinii</i>	15.0
	Perennial	PEPA23	<i>Penstemon</i>	<i>pahutensis</i>	15.0
	Biennial	SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	15.0
	Perennial	SPAMM	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>monticola</i>	15.0
	Annual	URLI2	<i>Uropappus</i>	<i>linearifolia</i>	15.0
	Perennial	ARCOS2	<i>Arenaria</i>	<i>congesta</i> var. <i>subcongesta</i>	10.0
	Perennial	ARPUG	<i>Arabis</i>	<i>pulchra</i> var. <i>gracilis</i>	10.0
	Perennial	ARPUM	<i>Arabis</i>	<i>pulchra</i> var. <i>munciensis</i>	10.0
	Annual	ASAC3	<i>Astragalus</i>	<i>acutirostris</i>	10.0
	Perennial	ASPUT	<i>Astragalus</i>	<i>purshii</i> var. <i>tinctus</i>	10.0
	Perennial	CHDO	<i>Chaenactis</i>	<i>douglasii</i>	10.0
	Annual	CHMA	<i>Chaenactis</i>	<i>macrantha</i>	10.0
	Annual	CHWA2	<i>Chorizanthe</i>	<i>watsonii</i>	10.0
	Annual	CLPAU2	<i>Claytonia</i>	<i>perfoliata</i> ssp. <i>perfoliata</i>	10.0
	Annual	CRGR3	<i>Cryptantha</i>	<i>gracilis</i>	10.0
	Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	10.0
	Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	10.0
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	10.0
	Perennial	MIPU5	<i>Mirabilis</i>	<i>pudica</i>	10.0
	Annual	PHCU	<i>Phacelia</i>	<i>curvipes</i>	10.0
	Annual	PHSA	<i>Phacelia</i>	<i>saxicola</i>	10.0
	Annual	SACOC	<i>Salvia</i>	<i>columbariae</i> var. <i>columbariae</i>	10.0
	Perennial	ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	5.0
	Perennial	ARMUR	<i>Argemone</i>	<i>munita</i> ssp. <i>rotundata</i>	5.0
	Perennial	ASCA14	<i>Astragalus</i>	<i>casei</i>	5.0
	Annual	CABOI	<i>Camissonia</i>	<i>boothii</i> ssp. <i>intermedia</i>	5.0
	Annual	CACLI	<i>Camissonia</i>	<i>claviformis</i> ssp. <i>integrrior</i>	5.0
	Perennial	CACRG	<i>Caulanthus</i>	<i>crassicaulis</i> var. <i>glaber</i>	5.0
	Annual	CHBRB	<i>Chorizanthe</i>	<i>brevicomu</i> var. <i>brevicomu</i>	5.0
	Perennial	CHGR13	<i>Chrysothamnus</i>	<i>gramineus</i>	5.0
	Annual	CHIN2	<i>Chenopodium</i>	<i>incanum</i>	5.0

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	CHXA	<i>Chaenactis</i>	<i>xantiana</i>	5.0
	Annual	GRAM3	<i>Cryptantha</i>	<i>ambigua</i>	5.0
	Perennial	ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	5.0
	Annual	GILIA	<i>Gilia</i>		5.0
	Perennial	GINY	<i>Gilia</i>	<i>nyensis</i>	5.0
	Perennial	HUVE1	<i>Hulsea</i>	<i>vestita</i> ssp. <i>inyoensis</i>	5.0
	Perennial	LEKIK	<i>Lesquerella</i>	<i>kingii</i> ssp. <i>kingii</i>	5.0
	Perennial	LEREM	<i>Lewisia</i>	<i>rediviva</i> var. <i>minor</i>	5.0
	Annual	LIDI2	<i>Linanthus</i>	<i>dichotomus</i>	5.0
	Annual	LUCOO2	<i>Lupinus</i>	<i>concinus</i> ssp. <i>orcuttii</i>	5.0
	Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	5.0
	Annual	LUSU10	<i>Lupinus</i>	<i>subvexus</i>	5.0
	Annual	MECO2	<i>Mentzelia</i>	<i>congesta</i>	5.0
	Perennial	ORFA	<i>Orobanche</i>	<i>fasciculata</i>	5.0
	Perennial	PEPU7	<i>Petradoria</i>	<i>pumila</i>	5.0
	Annual	SAKAT3	<i>Salsola</i>	<i>kali</i> ssp. <i>tragus</i>	5.0
	Perennial	STPA3	<i>Stephanomeria</i>	<i>parryi</i>	5.0
	Perennial	TRWA2	<i>Tricardia</i>	<i>watsonii</i>	5.0

Succulents

Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	30.0
Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	25.0
Perennial	OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	20.0
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	10.0
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	10.0
Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	5.0
Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	5.0

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Artemisia tridentata-Chrysothamnus viscidiflorus Shrubland

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	40.3
Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	23.7
Perennial	QUGA	<i>Quercus</i>	<i>gambelii</i>	2.2

Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	97.8
Perennial	AMUT	<i>Amelanchier</i>	<i>utahensis</i>	0.7
Perennial	LATR2	<i>Larrea</i>	<i>tridentata</i>	0.7

Short Shrubs (0.5-2 m)

Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	69.8
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	61.9
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	46.0
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	41.0
Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	33.1
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	29.5
Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	25.9
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	23.0
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	18.7
Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	18.0
Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	15.1
Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	12.9
Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	12.2
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	10.8
Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	10.1
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	9.4
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	8.6
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	8.6
Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	8.6
Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	7.9
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	7.2
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	6.5
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	5.8
Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	5.0

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	4.3
	Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	3.6
	Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	3.6
	Perennial	ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	2.9
	Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	2.9
	Perennial	ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	2.2
	Perennial	PSPO	<i>Psoralea</i>	<i>polydenius</i>	2.2
	Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	2.2
	Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	1.4
	Perennial	RICEC2	<i>Ribes</i>	<i>cereum</i> var. <i>cereum</i>	1.4
	Perennial	RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	1.4
	Perennial	STEL	<i>Stanleya</i>	<i>elata</i>	1.4
	Perennial	THMO	<i>Thamnosma</i>	<i>montana</i>	1.4
	Perennial	AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	0.7
	Perennial	BRMIS	<i>Brickellia</i>	<i>microphylla</i> var. <i>scabra</i>	0.7
	Perennial	BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>	0.7
	Perennial	ERHEA	<i>Eriogonum</i>	<i>heermannii</i> var. <i>argense</i>	0.7
	Perennial	ERPA29	<i>Ericameria</i>	<i>paniculata</i>	0.7
	Perennial	ERPAN2	<i>Ericameria</i>	<i>parryi</i> var. <i>nevadensis</i>	0.7
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	0.7
	Perennial	SAME	<i>Salazaria</i>	<i>mexicana</i>	0.7
	Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	0.7

Dwarf Shrubs (<0.5 m)

Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	33.8
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	15.8
Perennial	ERMIL	<i>Eriogonum</i>	<i>microthecum</i> var. <i>lapidicola</i>	0.7
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	0.7

Graminoids

Perennial	ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoides</i>	77.7
Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	75.5
Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	70.5
Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	54.0
Perennial	HECOC8	<i>Hesperostipa</i>	<i>comata</i> ssp. <i>comata</i>	43.9
Perennial	POSE	<i>Poa</i>	<i>secunda</i>	35.3
Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	28.1

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	20.9
	Perennial	ARPU9	<i>Aristida</i>	<i>purpurea</i>	13.7
	Perennial	LEC14	<i>Leymus</i>	<i>cinereus</i>	13.7
	Perennial	POFE	<i>Poa</i>	<i>fendleriana</i>	11.5
	Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	8.6
	Annual	VUMI	<i>Vulpia</i>	<i>microstachys</i>	7.9
	Perennial	AGLL	<i>Agoseris</i>	<i>glauca</i> var. <i>laciniata</i>	5.8
	Perennial	KOMA	<i>Koeleria</i>	<i>macrantha</i>	2.9
	Perennial	BOGR2	<i>Bouteloua</i>	<i>gracilis</i>	2.2
	Perennial	ERPU8	<i>Erioneuron</i>	<i>pulchellum</i>	1.4
	Perennial	SPCR	<i>Sporobolus</i>	<i>cryptandrus</i>	1.4
	Perennial	ACTH7	<i>Achnatherum</i>	<i>thurberiana</i>	0.7
	Annual	BRCA6	<i>Bromus</i>	<i>cartharticus</i>	0.7
	Perennial	JUBA	<i>Juncus</i>	<i>balticus</i>	0.7

Forbs

Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>ambigua</i>	56.8
Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus</i> var. <i>fremontii</i>	56.1
Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens</i> ssp. <i>canescens</i>	55.4
Annual	CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	54.0
Perennial	CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	51.8
Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	51.1
Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum</i> ssp. <i>brecciarum</i>	48.2
Annual	DEPIG	<i>Descurainia</i>	<i>pinnata</i> ssp. <i>glabra</i>	45.3
Annual	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	43.9
Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	43.2
Perennial	EROVO5	<i>Eriogonum</i>	<i>ovalifolium</i> var. <i>ovalifolium</i>	40.3
Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	39.6
Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	37.4
Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	36.0
Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	35.3
Annual	CHST	<i>Chaenactis</i>	<i>stevioides</i>	33.8
Perennial	ERCOC3	<i>Erigeron</i>	<i>concinus</i> var. <i>concinus</i>	29.5
Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii</i> ssp. <i>parishii</i>	28.8
Annual	CAPT	<i>Camissonia</i>	<i>pterosperma</i>	24.5
Perennial	CAFL	<i>Calochortus</i>	<i>flexuosus</i>	23.0
Perennial	SEMU3	<i>Senecio</i>	<i>multilobatus</i>	23.0

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	21.6
	Annual	CETH3	<i>Centrostegia</i>	<i>thurberi</i>	20.1
	Annual	CRGR3	<i>Cryptantha</i>	<i>gracilis</i>	20.1
	Perennial	DEAN	<i>Delphinium</i>	<i>andersonii</i>	20.1
	Perennial	ASPUT	<i>Astragalus</i>	<i>purshii</i> var. <i>tinctus</i>	19.4
	Annual	LUFL	<i>Lupinus</i>	<i>flavoculatus</i>	19.4
	Annual	PLPA2	<i>Plantago</i>	<i>patagonica</i>	17.3
	Perennial	DIPU3	<i>Dichelostemma</i>	<i>pulchellum</i>	15.8
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata</i> var. <i>crenulata</i>	15.8
	Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	14.4
	Perennial	CHDO	<i>Chaenactis</i>	<i>douglasii</i>	13.7
	Perennial	HEMUN	<i>Helioomeris</i>	<i>multiflora</i> var. <i>nevadensis</i>	12.9
	Perennial	ARPUG	<i>Arabis</i>	<i>pulchra</i> var. <i>gracilis</i>	12.2
	Annual	CAPU16	<i>Camissonia</i>	<i>pusilla</i>	12.2
	Perennial	CRFL6	<i>Cryptantha</i>	<i>flavoculata</i>	12.2
	Annual	LAOCO	<i>Lappula</i>	<i>occidentalis</i> var. <i>occidentalis</i>	12.2
	Annual	CHMA	<i>Chaenactis</i>	<i>macrantha</i>	11.5
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	11.5
	Annual	MISP	<i>Mimulus</i>	<i>spissus</i>	11.5
	Annual	PESE	<i>Pectocarya</i>	<i>setosa</i>	11.5
	Perennial	CALI4	<i>Castilleja</i>	<i>linariaefolia</i>	10.8
	Annual	ERDI4	<i>Erigeron</i>	<i>divergens</i>	10.8
	Perennial	LILE3	<i>Linum</i>	<i>lewisii</i>	10.8
	Perennial	OECM4	<i>Oenothera</i>	<i>caespitosa</i> ssp. <i>marginata</i>	10.8
	Perennial	PHGRH	<i>Phlox</i>	<i>gracilis</i> ssp. <i>humilis</i>	10.8
	Annual	CHWA2	<i>Chorizanthe</i>	<i>watsonii</i>	10.1
	Perennial	LONEN	<i>Lomatium</i>	<i>nevadense</i> var. <i>nevadense</i>	10.1
	Annual	LUBR2	<i>Lupinus</i>	<i>brevicaulis</i>	10.1
	Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	10.1
	Perennial	ARPUM	<i>Arabis</i>	<i>pulchra</i> var. <i>munciensis</i>	9.4
	Perennial	ASCAC5	<i>Astragalus</i>	<i>calycosus</i> var. <i>calycosus</i>	9.4
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	9.4
	Perennial	LUARL5	<i>Lupinus</i>	<i>argenteus</i> ssp. <i>artenteus</i> var. <i>laxiflorus</i>	9.4
	Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	9.4
	Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis</i> var. <i>nevadensis</i>	8.6
	Perennial	ERCA8	<i>Eriogonum</i>	<i>caespitosum</i>	8.6

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	ERIC6	<i>Erodium</i>	<i>cicutarium</i>	8.6
	Perennial	ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	8.6
	Annual	GILIA	<i>Gilia</i>		8.6
	Perennial	HYCOC2	<i>Hymenoxys</i>	<i>cooperi</i> var. <i>cooperi</i>	8.6
	Annual	LIDI2	<i>Linanthus</i>	<i>dichotomus</i>	8.6
	Annual	MEVE5	<i>Mentzelia</i>	<i>veatchiana</i>	8.6
	Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	8.6
	Perennial	CROCO2	<i>Crepis</i>	<i>occidentalis</i> ssp. <i>occidentalis</i>	7.9
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua</i> ssp. <i>exigua</i>	7.9
	Perennial	ARCOS2	<i>Arenaria</i>	<i>congesta</i> var. <i>subcongesta</i>	6.5
	Perennial	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	6.5
	Annual	ERDE6	<i>Eriogonum</i>	<i>deflexum</i>	6.5
	Annual	MISU2	<i>Mimulus</i>	<i>suksdorfii</i>	6.5
	Perennial	ORFA	<i>Orobanche</i>	<i>fasciculata</i>	6.5
	Annual	PHVAV2	<i>Phacelia</i>	<i>vallis-mortae</i> var. <i>vallis-mortae</i>	6.5
	Perennial	SPAMM	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>monticola</i>	6.5
	Perennial	STCOC	<i>Streptanthus</i>	<i>cordatus</i> var. <i>cordatus</i>	6.5
	Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	5.8
	Annual	URLI2	<i>Uropappus</i>	<i>linearifolia</i>	5.8
	Annual	CABRB4	<i>Camissonia</i>	<i>brevipes</i> ssp. <i>brevipes</i>	5.0
	Biennial	CINE	<i>Cirsium</i>	<i>neomexicanum</i>	5.0
	Annual	ERSP3	<i>Eriastrum</i>	<i>sparsiflorum</i>	5.0
	Annual	LOHU2	<i>Lotus</i>	<i>humistratus</i>	5.0
	Perennial	MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	5.0
	Annual	PHSA	<i>Phacelia</i>	<i>saxicola</i>	5.0
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	5.0
	Perennial	CRCO12	<i>Cryptantha</i>	<i>confertiflora</i>	4.3
	Annual	MASO	<i>Malacothrix</i>	<i>sonchoides</i>	4.3
	Perennial	OEPAP	<i>Oenothera</i>	<i>pallida</i> ssp. <i>pallida</i>	4.3
	Perennial	PEPA23	<i>Penstemon</i>	<i>pahutensis</i>	4.3
	Biennial	SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	4.3
	Perennial	ABEL	<i>Abronia</i>	<i>elliptica</i>	3.6
	Perennial	CAPI4	<i>Caulanthus</i>	<i>pilosus</i>	3.6
	Annual	ERESE	<i>Eriogonum</i>	<i>esmeraldense</i> var. <i>esmeraldense</i>	3.6
	Annual	MEOB3	<i>Mentzelia</i>	<i>obscura</i>	3.6
	Perennial	MIMUG	<i>Mirabilis</i>	<i>multiflora</i> var. <i>glandulosa</i>	3.6

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	PEFLA2	<i>Penstemon</i>	<i>floridus</i> var. <i>austinii</i>	3.6
	Perennial	STSP6	<i>Stephanomeria</i>	<i>spinosa</i>	3.6
	Perennial	ALNE	<i>Allium</i>	<i>nevadense</i>	2.9
	Perennial	ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	2.9
	Perennial	ASCA14	<i>Astragalus</i>	<i>casei</i>	2.9
	Annual	CACLI	<i>Camissonia</i>	<i>claviformis</i> ssp. <i>integrrior</i>	2.9
	Annual	CHBRB	<i>Chorizanthe</i>	<i>brevicomu</i> var. <i>brevicomu</i>	2.9
	Annual	CHXA	<i>Chaenactis</i>	<i>xantiana</i>	2.9
	Annual	CRMI	<i>Cryptantha</i>	<i>micrantha</i>	2.9
	Annual	CRRE5	<i>Cryptantha</i>	<i>recurvata</i>	2.9
	Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	2.9
	Perennial	GIIN2	<i>Gilia</i>	<i>inconspicua</i>	2.9
	Annual	NADED	<i>Nama</i>	<i>demissum</i> var. <i>demissum</i>	2.9
	Annual	PEPL	<i>Pectocarya</i>	<i>platycarpa</i>	2.9
	Perennial	ADCO2	<i>Adenophyllum</i>	<i>cooperi</i>	2.2
	Annual	ANAC	<i>Anisocoma</i>	<i>acaulis</i>	2.2
	Perennial	ASFU3	<i>Astragalus</i>	<i>funereus</i>	2.2
	Annual	CHLE4	<i>Chenopodium</i>	<i>leptophyllum</i>	2.2
	Perennial	ERAP	<i>Erigeron</i>	<i>aphanactis</i>	2.2
	Annual	GADIP	<i>Gayophytum</i>	<i>diffusum</i> ssp. <i>parviflorum</i>	2.2
	Perennial	GINY	<i>Gilia</i>	<i>nyensis</i>	2.2
	Perennial	ORCO5	<i>Orobanche</i>	<i>corymbosa</i>	2.2
	Perennial	SPGRP2	<i>Sphaeralcea</i>	<i>grossulariaefolia</i> ssp. <i>pedata</i>	2.2
	Perennial	TOSC	<i>Townsendia</i>	<i>scapigera</i>	2.2
	Annual	AMAC2	<i>Ambrosia</i>	<i>acanthicarpa</i>	1.4
	Annual	ASAC3	<i>Astragalus</i>	<i>acutirostris</i>	1.4
	Annual	CHAL7	<i>Chenopodium</i>	<i>album</i>	1.4
	Annual	CHFR	<i>Chaenactis</i>	<i>fremontii</i>	1.4
	Annual	CHIN2	<i>Chenopodium</i>	<i>incanum</i>	1.4
	Perennial	CYGL2	<i>Cymopterus</i>	<i>globosus</i>	1.4
	Perennial	CYPU	<i>Cymopterus</i>	<i>purpurascens</i>	1.4
	Annual	ERBR7	<i>Eriogonum</i>	<i>brachyanthum</i>	1.4
	Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	1.4
	Annual	ERMA2	<i>Eriogonum</i>	<i>maculatum</i>	1.4
	Perennial	ERNU4	<i>Eriogonum</i>	<i>nummulare</i>	1.4
	Perennial	ERRA3	<i>Eriogonum</i>	<i>racemosum</i>	1.4

