

## Plant Communities and Vegetation Lists by Alternative

### Greasewood Community

The greasewood community is present throughout the lower elevation portions of the project area, in combination with shadscale and/or sagebrush, rabbitbrush, and patchy understory grasses. Included in this type are pockets of a low shrub community (shadscale and sagebrush) where greasewood is lacking. Species include:

big sagebrush	<i>Artemisia tridentata</i>
cheat grass	<i>Bromus tectorum</i>
greasewood	<i>Sarcobatus vermiculatus</i>
horsebrush	<i>Tetradymia spinosa</i>
Mormon tea	<i>Ephedra viridis</i>
prickly pear	<i>Opuntia</i> sp
shadscale	<i>Atriplex confertifolia</i>
snakeweed	<i>Gutierrezia sarothrae</i>

### Low Shrub Community

This low, desert shrub community occurs as inclusions in the greasewood community and is also found on the gently sloping bench at the junction of Alternative C and SR-10. Species may include:

Castle Valley saltbush	<i>Atriplex gardneri</i> var. <i>cuneata</i>
cryptanth	<i>Cryptantha flava</i>
desert buckwheat	<i>Eriogonum ovalifolium</i>
fishhook cactus	<i>Sclerocactus whipplei</i>
fringed sage	<i>Artemesia frigida</i>
galleta grass	<i>Hilaria jamesii</i>
Jones townsendia	<i>Townsendia jonesii</i>
low sage	<i>Artemesia arbuscula</i>
Mormon tea	<i>Ephedra viridis</i>
prickly pear	<i>Opuntia polyacantha</i>
scarlet globemallow	<i>Sphaeralcea coccinea</i>
snakeweed	<i>Gutierrezia sarothrae</i>
winterfat	<i>Ceratoides lanata</i>

### Pinyon-Juniper Community

The pinyon-juniper community type includes areas of sparse juniper on the steep, rocky slopes above Quitchupah Creek Road, as well as pinyon and juniper present on slopes in the upper parts of the canyon.

bluebunch wheatgrass	<i>A. spicatum</i>
claretcup cactus	<i>Echinocereus triglochidatus</i>
greasewood	<i>Sarcobatus vermiculatus</i>
Indian ricegrass	<i>Oryzopsis hymenoides</i>
pinyon	<i>Pinus edulis</i>
sagebrush	<i>Artemesia tridentata</i>
shadscale	<i>Atriplex confertifolia</i>
twinpod	<i>Physaria acutifoia</i>
Utah juniper	<i>Juniperus osteosperma</i>
western wheatgrass	<i>Agropyron smithii</i>
white cryptanth	<i>Cryptantha</i> sp.
yucca	<i>Yucca</i> sp.

### **Mountain Brush Community**

The mountain brush community occurs in the bottom areas of the upper canyon and includes patches of gambel's oak as well as bigtooth maple, serviceberry, woods rose, Oregon grape, sagebrush, rabbitbrush, and manzanita.

bigtooth maple	<i>Acer grandidentatum</i>
burdock	<i>Arctium</i> sp.
chokecherry	<i>Prunus virginiana</i>
Gambel's oak	<i>Quercus gambelii</i>
Indian ricegrass	<i>Oryzopsis hymenoides</i>
manzanita	<i>Arctostaphylos patula</i>
Mountain big sagebrush	<i>Artemesia tridentata</i> var. <i>Vaseyana</i>
Oregon grape	<i>Mahonia repens</i>
rabbitbrush	<i>Chrysothamnus nauseosus</i>
sagebrush	<i>Artemesia tridentata</i>
Salina wildrye	<i>Elymus salinus</i>
serviceberry	<i>Amelanchier utahensis</i>
willow	<i>Salix</i> sp.
woods rose	<i>Rosa woodsii</i>

### **Douglas Fir Woodland**

Near the junction of Quitchupah Creek Road and Acord Lakes Road at about 7,600 feet elevation, the vegetation on the north facing slopes transitions to a Douglas Fir Woodland, with Mountain Brush in the drainage bottom. Across the Acord Lakes Road on south facing slopes, the pinyon-juniper community predominates, and includes mountain mahogany.

