

SKY MOUNTAIN PARK MANAGEMENT PLAN



May 2012



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acknowledgements

The partnerships to create a 2,500 acre mountain park have been tremendous. It has been a multi-jursidictional and community effort to preserve this place for future generations of people and wildlife. This plan is the cumulation of all this effort and thanks goes to everyone who provided input into the plans creation.

Partners

Pitkin County Open Space and Trails
Town of Snowmass Village
City of Aspen
Great Outdoors Colorado
Aspen Valley Land Trust

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Roaring Fork Conservancy
Roaring Fork Horse Council
Roaring Fork Mountain Bike Association
Roaring Fork Outdoor Volunteers
Town of Snowmass Village Trails Committee

introduction

The prominent pristine ridgeline between the Owl Creek and Brush Creek valleys, and from Shale Bluffs to North Mesa, includes critical wildlife habitat and migration corridors, and spectacular “Sky” vistas for those who would seek them. Earlier this year, this 2500 acre haven was christened Sky Mountain Park.

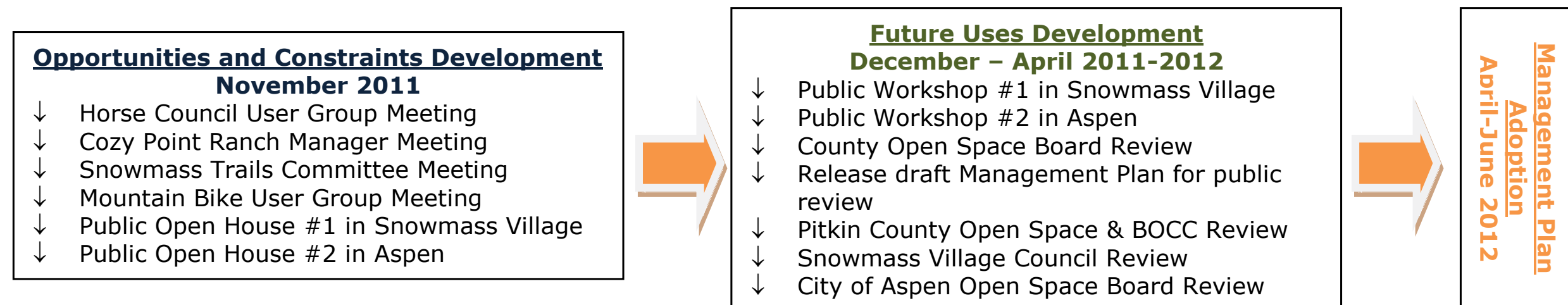
While future generations may celebrate our Mountain Park, it must be remembered what lengthy efforts were required to secure this treasure. In 1990, Snowmass Village acquired its first tracts of public open space in the west end of the park. Five years later, Pitkin County Open Space and Aspen Parks each made their first contributions to this yet unfocussed joint vision, supported by the Aspen Valley Land Trust. Over the next two decades, continuing acquisitions protected the entrance and book-ends of the ridge. However, the three-mile long Droste midsection was approved for a nine unit trophy home development with a three mile long paved access road. Few members of the public realized what was about to be lost, as hardly anyone had ever been up there.

During the summer of 2010, the County Open Space program decided to make one last ditch effort to save the *entire* ridge. By late fall Pitkin County had worked out a \$17 million purchase, the most daunting price in Pitkin County Open Space history. Public partnerships were forged quickly through guided trips for local and state officials, a promotional video by Wildwood Films, a special election to secure voter support in Snowmass, and a prompt and gracious private campaign support by Aspen Valley Land Trust. Through tireless work in building public awareness of the extraordinary beauty lying on that ridge, \$5,846,555 was raised in a matter of a *few months* (\$2.5 million from GOCO, \$2 million from Snowmass, and \$1 million from the City of Aspen, and \$346,555 in private donations). Never before has the collective will of Pitkin County, Snowmass Village, Aspen, and the State of Colorado been united by such a large common cause in such a short time.

The sheer community camaraderie stemming for the purchase of the final capstone property for Sky Mountain Park was like nothing Pitkin County had seen before in 21 years since the Open Space program was created. Just as exciting, our sense of common values and purpose now continue into careful management of the Park. We have worked hard to ensure this land will be a haven for both wildlife and for humans. To this end, we thank everyone who has supported both the acquisition and careful reflection upon the needs of this land, and we present to you our proposed Management Plan.

planning process

After the dramatic purchase of the Droste Parcel at the end of 2010, OST has worked with our partners, Town of Snowmass Village (TOSV) and the City of Aspen (COA) to put together a management plan for over 2,500 acres of open space connected to Droste. An Interim Management Plan was created to set the framework for public use and wildlife protection till appropriate studies of all the resources could be completed to draft a long-term management plan. A biological and historical survey was complete in October 2011. This plan was created collaboratively with staff from all three jurisdictions, the public, Colorado Parks and Wildlife, and wildlife and vegetation consultants . Thirteen public meetings have been held to present ideas and obtain feedback. In addition to the public meetings staff has created a Grass Roots television presentation that aired for 2 months and had maps available on the County, City, and Town websites. Over 100 people attended the public meetings and staff received an additional 78 public comments.



planning area



- Sky Mountain Park-Planning Area
- Trailheads
- Trails
- Nordic Trails
- Airport



PLANNING AREA

history

Over 30 different land patents were issued for the area encompassing Sky Mountain Park. A rich ranching and farming history was enjoyed in this area from when the first settlers entered the area in the 1880's through the 1950's when ski area and residential development began. A more detailed history of the families that owned the lands that are now Sky Mountain Park is contained the in the Biological and Historical Resource Surveys in Appendix A.

