DRAFT
ECOLOGICAL EVALUATION
for the

TAYLOR PEAK POTENTIAL RESEARCH NATURAL AREA

WHITE RIVER AND GUNNISON NATIONAL FORESTS
PITKIN AND GUNNISON COUNTIES, COLORADO

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INTRODUCTION

The Taylor Peak potential Research Natural Area is located approximately twelve miles south of Aspen, Colorado, on the border between the White River and Gunnison National Forests. It includes approximately 1,400 acres (567 ha.) of rolling terrain, consisting of alpine tundra and wetlands, and small areas of Engelmann spruce and subalpine fir

LAND MANAGEMENT PLANNING

This document has been prepared by the Colorado Natural Heritage Program through a Challenge Cost-Share Agreement with the White River National Forest to produce Ecological Evaluations of potential Research Natural Areas. These evaluations are intended to aid the National Forest in environmental analysis during revision of their Forest Management Plan. The specific areas and boundaries for evaluation were chosen by the White River National Forest.

OBJECTIVES

One of the primary objectives of RNAs as listed in the Forest Service Manual (4063.02, USDA Forest Service 1990) is to "preserve a wide spectrum of pristine representative areas that typify important forest, shrubland, grassland, alpine, aquatic, geologic and similar natural situations..." The Taylor Peak potential RNA would meet this objective by representing a number of plant associations within the alpine ecosystem. The area is of particular interest as an example of alpine tundra and wetlands. It has been studied botanically, and is known to contain an unusually large number of rare and sensitive plant species. A Taylor Peak RNA would meet further objectives of the RNA system by (1) protecting elements of biodiversity, (2) serving as a reference area for the study of succession and long-term ecological changes, (3) providing a site for non-manipulative scientific research, and (4) serving as a control area for comparing results of manipulative research and resource management in other areas with similar ecosystem types. In order to accomplish these objectives, a Taylor Peak RNA should be managed to maintain, as much as possible, the natural composition, structure, and function of the area's ecosystems (Andrews 1993). .

PRINCIPAL DISTINGUISHING FEATURES

The Taylor Peak potential RNA is located approximately twelve miles south of Aspen, Colorado, on the border between the White River and Gunnison National Forests. It includes approximately 1,400 acres (567 ha.), with elevation ranging from 11,200 ft. to 12,316 ft. (3,414 m. to 3753 m.), and consisting of alpine tundra and wetlands, with small areas of Engelmann spruce and subalpine fir.

Ecoregion: The area occurs within the North Central Highlands and Rocky Mountain Section (M311H) of Bailey's (1994) map of the ecoregions of the United States.

Physiography and Geology: The Taylor Peak potential RNA is within the Southern Rocky Mountain Province (Fenneman 1931). It is part of the Elk Mountains, which is a westward extension of the Sawatch Range. Rocks exposed in the Taylor Lake area are of Precambrian porphyritic quartz monzonite which has been glaciated. Soils are thin, gravelly, and have little organic content.

Vegetation: Most of the area is above timberline. Uplands consist of dry, gravelly tundra dominated by alpine grasses and sedges, dwarf prostrate shrubs and cushion plants. Common species are whortleberry (*Vaccinium* sp.), alpine avens (*Geum rossii*), arctic and snow willows (*Salix arctica and S. reticulata*), Hooker's mountainavens (*Dryas octopetala),* moss campion (*Silene acaulis*) and alpine clover (*Trifolium dasyphyllum*). In lower lying wet areas, there are thickets of low willows, and sedge meadows. The drainage of Express Creek has patches of Engelmann spruce (*Picea engelmannii*) and subalpine fir (*Abies lasiocarpa*).

Human use: The area adjacent to the potential RNA, around Taylor Pass and Taylor Lake, appears to get heavy recreational use. Revegetation has been required around the parking area at Taylor Pass. Within the boundaries, there are remnants of an old road along the ridge, and remains of mining activity near the upper end.