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	ERWI	<i>Eriastrum</i>	<i>wilcoxii</i>	1.4
	Perennial	GISI	<i>Gilia</i>	<i>sinuata</i>	1.4
	Perennial	HUVEI	<i>Hulsea</i>	<i>vestita ssp. inyoensis</i>	1.4
	Perennial	LEKIK	<i>Lesquerella</i>	<i>kingii ssp. kingii</i>	1.4
	Perennial	LINUN	<i>Linanthus</i>	<i>nuttallii ssp. nuttallii</i>	1.4
	Annual	OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	1.4
	Perennial	PEHUH	<i>Penstemon</i>	<i>humilis ssp. humilis</i>	1.4
	Annual	SACOC	<i>Salvia</i>	<i>columbariae var. columbariae</i>	1.4
	Annual	STLO4	<i>Streptanthella</i>	<i>longirostris</i>	1.4
	Annual	STMI2	<i>Stylocline</i>	<i>micropoides</i>	1.4
	Perennial	STPA3	<i>Stephanomeria</i>	<i>parryi</i>	1.4
	Perennial	TRWA2	<i>Tricardia</i>	<i>watsonii</i>	1.4
	Perennial	ARMA3	<i>Arenaria</i>	<i>macradenia</i>	0.7
	Perennial	ASER2	<i>Asclepias</i>	<i>erosa</i>	0.7
	Perennial	ASNE6	<i>Astragalus</i>	<i>newberryi</i>	0.7
	Annual	CABOI	<i>Camissonia</i>	<i>boothii ssp. intermedia</i>	0.7
	Annual	CAKEG	<i>Camissonia</i>	<i>kernensis ssp. gilmanii</i>	0.7
	Annual	CAPA39	<i>Camissonia</i>	<i>parvula</i>	0.7
	Annual	CARE2	<i>Camissonia</i>	<i>refracta</i>	0.7
	Perennial	CHER2	<i>Leucelene</i>	<i>ericoides</i>	0.7
	Perennial	CHGR13	<i>Chrysothamnus</i>	<i>gramineus</i>	0.7
	Annual	CHRI	<i>Chorizanthe</i>	<i>rigida</i>	0.7
	Annual	CHSES	<i>Chamaesyce</i>	<i>serpyllifolia ssp. serpyllifolia</i>	0.7
	Annual	CIPAN	<i>Cistanthe</i>	<i>parryi var. nevadense</i>	0.7
	Perennial	CYRI2	<i>Cymopterus</i>	<i>ripleyi</i>	0.7
	Annual	ERHO6	<i>Eriogonum</i>	<i>hookeri</i>	0.7
	Perennial	FRAT	<i>Fritillaria</i>	<i>atropurpurea</i>	0.7
	Annual	GARA2	<i>Gayophytum</i>	<i>ramosissimum</i>	0.7
	Perennial	IPCO5	<i>Ipomopsis</i>	<i>congesta</i>	0.7
	Annual	LUMI	<i>Lupinus</i>	<i>microcarpus</i>	0.7
	Perennial	MIPU5	<i>Mirabilis</i>	<i>pudica</i>	0.7
	Annual	NABR	<i>Navarretia</i>	<i>breweri</i>	0.7
	Perennial	OECA2	<i>Oenothera</i>	<i>californica spp avita</i>	0.7
	Perennial	PENST	<i>Penstemon</i>		0.7
	Perennial	PEPA8	<i>Penstemon</i>	<i>palmeri</i>	0.7
	Annual	PHBI	<i>Phacelia</i>	<i>bicolor</i>	0.7

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	PHCU	<i>Phacelia</i>	<i>curvipes</i>	0.7
	Perennial	PHHOL	<i>Phlox</i>	<i>hoodii ssp. lanata</i>	0.7
	Perennial	POSU	<i>Polygala</i>	<i>subspinoso</i>	0.7
	Annual	SAKAT3	<i>Salsola</i>	<i>kali ssp. tragus</i>	0.7
	Perennial	SIVEA	<i>Silene</i>	<i>verecunda ssp. andersonii</i>	0.7
	Perennial	SPAMR	<i>Sphaeralcea</i>	<i>ambigua var. rugosa</i>	0.7
	Annual	THCU	<i>Thysanocarpus</i>	<i>curvipes</i>	0.7
	Perennial	ZIPA2	<i>Zigadenus</i>	<i>paniculatus</i>	0.7

Succulents

Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa var. echinocarpa</i>	27.3
Perennial	OPERE	<i>Opuntia</i>	<i>erinacea var. erinacea</i>	15.8
Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha var. rufispina</i>	15.8
Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	11.5
Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	8.6
Perennial	YUBAV	<i>Yucca</i>	<i>baccata var. vespertina</i>	3.6
Perennial	ESVIR2	<i>Escobaria</i>	<i>vivipara var. rosea</i>	2.9
Perennial	SCPO4	<i>Sclerocactus</i>	<i>polyancistrus</i>	2.9
Perennial	MATE4	<i>Mammillaria</i>	<i>tetrancistra</i>	1.4
Perennial	ESVID	<i>Escobaria</i>	<i>vivipara var. deserti</i>	0.7
Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris var. basilaris</i>	0.7
Perennial	OPERU	<i>Opuntia</i>	<i>erinacea var. ursina</i>	0.7
Perennial	OPPU	<i>Opuntia</i>	<i>pulchella</i>	0.7
Perennial	OPRA	<i>Opuntia</i>	<i>ramosissima</i>	0.7

Variable

Variable	MENTZ	<i>Mentzelia</i>	0.7
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<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Artemisia nova-Chrysothamnus viscidiflorus Shrubland

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	56.3
Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	39.8
Perennial	QUGA	<i>Quercus</i>	<i>gambelii</i>	1.0

Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	50.5
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Short Shrubs (0.5-2 m)

Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	100.0
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	76.7
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	63.1
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	55.3
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	52.4
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	52.4
Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	44.7
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	37.9
Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	34.0
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	24.3
Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	19.4
Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	19.4
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	18.4
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	16.5
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	15.5
Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	12.6
Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	11.7
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	10.7
Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	8.7
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	7.8
Perennial	GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	5.8
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	5.8
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	4.9
Perennial	ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	4.9
Perennial	HYSA	<i>Hymenoclea</i>	<i>salsola</i>	3.9
Perennial	LEFR2	<i>Lepidium</i>	<i>fremontii</i>	3.9

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<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	3.9
	Perennial	CHGR6	<i>Chrysothamnus</i>	<i>greenii</i>	2.9
	Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	2.9
	Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	2.9
	Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	2.9
	Perennial	SADOD3	<i>Salvia</i>	<i>dorii ssp. dortii var. dortii</i>	2.9
	Perennial	ERHEA	<i>Eriogonum</i>	<i>heermannii var. argense</i>	1.9
	Perennial	RHTRA	<i>Rhus</i>	<i>trilobata var. anisophylla</i>	1.9
	Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum var. polifolium</i>	1.0
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	1.0
	Perennial	RIVEV	<i>Ribes</i>	<i>velutinum var. velutinum</i>	1.0
	Perennial	STPIP	<i>Stanleya</i>	<i>pinnata var. pinnata</i>	1.0

Dwarf Shrubs (<0.5 m)

Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	20.4
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	17.5
Perennial	ERMIL	<i>Eriogonum</i>	<i>microthecum var. lapidicola</i>	1.0
Perennial	KOAM	<i>Kochia</i>	<i>americana</i>	1.0
Perennial	MESP2	<i>Menodora</i>	<i>spinescens</i>	1.0

Graminoids

Perennial	ELELE	<i>Elymus</i>	<i>elymoides ssp. elymoides</i>	83.5
Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	72.8
Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	68.9
Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	61.2
Perennial	POSE	<i>Poa</i>	<i>secunda</i>	55.3
Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	33.0
Perennial	HECOC8	<i>Hesperostipa</i>	<i>comata ssp. comata</i>	30.1
Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	25.2
Perennial	ARPU9	<i>Aristida</i>	<i>purpurea</i>	22.3
Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	21.4
Perennial	POFE	<i>Poa</i>	<i>fendleriana</i>	12.6
Annual	VUMI	<i>Vulpia</i>	<i>microstachys</i>	5.8
Perennial	ACTH7	<i>Achnatherum</i>	<i>thurberiana</i>	1.9
Perennial	KOMA	<i>Koeleria</i>	<i>macrantha</i>	1.9
Perennial	ACCO21	<i>Achnatherum</i>	<i>coronata</i>	1.0
Perennial	LEC14	<i>Leymus</i>	<i>cinereus</i>	1.0

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
Forbs					
	Perennial	CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	68.9
	Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	62.1
	Perennial	CAFL	<i>Calochortus</i>	<i>flexuosus</i>	61.2
	Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	57.3
	Perennial	EROVO5	<i>Eriogonum</i>	<i>ovalifolium</i> var. <i>ovalifolium</i>	56.3
	Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>ambigua</i>	52.4
	Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum</i> ssp. <i>brecciarum</i>	50.5
	Annual	DEPIG	<i>Descurainia</i>	<i>pinnata</i> ssp. <i>glabra</i>	47.6
	Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens</i> ssp. <i>canescens</i>	47.6
	Perennial	ERCOC3	<i>Erigeron</i>	<i>concinus</i> var. <i>concinus</i>	44.7
	Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus</i> var. <i>fremontii</i>	43.7
	Annual	CAPT	<i>Camissonia</i>	<i>pterosperma</i>	40.8
	Annual	CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	39.8
	Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	39.8
	Perennial	ASPUT	<i>Astragalus</i>	<i>purshii</i> var. <i>tinctus</i>	38.8
	Annual	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	35.0
	Annual	CRGR3	<i>Cryptantha</i>	<i>gracilis</i>	32.0
	Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	31.1
	Perennial	ARPUG	<i>Arabis</i>	<i>pulchra</i> var. <i>gracilis</i>	30.1
	Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii</i> ssp. <i>parishii</i>	30.1
	Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	26.2
	Annual	CHST	<i>Chaenactis</i>	<i>steviodoides</i>	24.3
	Perennial	DIPU3	<i>Dichelostemma</i>	<i>pulchellum</i>	24.3
	Perennial	LILE3	<i>Linum</i>	<i>lewisii</i>	24.3
	Annual	LUFL	<i>Lupinus</i>	<i>flavoculatus</i>	22.3
	Perennial	LONEN	<i>Lomatium</i>	<i>nevadense</i> var. <i>nevadense</i>	21.4
	Perennial	SEMU3	<i>Senecio</i>	<i>multilobatus</i>	21.4
	Perennial	DEAN	<i>Delphinium</i>	<i>andersonii</i>	20.4
	Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	20.4
	Perennial	ERCA8	<i>Eriogonum</i>	<i>caespitosum</i>	19.4
	Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	17.5
	Annual	LAOCO	<i>Lappula</i>	<i>occidentalis</i> var. <i>occidentalis</i>	14.6
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	13.6
	Annual	PHSA	<i>Phacelia</i>	<i>saxicola</i>	13.6
	Annual	CHMA	<i>Chaenactis</i>	<i>macrantha</i>	12.6

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	MISU2	<i>Mimulus</i>	<i>suksdorfii</i>	12.6
	Perennial	OECEM4	<i>Oenothera</i>	<i>caespitosa</i> ssp. <i>marginata</i>	11.7
	Perennial	CALI4	<i>Castilleja</i>	<i>linariaefolia</i>	10.7
	Perennial	CRFL6	<i>Cryptantha</i>	<i>flavoculata</i>	10.7
	Perennial	HYCOC2	<i>Hymenoxys</i>	<i>cooperi</i> var. <i>cooperi</i>	10.7
	Annual	PLPA2	<i>Plantago</i>	<i>patagonica</i>	10.7
	Perennial	STCOC	<i>Streptanthus</i>	<i>cordatus</i> var. <i>cordatus</i>	10.7
	Perennial	ARCOS2	<i>Arenaria</i>	<i>congesta</i> var. <i>subcongesta</i>	9.7
	Annual	ERDI4	<i>Erigeron</i>	<i>divergens</i>	9.7
	Perennial	ASNE6	<i>Astragalus</i>	<i>newberryi</i>	8.7
	Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis</i> var. <i>nevadensis</i>	8.7
	Perennial	CROCO2	<i>Crepis</i>	<i>occidentalis</i> ssp. <i>occidentalis</i>	8.7
	Perennial	CYPU	<i>Cymopterus</i>	<i>purpurascens</i>	8.7
	Annual	LUBR2	<i>Lupinus</i>	<i>brevicaulis</i>	8.7
	Perennial	SPAMM	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>monticola</i>	8.7
	Perennial	TOSC	<i>Townsendia</i>	<i>scapigera</i>	8.7
	Annual	CETH3	<i>Centrostegia</i>	<i>thurberi</i>	7.8
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	7.8
	Annual	PESE	<i>Pectocarya</i>	<i>setosa</i>	7.8
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata</i> var. <i>crenulata</i>	7.8
	Annual	PHVAV2	<i>Phacelia</i>	<i>vallis-mortae</i> var. <i>vallis-mortae</i>	7.8
	Annual	ERIC6	<i>Erodium</i>	<i>cicutarium</i>	6.8
	Perennial	ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	6.8
	Perennial	ORFA	<i>Orobanch</i>	<i>fasciculata</i>	6.8
	Annual	OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	6.8
	Perennial	PHGRH	<i>Phlox</i>	<i>gracilis</i> ssp. <i>humilis</i>	6.8
	Perennial	ALNE	<i>Allium</i>	<i>nevadense</i>	5.8
	Perennial	ARPUM	<i>Arabis</i>	<i>pulchra</i> var. <i>munciensis</i>	5.8
	Perennial	ASCAC5	<i>Astragalus</i>	<i>calycosus</i> var. <i>calycosus</i>	5.8
	Annual	CHWA2	<i>Chorizanthe</i>	<i>watsonii</i>	5.8
	Perennial	CRCO12	<i>Cryptantha</i>	<i>confertiflora</i>	5.8
	Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	5.8
	Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	5.8
	Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	5.8
	Annual	CABRB4	<i>Camissonia</i>	<i>brevipes</i> ssp. <i>brevipes</i>	4.9
	Perennial	CAPI4	<i>Caulanthus</i>	<i>pilosus</i>	4.9

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	4.9
	Biennial	CINE	<i>Cirsium</i>	<i>neomexicanum</i>	4.9
	Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	4.9
	Annual	CAPU16	<i>Camissonia</i>	<i>pusilla</i>	3.9
	Perennial	CHDO	<i>Chaenactis</i>	<i>douglasii</i>	3.9
	Annual	LIDI2	<i>Linanthus</i>	<i>dichotomus</i>	3.9
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua</i> ssp. <i>exigua</i>	3.9
	Perennial	CHER2	<i>Leucelene</i>	<i>encoides</i>	2.9
	Annual	GILIA	<i>Gilia</i>		2.9
	Annual	HAGL	<i>Halogeton</i>	<i>glomeratus</i>	2.9
	Perennial	LEKIK	<i>Lesquerella</i>	<i>kingii</i> ssp. <i>kingii</i>	2.9
	Annual	LOHU2	<i>Lotus</i>	<i>humistratus</i>	2.9
	Annual	MASO	<i>Malacothrix</i>	<i>sonchoides</i>	2.9
	Annual	MEVE5	<i>Mentzelia</i>	<i>veatchiana</i>	2.9
	Annual	URLI2	<i>Uropappus</i>	<i>linearifolia</i>	2.9
	Perennial	ZIPA2	<i>Zigadenus</i>	<i>paniculatus</i>	2.9
	Annual	ANAC	<i>Anisocoma</i>	<i>acaulis</i>	1.9
	Annual	ASAC3	<i>Astragalus</i>	<i>acutirostris</i>	1.9
	Perennial	ASBE5	<i>Astragalus</i>	<i>beatleyae</i>	1.9
	Perennial	BAHON	<i>Balsamorhiza</i>	<i>hookeri</i> var. <i>neglecta</i>	1.9
	Annual	CABOI	<i>Camissonia</i>	<i>boothii</i> ssp. <i>intermedia</i>	1.9
	Annual	CACL1	<i>Camissonia</i>	<i>claviformis</i> ssp. <i>integrior</i>	1.9
	Annual	CARE2	<i>Camissonia</i>	<i>refracta</i>	1.9
	Annual	CHIN2	<i>Chenopodium</i>	<i>incanum</i>	1.9
	Annual	CHRI	<i>Chorizanthe</i>	<i>rigida</i>	1.9
	Annual	CRMI	<i>Cryptantha</i>	<i>micrantha</i>	1.9
	Perennial	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	1.9
	Perennial	ERAP	<i>Erigeron</i>	<i>aphanactis</i>	1.9
	Annual	ERCO18	<i>Eriogonum</i>	<i>concinnum</i>	1.9
	Annual	ERDE6	<i>Eriogonum</i>	<i>defflexum</i>	1.9
	Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	1.9
	Perennial	GISI	<i>Gilia</i>	<i>sinuata</i>	1.9
	Perennial	HEMUN	<i>Heliomeris</i>	<i>multiflora</i> var. <i>nevadensis</i>	1.9
	Perennial	MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	1.9
	Annual	MISP	<i>Mimulus</i>	<i>spissus</i>	1.9
	Perennial	OEPAP	<i>Oenothera</i>	<i>pallida</i> ssp. <i>pallida</i>	1.9

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	ORCO5	<i>Orobanche</i>	<i>corymbosa</i>	1.9
	Perennial	PEFLA2	<i>Penstemon</i>	<i>flordus</i> var. <i>austinii</i>	1.9
	Perennial	PEPU7	<i>Petradoria</i>	<i>pumila</i>	1.9
	Perennial	POSU	<i>Polygala</i>	<i>subspinoso</i>	1.9
	Biennial	SIAL2	<i>Sisymbrium</i>	<i>altissimum</i>	1.9
	Perennial	STPA3	<i>Stephanomeria</i>	<i>parryi</i>	1.9
	Perennial	ABEL	<i>Abronia</i>	<i>elliptica</i>	1.0
	Perennial	ARHOP3	<i>Arabis</i>	<i>holboellii</i> var. <i>pinetorum</i>	1.0
	Perennial	ARIN	<i>Arabis</i>	<i>inyoensis</i>	1.0
	Perennial	ARMA3	<i>Arenaria</i>	<i>macradenia</i>	1.0
	Perennial	ASBE3	<i>Astragalus</i>	<i>beckwithii</i>	1.0
	Perennial	ASMIV	<i>Astragalus</i>	<i>minthorniae</i> var. <i>villosus</i>	1.0
	Perennial	CACRG	<i>Caulanthus</i>	<i>crassicaulis</i> var. <i>glaber</i>	1.0
	Annual	CAPA39	<i>Camissonia</i>	<i>parvula</i>	1.0
	Annual	CAPA7	<i>Calycoseris</i>	<i>parryi</i>	1.0
	Annual	CHBRB	<i>Chorizanthe</i>	<i>brevicomu</i> var. <i>brevicomu</i>	1.0
	Annual	CHXA	<i>Chaenactis</i>	<i>xantiana</i>	1.0
	Annual	CIPAN	<i>Cistanthe</i>	<i>parryi</i> var. <i>nevadense</i>	1.0
	Annual	CRDE	<i>Cryptantha</i>	<i>decipiens</i>	1.0
	Annual	ERBR7	<i>Eriogonum</i>	<i>brachyanthum</i>	1.0
	Annual	ERESE	<i>Eriogonum</i>	<i>esmeraldense</i> var. <i>esmeraldense</i>	1.0
	Annual	ERMA2	<i>Eriogonum</i>	<i>maculatum</i>	1.0
	Perennial	ERNU4	<i>Eriogonum</i>	<i>nummularo</i>	1.0
	Annual	ERPR4	<i>Eriophyllum</i>	<i>pringlei</i>	1.0
	Annual	ERPU6	<i>Eriogonum</i>	<i>pusillum</i>	1.0
	Perennial	ERRA3	<i>Eriogonum</i>	<i>racemosum</i>	1.0
	Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	1.0
	Annual	ERSP3	<i>Eriastrum</i>	<i>sparsiflorum</i>	1.0
	Perennial	ERUMV2	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>versicolor</i>	1.0
	Annual	ESMI	<i>Eschscholzia</i>	<i>minutiflora</i>	1.0
	Annual	GARA	<i>Gayophytum</i>	<i>racemosum</i>	1.0
	Perennial	GIHU	<i>Gilia</i>	<i>hutchinsifolia</i>	1.0
	Perennial	GIIN2	<i>Gilia</i>	<i>inconspicua</i>	1.0
	Perennial	GINY	<i>Gilia</i>	<i>nyensis</i>	1.0
	Annual	LIBI2	<i>Linanthus</i>	<i>bigelovii</i>	1.0
	Perennial	LINUN	<i>Linanthus</i>	<i>nuttallii</i> ssp. <i>nuttallii</i>	1.0