Public Acquisition Timeline

- 1991 TOSV acquires **Upper North Mesa**: 649 acres from Snowmass Land Company in conjunction with development approvals for the Horse Ranch Subdivision.
- 1994 TOSV acquires **Hidden Valley**: 213 acres from Snowmass Land Company in conjunction with development approvals.
- 1995 OST acquires **Seven Star Ranch I**: 145 acres in fee and 60 acres under conservation easement for \$1,400,000. For the 15 years following acquisition, OST has transformed the property from a thistle patch to native dryland vegetation.
- 1996 OST acquires **Droste I Conservation Easement**: 99 acres for \$480,000 in our first attempt to protect the Droste Ranch.
- 1999 TOSV and OST acquire the **Droste II Conservation Easement**: 503 acres of the Brush Creek Ranch (421 acres of this CE is included in the proposed acquisition) for \$7,500,000. TOSV negotiated this acquisition to protect the valley floor, and passed a bond to fund their portion of the purchase.
- 1999 COA purchased **Cozy Point Ranch**; 168 acres for \$2,700,000. The property hosts a City run equestrian facility (the only public owned equestrian facility in the valley) and a public archery range. The land is leased for cattle grazing and hay production. Fronting two miles of State Highway 82, the property is a key component to the pastoral setting in the upper Roaring Fork Valley.
- 2004 OST acquires **Seven Star II**: 232 acres, for \$5,345,000 with assistance from a GOCO open space grant. A conservation easement to the benefit of AVLT overlays the property. Since purchasing the property, the valley floor has been transformed from an abandoned hayfield to wetlands, with the help of some beavers. OST even employed the assistance of a beaver whisperer, who installed a “beaver deceiver”, to help manage

the return of beavers to the valley without disrupting the operations of the ditch headgate that serves the downstream properties.

- 2005 OST purchased **Cozy Point South**: 135 acres, for \$2,750,000 again with the help of a GOCO open space grant, as well as TOSV and City of Aspen. The property is encumbered by a conservation easement to AVLTL. The valley floor is leased for hay production, consistent with its historical use. OST, Pitkin County, TOSV, Aspen partnered to stop the installation of an above ground transmission line up the Brush Creek Valley. Holy Cross Energy proposed 90 foot towers along the lands that these agencies worked so hard to preserve. Holy Cross ended up putting the line underground, preserving the scenic value of the corridor.
- 2006 OST constructs the Brush Creek Trail, a long awaited connection between TOSV and the Rio Grande Trail. The trail provides public access along the frontage of many of these preserved lands.
- 2010 Acquisition in Fee of 845 acres parcel of Sky Mountain Park by a partnership of OST, COA, TOSV and Great Outdoors Colorado (GOCO). This purchase from the Droste family constitutes the heart of Sky Mountain Park connecting many disparate parcels.



Photo from the Aspen Historical Society



Photo from the Aspen Historical Society

existing conditions

Sky Mountain Park combines over 2,500 acres of public open space. The properties were accumulated over a 20 year period and different management activities have been employed on the properties. The goal of this plan is to consistently manage all 2,500 acres. To assess the current condition of the biological and historical resources on Sky Mountain Park OST, TOSV, and COA hired Western Ecological Resource to conduct surveys from April through September 2011. The entire report is contained in Appendix A.

Vegetation

There are five main vegetation types in Sky Mountain Park. Each type has different compositions of species and even though it looks relatively similar with a casual view the vegetation communities are quite diverse and support a multitude of wildlife species.

Mountain Shrublands

Mountain shrublands cover approximately 57 percent of Sky Mountain Park and are the dominant vegetation type. Gambel oak (*Quercus gambelii*) is the dominant species and is accompanied by serviceberry (*Amelanchier alnifolia*), mountain mahogany (*Cercocarpus montanus*), snowberry (*Symphoricarpos oreophilus*), and sagebrush (*Artemisia tridentata*).

Mountain shrublands provide big game winter range and habitat for wildlife, including nesting birds and raptors. Although mountain shrublands within Sky Mountain Park are variable in structure and species composition, almost all are removed from natural disturbance regimes such as fire. Disturbance regimes trigger vegetative regrowth and age-class diversity, increasing wildlife values. Continued failure to address decadent and over-browsed shrublands will lead to declines in wildlife habitat values.



Sagebrush Shrublands



Three different sagebrush communities occur within Sky Mountain Park, comprising approximately 22 percent of the park area. Big Sagebrush (*Artemisia tridentata*) is the dominant species, accompanied by Balsamorhiza (*Balsamorhiza sagittata*), Thurber fescue (*Festuca thurberi*), and snowberry (*Symphoricarpos oreophilus*). Other graminoids and forbs may be present in sagebrush shrublands.

Rated as one of the most imperiled ecosystems in North America, significant acreages of sagebrush shrublands have been lost to agriculture, urbanization and other human activities and less than 3 percent of the remaining sagebrush protected in reserves. Sagebrush shrublands support a unique endemic biodiversity of sage-grouse (*Centrocercus urophasianus*) Gunnison sage-grouse (*Centrocercus minimus*) and other birds and small mammals. Unlike mountain shrublands, sagebrush is not fire-adapted, and the largest non-human threats are from invasive species.

Shale Barrens

Comprising 9.5 percent of Sky Mountain Park, Shale Barrens are typical on exposed ridge tops and steep slopes characterized by thin calcareous soil, sheet erosion, and extremely low vegetative cover. Shale barrens are best described floristically by Indian Ricegrass (*Achnatherum hymenoides*), however this species is not dominant nor more common than other species. Other species include mountain mahogany (*Cercocarpus montanus*), bitterbrush (*Purshia tridentata*), Gambel Oak (*Quercus gambelii*), serviceberry (*Amelanchier alnifolia*), snowberry (*Symphoricarpos oreophilus*), junegrass, (*Koeleria macrantha*) western wheatgrass (*Pascopyrum smithii*), tapertip onion (*Allium acuminatum*), largeflower hawksbeard (*Psilochenia occidentalis*), two-form pussytoes (*Antennaria dimorpha*), Rocky Mountain Spring parsley (*Cymopterus planosus*). Additionally, the rare plant Sliverleaf Milkvetch (*Astragalus argophyllus*) occurs in Shale barrens and should be conserved and protected from disturbance.



Agricultural Grasslands

Comprising 6.5 percent of Sky Mountain Park, grasslands are typified by former agricultural lands and lands adjacent to development currently undergoing restoration. Noxious weeds are the biggest threat to this community.

Aquatic, Riparian & Wetland Habitat

Aquatic, riparian, and wetland habitat comprise 2.7 percent of Sky Mountain Park surrounding the Roaring Fork River, Brush Creek, six springs, several small ponds, and a fen. Riparian forests include narrowleaf cottonwood (*Populus angustifolia*), blue spruce (*Picea pungens*), and thinleaf alder (*Alnus incana ssp. tenuifolia*). Common understory species include a variety of shrubs including willows (*Salix sp.*), graminoids including sedges (*Carex sp.*, *Scirpus sp.*), rushes (*Juncus sp.*) and forbs such as cow parsnip (*Heracleum sphondylium*) and Richardson geranium (*Geranium richardsonii*).