LOCATION

National Forest, County, and Legal Description. The potential RNA is located on the Aspen District of the White River National Forest, in Pitkin County and the Taylor River District of the Gunnison National Forest in Gunnison County. It occupies all or part of Township 12 South, Range 84 West, Sections 9, 10, 15-17, and 20-22.

Maps.
USDA Forest Service 1:126,720 map of White River National forest, 1991.
U. S. Geological Survey 1: 24,000 topographic maps: Pearl Pass, CO 3910687
Hayden Peak 3910617

Total Acreage and Elevation. The area comprises approximately 1,400 acres (566 ha), ranging in elevation from approximately 11,000 to 13,000 ft. (3,352 m. to 3,962 m.).

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Boundary Description. Beginning at Taylor Pass in the northeast part of the potential RNA, the boundary runs south, parallel to and 100 ft east of, a four wheel drive road, to the section line between sections 21 and 22 (T12 S R84W). At the fork in the road, it stays north of the north fork, heading northwest to cross a tributary of the Taylor River, and then west, staying north of a cabin shown on the Pearl Pass topographic map. It heads northwest to the divide between the Taylor River and Castle Creek drainages, then north-northwest to the headwaters of Cooper Fork. It then heads northeast to the ridge between two tributaries of Express Creek, which it follows northward to the 11,000 foot contour line. It then heads southeast, crossing the easternmost tributary of Express Creek, and intercepting the Pitkin-Gunnison County line, and follows it to Taylor Pass and its point of origin.

Access and Travel Routes: The Taylor Peak potential RNA can be reached from the Richmond Hill Road, Forest Road 123, from Aspen, or the Express Creek Road (Forest Road 122) from Ashcroft, both four wheel drive roads which lead to Taylor Pass. Of the two roads, No. 123 is much less rough. Forest Road 122 requires a high clearance, four-wheel drive vehicle, and has some very narrow places with sharp drop-offs. A jeep trail from Taylor Pass parallels the eastern boundary, and connects with pack trails from Cement Creek and East Brush Creek in the Gunnison National Forest.

AREA BY COVER TYPES

The cover type map of the site with acreages of each cover type is attached (figure 1.). Aerial photo interpretation and field observation indicate that the area is approximately 88% non-forested alpine tundra and barrens, with the remaining 12% in spruce-fir forest.

Vegetation was mapped based on interpretation of aerial photographs (USDA Color infra-red, 1:58,000, and USGS Ortho photographs, 1:24,000); topographic maps; and field observation. Not all areas have been field checked. In cases where a mixture of cover types was impossible to separate, polygons were mapped as mixtures. Acreage for each major cover type was determined by using a planimeter to measure areas of polygons on the attached map. Mixed polygons were arbitrarily assumed to contain equal amounts of each cover type to arrive at the estimated acreages below.

Table 1.
Society of American Foresters Cover Types (Eyre 1980)

Type (SAF no.)	Acres	Hectares
Engelmann spruce-subalpine fir (206)	162	66
Non-forested	1260	510
Total	1422	576

Table 2.
Kuchler Cover Types (Kuchler 1985)

Type (No.)	Acres	Hectares
Western spruce-fir forest (14)	162	66
Alpine meadows and barrens (45)	1260	510
Total	1422	576

Table 3.
Plant Series / Plant Associations

If the series or plant association is well represented in the area it is given an M for major representation. If the series or plant association covers only a small area, it is given an m for minor representation.