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	LUARL5	<i>Lupinus</i>	<i>argenteus</i> ssp. <i>artenteus</i> var. <i>laxiflorus</i>	1.0
	Perennial	MIMUG	<i>Mirabilis</i>	<i>multiflora</i> var. <i>glandulosa</i>	1.0
	Annual	NAAR	<i>Nama</i>	<i>aretioides</i>	1.0
	Annual	NADED	<i>Nama</i>	<i>demissum</i> var. <i>demissum</i>	1.0
	Annual	NAPU	<i>Nama</i>	<i>pusillum</i>	1.0
	Annual	OEPR	<i>Oenothera</i>	<i>primiveris</i>	1.0
	Perennial	PEHUH	<i>Penstemon</i>	<i>humilis</i> ssp. <i>humilis</i>	1.0
	Perennial	PENST	<i>Penstemon</i>		1.0
	Perennial	PEPA23	<i>Penstemon</i>	<i>pahutensis</i>	1.0
	Perennial	POHE7	<i>Polygala</i>	<i>heterorhyncha</i>	1.0
	Annual	SACOC	<i>Salvia</i>	<i>columbariae</i> var. <i>columbariae</i>	1.0
	Perennial	SESP3	<i>Senecio</i>	<i>spartioides</i>	1.0
	Perennial	SIVEA	<i>Silene</i>	<i>verecunda</i> ssp. <i>andersonii</i>	1.0
	Perennial	SPAMR	<i>Sphaeralcea</i>	<i>ambigua</i> var. <i>rugosa</i>	1.0
	Perennial	SPGRP2	<i>Sphaeralcea</i>	<i>grossulariaefolia</i> ssp. <i>pedata</i>	1.0
	Annual	STLO4	<i>Streptanthella</i>	<i>longirostris</i>	1.0
	Annual	STMI2	<i>Stylocline</i>	<i>micropoides</i>	1.0
	Perennial	TRWA2	<i>Tricardia</i>	<i>watsonii</i>	1.0

Succulents

	Perennial	OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	40.8
	Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	24.3
	Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	19.4
	Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	15.5
	Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	11.7
	Perennial	ESVIR2	<i>Escobaria</i>	<i>vivipara</i> var. <i>rosea</i>	10.7
	Perennial	SCPO4	<i>Sclerocactus</i>	<i>polyancistrus</i>	5.8
	Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	4.9
	Perennial	OPERU	<i>Opuntia</i>	<i>erinacea</i> var. <i>ursina</i>	2.9
	Perennial	MATE4	<i>Mammillaria</i>	<i>tetrancistra</i>	1.9
	Perennial	ECTRM	<i>Echinocereus</i>	<i>triglochidiatus</i> var. <i>melanacanthus</i>	1.0
	Perennial	OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	1.0

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Artemisia nova-Artemisia tridentata Shrubland

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	66.7
Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	53.3

Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata ssp. tridentata</i>	93.3
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Short Shrubs (0.5-2 m)

Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	100.0
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	66.7
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens var. canescens</i>	63.3
Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. puberulus</i>	60.0
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	60.0
Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum var. simpsonii</i>	60.0
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. viscidiflorus</i>	56.7
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	50.0
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	30.0
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus ssp. consimilis var. leiosperma</i>	26.7
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	23.3
Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	23.3
Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	23.3
Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	20.0
Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	20.0
Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus ssp. nauseosus var. hololeuca</i>	16.7
Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris var. axillaris</i>	13.3
Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	13.3
Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	10.0
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum var. polifolium</i>	10.0
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	10.0
Perennial	RHTRA	<i>Rhus</i>	<i>trilobata var. anisophylla</i>	10.0
Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	10.0
Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	6.7
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	3.3
Perennial	CHVIS5	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. viscidiflorus var. stenophyllus</i>	3.3
Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	3.3

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	3.3
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	3.3
	Perennial	PSPO	<i>Psorothamnus</i>	<i>polydenius</i>	3.3
	Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>domii</i> var. <i>domii</i>	3.3
	Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	3.3

Dwarf Shrubs (<0.5 m)

Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	56.7
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	6.7
Perennial	ERWA8	<i>Ericameria</i>	<i>watsonii</i>	3.3

Graminoids

Perennial	ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoides</i>	90.0
Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	80.0
Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	76.7
Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	70.0
Perennial	HECOC8	<i>Hesperostipa</i>	<i>comata</i> ssp. <i>comata</i>	66.7
Perennial	POSE	<i>Poa</i>	<i>secunda</i>	63.3
Perennial	POFE	<i>Poa</i>	<i>fendleriana</i>	33.3
Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	30.0
Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	23.3
Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	20.0
Perennial	ARPU9	<i>Aristida</i>	<i>purpurea</i>	16.7
Perennial	LECI4	<i>Leymus</i>	<i>cinereus</i>	16.7
Perennial	ACTH7	<i>Achnatherum</i>	<i>thurberiana</i>	10.0
Perennial	ACAR14	<i>Achnatherum</i>	<i>arida</i>	3.3
Perennial	AGGLL	<i>Agoseris</i>	<i>glauca</i> var. <i>laciniata</i>	3.3
Perennial	HOJU	<i>Hordeum</i>	<i>jubatum</i>	3.3
Annual	VUMI	<i>Vulpia</i>	<i>microstachys</i>	3.3

Forbs

Perennial	EROVO5	<i>Eriogonum</i>	<i>ovalifolium</i> var. <i>ovalifolium</i>	76.7
Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens</i> ssp. <i>canescens</i>	63.3
Perennial	CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	60.0
Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	60.0
Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus</i> var. <i>fremontii</i>	56.7
Perennial	CAFL	<i>Calochortus</i>	<i>flexuosus</i>	56.7

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	53.3
	Annual	CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	50.0
	Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum</i> ssp. <i>brecciarum</i>	50.0
	Perennial	ERCOC3	<i>Erigeron</i>	<i>concinus</i> var. <i>concinus</i>	46.7
	Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	46.7
	Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>ambigua</i>	43.3
	Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	40.0
	Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	40.0
	Perennial	ARPUG	<i>Arabis</i>	<i>pulchra</i> var. <i>gracilis</i>	36.7
	Annual	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	36.7
	Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii</i> ssp. <i>parishii</i>	36.7
	Annual	DEPIG	<i>Descurainia</i>	<i>pinnata</i> ssp. <i>glabra</i>	36.7
	Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	36.7
	Perennial	SEMU3	<i>Senecio</i>	<i>multilobatus</i>	36.7
	Annual	CHST	<i>Chaenactis</i>	<i>stevioides</i>	33.3
	Annual	CRGR3	<i>Cryptantha</i>	<i>gracilis</i>	33.3
	Perennial	LILE3	<i>Linum</i>	<i>lewisii</i>	33.3
	Annual	LUFL	<i>Lupinus</i>	<i>flavoculatus</i>	30.0
	Perennial	ASPUT	<i>Astragalus</i>	<i>purshii</i> var. <i>tinctus</i>	26.7
	Perennial	ORFA	<i>Orobanche</i>	<i>fasciculata</i>	26.7
	Annual	CAPT	<i>Camissonia</i>	<i>pterosperma</i>	23.3
	Perennial	HYCOC2	<i>Hymenoxys</i>	<i>cooperi</i> var. <i>cooperi</i>	23.3
	Perennial	SPAMM	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>monticola</i>	23.3
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua</i> ssp. <i>exigua</i>	23.3
	Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	23.3
	Annual	CETH3	<i>Centrostegia</i>	<i>thurberi</i>	20.0
	Perennial	CRCO12	<i>Cryptantha</i>	<i>confertiflora</i>	20.0
	Perennial	CRFL6	<i>Cryptantha</i>	<i>flavoculata</i>	20.0
	Annual	PHSA	<i>Phacelia</i>	<i>saxicola</i>	20.0
	Perennial	ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	16.7
	Perennial	ASCAC5	<i>Astragalus</i>	<i>calycosus</i> var. <i>calycosus</i>	16.7
	Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	16.7
	Biennial	CINE	<i>Cirsium</i>	<i>neomexicanum</i>	16.7
	Perennial	DEAN	<i>Delphinium</i>	<i>andersonii</i>	16.7
	Annual	LAOCO	<i>Lappula</i>	<i>occidentalis</i> var. <i>occidentalis</i>	16.7
	Annual	PHVAV2	<i>Phacelia</i>	<i>vallis-mortae</i> var. <i>vallis-mortae</i>	16.7

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	PLPA2	<i>Plantago</i>	<i>patagonica</i>	16.7
	Perennial	CALI4	<i>Castilleja</i>	<i>linariaefolia</i>	13.3
	Annual	CAPU16	<i>Camissonia</i>	<i>pusilla</i>	13.3
	Annual	CHWA2	<i>Chorizanthe</i>	<i>watsonii</i>	13.3
	Perennial	CROCO2	<i>Crepis</i>	<i>occidentalis ssp. occidentalis</i>	13.3
	Perennial	ERCA8	<i>Eriogonum</i>	<i>caespitosum</i>	13.3
	Annual	ERDI4	<i>Erigeron</i>	<i>divergens</i>	13.3
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	13.3
	Perennial	MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	13.3
	Perennial	OECM4	<i>Oenothera</i>	<i>caespitosa ssp. marginata</i>	13.3
	Annual	PESE	<i>Pectocarya</i>	<i>setosa</i>	13.3
	Annual	AMAC2	<i>Ambrosia</i>	<i>acanthicarpa</i>	10.0
	Perennial	CHDO	<i>Chaenactis</i>	<i>douglasii</i>	10.0
	Annual	CHIN2	<i>Chenopodium</i>	<i>incanum</i>	10.0
	Annual	CHMA	<i>Chaenactis</i>	<i>macrantha</i>	10.0
	Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis var. nevadensis</i>	10.0
	Perennial	DIPU3	<i>Dichelostemma</i>	<i>pulchellum</i>	10.0
	Annual	GILIA	<i>Gilia</i>		10.0
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	10.0
	Annual	LUBR2	<i>Lupinus</i>	<i>brevicaulis</i>	10.0
	Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	10.0
	Perennial	MIMUG	<i>Mirabilis</i>	<i>multiflora var. glandulosa</i>	10.0
	Perennial	PEFLA2	<i>Penstemon</i>	<i>floridus var. austinii</i>	10.0
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata var. crenulata</i>	10.0
	Perennial	STCOC	<i>Streptanthus</i>	<i>cordatus var. cordatus</i>	10.0
	Perennial	TOSC	<i>Townsendia</i>	<i>scapigera</i>	10.0
	Perennial	ALNE	<i>Allium</i>	<i>nevadense</i>	6.7
	Perennial	ARCOS2	<i>Arenaria</i>	<i>congesta var. subcongesta</i>	6.7
	Perennial	ARDR4	<i>Artemisia</i>	<i>dracunculus</i>	6.7
	Perennial	ARPUM	<i>Arabis</i>	<i>pulchra var. munciensis</i>	6.7
	Perennial	ASNE6	<i>Astragalus</i>	<i>newberryi</i>	6.7
	Perennial	CACRG	<i>Caulanthus</i>	<i>crassicaulis var. glaber</i>	6.7
	Annual	CRMI	<i>Cryptantha</i>	<i>micrantha</i>	6.7
	Perennial	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	6.7
	Perennial	ERAP	<i>Erigeron</i>	<i>aphanactis</i>	6.7
	Annual	ERBR7	<i>Eriogonum</i>	<i>brachyanthum</i>	6.7

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	ERC16	<i>Erodium</i>	<i>cicutarium</i>	6.7
	Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	6.7
	Perennial	ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	6.7
	Perennial	HEMUN	<i>Heliomeris</i>	<i>multiflora</i> var. <i>nevadensis</i>	6.7
	Annual	LIDI2	<i>Linanthus</i>	<i>dichotomus</i>	6.7
	Annual	MEVE5	<i>Mentzelia</i>	<i>veatchiana</i>	6.7
	Annual	MISP	<i>Mimulus</i>	<i>spissus</i>	6.7
	Perennial	PEHUH	<i>Penstemon</i>	<i>humilis</i> ssp. <i>humilis</i>	6.7
	Perennial	PENST	<i>Penstemon</i>		6.7
	Annual	PEPL	<i>Pectocarya</i>	<i>platycarpa</i>	6.7
	Annual	URLI2	<i>Uropappus</i>	<i>linearifolia</i>	6.7
	Perennial	ABEL	<i>Abronia</i>	<i>elliptica</i>	3.3
	Perennial	ADCO2	<i>Adenophyllum</i>	<i>cooperi</i>	3.3
	Perennial	ANDI2	<i>Antennaria</i>	<i>dimorpha</i>	3.3
	Perennial	BRCA3	<i>Brickellia</i>	<i>californica</i>	3.3
	Annual	CACLI	<i>Camissonia</i>	<i>claviformis</i> ssp. <i>integrior</i>	3.3
	Annual	CAKEG	<i>Camissonia</i>	<i>kemensis</i> ssp. <i>gilmanii</i>	3.3
	Annual	CHXA	<i>Chaenactis</i>	<i>xantiana</i>	3.3
	Annual	ERHO6	<i>Eriogonum</i>	<i>hookeri</i>	3.3
	Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	3.3
	Annual	GADIP	<i>Gayophytum</i>	<i>diffusum</i> ssp. <i>parviflorum</i>	3.3
	Perennial	GIIN2	<i>Gilia</i>	<i>inconspicua</i>	3.3
	Annual	HAGL	<i>Halogeton</i>	<i>glomeratus</i>	3.3
	Perennial	IPCO5	<i>Ipomopsis</i>	<i>congesta</i>	3.3
	Perennial	LEKIK	<i>Lesquerella</i>	<i>kingii</i> ssp. <i>kingii</i>	3.3
	Perennial	LONEN	<i>Lomatium</i>	<i>nevadense</i> var. <i>nevadense</i>	3.3
	Perennial	LUARL5	<i>Lupinus</i>	<i>argenteus</i> ssp. <i>artenteus</i> var. <i>laxiflorus</i>	3.3
	Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	3.3
	Annual	MISU2	<i>Mimulus</i>	<i>suksdorfii</i>	3.3
	Annual	NABR	<i>Navarretia</i>	<i>breweri</i>	3.3
	Annual	OXPE2	<i>Oxytheca</i>	<i>perfoliata</i>	3.3
	Annual	PHMU	<i>Phacelia</i>	<i>mustelina</i>	3.3
	Perennial	POSU	<i>Polygala</i>	<i>subspinosa</i>	3.3
	Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	3.3
	Annual	STLO4	<i>Streptanthella</i>	<i>longirostris</i>	3.3
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	3.3

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	STSP6	<i>Stephanomeria</i>	<i>spinosa</i>	3.3
	Annual	TINU2	<i>Tiquilia</i>	<i>nuttallii</i>	3.3
	Perennial	ZIPA2	<i>Zigadenus</i>	<i>paniculatus</i>	3.3

Succulents

Perennial	OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	53.3
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	26.7
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	13.3
Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	10.0
Perennial	OPERU	<i>Opuntia</i>	<i>erinacea</i> var. <i>ursina</i>	6.7
Perennial	SCPO4	<i>Sclerocactus</i>	<i>polyancistrus</i>	6.7
Perennial	ESVID	<i>Escobaria</i>	<i>vivipara</i> var. <i>deserti</i>	3.3
Perennial	ESVIR2	<i>Escobaria</i>	<i>vivipara</i> var. <i>rosea</i>	3.3
Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	3.3
Perennial	OPPU	<i>Opuntia</i>	<i>pulchella</i>	3.3
Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	3.3

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Pinus monophylla/Artemisia nova Woodland

Trees (>5 m)

Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	96.2
Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	93.6
Perennial	QUGA	<i>Quercus</i>	<i>gambelii</i>	12.8

Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	37.2
Perennial	AMUT	<i>Amelanchier</i>	<i>utahensis</i>	1.3

Short Shrubs (0.5-2 m)

Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	100.0
Perennial	EPVI	<i>Ephedra</i>	<i>vindis</i>	75.6
Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	61.5
Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	52.6
Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	38.5
Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	30.8
Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	29.5
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	25.6
Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	24.4
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	24.4
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	23.1
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	20.5
Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	19.2
Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	14.1
Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	6.4
Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	5.1
Perennial	ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	3.8
Perennial	RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	3.8
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	2.6
Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	2.6
Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	2.6
Perennial	RICEC2	<i>Ribes</i>	<i>cereum</i> var. <i>cereum</i>	2.6
Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	2.6
Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	1.3

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	1.3
	Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	1.3
	Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	1.3
	Perennial	ERPAN2	<i>Ericameria</i>	<i>parryi</i> var. <i>nevadensis</i>	1.3
	Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	1.3
	Perennial	GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	1.3
	Perennial	KEROR	<i>Keckiella</i>	<i>rothrockii</i> ssp. <i>rothrockii</i>	1.3
	Perennial	LYAN	<i>Lycium</i>	<i>andersonii</i>	1.3
	Perennial	RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	1.3
	Perennial	STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	1.3
	Perennial	TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	1.3
	Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	1.3

Dwarf Shrubs (<0.5 m)

Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	50.0
Perennial	ERMIL	<i>Eriogonum</i>	<i>microthecum</i> var. <i>lapidicola</i>	10.3
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	2.6

Graminoids

Perennial	ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoides</i>	85.9
Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	79.5
Perennial	POSE	<i>Poa</i>	<i>secunda</i>	79.5
Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	69.2
Perennial	HECOC8	<i>Hesperostipa</i>	<i>comata</i> ssp. <i>comata</i>	51.3
Perennial	POFE	<i>Poa</i>	<i>fendleriana</i>	39.7
Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	30.8
Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	16.7
Perennial	KOMA	<i>Koeleria</i>	<i>macrantha</i>	15.4
Perennial	ARPU9	<i>Aristida</i>	<i>purpurea</i>	14.1
Perennial	ACTH7	<i>Achnatherum</i>	<i>thurberiana</i>	12.8
Perennial	AGGLL	<i>Agoseris</i>	<i>glauca</i> var. <i>laciniata</i>	5.1
Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	3.8
Perennial	BOGR2	<i>Bouteloua</i>	<i>gracilis</i>	2.6
Annual	VUOC	<i>Vulpia</i>	<i>octoflora</i>	2.6
Perennial	ACPI2	<i>Achnatherum</i>	<i>pinetorum</i>	1.3
Perennial	CADO2	<i>Carex</i>	<i>douglasii</i>	1.3
Perennial	LECI4	<i>Leymus</i>	<i>cinereus</i>	1.3

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
Forbs					
	Perennial	ERCA8	<i>Eriogonum</i>	<i>caespitosum</i>	61.5
	Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	61.5
	Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum</i> ssp. <i>brecciarum</i>	60.3
	Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus</i> var. <i>fremontii</i>	57.7
	Perennial	CAFL	<i>Calochortus</i>	<i>flexuosus</i>	56.4
	Perennial	EROVO5	<i>Eriogonum</i>	<i>ovalifolium</i> var. <i>ovalifolium</i>	55.1
	Perennial	ARCOS2	<i>Arenaria</i>	<i>congesta</i> var. <i>subcongesta</i>	46.2
	Perennial	CHDO	<i>Chaenactis</i>	<i>douglasii</i>	42.3
	Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens</i> ssp. <i>canescens</i>	42.3
	Perennial	ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	38.5
	Annual	PHVAV2	<i>Phacelia</i>	<i>vallis-mortae</i> var. <i>vallis-mortae</i>	38.5
	Perennial	STCOC	<i>Streptanthus</i>	<i>cordatus</i> var. <i>cordatus</i>	38.5
	Perennial	CAAP4	<i>Castilleja</i>	<i>aplegatei</i>	37.2
	Perennial	SEMU3	<i>Senecio</i>	<i>multilobatus</i>	34.6
	Perennial	ASCAC5	<i>Astragalus</i>	<i>calycosus</i> var. <i>calycosus</i>	33.3
	Annual	CRGR3	<i>Cryptantha</i>	<i>gracilis</i>	33.3
	Perennial	HYCOC2	<i>Hymenoxys</i>	<i>cooperi</i> var. <i>cooperi</i>	33.3
	Perennial	CRFL6	<i>Cryptantha</i>	<i>flavoculata</i>	32.1
	Annual	DEPIG	<i>Descurainia</i>	<i>pinnata</i> ssp. <i>glabra</i>	32.1
	Perennial	ERCOC3	<i>Erigeron</i>	<i>concinus</i> var. <i>concinus</i>	30.8
	Perennial	ASPUT	<i>Astragalus</i>	<i>purshii</i> var. <i>tinctus</i>	29.5
	Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	29.5
	Annual	PHSA	<i>Phacelia</i>	<i>saxicola</i>	29.5
	Annual	CAPU16	<i>Camissonia</i>	<i>pusilla</i>	28.2
	Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	24.4
	Perennial	ARPUG	<i>Arabis</i>	<i>pulchra</i> var. <i>gracilis</i>	21.8
	Perennial	CALI4	<i>Castilleja</i>	<i>linariaefolia</i>	21.8
	Perennial	DIPU3	<i>Dichelostemma</i>	<i>pulchellum</i>	21.8
	Perennial	PEHUH	<i>Penstemon</i>	<i>humilis</i> ssp. <i>humilis</i>	21.8
	Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	21.8
	Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>ambigua</i>	21.8
	Annual	CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	20.5
	Perennial	DEAN	<i>Delphinium</i>	<i>andersonii</i>	20.5
	Perennial	LEKIK	<i>Lesquerella</i>	<i>kingii</i> ssp. <i>kingii</i>	20.5
	Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	20.5