On north facing slope:

aspen	<i>Populus tremuloides</i>
bigtooth maple	<i>Acer grandidentatum</i>
Douglas fir	<i>Pseudotsuga menziesii</i>
Engelmann spruce	<i>Picea engelmannii</i>
Gambel oak	<i>Quercus gambelii</i>
subalpine fir	<i>Abies lasiocarpa</i>
White fir	<i>Abies concolor</i>

On south facing slope:

mountain mahogany	<i>Cercocarpus ledifolius</i>
pinyon	<i>Pinus edulis</i>
Utah juniper	<i>Juniperus occidentalis</i>

Following is a list of plant species identified during review of Alternative B - Quitchupah Creek Road.

#### QUITCHUPAH CREEK ROAD ALTERNATIVE B

Common Name	Scientific Name
aspen	<i>Populus tremuloides</i>
basin big sagebrush	<i>A. tridentata</i> var. <i>tridentata</i>
bigtooth maple	<i>Acer grandidentatum</i>
birchleaf mountain mahogany	<i>Cercocarpus montanus</i>
bluebunch wheatgrass	<i>Agropyron spicatum</i>
burdock	<i>Arctium</i> sp.
Castle Valley saltbush	<i>Atriplex gardneri</i> var. <i>cuneata</i>
cheat grass	<i>Bromus tectorum</i>
chokecherry	<i>Prunus virginiana</i>
claretcup cactus	<i>Echinocereus triglochidiatus</i>
Cryptantha	<i>Cryptantha</i> sp.
curlleaf mountain mahogany	<i>Cercocarpus ledifolius</i>
dock	<i>Rumex</i> sp.
Douglas fir	<i>Pseudotsuga menziesii</i>
Eaton penstemon	<i>Penstemon eatonii</i>
Engelmann spruce	<i>Picea engelmannii</i>
erigeron	<i>Erigeron</i> sp.
fishhook cactus	<i>Sclerocactus parviflorus</i>
fringed sage	<i>A. frigida</i>
galleta grass	<i>Hilaria jamesii</i>
Gambel's oak	<i>Quercus gambelii</i>
gooseberry	<i>Ribes</i> sp.
greasewood	<i>Sarcobatus vermiculatus</i>
hairy grama grass	<i>Bouteloua hirsuta</i>
horsebrush	<i>Tetradymia spinosa</i>
horsetail	<i>Equisetum</i> sp.
hymenoxys	<i>Hymenoxys</i> sp.
Indian paintbrush	<i>Castilleja exilis</i>
Indian ricegrass	<i>Oryzopsis hymenoides</i>
Jones' townsendia	<i>Townsendia jonesii</i> var. <i>jonesii</i>
low sagebrush	<i>A. arbuscula</i>
manzanita	<i>Arctostaphylos patula</i>
Mormon tea	<i>Ephedra</i> sp.
Oregon grape	<i>Mahonia repens</i>
pinyon pine	<i>Pinus edulis</i>
pricklypear cactus	<i>Opuntia polyacantha</i>
serviceberry	<i>Amelanchier alnifolia</i>
rabbitbrush	<i>Chrysothamnus nauseosus</i>
red-osier dogwood	<i>Cornus stolonifera</i>
rubber rabbitbrush	<i>Chrysothamnus nauseosus</i>
rush	<i>Juncus articus</i>
Russian olive	<i>Eleagnus angustifolia</i>
saltgrass	<i>Distichlis spicata</i>