Series / Plant Association (see plot data for cross references with CNHP names)	Representation	Acres	Hectares
Abies lasiocarpa/Picea engelmannii	m	162	66
Abies lasiocarpa-Picea engelmannii / Vaccinium myrtillus			
Picea engelmannii / Vaccinium myrtillus			
Grass-forb and willow series and plant associations:	M	1260	510
Salix spp.	M		
Salix glauca / Acomastylis rossii	M		
Vaccinium spp.	M		
Vaccinium scoparium-Vaccinium cespitosum / Lidia biflora	M		
Acomastylis (Geum) rossii		M	
Acomastylis rossii / Bistorta bistortoides	M		
Dryas octopetala	m		
Dryas octopetala / Carex rupestris	m		
Kobresia myosuroides	M		
Kobresia myosuroides / Acomastylis rossii-Carex rupestris	M		
Ribes spp.	m		
Ribes montigenum / Fragaria virginiana-Geranium richardsonii	m		
Total acreage		1422	576

Description of Values

Flora:

Threatened and Endangered species. This area is known to harbor several rare plant species, including: arctic Braya, *Braya glabella* (G5, S1); wooly fleabane, *Erigeron lanatus* (G4, S1); dwarf hawksbeard, *Crepis nana* (G5, S2); alpine poppy, *Papaver lapponicum ssp. occidentale* (G3Q, S2); alpine arnica, *Arnica angustifolia ssp. tomentosa* (G5T5, S1);and Leadville milkvetch, *Astragalus molybdenus* (G3, S2); In addition, low fleabane, *Erigeron humilis* (G4, S1) has been reported nearby on Italian Mountain. *Erigeron melanocephalus*, and *Erigeron pinnatisectus*, both Colorado Natural Heritage Program species of special concern ranked G3 S3, were located during this survey. Ranks are per Colorado Natural Heritage Program (1995).

Exotic species: The only exotic species observed were small amounts of common dandelion (*Taraxacum officinalis)* and Kentucky bluegrass (*Poa pratensis).*

Vegetation: The Taylor Peak potential RNA contains excellent examples of alpine tundra and wetlands. There are some excellent examples of succession from lakes to wetlands. Several rare plant species have been found in the area. Research in alpine ecology has been conducted in the area since 1980 by Betty Willard, Aspen Center for Environmental Studies, and others. Access to the area is good, and a large diversity of alpine communities is within an easy hike, making this an attractive area for research and teaching.

Fauna: Wildlife or their sign observed include elk, marmots and picas. Other species known from the area, according to Forest Service district personnel, are ptarmigan, mountain sheep, mountain goats. The area is an important migration route for deer and elk. Undoubtedly, the area serves as suitable habitat for a wide variety of vertebrates and invertebrates which were not documented during this brief survey.

Threatened and endangered species: None were observed.

Exotic species: None were observed.

Lands: The potential RNA straddles the boundary of the White River and Gunnison National Forests. It is surrounded by National Forest land, except for a privately owned quarry on the southwest.

Management concerns: There are several old mines in the area which could be hazardous. Joint management with the Gunnison National Forest would be necessary. There is a possibility of off-road vehicle use on the east side. The status of grazing the Gunnison side is unknown.

Impacts and Possible Conflicts:

Mineral resources: several old mines and test holes were observed. The area adjoins a large iron ore mining area. Locatable mineral potential is described as high to medium (USDA 1993). The possible existence and status of unpatented mining claims needs to be determined.

Grazing: No evidence of recent sheep grazing was observed. Although it was grazed historically, it was less heavily used than other nearby areas such as the upper regions of Difficult Creek, according to Forest Service district personnel.

Timber: The area has not been logged, and is probably not suitable for logging.

Watershed: RNA designation would protect watershed values.

Evaluation

Criteria of quality, condition, viability and defensibility were developed by the Rocky Mountain Region to assess how well a potential RNA meets RNA qualification (Andrews 1993). These criteria are based on those developed by the Colorado Natural Heritage Program to evaluate occurrences of individual elements and communities.

> **Quality** is based on how well a site represents the targeted ecosystem type or protected biodiversity elements.
>
> **Condition** refers to the naturalness of the site and the degree to which it has been degraded or altered from presettlement conditions.
>
> **Viability** is the prospect for long-term survival of the ecosystem and its protected elements.
>
> **Defensibility** is the extent to which the site can be protected from extrinsic anthropogenic factors.