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	CAPT	<i>Camissonia</i>	<i>pterosperma</i>	17.9
	Perennial	LILE3	<i>Linum</i>	<i>lewisii</i>	17.9
	Perennial	LONEN	<i>Lomatium</i>	<i>nevadense</i> var. <i>nevadense</i>	17.9
	Perennial	PHGRH	<i>Phlox</i>	<i>gracilis</i> ssp. <i>humilis</i>	16.7
	Annual	CRPT	<i>Cryptantha</i>	<i>pteroarya</i>	15.4
	Annual	ERDI4	<i>Erigeron</i>	<i>divergens</i>	15.4
	Perennial	CROCO2	<i>Crepis</i>	<i>occidentalis</i> ssp. <i>occidentalis</i>	14.1
	Perennial	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	14.1
	Annual	MISU2	<i>Mimulus</i>	<i>suksdorfii</i>	14.1
	Perennial	ORFA	<i>Orobanche</i>	<i>fasciculata</i>	14.1
	Perennial	PEFLA2	<i>Penstemon</i>	<i>floridus</i> var. <i>austinii</i>	14.1
	Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	12.8
	Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii</i> ssp. <i>parishii</i>	12.8
	Perennial	HEMUN	<i>Heliomeris</i>	<i>multiflora</i> var. <i>nevadensis</i>	12.8
	Perennial	PEPU7	<i>Petradoria</i>	<i>pumila</i>	12.8
	Annual	MEVE5	<i>Mentzelia</i>	<i>veatchiana</i>	10.3
	Annual	MISP	<i>Mimulus</i>	<i>spissus</i>	10.3
	Perennial	SPAMM	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>monticola</i>	10.3
	Annual	CHIN2	<i>Chenopodium</i>	<i>incanum</i>	9.0
	Perennial	CRCO12	<i>Cryptantha</i>	<i>confertiflora</i>	9.0
	Annual	GILIA	<i>Gilia</i>		9.0
	Perennial	OECEM4	<i>Oenothera</i>	<i>caespitosa</i> ssp. <i>marginata</i>	9.0
	Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	7.7
	Annual	LUFL	<i>Lupinus</i>	<i>flavoculatus</i>	7.7
	Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	7.7
	Perennial	ALNE	<i>Allium</i>	<i>nevadense</i>	6.4
	Perennial	ASNE6	<i>Astragalus</i>	<i>newberryi</i>	6.4
	Annual	CHMA	<i>Chaenactis</i>	<i>macrantha</i>	6.4
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	6.4
	Annual	ERSP3	<i>Eriastrum</i>	<i>sparsiflorum</i>	5.1
	Annual	LAOCO	<i>Lappula</i>	<i>occidentalis</i> var. <i>occidentalis</i>	5.1
	Perennial	LEREM	<i>Lewisia</i>	<i>rediviva</i> var. <i>minor</i>	5.1
	Annual	LUBR2	<i>Lupinus</i>	<i>brevicaulis</i>	5.1
	Perennial	MIMUG	<i>Mirabilis</i>	<i>multiflora</i> var. <i>glandulosa</i>	5.1
	Annual	PHCU	<i>Phacelia</i>	<i>curvipes</i>	5.1
	Annual	SAPA8	<i>Salsola</i>	<i>paulsenii</i>	5.1

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	ANDI2	<i>Antennaria</i>	<i>dimorpha</i>	3.8
	Annual	CETH3	<i>Centrostegia</i>	<i>thurberi</i>	3.8
	Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	3.8
	Annual	CHWA2	<i>Chorizanthe</i>	<i>watsonii</i>	3.8
	Annual	ERESE	<i>Eriogonum</i>	<i>esmeraldense</i> var. <i>esmeraldense</i>	3.8
	Perennial	ERRA3	<i>Eriogonum</i>	<i>racemosum</i>	3.8
	Annual	LIDI2	<i>Linanthus</i>	<i>dichotomus</i>	3.8
	Perennial	LUARL5	<i>Lupinus</i>	<i>argenteus</i> ssp. <i>artenteus</i> var. <i>laxiflorus</i>	3.8
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua</i> ssp. <i>exigua</i>	3.8
	Perennial	TOSC	<i>Townsendia</i>	<i>scapigera</i>	3.8
	Annual	URLI2	<i>Uropappus</i>	<i>linearifolia</i>	3.8
	Perennial	ARPUM	<i>Arabis</i>	<i>pulchra</i> var. <i>munciensis</i>	2.6
	Annual	ASAC3	<i>Astragalus</i>	<i>acutirostris</i>	2.6
	Perennial	ASBE3	<i>Astragalus</i>	<i>beckwithii</i>	2.6
	Perennial	ASBE5	<i>Astragalus</i>	<i>beatleyae</i>	2.6
	Perennial	CACRG	<i>Caulanthus</i>	<i>crassicaulis</i> var. <i>glaber</i>	2.6
	Annual	CHST	<i>Chaenactis</i>	<i>stevioides</i>	2.6
	Biennial	CINE	<i>Cirsium</i>	<i>neomexicanum</i>	2.6
	Annual	CRAM3	<i>Cryptantha</i>	<i>ambigua</i>	2.6
	Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	2.6
	Annual	ERIC6	<i>Erodium</i>	<i>cicutarium</i>	2.6
	Annual	GADIP	<i>Gayophytum</i>	<i>diffusum</i> ssp. <i>parviflorum</i>	2.6
	Perennial	GINY	<i>Gilia</i>	<i>nyensis</i>	2.6
	Perennial	IPCO5	<i>Ipomopsis</i>	<i>congesta</i>	2.6
	Perennial	MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	2.6
	Perennial	ORCO5	<i>Orobanche</i>	<i>corymbosa</i>	2.6
	Perennial	PEPA23	<i>Penstemon</i>	<i>pahutensis</i>	2.6
	Perennial	PERO10	<i>Penstemon</i>	<i>rostriflorus</i>	2.6
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata</i> var. <i>crenulata</i>	2.6
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	2.6
	Perennial	STSP6	<i>Stephanomeria</i>	<i>spinosa</i>	2.6
	Perennial	XYTOT	<i>Xylorhiza</i>	<i>tortifolia</i> var. <i>imberbis</i>	2.6
	Perennial	ZIPA2	<i>Zigadenus</i>	<i>paniculatus</i>	2.6
	Perennial	ABEL	<i>Abronia</i>	<i>elliptica</i>	1.3
	Annual	AMAC2	<i>Ambrosia</i>	<i>acanthicarpa</i>	1.3
	Perennial	ANRO2	<i>Antennaria</i>	<i>rosea</i>	1.3

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	ARHOP3	<i>Arabis</i>	<i>holboellii</i> var. <i>pinetorum</i>	1.3
	Perennial	ARKIC	<i>Arenaria</i>	<i>kingii</i> ssp. <i>compacta</i>	1.3
	Perennial	ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	1.3
	Perennial	ARMA3	<i>Arenaria</i>	<i>macradenia</i>	1.3
	Perennial	BAHON	<i>Balsamorhiza</i>	<i>hookeri</i> var. <i>neglecta</i>	1.3
	Annual	CABOC	<i>Camissonia</i>	<i>boothii</i> ssp. <i>condensata</i>	1.3
	Annual	CABRB4	<i>Camissonia</i>	<i>brevipes</i> ssp. <i>brevipes</i>	1.3
	Annual	CAPA7	<i>Calycoseris</i>	<i>parryi</i>	1.3
	Annual	CHLE4	<i>Chenopodium</i>	<i>leptophyllum</i>	1.3
	Perennial	CRHU2	<i>Cryptantha</i>	<i>humilis</i>	1.3
	Annual	CRMI	<i>Cryptantha</i>	<i>micrantha</i>	1.3
	Perennial	CYAB	<i>Cymopterus</i>	<i>aboriginum</i>	1.3
	Annual	ERBR7	<i>Eriogonum</i>	<i>brachyanthum</i>	1.3
	Annual	ERDE6	<i>Eriogonum</i>	<i>deflexum</i>	1.3
	Perennial	ERIN4	<i>Eriogonum</i>	<i>inflatum</i>	1.3
	Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	1.3
	Annual	ERWI	<i>Eriastrum</i>	<i>wilcoxii</i>	1.3
	Perennial	FRALM	<i>Frasera</i>	<i>pahutensis</i>	1.3
	Perennial	GIHU	<i>Gilia</i>	<i>hutchinsifolia</i>	1.3
	Perennial	HUVEI	<i>Hulsea</i>	<i>vestita</i> ssp. <i>inyoensis</i>	1.3
	Annual	LELA	<i>Lepidium</i>	<i>lasiocarpum</i>	1.3
	Perennial	LINUN	<i>Linanthus</i>	<i>nuttallii</i> ssp. <i>nuttallii</i>	1.3
	Perennial	LOFOF	<i>Lomatium</i>	<i>foeniculaceum</i> ssp. <i>fimbriatum</i>	1.3
	Annual	MAGL3	<i>Malacothrix</i>	<i>glabrata</i>	1.3
	Annual	MASO	<i>Malacothrix</i>	<i>sonchoides</i>	1.3
	Annual	MECO2	<i>Mentzelia</i>	<i>congesta</i>	1.3
	Annual	NABR	<i>Navarretia</i>	<i>breweri</i>	1.3
	Annual	NAPU	<i>Nama</i>	<i>pusillum</i>	1.3
	Perennial	PEPA8	<i>Penstemon</i>	<i>palmeri</i>	1.3
	Annual	PEPL	<i>Pectocarya</i>	<i>platycarpa</i>	1.3
	Annual	PESE	<i>Pectocarya</i>	<i>setosa</i>	1.3
	Annual	PHAF	<i>Phacelia</i>	<i>affinis</i>	1.3
	Perennial	PHHOL	<i>Phlox</i>	<i>hoodii</i> ssp. <i>lanata</i>	1.3
	Annual	PHPE2	<i>Phacelia</i>	<i>peirsoniana</i>	1.3
	Annual	PLPA2	<i>Plantago</i>	<i>patagonica</i>	1.3
	Perennial	POSU	<i>Polygala</i>	<i>subspinoso</i>	1.3

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	SESP3	<i>Senecio</i>	<i>spartioides</i>	1.3
	Perennial	SIVEA	<i>Silene</i>	<i>verecunda ssp. andersonii</i>	1.3
	Perennial	TRAN	<i>Trifolium</i>	<i>andersonii</i>	1.3
	Perennial	TRWA2	<i>Tricardia</i>	<i>watsonii</i>	1.3

Ferns

Perennial	PETR7	<i>Pentagama</i>	<i>triangularis</i>	1.3
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Epiphytes

Perennial	ARDI3	<i>Arceuthobium</i>	<i>divaricatum</i>	3.8
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Succulents

Perennial	OPERE	<i>Opuntia</i>	<i>erinacea var. erinacea</i>	53.8
Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha var. rufispina</i>	29.5
Perennial	ESVIR2	<i>Escobaria</i>	<i>vivipara var. rosea</i>	19.2
Perennial	YUBAV	<i>Yucca</i>	<i>baccata var. vespertina</i>	16.7
Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	10.3
Perennial	OPECE	<i>Opuntia</i>	<i>echinocarpa var. echinocarpa</i>	6.4
Perennial	MATE4	<i>Mammillaria</i>	<i>tetrancistra</i>	2.6
Perennial	ECTRM	<i>Echinocereus</i>	<i>triglochidiatus var. melanacanthus</i>	1.3

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
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Pinus monophylla/Artemisia tridentata Woodland

Trees (>5 m)

Perennial	PIMO	<i>Pinus</i>	<i>monophylla</i>	96.6
Perennial	JUOS	<i>Juniperus</i>	<i>osteosperma</i>	91.5
Perennial	QUGA	<i>Quercus</i>	<i>gambelii</i>	49.2

Tall Shrubs (2-5 m)

Perennial	ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	98.3
Perennial	AMUT	<i>Amelanchier</i>	<i>utahensis</i>	11.9
Perennial	CEGRV2	<i>Ceanothus</i>	<i>greggii</i> ssp. <i>vestitus</i>	3.4
Perennial	AMPA2	<i>Amelanchier</i>	<i>pallida</i>	1.7
Perennial	CEIN7	<i>Cercocarpus</i>	<i>intricatus</i>	1.7
Perennial	CELEL	<i>Cercocarpus</i>	<i>ledifolius</i> var. <i>ledifolius</i>	1.7

Short Shrubs (0.5-2 m)

Perennial	CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	66.1
Perennial	PUTR2	<i>Purshia</i>	<i>tridentata</i>	62.7
Perennial	EPVI	<i>Ephedra</i>	<i>viridis</i>	61.0
Perennial	CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	47.5
Perennial	SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	44.1
Perennial	ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	35.6
Perennial	ARNO4	<i>Artemisia</i>	<i>nova</i>	33.9
Perennial	PUST	<i>Purshia</i>	<i>stansburiana</i>	27.1
Perennial	RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	22.0
Perennial	RICEC2	<i>Ribes</i>	<i>cereum</i> var. <i>cereum</i>	15.3
Perennial	SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	13.6
Perennial	ERNA7	<i>Ericameria</i>	<i>nanus</i>	11.9
Perennial	PUGL2	<i>Purshia</i>	<i>glandulosa</i>	8.5
Perennial	ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	6.8
Perennial	TEGL	<i>Tetradymia</i>	<i>glabrata</i>	6.8
Perennial	EPNE	<i>Ephedra</i>	<i>nevadensis</i>	5.1
Perennial	GRSP	<i>Grayia</i>	<i>spinosa</i>	5.1
Perennial	RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	5.1
Perennial	CHGR6	<i>Chrysothamnus</i>	<i>greenei</i>	3.4
Perennial	ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	3.4
Perennial	ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	3.4

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	3.4
	Perennial	GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	3.4
	Perennial	KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	3.4
	Perennial	ATCO	<i>Atriplex</i>	<i>confertifolia</i>	1.7
	Perennial	CORA	<i>Coleogyne</i>	<i>ramosissima</i>	1.7
	Perennial	ERCO23	<i>Ericameria</i>	<i>cooperi</i>	1.7
	Perennial	ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	1.7
	Perennial	ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	1.7
	Perennial	ERPA29	<i>Ericameria</i>	<i>paniculata</i>	1.7
	Perennial	ERPAN2	<i>Ericameria</i>	<i>parryi</i> var. <i>nevadensis</i>	1.7
	Perennial	ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	1.7
	Perennial	HODI	<i>Holodiscus</i>	<i>discolor</i>	1.7
	Perennial	PRFA	<i>Prunus</i>	<i>fasciculata</i>	1.7
	Perennial	TECA2	<i>Tetradymia</i>	<i>canescens</i>	1.7

Dwarf Shrubs (<0.5 m)

Perennial	LEPU	<i>Leptodactylon</i>	<i>pungens</i>	72.9
Perennial	ERMIL	<i>Eriogonum</i>	<i>microthecum</i> var. <i>lapidicola</i>	8.5
Perennial	ARSP5	<i>Artemisia</i>	<i>spinescens</i>	1.7
Perennial	ERWA8	<i>Ericameria</i>	<i>watsonii</i>	1.7

Graminoids

Perennial	POSE	<i>Poa</i>	<i>secunda</i>	83.1
Perennial	ELELE	<i>Elymus</i>	<i>elymoides</i> ssp. <i>elymoides</i>	81.4
Annual	BRTE	<i>Bromus</i>	<i>tectorum</i>	62.7
Perennial	POFE	<i>Poa</i>	<i>fendleriana</i>	59.3
Perennial	ACHY	<i>Achnatherum</i>	<i>hymenoides</i>	57.6
Perennial	HECOC8	<i>Hesperostipa</i>	<i>comata</i> ssp. <i>comata</i>	32.2
Perennial	ACTH7	<i>Achnatherum</i>	<i>thurberiana</i>	27.1
Perennial	KOMA	<i>Koeleria</i>	<i>macrantha</i>	23.7
Perennial	PLJA	<i>Pleuraphis</i>	<i>jamesii</i>	16.9
Perennial	AGGLL	<i>Agoseris</i>	<i>glauca</i> var. <i>laciniata</i>	13.6
Perennial	ACSP12	<i>Achnatherum</i>	<i>speciosum</i>	10.2
Perennial	ARPU9	<i>Aristida</i>	<i>purpurea</i>	6.8
Perennial	LECI4	<i>Leymus</i>	<i>cinereus</i>	6.8
Perennial	ACCO21	<i>Achnatherum</i>	<i>coronata</i>	5.1
Perennial	ACAR14	<i>Achnatherum</i>	<i>arida</i>	3.4

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	ACPI2	<i>Achnatherum</i>	<i>pinetorum</i>	3.4
	Annual	BRRU2	<i>Bromus</i>	<i>rubens</i>	3.4
	Perennial	CAOC2	<i>Carex</i>	<i>occidentalis</i>	3.4
	Perennial	CADO2	<i>Carex</i>	<i>douglasii</i>	1.7
	Annual	VUMI	<i>Vulpia</i>	<i>microstachys</i>	1.7

Forbs

	Perennial	STCOC	<i>Streptanthus</i>	<i>cordatus</i> var. <i>cordatus</i>	74.6
	Perennial	CAAP4	<i>Castilleja</i>	<i>applegatei</i>	67.8
	Perennial	SEMU3	<i>Senecio</i>	<i>multilobatus</i>	62.7
	Annual	ASLEF2	<i>Astragalus</i>	<i>lentiginosus</i> var. <i>fremontii</i>	50.8
	Perennial	PHST11	<i>Phlox</i>	<i>stansburyi</i>	49.2
	Perennial	ARCOS2	<i>Arenaria</i>	<i>congesta</i> var. <i>subcongesta</i>	47.5
	Perennial	CHDO	<i>Chaenactis</i>	<i>douglasii</i>	45.8
	Perennial	ERCA8	<i>Eriogonum</i>	<i>caespitosum</i>	42.4
	Perennial	CRFL6	<i>Cryptantha</i>	<i>flavoculata</i>	40.7
	Perennial	MACAC	<i>Machaeranthera</i>	<i>canescens</i> ssp. <i>canescens</i>	40.7
	Annual	MISP	<i>Mimulus</i>	<i>spissus</i>	40.7
	Perennial	PEHUH	<i>Penstemon</i>	<i>humilis</i> ssp. <i>humilis</i>	35.6
	Perennial	ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	33.9
	Annual	CAPU16	<i>Camissonia</i>	<i>pusilla</i>	32.2
	Annual	CRGR3	<i>Cryptantha</i>	<i>gracilis</i>	32.2
	Perennial	GIBRB	<i>Gilia</i>	<i>brecciarum</i> ssp. <i>brecciarum</i>	32.2
	Annual	PHFR2	<i>Phacelia</i>	<i>fremontii</i>	32.2
	Perennial	CRVI5	<i>Cryptantha</i>	<i>virginensis</i>	30.5
	Perennial	EROVO5	<i>Eriogonum</i>	<i>ovalifolium</i> var. <i>ovalifolium</i>	30.5
	Perennial	PEPA23	<i>Penstemon</i>	<i>pahutensis</i>	30.5
	Perennial	PEFLA2	<i>Penstemon</i>	<i>floridus</i> var. <i>austinii</i>	28.8
	Annual	PHVAV2	<i>Phacelia</i>	<i>vallis-mortae</i> var. <i>vallis-mortae</i>	28.8
	Perennial	CROCO2	<i>Crepis</i>	<i>occidentalis</i> ssp. <i>occidentalis</i>	27.1
	Annual	ERDI4	<i>Erigeron</i>	<i>divergens</i>	25.4
	Perennial	ERRA3	<i>Eriogonum</i>	<i>racemosum</i>	23.7
	Perennial	ASCAC5	<i>Astragalus</i>	<i>calycosus</i> var. <i>calycosus</i>	22.0
	Annual	MEVE5	<i>Mentzelia</i>	<i>veatchiana</i>	22.0
	Perennial	PEPU7	<i>Petradoria</i>	<i>pumila</i>	22.0
	Annual	DEPIG	<i>Descurainia</i>	<i>pinnata</i> ssp. <i>glabra</i>	20.3
	Perennial	CAFL	<i>Calochortus</i>	<i>flexuosus</i>	18.6