Most riparian forests and shrublands are functional ecosystems, with high biodiversity, regeneration, and soil stabilization. Some areas are functional at risk due to agricultural remnants. The fen is defined as functional at risk (FAR) because of the establishment an invasive cattails community. Coralroot orchids (*Corallorhiza striata*) are also an uncommon species of concern in riparian areas, and should be conserved especially during restoration activities. Riparian habitat is also threatened by public use for scenic and fishing access.

Aspen & Douglas Fir Forests

Aspen (*Populus tremuloides*) and Douglas Fir (*Pseudotsuga menzeisii*) forests comprise 1.75 percent of Sky Mountain Park. Aspen forests are more common found and higher elevations and northerly aspects Upper North Mesa, Hidden Valley, Droste, and Seven Star Ranch II. Many stands have experienced major dieback in the

last decade, perhaps due to Sudden Aspen Decline (SAD), but also likely due to the proximity of Sky Mountain to the lower elevational limit for the species.

Western Wheatgrass Grasslands

Western wheatgrass (*Pascopyrum smithii*) grasslands occur in transition zones around herbaceous wetlands often surrounded by low lying sagebrush shrublands. Western wheatgrass grassland comprises 0.1 percent of Sky Mountain Park. Dense stands of weeds such as Canada thistle (*Cirsium arvense*) and musk thistle (*Carduus nutans*) are problematic in wheatgrass grasslands.

Wildlife

The vegetation communities listed above provide the habitat for a diverse range of wildlife species. Many of these species depend on the habitat at Sky Mountain Park for at least a part if not all of its life cycle. The habitat on Sky Mountain Park is mostly mixed mountain shrublands, but that type is critical for certain wildlife species. Baseline terrestrial wildlife surveys were compiled using 2 separate Terrestrial Vertebrate Encounter Surveys (TVES) and 175 days of Infrared Camera Surveys (IRCS).

Rocky Mountain Elk and Mule Deer

Sky Mountain Park contains critical winter range and a migration corridor for elk (*Cervus elaphus*) and mule deer (*Odocoileus hemionus*). There has been a significant amount of research on elk movement and use on Sky Mountain Park. Both species use the majority of the park during the winter, spring, and fall. High quality habitat exists for these species in the park, which provides cover and forage during the tough winter months.



Predators

Coyotes (*Canis latrans*), red fox (*Vulpes vulpes*), and badgers (*Taxidea taxus*) have been spotted in the park. There is also available habitat and signs have been seen for mountain lions (*Felis concolor*). Most of the predators seek cover of the shrublands, but you can easily see coyotes out in the open fields diving for prey. Evidence of transitory use by black bear (*Ursus americanus*) and bobcat (*Lynx rufus*) was found.

Small Mammals

Montane vole (*Microtus sp.*), least chipmunk (*Neotamius minimus*), northern pocket gopher (*Thomomys talpoides*), and mountain cottontail rabbit (*Sylvilagus nuttalli*) were identified on Sky Mountain Park.

Birds

Avian species richness and abundance were determined by 192 point-count surveys. Of 932 detections, the top ten most detected species included the Green-tailed towhee (*Pipilo chlorurus*), spotted towhee (*Pipilo maculatus*), song sparrow (*Melospiza melodia*), American robin (*Turdus migratorius*), yellow warbler (*Dendroica petechial*), brown-headed cowbird (*Molothrus ater*), black-billed magpie (*Pica hudsonia*), broad-tailed hummingbird (*Selasphorus platycercus*), orange-crowned

warbler (*Oreothlypis celata*), blue-gray gnatcatcher (*Polioptila caerulea*), and the black-headed grosbeak (*Pheucticus melanocephalus*). Two species of birds with special habitat requirements reside in the summers on Sky Mountain Park. Brewer's sparrow (*Spizella breweri*) breed in only sagebrush habitat and Virginia's warbler (*Vermivora virginiae*) breed in mountain shrublands. Both species were observed in the park and are good indicators of habitat quality.

Amphibians and Reptiles

Suitable amphibian habitat occurs in 12 locations in Sky Mountain Park, predominantly located in Upper North Mesa. Species include the tiger salamander (*Ambystoma tigrinum*), Western Chorus Frog (*Pseudacris triseriata*), and Northern leopard frog (*Rana pipiens*). Only one reptile was observed within Sky Mountain Park, the western terrestrial garter snake (*Thamnophis elegans*), however based on distribution, elevation, and habitat types, it is expected that sagebrush lizard (*Sceloporous graciosus*), prairie and plateau lizard (*Sceloporous undulates*) smooth green snake (*Liochlorophis vernalis*) and gopher/ bull snake (*Pituophis catenifer*) also exists.

Management Indicator Species

Management Indicator Species (MIS) are those species that best represent a group of species with special habitat requirement. For Sky Mountain Park, MIS included American elk (*Cervus elaphanus*) as a game species whose numbers are annually tracked, and Brewer's sparrow (*Spizella breweri*) and Virginia's warbler (*Vermivora virginiae*) as species with special habitat needs and limited distribution. MIS are typically species with habitat requirements that must be coordinated with other open spaces uses such as recreation. All MIS species rely on oak shrublands, however as elk may benefit from disturbance, Brewer's sparrows and Virginia's warbler would benefit from Oak shrubland preservation. Difference between habitat needs will be addressed from all MIS to ensure adequate corridors are created for elk, and viable habitat is left intact for avian indicator species.