The Taylor Peak potential RNA has been evaluated according to these criteria as follows:

Quality: The area contains 1260 acres of alpine tundra communities, and is home to over 20 sensitive plant species.

Condition: There are some impacts from former roads and mining activity, but these are not significant enough to lower the rating.

Viability: This is the smallest of the potential RNAs evaluated. Its small size and proximity to roads and impacts from recreational use of Taylor Lake and Taylor Pass may pose threats to the long term survival of its ecosystem.

Defensibility: The area is entirely within National Forest System lands on the White River and Gunnison National Forests, and under National Forest management.

Literature Cited

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APPENDIX 1

PLOT DATA FOR PLANT ASSOCIATIONS SAMPLED

Plant Association names are from Johnston (1987) or Hess and Wasser (1982) whenever a reasonably good fit can be found in those publications. Plant association names, edited to include the more recent plant species names from USDA Soil Conservation Service (1994), are given in parentheses where there are differences. Plant Association names are cross referenced with the names used by the Colorado Natural Heritage Program wherever possible. CNHP names are listed in bold type, followed by their global and state ranks.

Plant species coverage within plots was estimated into cover classes, and species are listed alphabetically within each class. Because of time limitations, not all species within the plots were always identified or collected. Plant species names are from USDA Soil Conservation Service (1994). Where these species names differ from Weber (1987), the Weber names are shown in parentheses. For instances in which the Weber and SCS names differ from Johnston (1987), the plant species names used by Johnston are given in parentheses and followed by *. See Appendix 2 for common names.

Similar to Salix glauca / Acomastylis rossii p. a. (Johnston 1987)
Also similar to Salix glauca-Salix brachycarpa / Deschampsia cespitosa p.a. (Johnston 1987)
and Salix pseudolapponum / Deschampsia cespitosa / Geum rossii h.t. (Hess and Wasser 1982).

Salix brachycarpa / Vaccinium cespitosum (unclassified)

Plot 1 (100 X 100 ft.) photo 15
Sampled in level area with fine gravelly soil.

UTM's: 347,150 E / 4,319,700 N
USGS Quadrangle: Hayden Peak 3910617
Elevation: 11,960 ft.
Slope: level
Aspect: na

Bare ground		25 - 50	
Rock		< 1	
Salix brachycarpa	barrenground willow		25 - 50
Vaccinium cespitosum	dwarf blueberry	25 - 50	
Artemisia scopulorum	alpine sagebrush	1 - 5	
Castilleja occidentalis	western Indian paintbrush	< 1	
Tetraneuris grandiflora (Rydbergia)	graylocks hymenoxys	< 1	
Potentilla diversifolia	varileaf cinquefoil		< 1
Polygonum bistortoides (Bistorta)	American bistort	< 1	
Erigeron melanocephalus	blackhead fleabane	< 1	
Silene acaulis var. subacaulescens	moss campion	< 1	
Saxifraga rhomboidea (Micranthes)	diamondleaf saxifrage	< 1	
Penstemon whippleanus	Whipple's penstemon	< 1	
Poa alpina	alpine bluegrass	< 1	
Cerastium beeringianum ssp. earlii	Earl's chickweed	< 1	
Arenaria congesta (Eremogene)	* sandwort	< 1	
Geum rossii var. turbinatum (Acomastylis)	Ross' avens	< 1	

Similar to Vaccinium scoparium-Vaccinium cespitosum / Lidia biflora p.a. (Johnston 1987)

Vaccinium cespitosum / Vaccinium scoparium p. a. G4S4? (Colorado Natural Heritage Program 1995 b)

Plot 2
Sampled in fellfield below steep hillside.