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	ARPUG	<i>Arabis</i>	<i>pulchra</i> var. <i>gracilis</i>	16.9
	Perennial	ASPUT	<i>Astragalus</i>	<i>purshii</i> var. <i>tinctus</i>	16.9
	Perennial	DEAN	<i>Delphinium</i>	<i>andersonii</i>	16.9
	Perennial	DEPAP3	<i>Delphinium</i>	<i>parishii</i> ssp. <i>parishii</i>	16.9
	Perennial	DIPU3	<i>Dichelostemma</i>	<i>pulchellum</i>	16.9
	Perennial	HEMUN	<i>Heliomeris</i>	<i>multiflora</i> var. <i>nevadensis</i>	16.9
	Annual	MISU2	<i>Mimulus</i>	<i>suksdorfii</i>	16.9
	Annual	PHCU	<i>Phacelia</i>	<i>curvipes</i>	16.9
	Perennial	CALI4	<i>Castilleja</i>	<i>linariaefolia</i>	15.3
	Annual	CRCI2	<i>Cryptantha</i>	<i>circumscissa</i>	15.3
	Perennial	CRCO12	<i>Cryptantha</i>	<i>confertiflora</i>	15.3
	Perennial	ERCOC3	<i>Erigeron</i>	<i>concinus</i> var. <i>concinus</i>	15.3
	Perennial	LONEN	<i>Lomatium</i>	<i>nevadense</i> var. <i>nevadense</i>	15.3
	Perennial	LUARL5	<i>Lupinus</i>	<i>argenteus</i> ssp. <i>argenteus</i> var. <i>laxiflorus</i>	15.3
	Annual	ERER2	<i>Eriastrum</i>	<i>eremicum</i>	13.6
	Perennial	HYCOC2	<i>Hymenoxys</i>	<i>cooperi</i> var. <i>cooperi</i>	13.6
	Annual	AMTE3	<i>Amsinckia</i>	<i>tessellata</i>	11.9
	Annual	CHIN2	<i>Chenopodium</i>	<i>incanum</i>	11.9
	Annual	CRPT	<i>Cryptantha</i>	<i>pterocarya</i>	11.9
	Annual	MECO2	<i>Mentzelia</i>	<i>congesta</i>	11.9
	Perennial	OECM4	<i>Oenothera</i>	<i>caespitosa</i> ssp. <i>marginata</i>	11.9
	Perennial	PHGRH	<i>Phlox</i>	<i>gracilis</i> ssp. <i>humilis</i>	11.9
	Perennial	SIVEA	<i>Silene</i>	<i>verecunda</i> ssp. <i>andersonii</i>	11.9
	Perennial	SPAMA	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>ambigua</i>	11.9
	Annual	CHST	<i>Chaenactis</i>	<i>stevioides</i>	10.2
	Perennial	ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	10.2
	Perennial	LEKIK	<i>Lesquerella</i>	<i>kingii</i> ssp. <i>kingii</i>	10.2
	Annual	LUSH	<i>Lupinus</i>	<i>shockleyi</i>	10.2
	Perennial	MIMUG	<i>Mirabilis</i>	<i>multiflora</i> var. <i>glandulosa</i>	10.2
	Annual	SYFR	<i>Syntrichopappus</i>	<i>fremontii</i>	10.2
	Biennial	CINE	<i>Cirsium</i>	<i>neomexicanum</i>	8.5
	Annual	GILIA	<i>Gilia</i>		8.5
	Annual	LIDI2	<i>Linanthus</i>	<i>dichotomus</i>	8.5
	Annual	NABR	<i>Navarretia</i>	<i>breweri</i>	8.5
	Annual	PHSA	<i>Phacelia</i>	<i>saxicola</i>	8.5
	Perennial	SPAMM	<i>Sphaeralcea</i>	<i>ambigua</i> ssp. <i>monticola</i>	8.5

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	ABEL	<i>Abronia</i>	<i>elliptica</i>	6.8
	Annual	COPA3	<i>Collinsia</i>	<i>parviflora</i>	6.8
	Annual	CRNEN	<i>Cryptantha</i>	<i>nevadensis</i> var. <i>nevadensis</i>	6.8
	Annual	ERESE	<i>Eriogonum</i>	<i>esmeraldense</i> var. <i>esmeraldense</i>	6.8
	Perennial	HUVEI	<i>Hulsea</i>	<i>vestita</i> ssp. <i>inyoensis</i>	6.8
	Perennial	IPCO5	<i>Ipomopsis</i>	<i>congesta</i>	6.8
	Perennial	LEREM	<i>Lewisia</i>	<i>rediviva</i> var. <i>minor</i>	6.8
	Perennial	ORFA	<i>Orobanche</i>	<i>fasciculata</i>	6.8
	Perennial	PEPA8	<i>Penstemon</i>	<i>palmeri</i>	6.8
	Annual	PESE	<i>Pectocarya</i>	<i>setosa</i>	6.8
	Perennial	STSP6	<i>Stephanomeria</i>	<i>spinosa</i>	6.8
	Annual	THCU	<i>Thysanocarpus</i>	<i>curvipes</i>	6.8
	Perennial	ALNE	<i>Allium</i>	<i>nevadense</i>	5.1
	Perennial	ARMA3	<i>Arenaria</i>	<i>macradenia</i>	5.1
	Perennial	CACRG	<i>Caulanthus</i>	<i>crassicaulis</i> var. <i>glaber</i>	5.1
	Annual	CAPT	<i>Camissonia</i>	<i>pterosperma</i>	5.1
	Perennial	CYAB	<i>Cymopterus</i>	<i>aboriginum</i>	5.1
	Annual	ERNI4	<i>Eriogonum</i>	<i>nidularium</i>	5.1
	Annual	ERSP3	<i>Eriastrum</i>	<i>sparsiflorum</i>	5.1
	Annual	ERWI	<i>Eriastrum</i>	<i>wilcoxii</i>	5.1
	Perennial	LILE3	<i>Linum</i>	<i>lewisii</i>	5.1
	Perennial	LINUN	<i>Linanthus</i>	<i>nuttallii</i> ssp. <i>nuttallii</i>	5.1
	Annual	MEAL6	<i>Mentzelia</i>	<i>albicaulis</i>	5.1
	Perennial	PENST	<i>Penstemon</i>		5.1
	Perennial	SPGRP2	<i>Sphaeralcea</i>	<i>grossulariaefolia</i> ssp. <i>pedata</i>	5.1
	Perennial	ZIPA2	<i>Zigadenus</i>	<i>paniculatus</i>	5.1
	Annual	ANAC	<i>Anisocoma</i>	<i>acaulis</i>	3.4
	Perennial	ARPUM	<i>Arabis</i>	<i>pulchra</i> var. <i>munciensis</i>	3.4
	Annual	CABRB4	<i>Camissonia</i>	<i>brevipes</i> ssp. <i>brevipes</i>	3.4
	Annual	CETH3	<i>Centrostegia</i>	<i>thurberi</i>	3.4
	Annual	CHAL7	<i>Chenopodium</i>	<i>album</i>	3.4
	Perennial	CHGR13	<i>Chrysothamnus</i>	<i>gramineus</i>	3.4
	Annual	CHWA2	<i>Chorizanthe</i>	<i>watsonii</i>	3.4
	Annual	CLPAU2	<i>Claytonia</i>	<i>perfoliata</i> ssp. <i>perfoliata</i>	3.4
	Perennial	CRUT	<i>Cryptantha</i>	<i>utahensis</i>	3.4
	Annual	ERC16	<i>Erodium</i>	<i>cicutarium</i>	3.4

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Perennial	GINY	<i>Gilia</i>	<i>nyensis</i>	3.4
	Perennial	HYFIM	<i>Hymenopappus</i>	<i>filifolius</i> var. <i>megacephalus</i>	3.4
	Annual	LAOCO	<i>Lappula</i>	<i>occidentalis</i> var. <i>occidentalis</i>	3.4
	Perennial	MIBI8	<i>Mirabilis</i>	<i>bigelovii</i>	3.4
	Annual	PLPA2	<i>Plantago</i>	<i>patagonica</i>	3.4
	Perennial	POSU	<i>Polygala</i>	<i>subspinoso</i>	3.4
	Annual	URLI2	<i>Uropappus</i>	<i>linearifolia</i>	3.4
	Perennial	ARCO6	<i>Argemone</i>	<i>corymbosa</i>	1.7
	Perennial	ARDR4	<i>Artemisia</i>	<i>dracunculus</i>	1.7
	Perennial	ARKIC	<i>Arenaria</i>	<i>kingii</i> ssp. <i>compacta</i>	1.7
	Annual	CACLI	<i>Camissonia</i>	<i>claviformis</i> ssp. <i>integrior</i>	1.7
	Perennial	CHAL11	<i>Chamaesyce</i>	<i>albomarginata</i>	1.7
	Annual	CHLE4	<i>Chenopodium</i>	<i>leptophyllum</i>	1.7
	Annual	CHXA	<i>Chaenactis</i>	<i>xantiana</i>	1.7
	Annual	CRAM3	<i>Cryptantha</i>	<i>ambigua</i>	1.7
	Perennial	CRIN4	<i>Crepis</i>	<i>intermedia</i>	1.7
	Perennial	EPCI	<i>Epilobium</i>	<i>ciliatum</i>	1.7
	Perennial	ERAP	<i>Erigeron</i>	<i>aphanactis</i>	1.7
	Annual	ERDE6	<i>Eriogonum</i>	<i>defflexum</i>	1.7
	Perennial	ERUMS2	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>subaridum</i>	1.7
	Perennial	ERUMV	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>vernum</i>	1.7
	Perennial	ERUMV2	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>versicolor</i>	1.7
	Annual	GADIP	<i>Gayophytum</i>	<i>diffusum</i> ssp. <i>parviflorum</i>	1.7
	Perennial	GIIN2	<i>Gilia</i>	<i>inconspicua</i>	1.7
	Annual	IPDE	<i>Ipomopsis</i>	<i>depressa</i>	1.7
	Annual	IPPO2	<i>Ipomopsis</i>	<i>polycladon</i>	1.7
	Perennial	LIRU4	<i>Lithospermum</i>	<i>ruderae</i>	1.7
	Perennial	LOFOF	<i>Lomatium</i>	<i>foeniculaceum</i> ssp. <i>fimbriatum</i>	1.7
	Perennial	LUCA	<i>Lupinus</i>	<i>caudatus</i>	1.7
	Perennial	LUPA3	<i>Lupinus</i>	<i>palmeri</i>	1.7
	Perennial	OEPAP	<i>Oenothera</i>	<i>pallida</i> ssp. <i>pallida</i>	1.7
	Perennial	ORCO5	<i>Orobanche</i>	<i>corymbosa</i>	1.7
	Perennial	PERO10	<i>Penstemon</i>	<i>rostriflorus</i>	1.7
	Perennial	PHCH2	<i>Physaria</i>	<i>chambersii</i>	1.7
	Annual	PHCRC3	<i>Phacelia</i>	<i>crenulata</i> var. <i>crenulata</i>	1.7
	Perennial	POHE7	<i>Polygala</i>	<i>heterorhyncha</i>	1.7

<i>Association</i>	<i>Longevity</i>	<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>% Frequency</i>
	Annual	STEXE	<i>Stephanomeria</i>	<i>exigua</i> ssp. <i>exigua</i>	1.7
	Annual	STLO4	<i>Streptanthella</i>	<i>longirostris</i>	1.7
	Perennial	STPA4	<i>Stephanomeria</i>	<i>pauciflora</i>	1.7
	Perennial	TRAN	<i>Trifolium</i>	<i>andersonii</i>	1.7
	Perennial	TRWA2	<i>Tricardia</i>	<i>watsonii</i>	1.7

Succulents

Perennial	OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	61.0
Perennial	OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	35.6
Perennial	YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	10.2
Perennial	ECEN	<i>Echinocereus</i>	<i>engelmannii</i>	3.4
Perennial	ESVIR2	<i>Escobaria</i>	<i>vivipara</i> var. <i>rosea</i>	3.4
Perennial	SCPO4	<i>Sclerocactus</i>	<i>polyancistrus</i>	1.7
Perennial	YUBR	<i>Yucca</i>	<i>brevifolia</i>	1.7

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Appendix H

Interspecific Association of Woody Vegetation on the NTS

Clustered broomrape (*Orobancha fasciculata*) [photo by Susan Cochrane]

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Appendix H

Interspecific Association of Woody Vegetation on the NTS

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
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ACSH *Acamptopappus shockleyi*

AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	P < 0.05
KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	P < 0.05
LEFR2	<i>Lepidium</i>	<i>fremontii</i>	P < 0.05
MESP2	<i>Menodora</i>	<i>spinescens</i>	P < 0.05
STEL	<i>Stanleya</i>	<i>elata</i>	P < 0.05
YUSC2	<i>Yucca</i>	<i>schidigera</i>	P < 0.05

ADCO2 *Adenophyllum cooperi*

HYSA	<i>Hymenoclea</i>	<i>salsola</i>	P < 0.05
PSFRF	<i>Psorothamnus</i>	<i>fremontii</i> var. <i>fremontii</i>	P < 0.05

AMDU2 *Ambrosia dumosa*

ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	P < 0.05
ATCO	<i>Atriplex</i>	<i>confertifolia</i>	P < 0.05
EPFU	<i>Ephedra</i>	<i>funerea</i>	P < 0.05
KRER	<i>Krameria</i>	<i>erecta</i>	P < 0.05
LATR2	<i>Larrea</i>	<i>tridentata</i>	P < 0.05
LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	P < 0.05
PSFRF	<i>Psorothamnus</i>	<i>fremontii</i> var. <i>fremontii</i>	P < 0.05
YUSC2	<i>Yucca</i>	<i>schidigera</i>	P < 0.05

AMER *Ambrosia eriocentra*

BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>	P < 0.05
ERPA29	<i>Ericameria</i>	<i>paniculata</i>	P < 0.05
HYSA	<i>Hymenoclea</i>	<i>salsola</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
PRFA	<i>Prunus</i>	<i>fasciculata</i>	P < 0.05
PUST	<i>Purshia</i>	<i>stansburiana</i>	P < 0.05

AMPA2 *Amelanchier pallida*

JUOS	<i>Juniperus</i>	<i>osteosperma</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
PUST	<i>Purshia</i>	<i>stansburiana</i>	P < 0.05
QUGA	<i>Quercus</i>	<i>gambeli</i>	P < 0.05

AMUT *Amelanchier utahensis*

EPVI	<i>Ephedra</i>	<i>viridis</i>	P < 0.05
ERUMV	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>vernum</i>	P < 0.05
LEPU	<i>Leptodactylon</i>	<i>pungens</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
PUST	<i>Purshia</i>	<i>stansburiana</i>	P < 0.05
QUGA	<i>Quercus</i>	<i>gambelii</i>	P < 0.05
RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	P < 0.05
SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	P < 0.05

ARBI3 *Artemisia bigelovii*

ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	P < 0.05
PUST	<i>Purshia</i>	<i>stansburiana</i>	P < 0.05
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	P < 0.05
TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	P < 0.05

ARDR4 *Artemisia dracunculus*

EPVI	<i>Ephedra</i>	<i>viridis</i>	P < 0.05
PUGL2	<i>Purshia</i>	<i>glandulosa</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
ARLU <i>Artemisia ludoviciana</i>			
ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	P < 0.05
BAEM	<i>Baccharis</i>	<i>emoryi</i>	P < 0.05
EPVI	<i>Ephedra</i>	<i>viridis</i>	P < 0.05
ERCUC	<i>Ericameria</i>	<i>cuneatus</i>	P < 0.05
ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	P < 0.05
ERHEA	<i>Eriogonum</i>	<i>heermannii</i> var. <i>argense</i>	P < 0.05
ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	P < 0.05
ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	P < 0.05
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	P < 0.05
ARNO4 <i>Artemisia nova</i>			
CHGR6	<i>Chrysothamnus</i>	<i>greenei</i>	P < 0.05
CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	P < 0.05
EPVI	<i>Ephedra</i>	<i>viridis</i>	P < 0.05
ERCA8	<i>Eriogonum</i>	<i>caespitosum</i>	P < 0.05
ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	P < 0.05
ERNA7	<i>Ericameria</i>	<i>nanus</i>	P < 0.05
ERUMV2	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>versicolor</i>	P < 0.05
GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	P < 0.05
JUOS	<i>Juniperus</i>	<i>osteosperma</i>	P < 0.05
LEPU	<i>Leptodactylon</i>	<i>pungens</i>	P < 0.05
OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	P < 0.05
ARSP5 <i>Artemisia spinescens</i>			
ATCO	<i>Atriplex</i>	<i>confertifolia</i>	P < 0.05
CHVIS5	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i> var. <i>stenophyllus</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	P < 0.05
ERCO23	<i>Ericameria</i>	<i>cooperi</i>	P < 0.05
GRSP	<i>Grayia</i>	<i>spinosa</i>	P < 0.05
KOAM	<i>Kochia</i>	<i>americana</i>	P < 0.05
KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	P < 0.05
LYAN	<i>Lycium</i>	<i>andersonii</i>	P < 0.05
TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	P < 0.05

ARTRT *Artemisia tridentata* ssp. *tridentata*

ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	P < 0.05
CHGR13	<i>Chrysothamnus</i>	<i>gramineus</i>	P < 0.05
CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	P < 0.05
CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	P < 0.05
EPVI	<i>Ephedra</i>	<i>viridis</i>	P < 0.05
ERHEA	<i>Eriogonum</i>	<i>heermannii</i> var. <i>argense</i>	P < 0.05
ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	P < 0.05
ERUMV	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>venum</i>	P < 0.05
JUOS	<i>Juniperus</i>	<i>osteosperma</i>	P < 0.05
LEPU	<i>Leptodactylon</i>	<i>pungens</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
PUTR2	<i>Purshia</i>	<i>tridentata</i>	P < 0.05
QUGA	<i>Quercus</i>	<i>gambelii</i>	P < 0.05
RICEC2	<i>Ribes</i>	<i>cereum</i> var. <i>cereum</i>	P < 0.05
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	P < 0.05

ATCAC *Atriplex canescens* var. *canescens*

ERNU4	<i>Eriogonum</i>	<i>nummular</i>	P < 0.05
GRSP	<i>Grayia</i>	<i>spinosa</i>	P < 0.05
KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	P < 0.05
LYAN	<i>Lycium</i>	<i>andersonii</i>	P < 0.05
OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
POSU	<i>Polygala</i>	<i>subspinos</i>	P < 0.05
PSP0	<i>Psorothamnus</i>	<i>polydenius</i>	P < 0.05
TECA2	<i>Tetradymia</i>	<i>canescens</i>	P < 0.05

ATCO *Atriplex* *confertifolia*

AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	P < 0.05
ARSP5	<i>Artemisia</i>	<i>spinescens</i>	P < 0.05
ATHY	<i>Atriplex</i>	<i>hymenelytra</i>	P < 0.05
BRAT	<i>Brickellia</i>	<i>atractyloides</i>	P < 0.05
BRL0M	<i>Brickellia</i>	<i>longifolia</i> var. <i>multiflora</i>	P < 0.05
BUUT	<i>Buddleja</i>	<i>utahensis</i>	P < 0.05
EPT0	<i>Ephedra</i>	<i>torreyana</i>	P < 0.05
ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>	P < 0.05
GAST	<i>Galium</i>	<i>stellatum</i>	P < 0.05
KOAM	<i>Kochia</i>	<i>americana</i>	P < 0.05
KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	P < 0.05
LYAN	<i>Lycium</i>	<i>andersonii</i>	P < 0.05
MESP2	<i>Menodora</i>	<i>spinescens</i>	P < 0.05
SENE5	<i>Senecio</i>	<i>flaccidus</i> var. <i>douglasii</i>	P < 0.05
YUSC2	<i>Yucca</i>	<i>schidigera</i>	P < 0.05

ATHY *Atriplex* *hymenelytra*

ATCO	<i>Atriplex</i>	<i>confertifolia</i>	P < 0.05
LEFR2	<i>Lepidium</i>	<i>fremontii</i>	P < 0.05