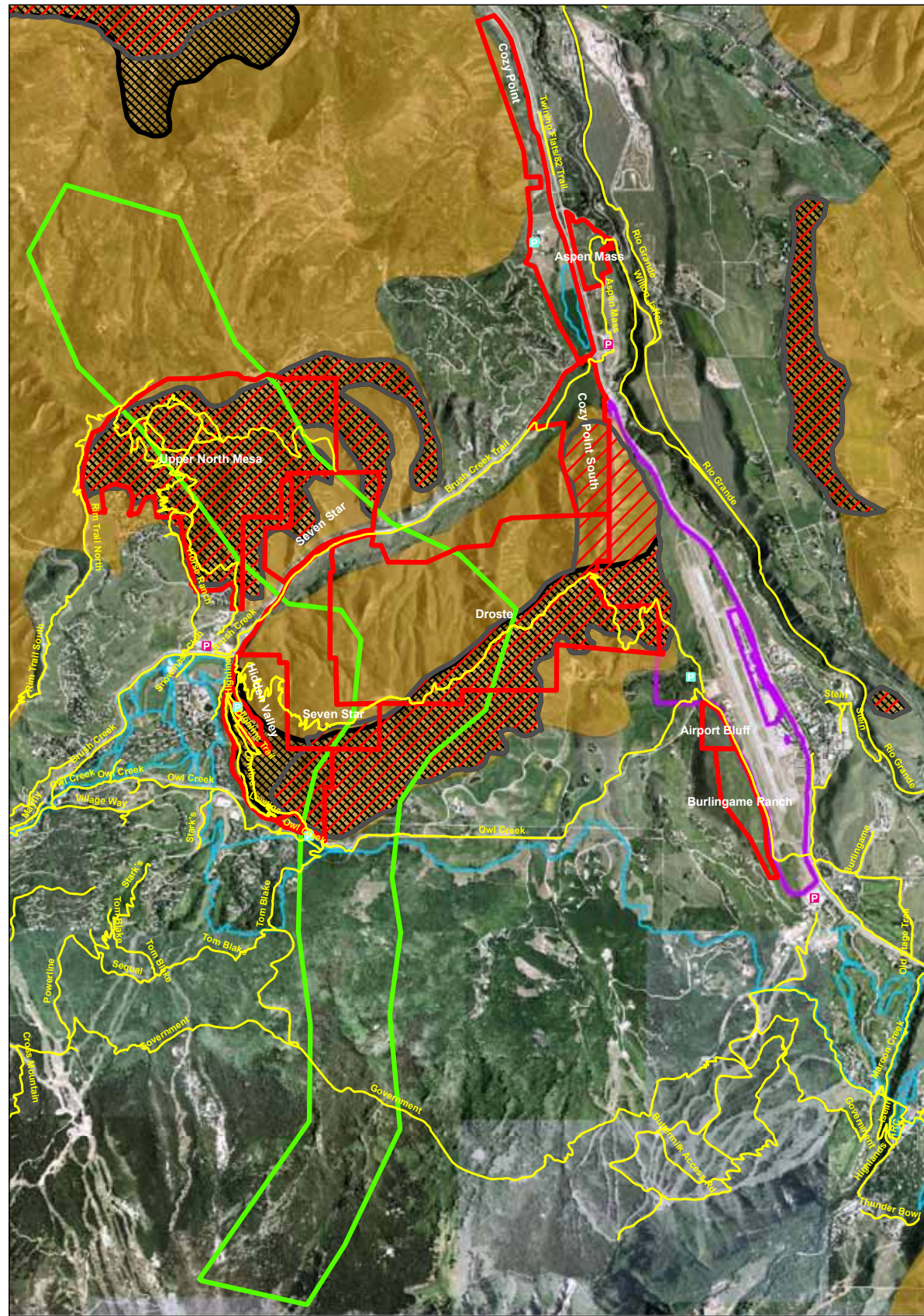
Virginia's Warbler



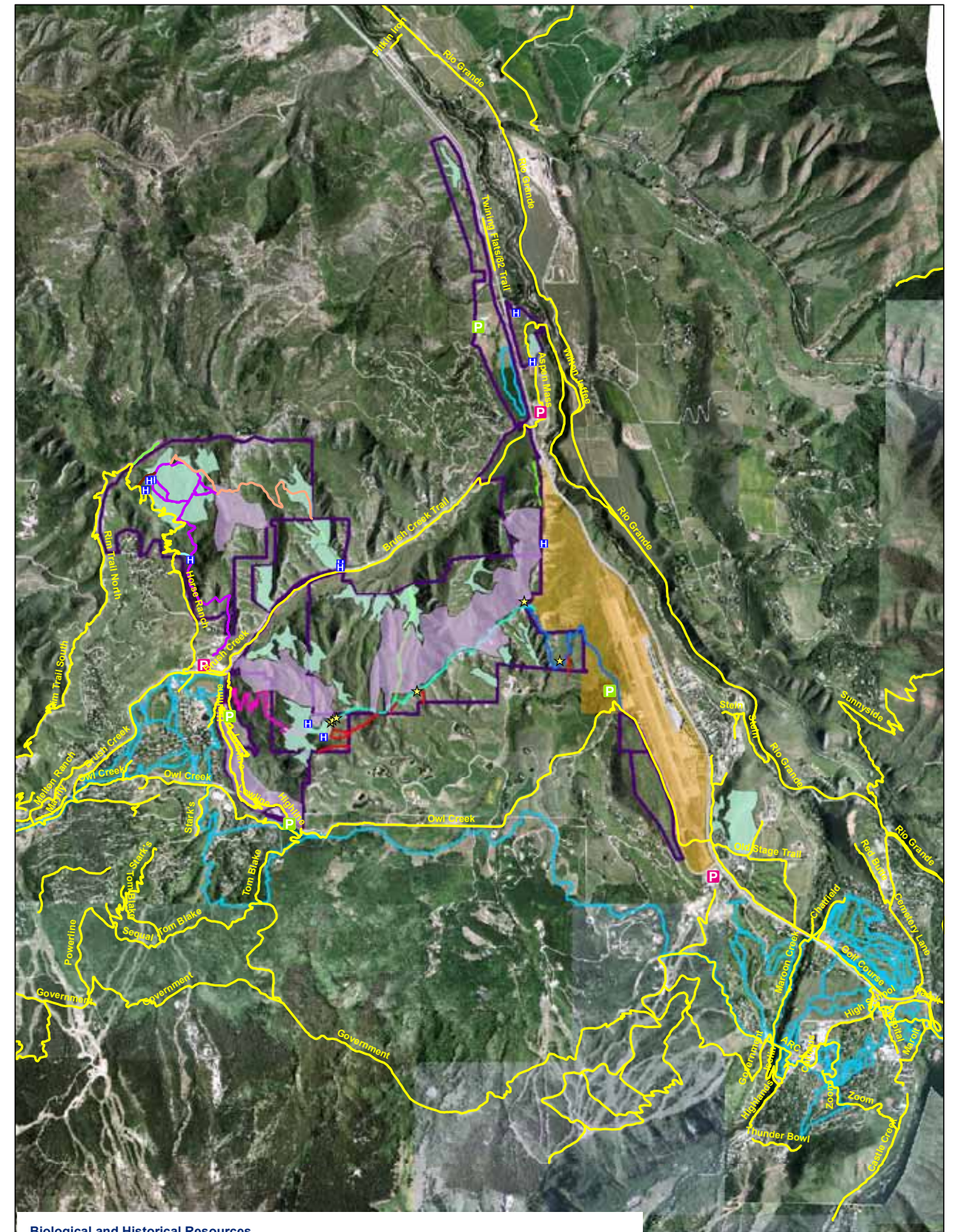
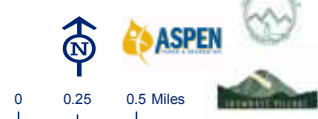
Elk on Sky Mountain Park