UTM's: 347,100 E / 4,319,500 N
USGS Quadrangle: Hayden Peak 3910617
Elevation: 12,050 ft.
Slope: level
Aspect: na

Bare ground		5 - 25	
Rock < 2cm		5 - 25	
Rock 2 cm-1m		25 - 50	
Tetraneuris grandiflora (Rydbergia)	graylocks hymenoxys	5 - 25	
Arenaria congesta (Eremogene)	* sandwort	1 - 5	
Silene acaulis var. subacaulescens	moss campion	1 - 5	
Vaccinium cespitosum	dwarf blueberry	1 - 5	
Anemone multifida var. saxicola	red windflower	< 1	
Artemisia scopulorum	alpine sagebrush	< 1	
Carex ebenea	ebony sedge	< 1	
Carex geyeri	elk sedge	< 1	
Carex heteroneura var. chalciolepis (C. chalciolepis)	Holm sedge	< 1	
Elymus trachycaulus	slender wheatgrass	< 1	
Erigeron simplex	onestem fleabane	< 1	
Festuca brachyphylla ssp. coloradense	Colorado fescue	< 1	
Mertensia lanceolata var. lanceolata	prairie bluebells		< 1
Minuartia obtusiloba (Lidia)	twinflower sandwort	< 1	
Oreoxis alpina	alpine oreoxis	< 1	
Pedicularis groenlandica	elephanthead lousewort	< 1	
Penstemon whippleanus	Whipple's penstemon	< 1	
Polemonium viscosum	sticky polemonium	< 1	
Polygonum bistortoides (Bistorta)	American bistort	< 1	
Potentilla diversifolia	varileaf cinquefoil		< 1
Saxifraga oregana (Micranthes)	Oregon saxifrage	< 1	
Trisetum spicatum ssp. montanum	spike trisetum	< 1	

Acomastylis rossii / Trifolium spp. (Johnston 1987)
(Geum rossii / Trifolium spp.)
Similar to Acomastylis rossii / Bistorta bistortoides p.a. (Johnston 1987)
(Geum rossii / Polygonum bistortoides)
and to Geum rossii / Polygonum bistortoides h.t. (Hess and Wasser 1982).
Also similar to Acomastylis rossii / Carex rupestris p. a. (Johnston 1987)

Geum rossii / Trifolium spp. G3G4 (Bourgeron and Engelking, 1994)

Plot 3 (20 X 20 ft.)

UTM's: 346,950 E / 4,319,200 N
USGS Quadrangle: Hayden Peak 3910617
Elevation: 12,200 ft.
Slope: 30 degrees
Aspect: 312 degrees

Bare ground		1 - 5
Rock		< 1
Geum rossii var. turbinatum (Acomastylis)	Ross' avens	25 - 50
Artemisia scopulorum	alpine sagebrush	5 - 25
Salix reticulata ssp. nivalis	snow willow	5 - 25
Trollius laxus ssp. albiflorus (T. albiflorus)	American globeflower	5 - 25
Castilleja occidentalis	western Indian paintbrush	1 - 5
Erigeron melanocephalus	blackhead fleabane	1 - 5
Trifolium dasyphyllum	alpine clover	< 1

Dryas octopetala / Carex rupestris p.a. (Johnston 1987)
Also similar to Dryas octopetala / Salix reticulata ssp. nivalis p.a. (Johnston 1987)

Dryas octopetala / Carex rupestris p.a. G5 S4 (Colorado Natural Heritage Program 1995 b)

Plot 4 (20 X 20 ft.) Photo 19
Sampled on convex slope with shallow soil, next to talus slope.