ATPO *Atriplex* *polycarpa*

ERPA29	<i>Ericameria</i>	<i>paniculata</i>	P < 0.05
SAME	<i>Salazaria</i>	<i>mexicana</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
BAEM	<i>Baccharis</i>	<i>emoryi</i>	
ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	P < 0.05
ERNAH	<i>Ericameria</i>	<i>nauseosus ssp. nauseosus var. hololeuca</i>	P < 0.05
BRAT	<i>Brickellia</i>	<i>atractyloides</i>	
ATCO	<i>Atriplex</i>	<i>confertifolia</i>	P < 0.05
BUUT	<i>Buddleja</i>	<i>utahensis</i>	P < 0.05
EPFU	<i>Ephedra</i>	<i>funerea</i>	P < 0.05
EPNE	<i>Ephedra</i>	<i>nevadensis</i>	P < 0.05
BRCA3	<i>Brickellia</i>	<i>californica</i>	
PUGL2	<i>Purshia</i>	<i>glandulosa</i>	P < 0.05
BRIN	<i>Brickellia</i>	<i>incana</i>	
HYSA	<i>Hymenoclea</i>	<i>salsola</i>	P < 0.05
PSFRF	<i>Psoralea</i>	<i>fremontii var. fremontii</i>	P < 0.05
BRLOM	<i>Brickellia</i>	<i>longifolia var. multiflora</i>	
ATCO	<i>Atriplex</i>	<i>confertifolia</i>	P < 0.05
BRMIW	<i>Brickellia</i>	<i>microphylla var. watsonii</i>	
LEFR2	<i>Lepidium</i>	<i>fremontii</i>	P < 0.05
BROBL	<i>Brickellia</i>	<i>oblongifolia var. linifolia</i>	
AMER	<i>Ambrosia</i>	<i>erioncentra</i>	P < 0.05
HYSA	<i>Hymenoclea</i>	<i>salsola</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
RICEC2	<i>Ribes</i>	<i>cereum</i> var. <i>cereum</i>	P < 0.05
SAME	<i>Salazaria</i>	<i>mexicana</i>	P < 0.05

BUUT *Buddleja* *utahensis*

ATCO	<i>Atriplex</i>	<i>confertifolia</i>	P < 0.05
BRAT	<i>Brickellia</i>	<i>atractylodes</i>	P < 0.05
EPTO	<i>Ephedra</i>	<i>torreyana</i>	P < 0.05
GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	P < 0.05
PRFA	<i>Prunus</i>	<i>fasciculata</i>	P < 0.05

CEGRV2 *Ceanothus* *greggii* ssp. *vestitus*

CELEL	<i>Cercocarpus</i>	<i>ledifolius</i> var. <i>ledifolius</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
PUGL2	<i>Purshia</i>	<i>glandulosa</i>	P < 0.05
PUTR2	<i>Purshia</i>	<i>tridentata</i>	P < 0.05
TEGL	<i>Tetradymia</i>	<i>glabrata</i>	P < 0.05

CEIN7 *Cercocarpus* *intricatus*

ERPAN2	<i>Ericameria</i>	<i>parryi</i> var. <i>nevadensis</i>	P < 0.05
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	P < 0.05
TEGL	<i>Tetradymia</i>	<i>glabrata</i>	P < 0.05

CELEL *Cercocarpus* *ledifolius* var. *ledifolius*

CEGRV2	<i>Ceanothus</i>	<i>greggii</i> ssp. <i>vestitus</i>	P < 0.05
ERPAN2	<i>Ericameria</i>	<i>parryi</i> var. <i>nevadensis</i>	P < 0.05
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	P < 0.05
TEGL	<i>Tetradymia</i>	<i>glabrata</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
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CHGR13

Chrysothamnus gramineus

ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	P < 0.05
ERMIL	<i>Eriogonum</i>	<i>microthecum</i> var. <i>lapidicola</i>	P < 0.05
LEPU	<i>Leptodactylon</i>	<i>pungens</i>	P < 0.05
OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	P < 0.05
PERA4	<i>Peraphyllum</i>	<i>ramosissimum</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
PUTR2	<i>Purshia</i>	<i>tridentata</i>	P < 0.05
QUGA	<i>Quercus</i>	<i>gambelii</i>	P < 0.05
SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	P < 0.05

CHGR6 *Chrysothamnus greenei*

ARNO4	<i>Artemisia</i>	<i>nova</i>	P < 0.05
ERUMS2	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>subaridum</i>	P < 0.05
OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	P < 0.05
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	P < 0.05

CHVIP4 *Chrysothamnus viscidiflorus* ssp. *puberulus*

ARNO4	<i>Artemisia</i>	<i>nova</i>	P < 0.05
ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	P < 0.05
EPVI	<i>Ephedra</i>	<i>viridis</i>	P < 0.05
ERCA8	<i>Eriogonum</i>	<i>caespitosum</i>	P < 0.05
ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	P < 0.05
ERNU4	<i>Eriogonum</i>	<i>nummulare</i>	P < 0.05
ERUMS2	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>subaridum</i>	P < 0.05
GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	P < 0.05
JUOS	<i>Juniperus</i>	<i>osteosperma</i>	P < 0.05
LEPU	<i>Leptodactylon</i>	<i>pungens</i>	P < 0.05
OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
PERA4	<i>Peraphyllum</i>	<i>ramosissimum</i>	P < 0.05
PUST	<i>Purshia</i>	<i>stansburiana</i>	P < 0.05

CHVIS5 *Chrysothamnus viscidiflorus* ssp. *viscidiflorus* var. *stenophyllus*

ARSP5	<i>Artemisia</i>	<i>spinescens</i>	P < 0.05
MESP2	<i>Menodora</i>	<i>spinescens</i>	P < 0.05
TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	P < 0.05

CHVIV2 *Chrysothamnus viscidiflorus* ssp. *viscidiflorus*

ARSP5	<i>Artemisia</i>	<i>spinescens</i>	P < 0.05
ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	P < 0.05
GRSP	<i>Grayia</i>	<i>spinosa</i>	P < 0.05
HYCOC2	<i>Hymenoxys</i>	<i>cooperi</i> var. <i>cooperi</i>	P < 0.05
LEPU	<i>Leptodactylon</i>	<i>pungens</i>	P < 0.05
STPA3	<i>Stephanomeria</i>	<i>parryi</i>	P < 0.05
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	P < 0.05
TECA2	<i>Tetradymia</i>	<i>canescens</i>	P < 0.05
THMO	<i>Thamnosma</i>	<i>montana</i>	P < 0.05
YUBR	<i>Yucca</i>	<i>brevifolia</i>	P < 0.05

CORA *Coleogyne* *ramosissima*

ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>	P < 0.05
ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	P < 0.05
ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	P < 0.05
TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	P < 0.05
YUBR	<i>Yucca</i>	<i>brevifolia</i>	P < 0.05

ECENE *Echinocereus engelmannii* var. *engelmannii*

ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>	P < 0.05
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ACODE	Genus	Species	Statistical Level
EPTO	<i>Ephedra</i>	<i>torreyana</i>	P < 0.05
ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>	P < 0.05
KOAM	<i>Kochia</i>	<i>americana</i>	P < 0.05
OPERU	<i>Opuntia</i>	<i>erinacea</i> var. <i>ursina</i>	P < 0.05
PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	P < 0.05

ECPO2 *Echinocactus polycephalus*

CORA	<i>Coleogyne</i>	<i>ramosissima</i>	P < 0.05
ECENE	<i>Echinocereus</i>	<i>engelmannii</i> var. <i>engelmannii</i>	P < 0.05
YUBR	<i>Yucca</i>	<i>brevifolia</i>	P < 0.05

ENVIV *Encelia virginensis* var. *virginensis*

ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	P < 0.05
ERNA7	<i>Ericameria</i>	<i>nanus</i>	P < 0.05
ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	P < 0.05
HYSA	<i>Hymenoclea</i>	<i>salsola</i>	P < 0.05
KRER	<i>Krameria</i>	<i>erecta</i>	P < 0.05
PENI	<i>Petalonyx</i>	<i>nitidus</i>	P < 0.05
PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	P < 0.05
SAME	<i>Salazaria</i>	<i>mexicana</i>	P < 0.05
SENE5	<i>Senecio</i>	<i>flaccidus</i> var. <i>douglasii</i>	P < 0.05

EPFU *Ephedra funerea*

AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	P < 0.05
BRAT	<i>Brickellia</i>	<i>atractyloides</i>	P < 0.05
EPTO	<i>Ephedra</i>	<i>torreyana</i>	P < 0.05
KRER	<i>Krameria</i>	<i>erecta</i>	P < 0.05
MESP2	<i>Menodora</i>	<i>spinescens</i>	P < 0.05
PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	P < 0.05
YUSC2	<i>Yucca</i>	<i>schidigera</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
EPNE	<i>Ephedra</i>	<i>nevadensis</i>	
BRAT	<i>Brickellia</i>	<i>atractyloides</i>	P < 0.05
ERCO23	<i>Ericameria</i>	<i>cooperi</i>	P < 0.05
ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	P < 0.05
ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	P < 0.05
GRSP	<i>Grayia</i>	<i>spinosa</i>	P < 0.05
HYSA	<i>Hymenoclea</i>	<i>salsola</i>	P < 0.05
KRER	<i>Krameria</i>	<i>erecta</i>	P < 0.05
OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	P < 0.05
PSFRF	<i>Psorothamnus</i>	<i>fremontii</i> var. <i>fremontii</i>	P < 0.05
PSPO	<i>Psorothamnus</i>	<i>polydenius</i>	P < 0.05
SAME	<i>Salazaria</i>	<i>mexicana</i>	P < 0.05
STEL	<i>Stanleya</i>	<i>elata</i>	P < 0.05
TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	P < 0.05
THMO	<i>Thamnosma</i>	<i>montana</i>	P < 0.05
YUBR	<i>Yucca</i>	<i>brevifolia</i>	P < 0.05

EPTO	<i>Ephedra</i>	<i>torreyana</i>	
ATCO	<i>Atriplex</i>	<i>confertifolia</i>	P < 0.05
BUUT	<i>Buddleja</i>	<i>utahensis</i>	P < 0.05
ECENE	<i>Echinocereus</i>	<i>engelmannii</i> var. <i>engelmannii</i>	P < 0.05
EPFU	<i>Ephedra</i>	<i>funerea</i>	P < 0.05
ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>	P < 0.05
LEFR2	<i>Lepidium</i>	<i>fremontii</i>	P < 0.05
MESP2	<i>Menodora</i>	<i>spinescens</i>	P < 0.05
OPERU	<i>Opuntia</i>	<i>erinacea</i> var. <i>ursina</i>	P < 0.05
PSFRF	<i>Psorothamnus</i>	<i>fremontii</i> var. <i>fremontii</i>	P < 0.05
THMO	<i>Thamnosma</i>	<i>montana</i>	P < 0.05
YUSC2	<i>Yucca</i>	<i>schidigera</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
EPVI	<i>Ephedra</i>	<i>viridis</i>	
AMUT	<i>Amelanchier</i>	<i>utahensis</i>	P < 0.05
ARDR4	<i>Artemisia</i>	<i>dracunculus</i>	P < 0.05
ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	P < 0.05
ARNO4	<i>Artemisia</i>	<i>nova</i>	P < 0.05
ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	P < 0.05
CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	P < 0.05
ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	P < 0.05
ERHEA	<i>Eriogonum</i>	<i>heermannii</i> var. <i>argense</i>	P < 0.05
ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	P < 0.05
ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	P < 0.05
ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	P < 0.05
ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	P < 0.05
JUOS	<i>Juniperus</i>	<i>osteosperma</i>	P < 0.05
LEPU	<i>Leptodactylon</i>	<i>pungens</i>	P < 0.05
PERA4	<i>Peraphyllum</i>	<i>ramosissimum</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
PRFA	<i>Prunus</i>	<i>fasciculata</i>	P < 0.05
PUGL2	<i>Purshia</i>	<i>glandulosa</i>	P < 0.05
PUST	<i>Purshia</i>	<i>stansburiana</i>	P < 0.05
RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	P < 0.05
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	P < 0.05
YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	P < 0.05

ERCA8 *Eriogonum* caespitosum

ARNO4	<i>Artemisia</i>	<i>nova</i>	P < 0.05
CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	P < 0.05

ERCO23 *Ericameria cooperi*

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
ARSP5	<i>Artemisia</i>	<i>spinescens</i>	P < 0.05
EPNE	<i>Ephedra</i>	<i>nevadensis</i>	P < 0.05
GRSP	<i>Grayia</i>	<i>spinosa</i>	P < 0.05
HYSA	<i>Hymenoclea</i>	<i>salsola</i>	P < 0.05
LYAN	<i>Lycium</i>	<i>andersonii</i>	P < 0.05
YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	P < 0.05

ERCUC *Ericameria* *cuneatus*

ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	P < 0.05
ERHEA	<i>Eriogonum</i>	<i>heermannii</i> var. <i>argense</i>	P < 0.05
ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	P < 0.05
OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	P < 0.05

ERFAP *Eriogonum* *fasciculatum* var. *polifolium*

ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	P < 0.05
ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	P < 0.05
EPNE	<i>Ephedra</i>	<i>nevadensis</i>	P < 0.05
EPVI	<i>Ephedra</i>	<i>viridis</i>	P < 0.05
ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	P < 0.05
GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	P < 0.05
SAME	<i>Salazaria</i>	<i>mexicana</i>	P < 0.05

ERHEA *Eriogonum* *heermannii* var. *argense*

ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	P < 0.05
ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	P < 0.05
EPVI	<i>Ephedra</i>	<i>viridis</i>	P < 0.05
ERCUC	<i>Ericameria</i>	<i>cuneatus</i>	P < 0.05
ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	P < 0.05
ERNA7	<i>Ericameria</i>	<i>nanus</i>	P < 0.05
OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
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ERHEH2 *Eriogonum heermannii* var. *heermannii*

ATCO	<i>Atriplex</i>	<i>confertifolia</i>	P < 0.05
ECENE	<i>Echinocereus</i>	<i>engelmannii</i> var. <i>engelmannii</i>	P < 0.05
EPTO	<i>Ephedra</i>	<i>torreyana</i>	P < 0.05
ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	P < 0.05
LEFR2	<i>Lepidium</i>	<i>fremontii</i>	P < 0.05
MESP2	<i>Menodora</i>	<i>spinescens</i>	P < 0.05
PRFA	<i>Prunus</i>	<i>fasciculata</i>	P < 0.05
YUSC2	<i>Yucca</i>	<i>schidigera</i>	P < 0.05

ERLI6 *Ericameria linearifolius*

EPVI	<i>Ephedra</i>	<i>viridis</i>	P < 0.05
ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	P < 0.05
ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	P < 0.05
ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	P < 0.05
PUGL2	<i>Purshia</i>	<i>glandulosa</i>	P < 0.05

ERMIL *Eriogonum microthecum* var. *lapidicola*

CHGR13	<i>Chrysothamnus</i>	<i>gramineus</i>	P < 0.05
OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
PUTR2	<i>Purshia</i>	<i>tridentata</i>	P < 0.05
QUGA	<i>Quercus</i>	<i>gambelii</i>	P < 0.05

ERMIS2 *Eriogonum microthecum* var. *simpsonii*

ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	P < 0.05
ARNO4	<i>Artemisia</i>	<i>nova</i>	P < 0.05
CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
EPVI	<i>Ephedra</i>	<i>viridis</i>	P < 0.05
ERCUC	<i>Ericameria</i>	<i>cuneatus</i>	P < 0.05
ERHEA	<i>Eriogonum</i>	<i>heermannii</i> var. <i>argense</i>	P < 0.05
ERNA7	<i>Ericameria</i>	<i>nanus</i>	P < 0.05
ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	P < 0.05
ERUMS2	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>subaridum</i>	P < 0.05
GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	P < 0.05
JUOS	<i>Juniperus</i>	<i>osteosperma</i>	P < 0.05
LEPU	<i>Leptodactylon</i>	<i>pungens</i>	P < 0.05
OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	P < 0.05
PERA4	<i>Peraphyllum</i>	<i>ramosissimum</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
PUST	<i>Purshia</i>	<i>stansburiana</i>	P < 0.05
RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	P < 0.05
RICEC2	<i>Ribes</i>	<i>cereum</i> var. <i>cereum</i>	P < 0.05
TARA	<i>Tamarix</i>	<i>ramosissima</i>	P < 0.05
THMO	<i>Thamnosma</i>	<i>montana</i>	P < 0.05

ERNA10

Ericameria nauseosus

ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>	P < 0.05
ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	P < 0.05
HODI	<i>Holodiscus</i>	<i>discolor</i>	P < 0.05
OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	P < 0.05
TECA2	<i>Tetradymia</i>	<i>canescens</i>	P < 0.05
TEGL	<i>Tetradymia</i>	<i>glabrata</i>	P < 0.05

ERNA7 *Ericameria nanus*

ARNO4	<i>Artemisia</i>	<i>nova</i>	P < 0.05
ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	P < 0.05
ERHEA	<i>Eriogonum</i>	<i>heermannii</i> var. <i>argense</i>	P < 0.05
ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	P < 0.05
JUOS	<i>Juniperus</i>	<i>osteosperma</i>	P < 0.05
LEPU	<i>Leptodactylon</i>	<i>pungens</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	P < 0.05

ERNAH *Ericameria* *nauseosus* ssp. *nauseosus* var. *hololeuca*

BAEM	<i>Baccharis</i>	<i>emoryi</i>	P < 0.05
ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	P < 0.05
ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	P < 0.05
OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	P < 0.05
PSPO	<i>Psoralea</i>	<i>polydenius</i>	P < 0.05
RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	P < 0.05
TARA	<i>Tamarix</i>	<i>ramosissima</i>	P < 0.05

ERNAL *Ericameria* *nauseosus* ssp. *consimilis* var. *leiosperma*

ARBI3	<i>Artemisia</i>	<i>bigelovii</i>	P < 0.05
CORA	<i>Coleogyne</i>	<i>ramosissima</i>	P < 0.05
EPVI	<i>Ephedra</i>	<i>viridis</i>	P < 0.05
ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	P < 0.05
ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	P < 0.05
ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	P < 0.05
ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	P < 0.05
GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	P < 0.05
GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	P < 0.05
PRFA	<i>Prunus</i>	<i>fasciculata</i>	P < 0.05
PUGL2	<i>Purshia</i>	<i>glandulosa</i>	P < 0.05
SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	P < 0.05
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	P < 0.05
TECA2	<i>Tetradymia</i>	<i>canescens</i>	P < 0.05
TEGL	<i>Tetradymia</i>	<i>glabrata</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
YUBR	<i>Yucca</i>	<i>brevifolia</i>	P < 0.05
ERNU4 <i>Eriogonum nummulare</i>			
ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	P < 0.05
CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	P < 0.05
ERPA29 <i>Ericameria paniculata</i>			
AMER	<i>Ambrosia</i>	<i>erioncentra</i>	P < 0.05
ATPO	<i>Atriplex</i>	<i>polycarpa</i>	P < 0.05
HYSA	<i>Hymenoclea</i>	<i>salsola</i>	P < 0.05
ERPAN2 <i>Ericameria parryi</i> var. <i>nevadensis</i>			
CEIN7	<i>Cercocarpus</i>	<i>intincatus</i>	P < 0.05
CELEL	<i>Cercocarpus</i>	<i>ledifolius</i> var. <i>ledifolius</i>	P < 0.05
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	P < 0.05
TEGL	<i>Tetradymia</i>	<i>glabrata</i>	P < 0.05
ERSA6 <i>Eriogonum saxatile</i>			
PSPO	<i>Psoralea</i>	<i>polydenius</i>	P < 0.05
PUST	<i>Purshia</i>	<i>stansburiana</i>	P < 0.05
TECA2	<i>Tetradymia</i>	<i>canescens</i>	P < 0.05
ERTE18 <i>Ericameria teretifolia</i>			
ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	P < 0.05
CORA	<i>Coleogyne</i>	<i>ramosissima</i>	P < 0.05
ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	P < 0.05
EPNE	<i>Ephedra</i>	<i>nevadensis</i>	P < 0.05
EPVI	<i>Ephedra</i>	<i>viridis</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	P < 0.05
ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	P < 0.05
TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	P < 0.05
THMO	<i>Thamnosma</i>	<i>montana</i>	P < 0.05

ERUM *Eriogonum umbellatum*

ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	P < 0.05
PUGL2	<i>Purshia</i>	<i>glandulosa</i>	P < 0.05