## QUITCHUPAH CREEK ROAD ALTERNATIVE B

<b>Common Name</b>	<b>Scientific Name</b>
sedge	<i>Carex aquatilis</i>
shadscale	<i>Atriplex confertifolia</i>
snakeweed	<i>Gutierrezia sarothrae</i>
spring-parsley	<i>Cymopterus</i> sp.
squawbush	<i>Ribes cereum</i>
tamarisk	<i>Tamarix pentandra</i>
thistle	<i>Cirsium</i> sp.
Twistflower	<i>Streptanthus cordatus</i>
Utah juniper	<i>Juniperus osteosperma</i>
Uinta groundsel	<i>Senecio multilobatus</i>
watercress	<i>Rorippa nasturtium-aguaticum</i>
western wheatgrass	<i>Agropyron smithii</i>
white fir	<i>Abies concolor</i>
white virgin's bower	<i>Clematis ligusticifolia</i>
wild rose	<i>Rosa woodsii</i>
willow	<i>Salix exigua</i>
winterfat	<i>Ceratoides lanata</i>
Wyoming sagebrush	<i>Artemisia tridentata</i> var. <i>wyomingensis</i>
yellow sweetclover	<i>Melilotus officinalis</i>
yucca	<i>Yucca</i> sp.

In addition to the plant species listed above for Alternate B, the Alternate Junction, Alternative C species list includes the following:

## ALTERNATE JUNCTION/ALTERNATE DESIGN ALTERNATIVE C

<b>Common Name</b>	<b>Scientific Name</b>
curlycup gumweed	<i>Grindelia squarrosa</i>
desert buckwheat	<i>Eriogonum</i> sp.
hairy plantain	<i>Plantago patagonica</i>
needle and thread grass	<i>Stipa comata</i>
prickly sandwort	<i>Arenaria aculeata</i>
stemless woollybase	<i>Hymenoxys acaulis</i>
sunray	<i>Enceliopsis nudicaulis</i>
thrifty goldenweed	<i>Happlopappus armeroides</i>
white tufted evening primrose	<i>Oenothera caespitosa</i>

Following is a list of plant species identified during review of Water Hollow - Alternative D.

#### WATER HOLLOW ROUTE ALTERNATIVE D

Common Name	Scientific Name
basin big sagebrush	<i>A. tridentata</i> var. <i>tridentata</i>
birchleaf mountain mahogany	<i>Cercocarpus montanus</i>
black sagebrush	<i>A. nova</i>
bladder-pod	<i>Physaria</i> spp.
Castle Valley saltbush	<i>Atriplex cuneata</i>
claretcup cactus	<i>Echinocereus triglochidiatus</i>
Cryptanth	<i>Cryptantha</i> sp.
Eaton penstemon	<i>Penstemon eatonii</i>
erigeron	<i>Erigeron</i> sp.
fishhook cactus	<i>Sclerocactus parviflorus</i>
fringed sage	<i>A. frigida</i>
Gambel oak	<i>Quercus gambellii</i>
hairy grama grass	<i>Bouteloua hirsuta</i>
honeysuckle	<i>Lonicera utahensis</i>
hymenoxys	<i>Hymenoxys</i> sp.
Indian paintbrush	<i>Castilleja exilis</i>
Indian ricegrass	<i>Oryzopsis hymenoides</i>
Jones' townsendia	<i>Townsendia jonesii</i> var. <i>jonesii</i>
kentrophyta	<i>Astragalus kentrophyta</i>
Mormon tea	<i>Ephedra torreyana</i>
pallid milkweed	<i>Asclepias cryptoceras</i>
pinyon pine	<i>Pinus edulis</i>
pricklypear cactus	<i>Opuntia polyacantha</i>
rubber rabbitbrush	<i>Chrysothamnus nauseosus</i>
serviceberry	<i>Amelanchier alnifolia</i>
Simpson footcactus	<i>Pediocactus simpsonii</i>
slender wheatgrass	<i>Elymus trachycaulus</i>
snakeweed	<i>Gutierrezia sarothrae</i>
spring-parsley	<i>Cymopterus</i> sp.
tamarisk	<i>Tamarix chinensis</i>
Twistflower	<i>Streptanthus cordatus</i>
Uinta groundsel	<i>Senecio multilobatus</i>
Utah juniper	<i>Juniperus osteosperma</i>
white snowberry	<i>Symporicarpos albus</i>
woolly locoweed	<i>Astragalus mollissimus</i>
Wyoming sagebrush	<i>Artemisia tridentata</i> var. <i>wyomingensis</i>
yucca	<i>Yucca</i> sp.