UTM's: 346,450 E / 4,318,700 N
USGS Quadrangle: Hayden Peak 3910617
Elevation: 12,600 ft.
Slope: 30 degrees
Aspect: 42 degrees

Bare ground		1 - 5	
Rock		1 - 5	
Dryas octopetala ssp. hookeriana	Hooker's mountainavens	75 - 95	
Carex rupestris var. drummondiana	Drummond sedge	5 - 25	
Castilleja occidentalis	western Indian paintbrush	< 1	
Lloydia serotina	common alplily	< 1	
Potentilla diversifolia	varileaf cinquefoil		< 1
Salix arctica	arctic willow	< 1	
Salix reticulata ssp. nivalis	snow willow	< 1	
Silene acaulis var. subacaulescens	moss campion	< 1	
Trifolium dasyphyllum	alpine clover	< 1	
Zigadenus elegans (Anticlea)	mountain deathcamas	< 1	

Kobresia myosuroides / Acomastylis rossii-Carex rupestris p.a. (Johnston 1987)
Also similar to Kobresia myosuroides / Trifolium dasyphyllum p.a. (Johnston 1987)

Kobresia myosuroides / Geum rossii p. a. G5S5 (Colorado Natural Heritage Program 1995 b)

Plot 5 (10 X 20 ft.) Photo 21
Sampled on top of mountain. The area is a mosaic of this community, patches of Dryas octopetala ssp. hookeriana, patches of Geum rossii var. turbinatum (Acomastylis), and patches of Salix reticulata ssp. nivalis.

UTM's: 346,250 E / 4,318,500 N
USGS Quadrangle: Hayden Peak 3910617
Elevation: 12,722 ft.
Slope: level
Aspect: na

Bare ground		5 - 25	
Rock		1 - 5	
Kobresia myosuroides	Bellardi kobresia	50 - 75	
Zigadenus elegans (Anticlea)	mountain deathcamas	1 - 5	
Erigeron pinnatisectus	featherleaf fleabane	< 1	
Eritrichum aretoides	alpine forget-me-not*	< 1	
Geum rossii var. turbinatum (Acomastylis)	Ross' avens	< 1	
Mertensia lanceolata var. lanceolata	prairie bluebells		< 1
Oreoxis alpina	alpine oreoxis	< 1	
Potentilla diversifolia	varileaf cinquefoil		< 1
Tetraneuris grandiflora (Rydbergia)	graylocks hymenoxys	< 1	

Ribes montigenum / Fragaria virginiana-Geranium richardsonii (unclassified)

See Bourgeron and Engelking (1994) III.B.3.b.Ribes montigenum, ref. no. 322, 347.

Plot 6 (50 X 50 ft.) Photo 22
Sampled on an east facing slope, with taller forbs than in most of the potential RNA.
(A rather strange assortment of plants with wide ecological amplitude, usually found at lower elevations, taking advantage of a more mesic and protected site.)

UTM's: 346,350 E / 4,318,900 N
USGS Quadrangle: Hayden Peak 3910617
Elevation: 11,960 ft.
Slope: 45 degrees
Aspect: 90 degrees

Bare ground		5 - 25
Rock		1 - 5
Fragaria virginiana	Virginia strawberry	5 - 25
Geranium richardsonii	Richardson's geranium	5 - 25
Ribes montigenum	gooseberry currant	5 - 25
Castilleja occidentalis	western Indian paintbrush	1 - 5
Helianthella quinquenervis	fivenerve helianthella	1 - 5
Senecio crassulus	thickleaf groundsel	1 - 5
Heterotheca villosa	hairy goldenaster	< 1

APPENDIX 2

PLANT SPECIES OBSERVED AT TAYLOR PEAK POTENTIAL RNA SITE

Scientific names follow the USDA Soil Conservation Service (1994). Synonyms used by Weber (1987) are included in parentheses (small differences such as slight changes by Weber in spelling or the difference between ssp. and var. are not noted). If either of these names differs from those used in Johnston (1987), the name in Johnston is also included in parentheses with an *. Common names follow the U. S. D. A. Soil Conservation Service PLANTS list. Species listed by the Colorado Natural Heritage Program as Colorado Species of Special Concern are followed by CSSC. Adventive species are followed by ADV. Records from Dr. Bettie Willard are followed by (BW), and those from the Colorado Natural Heritage Program by (CNHP).