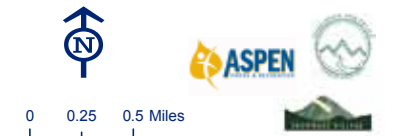
Brewer's Sparrow



- Elk Critical Habitat**
- Elk Winter Range
 - Elk Severe Winter Range
 - Elk Winter Concentration Area
 - Elk Migration Corridor
 - Mountain Park
 - Existing Trails
 - Existing Trailheads
 - Potential Trailheads
 - Nordic Trails



- Biological and Historical Resources**
- Mountain Park
 - Historical Resources
 - Silverleaf Milkvetch
 - Brewer's Habitat
 - Virginia's Habitat
 - Main Existing Trails
 - Ridge Trail
 - Viewline Trail
 - Equestrian Trails
 - Potential Bike/Hike Connection
 - Multiuse Trail
 - Old Ridge Trail
 - Hiking/Equestrian Connection to Rim
 - Nordic Trails
 - Existing Trailheads
 - Potential Trailheads
 - Disturbed Areas/Old Roads



Recreation

Over 14 miles of existing trails exist on Sky Mountain Park. The popular North Rim, Highline, Lowline, and Brush Creek Trail were all built prior to the Droste parcel being purchased in late 2010. After the Droste parcel was purchased the Skyline Ridge Trail, Radar Road, and Viewline trail were opened to the public. On Upper North Mesa old equestrian trails are being used again to separate equestrian and mountain bikes and provide a commercial use trail for outfitters.

The existing trailheads are located at Buttermilk Ski Area, the Brush Creek Intercept Lot, and Town Park. All of these connect to Sky Mountain Park via trail, but none are specific for use on Sky Mountain Park. Buttermilk allows access from Aspen, Town Park from Snowmass Village and the Brush Creek Intercept lot captures down valley traffic.

There are a number of old trails that connect to private property. These trails were closed and are listed as unauthorized. There is also an existing radio tower road that ends on Sky Mountain Park and traverses private property. There is unauthorized public use of this road since it does not have legal public access and discussions with the private landowners to obtain public access are ongoing.

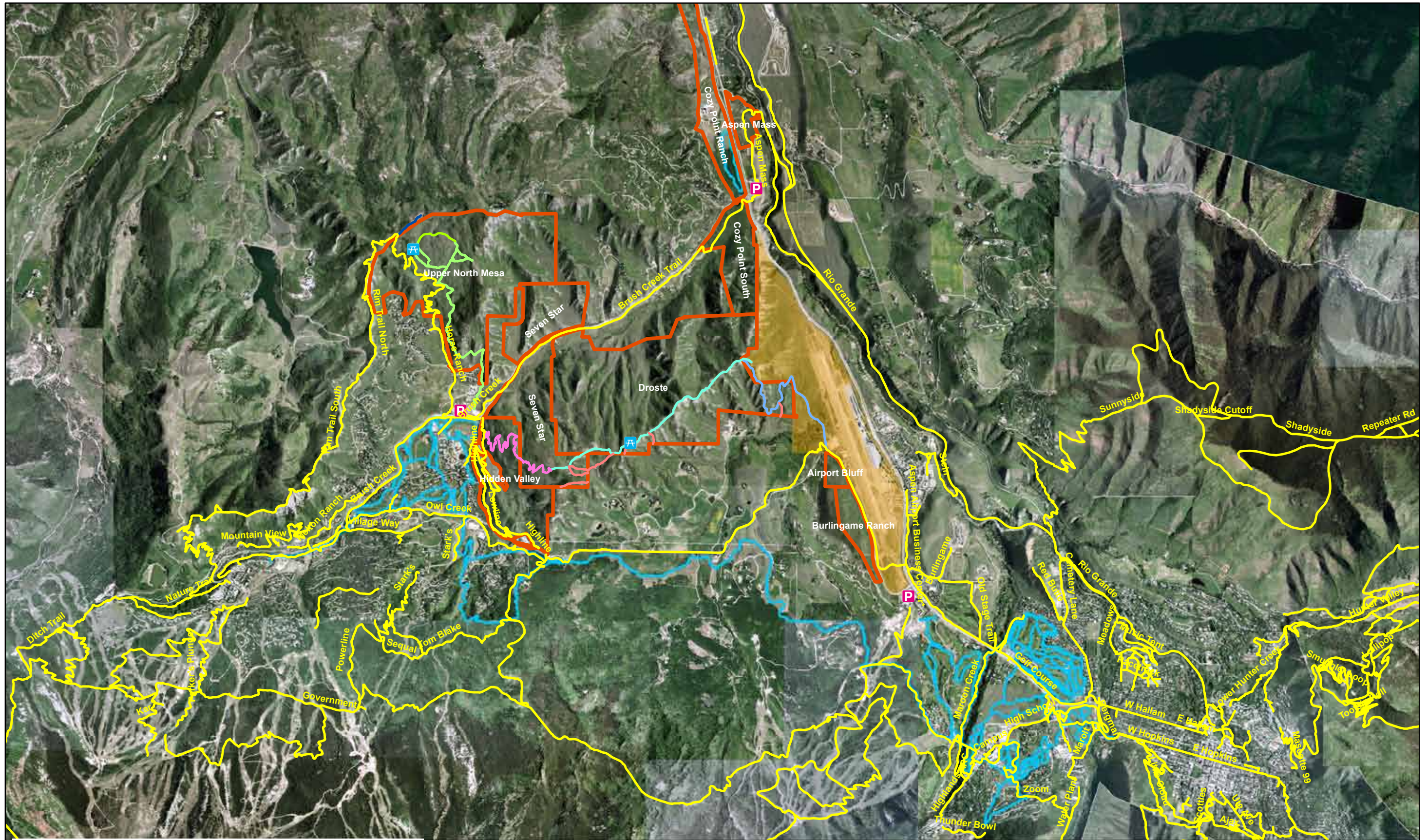
Two picnic areas exist, one off the equestrian trails originating from Town Park in Snowmass Village and in a prominent view location on the Skyline Ridge Trail. The one on the equestrian trails is a rest stop for equestrian users and contains some old picnic tables. On the Skyline Ridge Trail there is an old hitching post and picnic table at one of the most scenic spots along the ridge.