ERUMS2 *Eriogonum umbellatum* var. *subaridum*

CHGR6	<i>Chrysothamnus</i>	<i>greenei</i>	P < 0.05
CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	P < 0.05
ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	P < 0.05
JUOS	<i>Juniperus</i>	<i>osteosperma</i>	P < 0.05
OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	P < 0.05
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	P < 0.05

ERUMV *Eriogonum umbellatum* var. *vernum*

AMUT	<i>Amelanchier</i>	<i>utahensis</i>	P < 0.05
ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05

ERUMV2 *Eriogonum umbellatum* var. *versicolor*

ARNO4	<i>Artemisia</i>	<i>nova</i>	P < 0.05
PUST	<i>Purshia</i>	<i>stansburiana</i>	P < 0.05

GAST *Galium stellatum*

ATCO	<i>Atriplex</i>	<i>confertifolia</i>	P < 0.05
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<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
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GLSPA *Glossopetalon* *spinescens* var. *aridum*

ARNO4	<i>Artemisia</i>	<i>nova</i>	P < 0.05
ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	P < 0.05
ERNA7	<i>Ericameria</i>	<i>nanus</i>	P < 0.05
ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	P < 0.05
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	P < 0.05

GRSP *Grayia* *spinoso*

ARSP5	<i>Artemisia</i>	<i>spinescens</i>	P < 0.05
ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	P < 0.05
CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	P < 0.05
EPNE	<i>Ephedra</i>	<i>nevadensis</i>	P < 0.05
ERCO23	<i>Ericameria</i>	<i>cooperi</i>	P < 0.05
KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	P < 0.05
LYAN	<i>Lycium</i>	<i>andersonii</i>	P < 0.05
STPA3	<i>Stephanomeria</i>	<i>parryi</i>	P < 0.05
TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	P < 0.05
TECA2	<i>Tetradymia</i>	<i>canescens</i>	P < 0.05

GUSA2 *Gutierrezia* *sarothrae*

BUUT	<i>Buddleja</i>	<i>utahensis</i>	P < 0.05
CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	P < 0.05
ERFAP	<i>Eriogonum</i>	<i>fasciculatum</i> var. <i>polifolium</i>	P < 0.05
ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	P < 0.05
YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	P < 0.05

HODI *Holodiscus* *discolor*

ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	P < 0.05
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<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
JUOS	<i>Juniperus</i>	<i>osteosperma</i>	P < 0.05
OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
QUGA	<i>Quercus</i>	<i>gambelii</i>	P < 0.05
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	P < 0.05

HYCOC2 *Hymenoxys cooperi* var. *cooperi*

CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	P < 0.05
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HYSA *Hymenoclea* *salsola*

ADCO2	<i>Adenophyllum</i>	<i>cooperi</i>	P < 0.05
AMER	<i>Ambrosia</i>	<i>erioncentra</i>	P < 0.05
BRIN	<i>Brickellia</i>	<i>incana</i>	P < 0.05
BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>	P < 0.05
ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	P < 0.05
EPNE	<i>Ephedra</i>	<i>nevadensis</i>	P < 0.05
ERCO23	<i>Ericameria</i>	<i>cooperi</i>	P < 0.05
ERPA29	<i>Ericameria</i>	<i>paniculata</i>	P < 0.05
LEFR2	<i>Lepidium</i>	<i>fremontii</i>	P < 0.05
LYAN	<i>Lycium</i>	<i>andersonii</i>	P < 0.05
SAME	<i>Salazaria</i>	<i>mexicana</i>	P < 0.05

JUOS *Juniperus* *osteosperma*

AMPA2	<i>Amelanchier</i>	<i>pallida</i>	P < 0.05
ARNO4	<i>Artemisia</i>	<i>nova</i>	P < 0.05
ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	P < 0.05
CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	P < 0.05
EPVI	<i>Ephedra</i>	<i>viridis</i>	P < 0.05
ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	P < 0.05
ERNA7	<i>Ericameria</i>	<i>nanus</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
ERUMS2	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>subaridum</i>	P < 0.05
HODI	<i>Holodiscus</i>	<i>discolor</i>	P < 0.05
LEPU	<i>Leptodactylon</i>	<i>pungens</i>	P < 0.05
OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	P < 0.05
OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	P < 0.05
PEPU7	<i>Petradoria</i>	<i>pumila</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
PUST	<i>Purshia</i>	<i>stansburiana</i>	P < 0.05
PUTR2	<i>Purshia</i>	<i>tridentata</i>	P < 0.05
QUGA	<i>Quercus</i>	<i>gambelii</i>	P < 0.05
RICEC2	<i>Ribes</i>	<i>cereum</i> var. <i>cereum</i>	P < 0.05
RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	P < 0.05
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	P < 0.05
YUBAV	<i>Yucca</i>	<i>baccata</i> var. <i>vespertina</i>	P < 0.05

KOAM *Kochia* *americana*

ARSP5	<i>Artemisia</i>	<i>spinescens</i>	P < 0.05
ATCO	<i>Atriplex</i>	<i>confertifolia</i>	P < 0.05
ECENE	<i>Echinocereus</i>	<i>engelmannii</i> var. <i>engelmannii</i>	P < 0.05

KRER *Krameria* *erecta*

AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	P < 0.05
ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	P < 0.05
EPFU	<i>Ephedra</i>	<i>funerea</i>	P < 0.05
EPNE	<i>Ephedra</i>	<i>nevadensis</i>	P < 0.05
LATR2	<i>Larrea</i>	<i>tridentata</i>	P < 0.05
LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	P < 0.05
PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	P < 0.05
YUSC2	<i>Yucca</i>	<i>schidigera</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
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KRLA2 *Krascheninnikovi lanata*

ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	P < 0.05
ARSP5	<i>Artemisia</i>	<i>spinescens</i>	P < 0.05
ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	P < 0.05
ATCO	<i>Atriplex</i>	<i>confertifolia</i>	P < 0.05
GRSP	<i>Grayia</i>	<i>spinosa</i>	P < 0.05
LYAN	<i>Lycium</i>	<i>andersonii</i>	P < 0.05
TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	P < 0.05

LATR2 *Larrea tridentata*

AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	P < 0.05
KRER	<i>Krameria</i>	<i>erecta</i>	P < 0.05
LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	P < 0.05
LYSH	<i>Lycium</i>	<i>shockleyi</i>	P < 0.05
PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	P < 0.05
YUSC2	<i>Yucca</i>	<i>schidigera</i>	P < 0.05

LEFR2 *Lepidium fremontii*

ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	P < 0.05
ATHY	<i>Atriplex</i>	<i>hymenelytra</i>	P < 0.05
BRMIW	<i>Brickellia</i>	<i>microphylla</i> var. <i>watsonii</i>	P < 0.05
EPTO	<i>Ephedra</i>	<i>torreyana</i>	P < 0.05
ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>	P < 0.05
HYSA	<i>Hymenoclea</i>	<i>salsola</i>	P < 0.05
MESP2	<i>Menodora</i>	<i>spinescens</i>	P < 0.05
OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	P < 0.05
PENI	<i>Petalonyx</i>	<i>nitidus</i>	P < 0.05
PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	P < 0.05
SENE5	<i>Senecio</i>	<i>flaccidus</i> var. <i>douglasii</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
STEL	<i>Stanleya</i>	<i>elata</i>	P < 0.05
THMO	<i>Thamnosma</i>	<i>montana</i>	P < 0.05

LEPU *Leptodactylon pungens*

AMUT	<i>Amelanchier</i>	<i>utahensis</i>	P < 0.05
ARNO4	<i>Artemisia</i>	<i>nova</i>	P < 0.05
ARTRT	<i>Artemisia</i>	<i>tridentata ssp. tridentata</i>	P < 0.05
CHGR13	<i>Chrysothamnus</i>	<i>gramineus</i>	P < 0.05
CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. puberulus</i>	P < 0.05
CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. viscidiflorus</i>	P < 0.05
EPVI	<i>Ephedra</i>	<i>viridis</i>	P < 0.05
ERMIS2	<i>Eriogonum</i>	<i>microthecum var. simpsonii</i>	P < 0.05
ERNA7	<i>Ericameria</i>	<i>nanus</i>	P < 0.05
JUOS	<i>Juniperus</i>	<i>osteosperma</i>	P < 0.05
OPPOR	<i>Opuntia</i>	<i>polyacantha var. rufispina</i>	P < 0.05
PEPU7	<i>Petradoria</i>	<i>pumila</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
PUTR2	<i>Purshia</i>	<i>tridentata</i>	P < 0.05
QUGA	<i>Quercus</i>	<i>gambelii</i>	P < 0.05
RHTRA	<i>Rhus</i>	<i>trilobata var. anisophylla</i>	P < 0.05
SADOD3	<i>Salvia</i>	<i>dorii ssp. dorii var. dorii</i>	P < 0.05

LYAN *Lycium andersonii*

ARSP5	<i>Artemisia</i>	<i>spinescens</i>	P < 0.05
ATCAC	<i>Atriplex</i>	<i>canescens var. canescens</i>	P < 0.05
ATCO	<i>Atriplex</i>	<i>confertifolia</i>	P < 0.05
ERCO23	<i>Ericameria</i>	<i>cooperi</i>	P < 0.05
GRSP	<i>Grayia</i>	<i>spinosa</i>	P < 0.05
HYSA	<i>Hymenoclea</i>	<i>salsola</i>	P < 0.05
KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	P < 0.05
POSU	<i>Polygala</i>	<i>subspinosa</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	P < 0.05

LYPAO *Lycium* *pallidum* var. *oligospermum*

AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	P < 0.05
KRER	<i>Krameria</i>	<i>erecta</i>	P < 0.05
LATR2	<i>Larrea</i>	<i>tridentata</i>	P < 0.05
PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	P < 0.05

LYSH *Lycium* *shockleyi*

LATR2	<i>Larrea</i>	<i>tridentata</i>	P < 0.05
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MESP2 *Menodora* *spinescens*

ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	P < 0.05
ATCO	<i>Atriplex</i>	<i>confertifolia</i>	P < 0.05
CHVIS5	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i> var. <i>stenophyllus</i>	P < 0.05
EPFU	<i>Ephedra</i>	<i>funerea</i>	P < 0.05
EPTO	<i>Ephedra</i>	<i>torreyana</i>	P < 0.05
ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>	P < 0.05
LEFR2	<i>Lepidium</i>	<i>fremontii</i>	P < 0.05
OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	P < 0.05
PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	P < 0.05
STEL	<i>Stanleya</i>	<i>elata</i>	P < 0.05
YUBR	<i>Yucca</i>	<i>brevifolia</i>	P < 0.05
YUSC2	<i>Yucca</i>	<i>schidigera</i>	P < 0.05

OPBAB2 *Opuntia basilaris* var. *basilaris*

ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	P < 0.05
LEFR2	<i>Lepidium</i>	<i>fremontii</i>	P < 0.05
OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
STPIP	<i>Stanleya</i>	<i>pinnata</i> var. <i>pinnata</i>	P < 0.05
YUBR	<i>Yucca</i>	<i>brevifolia</i>	P < 0.05

OPECE *Opuntia* *echinocarpa* var. *echinocarpa*

EPNE	<i>Ephedra</i>	<i>nevadensis</i>	P < 0.05
ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	P < 0.05
MESP2	<i>Menodora</i>	<i>spinescens</i>	P < 0.05
OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	P < 0.05
OPERU	<i>Opuntia</i>	<i>erinacea</i> var. <i>ursina</i>	P < 0.05
OPRA	<i>Opuntia</i>	<i>ramosissima</i>	P < 0.05
YUBR	<i>Yucca</i>	<i>brevifolia</i>	P < 0.05
YUSC2	<i>Yucca</i>	<i>schidigera</i>	P < 0.05

OPERE *Opuntia* *erinacea* var. *erinacea*

CHGR6	<i>Chrysothamnus</i>	<i>greenei</i>	P < 0.05
ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	P < 0.05
ERUMS2	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>subaridum</i>	P < 0.05
JUOS	<i>Juniperus</i>	<i>osteosperma</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
RICEC2	<i>Ribes</i>	<i>cereum</i> var. <i>cereum</i>	P < 0.05
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	P < 0.05

OPERU *Opuntia* *erinacea* var. *ursina*

ECENE	<i>Echinocereus</i>	<i>engelmannii</i> var. <i>engelmannii</i>	P < 0.05
EPTO	<i>Ephedra</i>	<i>torreyana</i>	P < 0.05
OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	P < 0.05
PSFRF	<i>Psorothamnus</i>	<i>fremontii</i> var. <i>fremontii</i>	P < 0.05
THMO	<i>Thamnosma</i>	<i>montana</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
OPPOR <i>Opuntia polyacantha</i> var. <i>rufispina</i>			
ARNO4	<i>Artemisia</i>	<i>nova</i>	P < 0.05
CHGR13	<i>Chrysothamnus</i>	<i>gramineus</i>	P < 0.05
CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	P < 0.05
ERCUC	<i>Ericameria</i>	<i>cuneatus</i>	P < 0.05
ERHEA	<i>Eriogonum</i>	<i>heermannii</i> var. <i>argense</i>	P < 0.05
ERMIL	<i>Eriogonum</i>	<i>microthecum</i> var. <i>lapidicola</i>	P < 0.05
ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	P < 0.05
HODI	<i>Holodiscus</i>	<i>discolor</i>	P < 0.05
JUOS	<i>Juniperus</i>	<i>osteosperma</i>	P < 0.05
LEPU	<i>Leptodactylon</i>	<i>pungens</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
PUTR2	<i>Purshia</i>	<i>tridentata</i>	P < 0.05
QUGA	<i>Quercus</i>	<i>gambelii</i>	P < 0.05
OPRA <i>Opuntia ramosissima</i>			
OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	P < 0.05
PENI <i>Petalonyx nitidus</i>			
ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	P < 0.05
LEFR2	<i>Lepidium</i>	<i>fremontii</i>	P < 0.05
PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	P < 0.05
PEPU7 <i>Petradora pumila</i>			
JUOS	<i>Juniperus</i>	<i>osteosperma</i>	P < 0.05
LEPU	<i>Leptodactylon</i>	<i>pungens</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
QUGA	<i>Quercus</i>	<i>gambelii</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
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PERA4 *Peraphyllum ramosissimum*

CHGR13	<i>Chrysothamnus</i>	<i>gramineus</i>	P < 0.05
CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus ssp. puberulus</i>	P < 0.05
EPVI	<i>Ephedra</i>	<i>viridis</i>	P < 0.05
ERMIS2	<i>Eriogonum</i>	<i>microthecum var. simpsonii</i>	P < 0.05

PIMO *Pinus monophylla*

AMPA2	<i>Amelanchier</i>	<i>pallida</i>	P < 0.05
AMUT	<i>Amelanchier</i>	<i>utahensis</i>	P < 0.05
ARNO4	<i>Artemisia</i>	<i>nova</i>	P < 0.05
ARTRT	<i>Artemisia</i>	<i>tridentata ssp. tridentata</i>	P < 0.05
CEGRV2	<i>Ceanothus</i>	<i>greggii ssp. vestitus</i>	P < 0.05
CHGR13	<i>Chrysothamnus</i>	<i>gramineus</i>	P < 0.05
EPVI	<i>Ephedra</i>	<i>viridis</i>	P < 0.05
ERMIL	<i>Eriogonum</i>	<i>microthecum var. lapidicola</i>	P < 0.05
ERMIS2	<i>Eriogonum</i>	<i>microthecum var. simpsonii</i>	P < 0.05
ERNA7	<i>Ericameria</i>	<i>nanus</i>	P < 0.05
ERUMV	<i>Eriogonum</i>	<i>umbellatum var. vernum</i>	P < 0.05
HODI	<i>Holodiscus</i>	<i>discolor</i>	P < 0.05
JUOS	<i>Juniperus</i>	<i>osteosperma</i>	P < 0.05
LEPU	<i>Leptodactylon</i>	<i>pungens</i>	P < 0.05
OPERE	<i>Opuntia</i>	<i>erinacea var. erinacea</i>	P < 0.05
OPPOR	<i>Opuntia</i>	<i>polyacantha var. rufispina</i>	P < 0.05
PEPU7	<i>Petradoria</i>	<i>pumila</i>	P < 0.05
PUST	<i>Purshia</i>	<i>stansburiana</i>	P < 0.05
PUTR2	<i>Purshia</i>	<i>tridentata</i>	P < 0.05
QUGA	<i>Quercus</i>	<i>gambelii</i>	P < 0.05
RICEC2	<i>Ribes</i>	<i>cereum var. cereum</i>	P < 0.05
RIVEV	<i>Ribes</i>	<i>velutinum var. velutinum</i>	P < 0.05
SADOD3	<i>Salvia</i>	<i>dorii ssp. dorii var. dorii</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	P < 0.05
POSU <i>Polygala subspinosa</i>			
ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	P < 0.05
LYAN	<i>Lycium</i>	<i>andersonii</i>	P < 0.05
PRFA <i>Prunus fasciculata</i>			
AMER	<i>Ambrosia</i>	<i>erioncentra</i>	P < 0.05
BUUT	<i>Buddleja</i>	<i>utahensis</i>	P < 0.05
EPVI	<i>Ephedra</i>	<i>viridis</i>	P < 0.05
ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>	P < 0.05
ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	P < 0.05
PUGL2	<i>Purshia</i>	<i>glandulosa</i>	P < 0.05
RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	P < 0.05
PSFRF <i>Psorothamnus fremontii</i> var. <i>fremontii</i>			
ADCO2	<i>Adenophyllum</i>	<i>cooperi</i>	P < 0.05
AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	P < 0.05
BRIN	<i>Brickellia</i>	<i>incana</i>	P < 0.05
ECENE	<i>Echinocereus</i>	<i>engelmannii</i> var. <i>engelmannii</i>	P < 0.05
ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	P < 0.05
EPFU	<i>Ephedra</i>	<i>funerea</i>	P < 0.05
EPNE	<i>Ephedra</i>	<i>nevadensis</i>	P < 0.05
EPTO	<i>Ephedra</i>	<i>torreyana</i>	P < 0.05
KRER	<i>Krameria</i>	<i>erecta</i>	P < 0.05
LATR2	<i>Larrea</i>	<i>tridentata</i>	P < 0.05
LEFR2	<i>Lepidium</i>	<i>fremontii</i>	P < 0.05
LYPAO	<i>Lycium</i>	<i>pallidum</i> var. <i>oligospermum</i>	P < 0.05
MESP2	<i>Menodora</i>	<i>spinescens</i>	P < 0.05
OPERU	<i>Opuntia</i>	<i>erinacea</i> var. <i>ursina</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
PENI	<i>Petalonyx</i>	<i>nitidus</i>	P < 0.05
SAME	<i>Salazaria</i>	<i>mexicana</i>	P < 0.05
STEL	<i>Stanleya</i>	<i>elata</i>	P < 0.05
THMO	<i>Thamnosma</i>	<i>montana</i>	P < 0.05
YUSC2	<i>Yucca</i>	<i>schidigera</i>	P < 0.05

PSPO *Psorothamnus polydenius*

ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	P < 0.05
EPNE	<i>Ephedra</i>	<i>nevadensis</i>	P < 0.05
ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	P < 0.05
ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	P < 0.05

PUGL2 *Purshia glandulosa*

ARDR4	<i>Artemisia</i>	<i>dracuncul</i>	P < 0.05
BRCA3	<i>Brickellia</i>	<i>californica</i>	P < 0.05
CEGRV2	<i>Ceanothus</i>	<i>greggii</i> ssp. <i>vestitus</i>	P < 0.05
EPVI	<i>Ephedra</i>	<i>viridis</i>	P < 0.05
ERLI6	<i>Ericameria</i>	<i>linearifolius</i>	P < 0.05
ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	P < 0.05
ERUM	<i>Eriogonum</i>	<i>umbellatum</i>	P < 0.05
PRFA	<i>Prunus</i>	<i>fasciculata</i>	P < 0.05

PUST *Purshia stansburiana*

AMER	<i>Ambrosia</i>	<i>erionentra</i>	P < 0.05
AMPA2	<i>Amelanchier</i>	<i>pallida</i>	P < 0.05
AMUT	<i>Amelanchier</i>	<i>utahensis</i>	P < 0.05
ARBI3	<i>Artemisia</i>	<i>bigelovii</i>	P < 0.05
CHVIP4	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>puberulus</i>	P < 0.05
EPVI	<i>Ephedra</i>	<i>viridis</i>	P < 0.05
ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	P < 0.05
ERUMV2	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>versicolor</i>	P < 0.05
JUOS	<i>Juniperus</i>	<i>osteosperma</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
RHTRA	<i>Rhus</i>	<i>trilobata</i> var. <i>anisophylla</i>	P < 0.05
TEGL	<i>Tetradymia</i>	<i>glabrata</i>	P < 0.05