SCIENTIFIC NAME	COMMON NAME
<u>Trees</u>	
Picea engelmanii	Engelmann's spruce
Abies lasiocarpa	subalpine fir
<u>Shrubs</u>	
Dryas octopetala ssp. hookeriana	Hooker's mountainavens
Ribes montigenum	gooseberry currant
Salix arctica	arctic willow
Salix brachycarpa	barrenground willow
Salix reticulata ssp. nivalis	snow willow
Vaccinium cespitosum	dwarf blueberry
Vaccinium myrtilus var. oreophilum	whortleberry
<u>Graminoids</u>	
Carex bella	showy sedge
Carex capillaris	hairlike sedge
Carex ebenea	ebony sedge
Carex elynoides	blackroot sedge
Carex geyeri	elk sedge
Carex heteroneura var. chalciolepis (C. chalciolepis)	Holm sedge
Carex rupestris var. drummondiana	Drummond sedge
Carex scopulorum	mountain sedge
Carex utriculata	Northwest Territory sedge
Deschampsia cespitosa	tufted hairgrass
Eleocharis acicularis	needle spikerush (BW)
Elymus trachycaulus	slender wheatgrass
Festuca brachyphylla ssp. coloradense	Colorado fescue
Juncus biglumis	twoflowered rush (BW)
Juncus castaneus	chestnut rush (BW)
Juncus drummondii	Drummond's rush
Juncus mertensianus	Merten's rush (BW)
Kobresia myosuroides	Bellardi kobresia
Phleum alpinum	alpine timothy

Poa alpina	alpine bluegrass	
Poa fendleriana (Poa epilis)	muttongrass	
Poa pratensis	Kentucky bluegrass	ADV
Trisetum spicatum ssp. montanum	spike trisetum	

Forbs

Achillea millefolium var. occidentalis (A. lanulosa)	western yarrow	
Agoseris aurantiaca	orange agoseris (BW)	
Androsace septentrionalis	pygmyflower rockjasmine	
Anemone multifida var. saxicola	red windflower	
Antennaria rosea	rosy pussytoes	
Aquilegia coerulea	Colorado blue columbine	
Arenaria congesta	sandwort*	
Arnica angustifolia ssp. tomentosa	alpine arnica (CNHP)	CSSC
Arnica parryi	Parry's arnica	
Artemisia scopulorum	alpine sagebrush	
Astragalus molybdenus	Leadville milkvetch (CNHP)	CSSC
Besseya alpina	alpine besseya	
Braya glabella	arctic Braya (CNHP)	CSSC
Caltha leptosepala	white marshmarigold	
Castilleja occidentalis	western Indian paintbrush	
Castilleja rhexifolia	rosy Indian paintbrush*	
Cerastium beeringianum ssp. earlii	Earl's chickweed	
Cirsium tioganum var.coloradense (C. coloradense)	Colorado thistle	
Chondrophylla prostrata	prostrate Siberian gentian (BW)	
Crepis nana ssp. nana	dwarf alpine hawksbeard (CNHP)	CSSC
Draba streptobrachia	alpine tundra whitlowgrass	
Erigeron lanatus	wooly fleabane (CNHP)	CSSC
Erigeron melanocephalus	blackhead fleabane	CSSC
Erigeron pinnatisectus	featherleaf fleabane	CSSC
Erigeron simplex	onestem fleabane	
Eritrichum aretoides	alpine forget-me-not	
Erysimum capitatum	sanddune wallflower	
Erythronium grandiflorum	avalanche lily	
Fragaria virginiana	Virginia strawberry	
Gentianella amarella ssp. acuta	autumn dwarfgenian (BW)	
Gentianopsis thermalis	Rocky Mountain fringed gentian (BW)	
Geum rossii var. turbinatum	Ross' avens	
Hieracium gracile var. gracile (Chlorocrepis tristis)	slender hawkweed	
Lewisia pygmaea (Oreobrama)	pygmy bitterroot	
Lloydia serotina	common alplily	
Mertensia lanceolata var. lanceolata	prairie bluebells	
Minuartia obtusiloba (Lidia)	twinflower sandwort	
Papaver lapponicum ssp. occidentale	alpine poppy (CNHP)	CSSC
Pedicularis bracteosa var. paysoniana	Payson's lousewort	
Pedicularis groenlandica	elephanthead lousewort	
Pedicularis parryi	parry's lousewort	
Pedicularis sudetica ssp. scopulorum	sudetic lousewort	
Penstemon whippleanus	Whipple's penstemon	
Phacelia sericea	purplefringe	
Phlox pulvinata	cushion phlox	
Podistera eastwoodiae	Eastwood's podistera	
Polemonium pulcherrimum ssp. delicatum	skunkweed polemonium	