Historical Features

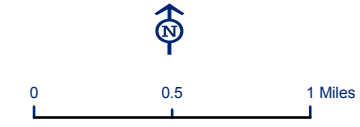
The rich farming heritage in the Brush Creek Valley left a few remains on Sky Mountain Park. The most visible is what is called the “Hatch House” located near Brush Creek and the entrance to Snowmass and is seen by most people driving on Brush Creek Road. Other remains are scattered throughout the park and details can be found in Appendix A.

Cozy Point Ranch has many historic structures with many of them still in use today. A detailed plan for the historic structures on Cozy Point Ranch has already been completed and is separate from this plan.





- Existing Recreation**
- Main Existing Trails
 - Equestrian Trails
 - Old Ridge Trail
 - Viewline Trail
 - Ridge Trail
 - Radar Road
 - Nordic Trails
 - Unauthorized Access
 - Mountain Park
 - Airport
 - P Picnic Areas
 - P Existing Trailheads



Sky Mountain Park Management Plan

vision

Over the past 20 years lands now included in Sky Mountain Park were being acquired as public open space. The foresight shown by the local community to preserve all of these parcels for wildlife and public use is simply remarkable and illustrates the community's will to have the highest quality of life possible. All of these parcels have common goals that warranted protection and create this vision for future management.

Wildlife Habitat

All parcels included in Sky Mountain Park have excellent wildlife habitat. Almost the entire park is critical winter range and contains an essential migration corridor for elk and mule deer. High quality summer habitat for sensitive species like Brewer's sparrows and Virginia's warblers is also present.

Goals

- Implement restorative treatments to create high quality habitat that provides a diversity of age classes and species to benefit all wildlife that make Sky Mountain Park home.
- Minimize wildlife fragmentation through appropriate recreation planning.
- Monitor habitat over time to adapt management practices to the future needs of wildlife.



Recreation

Sky Mountain Park provides breathtaking views, great terrain for trails for all types of non-motorized uses, and opportunities for passive recreation like bird watching and picnicking. The park is a vital trail link between Aspen and Snowmass Village and provides excellent recreation opportunities for locals and visitors.

The main vision for all new trails on Sky Mountain Park was to create a trail system of community designed trails that are sustainable and built to the highest standard possible. Developing sustainable trails will prevent soil erosion, decrease future maintenance, provide average trail grades of 8 percent or less, and improve safety with better sightlines.

Goals

- Create a seamless trail network with sustainable grades to connect Aspen and Snowmass Village.
- Connect Cozy Point Ranch to Sky Mountain Park.
- Provide short and long loop opportunities.
- Create trailheads at critical trail junctions.
- Install informational kiosks and consistent signage across jurisdictional boundaries.
- Reduce user conflicts by providing separated trails where appropriate and educating users on proper trail etiquette.
- Promote passive recreation opportunities such as wildlife viewing, photography, picnicking, etc.
- Monitor winter wildlife use on the Brush Creek Trail to explore the potential for Nordic skiing.



Ecological Restoration

Promote a diverse array of vegetation types on Sky Mountain Park. All of the vegetation communities on Sky Mountain Park are disturbance driven either through flood, fire, or other means. Since fire has been eliminated from this area most of the vegetation communities are beyond their normal range of variability in terms of age class. There are also areas that were formerly grazed by livestock and native vegetation was replaced with non-native pasture grass. The Biological Survey mapped areas that are in need of some restorative activity and areas of importance. These areas are incorporated in this management plan.

Goals

- Promote structural, species, and age class diversity.
- Restore old roads and disturbed areas back to native vegetation.
- Eliminate noxious weeds.
- Protect and restore special habitats like the fen on Upper North Mesa.
- Restore degraded sections of Brush Creek and other wetlands and riparian areas.



Education

With high quality wildlife habitat and rare species comes the opportunity to educate the public about the importance of protecting the lands in Sky Mountain Park. On top off the main ridge provides a great view of the upper Roaring Fork watershed and with the help of the Roaring Fork Conservancy it is a living classroom for teaching what a watershed looks like and where all the water comes from that ends up in the Roaring Fork River. There are so many places on Sky Mountain Park that can become educational opportunities.

Goals

- Provide interpretive signage near important habitat types and special features like the fen and silverleaf milkvetch.
- Work with environmental education organizations and OST, TOSV, and COA to provide environmental education programs on Sky Mountain Park.
- Create a volunteer program to help educate users on proper trail etiquette and provide information on natural resources.



Community Collaboration

Bringing three jurisdictions together to purchase and protect over 2,500 acres of Open Space is a huge accomplishment. Continuing this collaboration in the management of Sky Mountain Park will provide the public a world class trail system and protect and enhance significant wildlife habitat.

Goals

- Eliminate jurisdictional boundaries within Sky Mountain Park to allow seamless management and consistent regulations.
- Share financial and personnel resources to provide management and enforcement.
- Continue the excellent communication between jurisdictions on management of trails and natural resources.
- Work with other government agencies, non-profits, volunteers, and other organizations to collaboratively manage and improve Sky Mountain Park.



management actions

Combining over 2,500 acres of public land with consistent management by three jurisdictions is a huge accomplishment in collaboration and will enormously benefit the public by protecting critical wildlife habitat and providing a world-class trail system. All management actions are derived from the vision created by community input and scientific surveys on Sky Mountain Park. The projects are prioritized and costs are estimated for each theme in Table 1.

Improve Wildlife Habitat

The mixed mountain shrubland community on Sky Mountain Park is critical winter habitat for elk and mule deer and is the dominant vegetation type. From the biological survey report it was evident that this habitat type has a good mix of different species and there is some structural variability, but has been isolated from natural disturbance for over 50 years. Gambel oak is the main species in this vegetation community and is a fire adapted species providing the most value for wildlife when it is between 12 and 50 years old.

With surrounding residential development and the proximity to the Aspen-Pitkin County Airport using prescribed fire to reintroduce disturbance in this vegetation community is not a viable option. Mechanical treatments, both by chainsaw crews or machine, will thin the existing vegetation and provide more age diversity and higher quality wildlife forage.