PUTR2 *Purshia* *tridentata*

ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	P < 0.05
CEGRV2	<i>Ceanothus</i>	<i>greggii</i> ssp. <i>vestitus</i>	P < 0.05
CHGR13	<i>Chrysothamnus</i>	<i>gramineus</i>	P < 0.05
ERMIL	<i>Eriogonum</i>	<i>microthecum</i> var. <i>lapidicola</i>	P < 0.05
JUOS	<i>Juniperus</i>	<i>osteosperma</i>	P < 0.05
LEPU	<i>Leptodactylon</i>	<i>pungens</i>	P < 0.05
OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
QUGA	<i>Quercus</i>	<i>gambelii</i>	P < 0.05
RICEC2	<i>Ribes</i>	<i>cereum</i> var. <i>cereum</i>	P < 0.05
RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	P < 0.05
SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	P < 0.05
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	P < 0.05

QUGA *Quercus* *gambelii*

AMPA2	<i>Amelanchier</i>	<i>pallida</i>	P < 0.05
AMUT	<i>Amelanchier</i>	<i>utahensis</i>	P < 0.05
ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	P < 0.05
CHGR13	<i>Chrysothamnus</i>	<i>gramineus</i>	P < 0.05
ERMIL	<i>Eriogonum</i>	<i>microthecum</i> var. <i>lapidicola</i>	P < 0.05
HODI	<i>Holodiscus</i>	<i>discolor</i>	P < 0.05
JUOS	<i>Juniperus</i>	<i>osteosperma</i>	P < 0.05
LEPU	<i>Leptodactylon</i>	<i>pungens</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
OPPOR	<i>Opuntia</i>	<i>polyacantha</i> var. <i>rufispina</i>	P < 0.05
PEPU7	<i>Petradoria</i>	<i>pumila</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
PUTR2	<i>Purshia</i>	<i>tridentata</i>	P < 0.05
RICEC2	<i>Ribes</i>	<i>cereum</i> var. <i>cereum</i>	P < 0.05
RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	P < 0.05
SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	P < 0.05
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	P < 0.05

RHTRA *Rhus* *trilobata* var. *anisophylla*

AMUT	<i>Amelanchier</i>	<i>utahensis</i>	P < 0.05
EPVI	<i>Ephedra</i>	<i>viridis</i>	P < 0.05
ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	P < 0.05
LEPU	<i>Leptodactylon</i>	<i>pungens</i>	P < 0.05
PRFA	<i>Prunus</i>	<i>fasciculata</i>	P < 0.05
PUST	<i>Purshia</i>	<i>stansburiana</i>	P < 0.05

RICEC2 *Ribes* *cereum* var. *cereum*

ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	P < 0.05
BROBL	<i>Brickellia</i>	<i>oblongifolia</i> var. <i>linifolia</i>	P < 0.05
ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	P < 0.05
JUOS	<i>Juniperus</i>	<i>osteosperma</i>	P < 0.05
OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
PUTR2	<i>Purshia</i>	<i>tridentata</i>	P < 0.05
QUGA	<i>Quercus</i>	<i>gambelii</i>	P < 0.05
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	P < 0.05

RIVEV *Ribes* *velutinum* var. *velutinum*

ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	P < 0.05
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<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
JUOS	<i>Juniperus</i>	<i>osteosperma</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
PUTR2	<i>Purshia</i>	<i>tridentata</i>	P < 0.05
QUGA	<i>Quercus</i>	<i>gambelii</i>	P < 0.05
SADOD3	<i>Salvia</i>	<i>dorii ssp. dorrii var. dorrii</i>	P < 0.05
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	P < 0.05

SADOD3 *Salvia dorii ssp. dorrii var. dorrii*

AMUT	<i>Amelanchier</i>	<i>utahensis</i>	P < 0.05
CHGR13	<i>Chrysothamnus</i>	<i>gramineus</i>	P < 0.05
ERNAL	<i>Ericameria</i>	<i>nauseosus ssp. consimilis var. leiosperma</i>	P < 0.05
LEPU	<i>Leptodactylon</i>	<i>pungens</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
PUTR2	<i>Purshia</i>	<i>tridentata</i>	P < 0.05
QUGA	<i>Quercus</i>	<i>gambelii</i>	P < 0.05
RIVEV	<i>Ribes</i>	<i>velutinum var. velutinum</i>	P < 0.05
SYLO	<i>Symphoricarpos</i>	<i>longiflorus</i>	P < 0.05
TECA2	<i>Tetradymia</i>	<i>canescens</i>	P < 0.05

SAME *Salazaria mexicana*

ATPO	<i>Atriplex</i>	<i>polycarpa</i>	P < 0.05
BROBL	<i>Brickellia</i>	<i>oblongifolia var. linifolia</i>	P < 0.05
ENVIV	<i>Encelia</i>	<i>virginensis var. virginensis</i>	P < 0.05
EPNE	<i>Ephedra</i>	<i>nevadensis</i>	P < 0.05
ERFAP	<i>Eriogonum</i>	<i>fasciculatum var. polifolium</i>	P < 0.05
HYSA	<i>Hymenoclea</i>	<i>salsola</i>	P < 0.05
PSFRF	<i>Psorothamnus</i>	<i>fremontii var. fremontii</i>	P < 0.05
THMO	<i>Thamnosma</i>	<i>montana</i>	P < 0.05

SENE5 *Senecio flaccidus var. douglasii*

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
ATCO	<i>Atriplex</i>	<i>confertifolia</i>	P < 0.05
ENVIV	<i>Encelia</i>	<i>virginensis</i> var. <i>virginensis</i>	P < 0.05
LEFR2	<i>Lepidium</i>	<i>fremontii</i>	P < 0.05

STEL *Stanleya elata*

ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	P < 0.05
EPNE	<i>Ephedra</i>	<i>nevadensis</i>	P < 0.05
LEFR2	<i>Lepidium</i>	<i>fremontii</i>	P < 0.05
MESP2	<i>Menodora</i>	<i>spinescens</i>	P < 0.05
PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	P < 0.05
YUBR	<i>Yucca</i>	<i>brevifolia</i>	P < 0.05

STPA3 *Stephanomeria parryi*

CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	P < 0.05
GRSP	<i>Grayia</i>	<i>spinosa</i>	P < 0.05
TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	P < 0.05

STPIP *Stanleya pinnata* var. *pinnata*

OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	P < 0.05
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SYLO *Symphoricarpos longiflorus*

ARBI3	<i>Artemisia</i>	<i>bigelovii</i>	P < 0.05
ARLU	<i>Artemisia</i>	<i>ludoviciana</i>	P < 0.05
ARTRT	<i>Artemisia</i>	<i>tridentata</i> ssp. <i>tridentata</i>	P < 0.05
CEIN7	<i>Cercocarpus</i>	<i>intricatus</i>	P < 0.05
CELEL	<i>Cercocarpus</i>	<i>ledifolius</i> var. <i>ledifolius</i>	P < 0.05
CHGR6	<i>Chrysothamnus</i>	<i>greenei</i>	P < 0.05
CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	P < 0.05
EPVI	<i>Ephedra</i>	<i>viridis</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
ERNA7	<i>Ericameria</i>	<i>nanus</i>	P < 0.05
ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	P < 0.05
ERPAN2	<i>Ericameria</i>	<i>parryi</i> var. <i>nevadensis</i>	P < 0.05
ERUMS2	<i>Eriogonum</i>	<i>umbellatum</i> var. <i>subaridum</i>	P < 0.05
GLSPA	<i>Glossopetalon</i>	<i>spinescens</i> var. <i>aridum</i>	P < 0.05
HODI	<i>Holodiscus</i>	<i>discolor</i>	P < 0.05
JUOS	<i>Juniperus</i>	<i>osteosperma</i>	P < 0.05
OPERE	<i>Opuntia</i>	<i>erinacea</i> var. <i>erinacea</i>	P < 0.05
PIMO	<i>Pinus</i>	<i>monophylla</i>	P < 0.05
PUTR2	<i>Purshia</i>	<i>tridentata</i>	P < 0.05
QUGA	<i>Quercus</i>	<i>gambelii</i>	P < 0.05
RICEC2	<i>Ribes</i>	<i>cereum</i> var. <i>cereum</i>	P < 0.05
RIVEV	<i>Ribes</i>	<i>velutinum</i> var. <i>velutinum</i>	P < 0.05
SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>domii</i> var. <i>domii</i>	P < 0.05

TARA *Tamarix* *ramosissima*

ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	P < 0.05
ERNAH	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>nauseosus</i> var. <i>hololeuca</i>	P < 0.05

TEAXA *Tetradymia* *axillaris* var. *axillaris*

ARBI3	<i>Artemisia</i>	<i>bigelovii</i>	P < 0.05
ARSP5	<i>Artemisia</i>	<i>spinescens</i>	P < 0.05
CHVIS5	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i> var. <i>stenophyllus</i>	P < 0.05
CORA	<i>Coleogyne</i>	<i>ramosissima</i>	P < 0.05
EPNE	<i>Ephedra</i>	<i>nevadensis</i>	P < 0.05
ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	P < 0.05
GRSP	<i>Grayia</i>	<i>spinosa</i>	P < 0.05
KRLA2	<i>Krascheninnikovia</i>	<i>lanata</i>	P < 0.05
LYAN	<i>Lycium</i>	<i>andersonii</i>	P < 0.05
STPA3	<i>Stephanomeria</i>	<i>parryi</i>	P < 0.05
YUBR	<i>Yucca</i>	<i>brevifolia</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
TECA2 <i>Tetradymia</i> <i>canescens</i>			
ATCAC	<i>Atriplex</i>	<i>canescens</i> var. <i>canescens</i>	P < 0.05
CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	P < 0.05
ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	P < 0.05
ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	P < 0.05
ERSA6	<i>Eriogonum</i>	<i>saxatile</i>	P < 0.05
GRSP	<i>Grayia</i>	<i>spinosa</i>	P < 0.05
SADOD3	<i>Salvia</i>	<i>dorii</i> ssp. <i>dorii</i> var. <i>dorii</i>	P < 0.05
YUBR	<i>Yucca</i>	<i>brevifolia</i>	P < 0.05
TEGL <i>Tetradymia</i> <i>glabrata</i>			
CEGRV2	<i>Ceanothus</i>	<i>greggii</i> ssp. <i>vestitus</i>	P < 0.05
CEIN7	<i>Cercocarpus</i>	<i>intricatus</i>	P < 0.05
CELEL	<i>Cercocarpus</i>	<i>ledifolius</i> var. <i>ledifolius</i>	P < 0.05
ERNA10	<i>Ericameria</i>	<i>nauseosus</i>	P < 0.05
ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	P < 0.05
ERPAN2	<i>Ericameria</i>	<i>parryi</i> var. <i>nevadensis</i>	P < 0.05
PUST	<i>Purshia</i>	<i>stansburiana</i>	P < 0.05
THMO <i>Thamnosma</i> <i>montana</i>			
CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	P < 0.05
EPNE	<i>Ephedra</i>	<i>nevadensis</i>	P < 0.05
EPTO	<i>Ephedra</i>	<i>torreyana</i>	P < 0.05
ERMIS2	<i>Eriogonum</i>	<i>microthecum</i> var. <i>simpsonii</i>	P < 0.05
ERTE18	<i>Ericameria</i>	<i>teretifolia</i>	P < 0.05
LEFR2	<i>Lepidium</i>	<i>fremontii</i>	P < 0.05
OPERU	<i>Opuntia</i>	<i>erinacea</i> var. <i>ursina</i>	P < 0.05
PSFRF	<i>Psoralea</i>	<i>fremontii</i> var. <i>fremontii</i>	P < 0.05
SAME	<i>Salazaria</i>	<i>mexicana</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
YUBAV <i>Yucca</i> <i>baccata</i> var. <i>vespertina</i>			
ARNO4	<i>Artemisia</i>	<i>nova</i>	P < 0.05
EPVI	<i>Ephedra</i>	<i>viridis</i>	P < 0.05
ERCO23	<i>Ericameria</i>	<i>cooperi</i>	P < 0.05
GUSA2	<i>Gutierrezia</i>	<i>sarothrae</i>	P < 0.05
JUOS	<i>Juniperus</i>	<i>osteosperma</i>	P < 0.05
YUBR <i>Yucca</i> <i>brevifolia</i>			
CHVIV2	<i>Chrysothamnus</i>	<i>viscidiflorus</i> ssp. <i>viscidiflorus</i>	P < 0.05
CORA	<i>Coleogyne</i>	<i>ramosissima</i>	P < 0.05
ECPO2	<i>Echinocactus</i>	<i>polycephalus</i>	P < 0.05
EPNE	<i>Ephedra</i>	<i>nevadensis</i>	P < 0.05
ERNAL	<i>Ericameria</i>	<i>nauseosus</i> ssp. <i>consimilis</i> var. <i>leiosperma</i>	P < 0.05
MESP2	<i>Menodora</i>	<i>spinescens</i>	P < 0.05
OPBAB2	<i>Opuntia</i>	<i>basilaris</i> var. <i>basilaris</i>	P < 0.05
OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	P < 0.05
STEL	<i>Stanleya</i>	<i>elata</i>	P < 0.05
TEAXA	<i>Tetradymia</i>	<i>axillaris</i> var. <i>axillaris</i>	P < 0.05
TECA2	<i>Tetradymia</i>	<i>canescens</i>	P < 0.05
YUSC2 <i>Yucca</i> <i>schidigera</i>			
ACSH	<i>Acamptopappus</i>	<i>shockleyi</i>	P < 0.05
AMDU2	<i>Ambrosia</i>	<i>dumosa</i>	P < 0.05
ATCO	<i>Atriplex</i>	<i>confertifolia</i>	P < 0.05
EPFU	<i>Ephedra</i>	<i>funerea</i>	P < 0.05
EPTO	<i>Ephedra</i>	<i>torreyana</i>	P < 0.05
ERHEH2	<i>Eriogonum</i>	<i>heermannii</i> var. <i>heermannii</i>	P < 0.05
KRER	<i>Krameria</i>	<i>erecta</i>	P < 0.05
LATR2	<i>Larrea</i>	<i>tridentata</i>	P < 0.05

<i>ACODE</i>	<i>Genus</i>	<i>Species</i>	<i>Statistical Level</i>
MESP2	<i>Menodora</i>	<i>spinescens</i>	P < 0.05
OPECE	<i>Opuntia</i>	<i>echinocarpa</i> var. <i>echinocarpa</i>	P < 0.05
PSFRF	<i>Psorothamnus</i>	<i>fremontii</i> var. <i>fremontii</i>	P < 0.05

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Appendix I

Distribution on the NTS of the Top Dominant Woody Plant Species Based on Abundance

Joshua tree (*Yucca brevifolia*) with nesting red-tailed hawk (*Buteo jamaicensis*) [photo by Paul Greger]

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Figure 6-1 Percent *Acamptopappus shockleyi* abundance on the Nevada Test Site

Figure 6-2 Percent *Ambrosia dumosa* abundance on the Nevada Test Site

Figure 6-3 Percent *Artemisia nova* abundance on the Nevada Test Site

Figure 6-4 Percent *Artemisia spinescens* abundance on the Nevada Test Site

Figure 6-5 Percent *Artemisia tridentata* ssp. *tridentata* abundance on the Nevada Test Site

Figure 6-6 Percent *Atriplex canescens* var. *canescens* abundance on the Nevada Test Site

Figure 6-7 Percent *Atriplex confertifolia* abundance on the Nevada Test Site

Figure 6-8 Percent *Chrysothamnus viscidiflorus* ssp. *puberulus* abundance on the Nevada Test Site

Figure 6-9 Percent *Chrysothamnus viscidiflorus* ssp. *viscidiflorus* abundance on the Nevada Test Site

Figure 6-10 Percent *Coleogyne ramosissima* abundance on the Nevada Test Site

Figure 6-11 Percent *Ephedra nevadensis* abundance on the Nevada Test Site

Figure 6-12 Percent *Ephedra viridis* abundance on the Nevada Test Site

Figure 6-13 Percent *Ericameria cooperi* abundance on the Nevada Test Site

Figure 6-14 Percent *Ericameria nauseosa* ssp. *nauseosa* var. *hololeuca* abundance on the Nevada Test Site

Figure 6-15 Percent *Ericameria teretifolia* abundance on the Nevada Test Site

Figure 6-16 Percent *Eriogonum fasciculatum* var. *polifolium* abundance on the Nevada Test Site

Figure 6-17 Percent *Eriogonum microthecum* var. *lapidicola* abundance on the Nevada Test Site

Figure 6-18 Percent *Grayia spinosa* abundance on the Nevada Test Site

Figure 6-19 Percent *Hymenoclea salsola* abundance on the Nevada Test Site

Figure 6-20 Percent *Juniperus osteosperma* abundance on the Nevada Test Site

Figure 6-21 Percent *Kochia americana* abundance on the Nevada Test Site

Figure 6-22 Percent *Krameria erecta* abundance on the Nevada Test Site

Figure 6-23 Percent *Krascheninnikovia lanata* abundance on the Nevada Test Site

Figure 6-24 Percent *Larrea tridentata* abundance on the Nevada Test Site

Figure 6-25 Percent *Leptodactylon pungens* abundance on the Nevada Test Site

Figure 6-26 Percent *Lycium andersonii* abundance on the Nevada Test Site

Figure 6-27 Percent *Lycium pallidum* var. *oligospermum* abundance on the Nevada Test Site

Figure 6-28 Percent *Lycium shockleyi* abundance on the Nevada Test Site

Figure 6-29 Percent *Menodora spinescens* abundance on the Nevada Test Site

Figure 6-30 Percent *Pinus monophylla* abundance on the Nevada Test Site

Figure 6-31 Percent *Psorothamnus fremontii* var. *fremontii* abundance on the Nevada Test Site

Figure 6-32 Percent *Purshia glandulosa* abundance on the Nevada Test Site

Figure 6-33 Percent *Purshia stansburiana* abundance on the Nevada Test Site

Figure 6-34 Percent *Purshia tridentata* abundance on the Nevada Test Site

Figure 6-35 Percent *Quercus gambelii* abundance on the Nevada Test Site

Figure 6-36 Percent *Thamnosma montana* abundance on the Nevada Test Site

Appendix J

Distribution on the NTS of the Top Dominant Grasses, Forbs, and Succulents Based on the Relative Ranking of Dominance

Redspined fishhook cactus (*Sclerocactus polyancistrus*) [photo by W. Kent Ostler]

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Figure 6-37 Relative ranking of dominance of *Achnatherum hymenoides* on the Nevada Test Site

Figure 6-38 Relative ranking of dominance of *Achnatherum speciosum* on the Nevada Test Site

Figure 6-39 Relative ranking of dominance of *Amsinckia tessellata* on the Nevada Test Site

Figure 6-40 Relative ranking of dominance of *Bromus rubens* on the Nevada Test Site

Figure 6-41 Relative ranking of dominance of *Bromus tectorum* on the Nevada Test Site

Figure 6-42 Relative ranking of dominance of *Chaenactis stevioides* on the Nevada Test Site

Figure 6-43 Relative ranking of dominance of *Echinocereus engelmannii* on the Nevada Test Site

Figure 6-44 Relative ranking of dominance of Echinocactus polycephalus on the Nevada Test Site

Figure 6-45 Relative ranking of dominance of *Elymus elymoides* ssp. *elymoides* on the Nevada Test Site

Figure 6-46 Relative ranking of dominance of *Eriogonum inflatum* on the Nevada Test Site

Figure 6-47 Relative ranking of dominance of *Machaeranthera canescens* ssp. *canescens* on the Nevada Test Site

Figure 6-48 Relative ranking of dominance of *Opuntia echinocarpa* var. *echinocarpa* on the Nevada Test Site

Figure 6-49 Relative ranking of dominance of *Opuntia erinacea* var. *erinacea* on the Nevada Test Site

Figure 6-50 Relative ranking of dominance of *Opuntia polyacantha* var. *rufispina* on the Nevada Test Site

Figure 6-51 Relative ranking of dominance of *Sphaeralcea ambigua* ssp. *ambigua* on the Nevada Test Site

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