Polemonium viscosum	sticky polemonium	
Polygonum bistortoides (Bistorta)	American bistort	
Polygonum viviparum (Bistorta)	alpine bistort	
Potentilla diversifolia	varileaf cinquefoil	
Pseudocymopterus montanus	alpine false springparsley	
Ranunculus adoneus	alpine buttercup	
Saxifraga bronchialis ssp. austromontana (Cilaria austromontana)	matted saxifrage	
Saxifraga odontoloma (Micranthes)	brook saxifrage	
Saxifraga oregana (Micranthes)	Oregon saxifrage	
Saxifraga rhomboidea (Micranthes)	diamondleaf saxifrage	
Sedum integrifolium	entireleaf stonecrop	
Sedum lanceolatum ssp. lanceolatum (Amerosedum)	spearleaf stonecrop	
Sedum rhodanthum	redpod stonecrop	
Selaginella densa	lesser spikemoss	
Senecio amplectens var. holmii (Ligularia holmii)	Holm's senecio	
Senecio crassulus	thickleaf groundsel	
Senecio crocatus	saffron ragwort (BW)	
Senecio dimorphophyllus (Packera)	splitleaf groundsel	
Senecio porteri (Ligularia)	Porter's groundsel (BW)	
Senecio soldanella (Ligularia)	Colorado ragwort (BW)	
Sibbaldia procumbens	creeping sibbaldia	
Silene acaulis var. subacaulescens	moss campion	
Swertia perennis	star gentian	
Taraxacum officinale	common dandelion	ADV
Tetraneuris grandiflora (Rydbergia)	graylocks hymenoxys	
Thlaspi montanum (Noccaea)	alpine pennycress	
Trifolium dasyphyllum	alpine clover	
Trollius laxus ssp. albiflorus (T. albiflorus)	American globeflower	
Valeriana acutiloba var. acutiloba (V. capitata)	sharpleaf valerian	
Valeriana edulis	edible valerian	
Veronica wormskjoldii (V. nutans)	American alpine speedwell	
Viola labradorica	alpine violet	
Zigadenus elegans (Anticlea)	mountain deathcamas	

COVER TYPES OF THE
TAYLOR PEAK POTENTIAL RESEARCH NATURAL AREA

Legend

sf **Engelmann spruce - subalpine fir (SAF 206)**
Western spruce - fir forests (Kuchler 14)
includes plant associations:
Abies lasiocarpa-Picea engelmannii / Vaccinium myrtillus
Picea engelmannii / Vaccinium myrtillus

w **Willow**
includes plant associations:
Salix glauca / Acomastylis rossii (plot 1)

g/f **Alpine grasslands, forblands and dwarf shrublands**
includes plant associations:
Vaccinium scoparium-Vaccinium cespitosum / Lidia biflora (plot 2)
Acomastylis rossii / Trifolium spp. (plot 3)
Dryas octopetala / Carex rupestris (plot 4)
Kobresia myosuroides / Acomastylis rossii-Carex rupestris (plot 5)
Ribes montigenum / Fragaria virginiana-Geranium richardsonii (plot 6)

r **Rock outcrops, talus, and scree, with little or no vegetation.**

_ _ _ _ **Potential RNA boundary**