Actions

- Close Sky Mountain Park to all recreational use from **December 1 – May 15**. Exceptions to this closure are the Highline and Lowline Trail, Aspen Mass Trail, and Cozy Point Ranch. Management will be very limited during this period, but is allowed for research and wildlife management. These closure dates will be revisited as data is obtained on wildlife use of the property during the fall, winter, and early spring. Flexible closure dates could be established if the collected data illustrates different use patterns that would allow opening the area early or necessitate keeping it closed longer.
- Eliminate all noxious weed infestations in the 300 acre project area.
- Mechanical treatments on approximately 300 acres to masticate approximately 75% of the oak/mixed shrubland to simulate a typical disturbance by fire. The remaining mature vegetation will provide seed production and cover. Not all mountain shrublands are targeted for treatments to provide age diversity and benefit certain species that utilize mature vegetation like Virginia's warblers. Site conditions like grade of slope will determine if a machine or chainsaw crew will be used. Staff will consult with Colorado Parks and Wildlife and the wildlife biologist that surveyed the property to layout the specific treatment areas. Treating approximately 300 acres within a 10 year period will allow a 15-30 year window of improved wildlife habitat.
- Monitor the effects of treatments to determine if desired outcomes were achieved and to detect any noxious weed invasions. Adapt future treatments if necessary based on data obtained from monitoring. Continue to monitor the untreated mixed mountain shrublands to determine when and if these areas should

be treated.

- Allow hunting for elk on Pitkin County owned parcels. This will help Colorado Parks and Wildlife manage elk populations and avoid creating a refuge effect in the park which could impact vegetation from increased herbivory. The Airline/Radar Road, Skyline Ridge, and Ditchline Trails will be closed to public recreation during the last public rifle season. This occurs in mid-November and last for approximately 4-6 days. Only cow elk will be hunted and up to 5 licensed hunters will be allowed access. Access will be non-motorized and a lottery system developed to choose hunters. See page 73 of Appendix A for a detailed description of why hunting is necessary on these parcels. Hunting during the last rifle season will minimize conflict with trail use since the amount of people using the Park's trail system is significantly reduced by mid-November due to snow and colder temperatures. It will also capture the last part of the elk migration to winter range and then when the entire Park is closed December 1st elk will be undisturbed by humans and allow natural predators to reduce population size. This is also the area where mountain shrubland treatments will occur. These treatments will significantly benefit wildlife and elk will be attracted to this area. Allowing hunting will help limit the amount of grazing pressure on these areas and allow regeneration to occur. Authorized hunters will be allowed off-trail.
- Remove all unnecessary fencing.

Aspen Regeneration

Aspen forests exist in scattered patches throughout Sky Mountain Park. Most Aspen stands in the park have seen significant dieback and some are starting to regenerate. The impacts of drought and potentially climate change have stressed these stands since they are at the elevational limit of aspen in the upper Roaring Fork Valley.

Actions

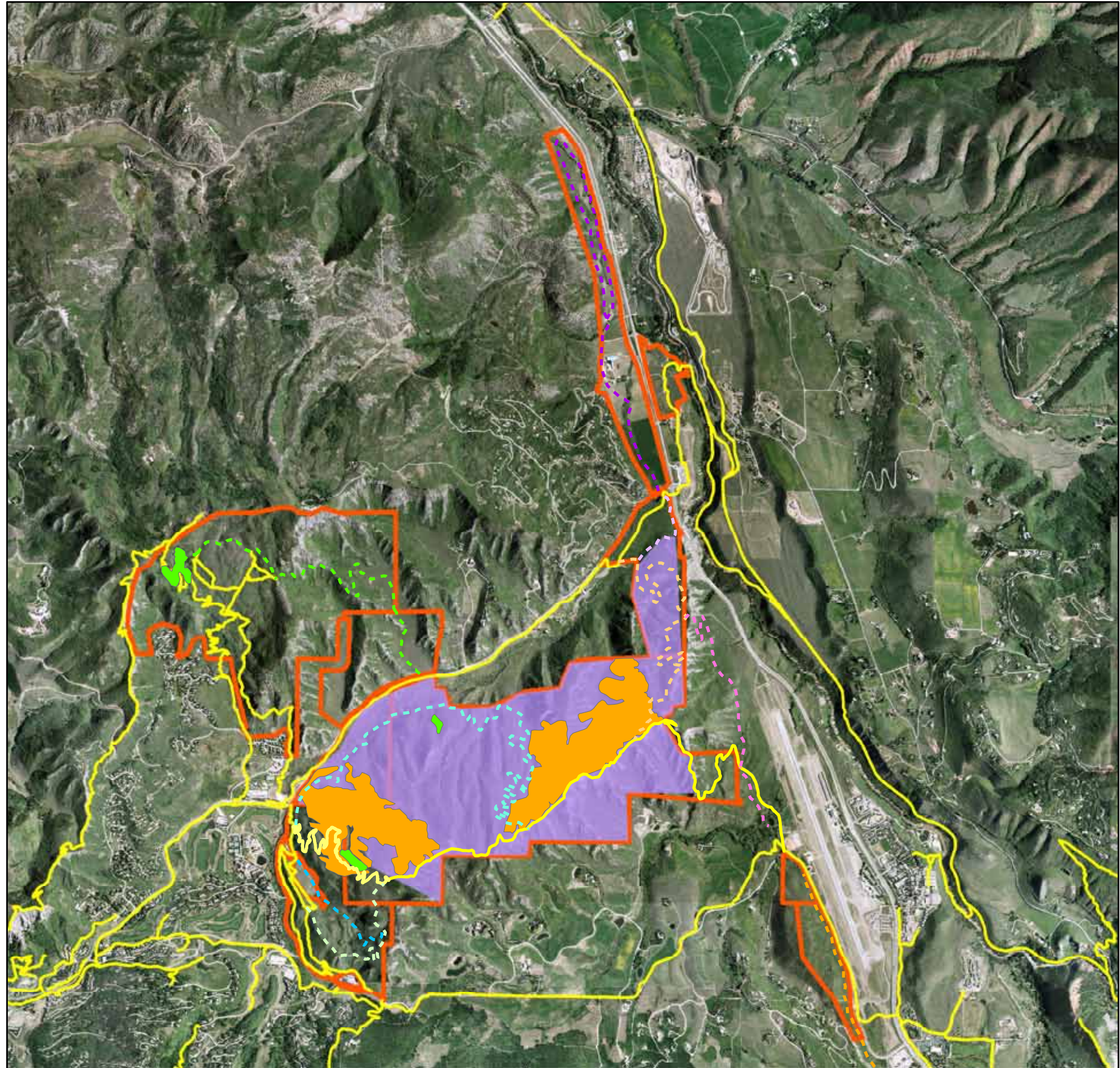
- Monitor each Aspen stand and determine the best management activities to promote vigorous aspen regeneration that will withstand heavy grazing pressure by deer and elk.



Decadent stand of Gambel Oak



Regenerating stand of Aspen



WILDLIFE HABITAT IMPROVEMENTS

- Mountain Shrubland Disturbance Regime Treatments
- Aspen Regeneration Zones
- Hunting area
- Existing Trails
- Potential Trails**
- Buttermilk Connector Trail
- Cozy Point Loop Trail
- Cozy Point South Loop Trail
- Cozyline Trail
- Ditchline Trail
- Flatline Equestrian Hiking
- Highline to Viewline Connection
- Rim Connector Trail
- Airline Trail



1 in = 3,000 feet



Sagebrush, Grasslands, Former Agricultural, and Disturbed Area Restoration

Abandoned agricultural areas within Sky Mountain Park are characterized by non-native species and noxious weeds. Some areas have been abandoned long enough to allow some native shrubs like sagebrush and rabbitbrush to come back, but the understory is dominated by non-native species. Using the intact, native stands of shrubs and grasses as a guide, restoration of the former agricultural and disturbed areas back to a native suite of species will be implemented.

Actions

- Develop a plan and test different methods for creating more species diversity in decadent sagebrush areas dominated by crested wheatgrass in the understory.
- Reclaim the agricultural ponds and create a plan to restore the disturbed area and adjacent former agricultural pasture back to native grass and shrub lands.
- When no longer needed for restoration and management activities restore the old road on the former Droste parcel back to native vegetation.



Sagebrush with little understory diversity

Noxious Weed Control

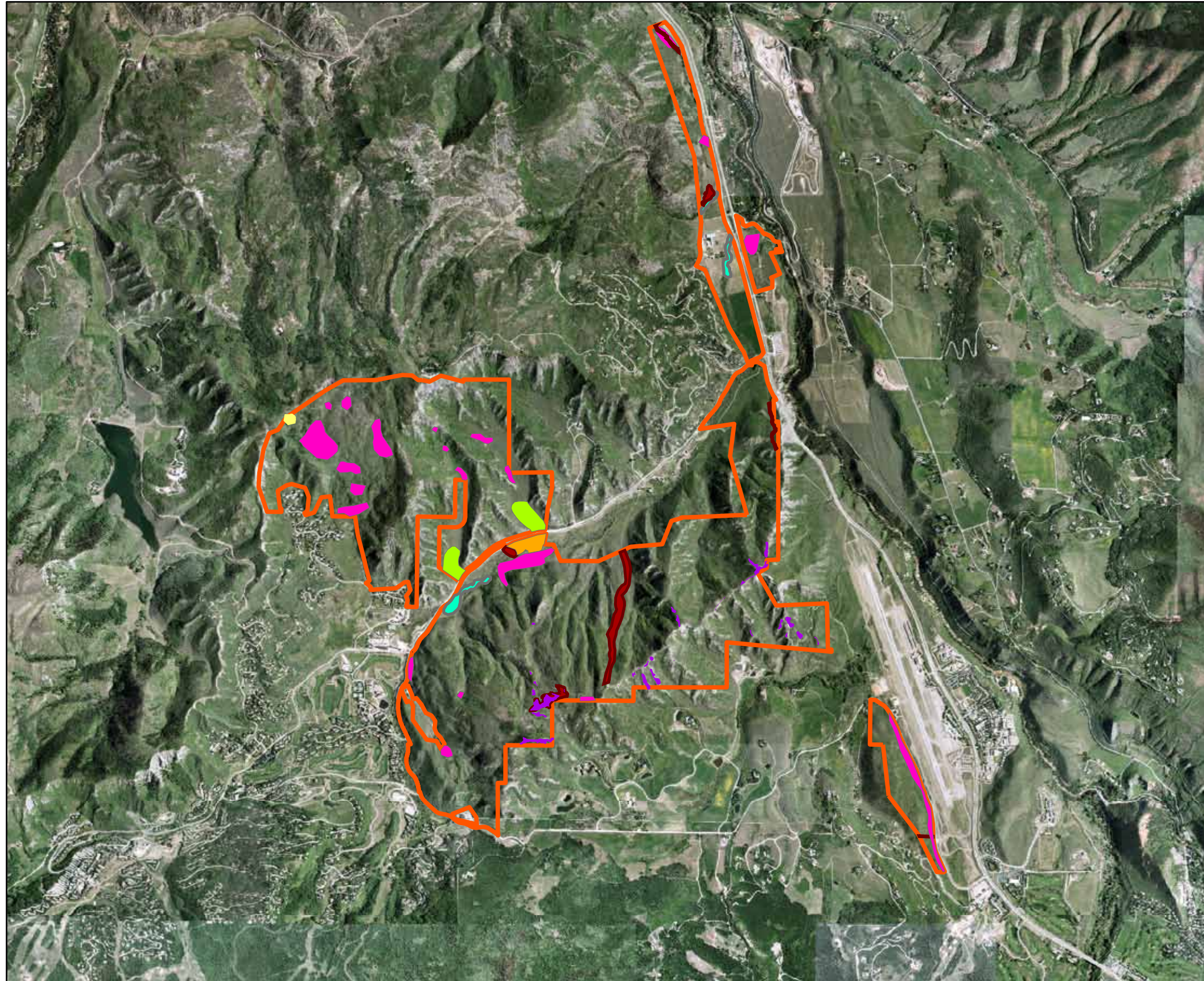
Twenty-one species of Colorado state-listed noxious weeds are present on Sky Mountain Park. Efforts to eliminate or control the spread of these noxious weeds are in progress on some areas of the park, but an integrated approach to managing the weeds on all areas of the park need to be implemented.

Actions

- Work across jurisdictional boundaries to develop an Integrated Pest Management Plan to manage all state-listed noxious weeds.
- Engage the community through volunteer weed removal days to assist in the management of certain noxious weeds. Specifically, ox-eye daisy occurs in wetland and riparian habitats that limit or prohibit the use of herbicides. Volunteers would be extremely helpful to remove the weeds in these areas.



Plumeless thistle along equestrian trail



SAGEBRUSH NOXIOUS WEEDS AND DISTURBED AREAS

-  Silverleaf Milkvetch
-  Sagebrush Species Diversity Treatments
-  Riparian Wetland Restoration Zones
-  Fen Restoration
-  Noxious Weeds Restoration Areas
-  Disturbed Area Restoration
-  Native Meadow Restoration
-  Sky Mountain Park



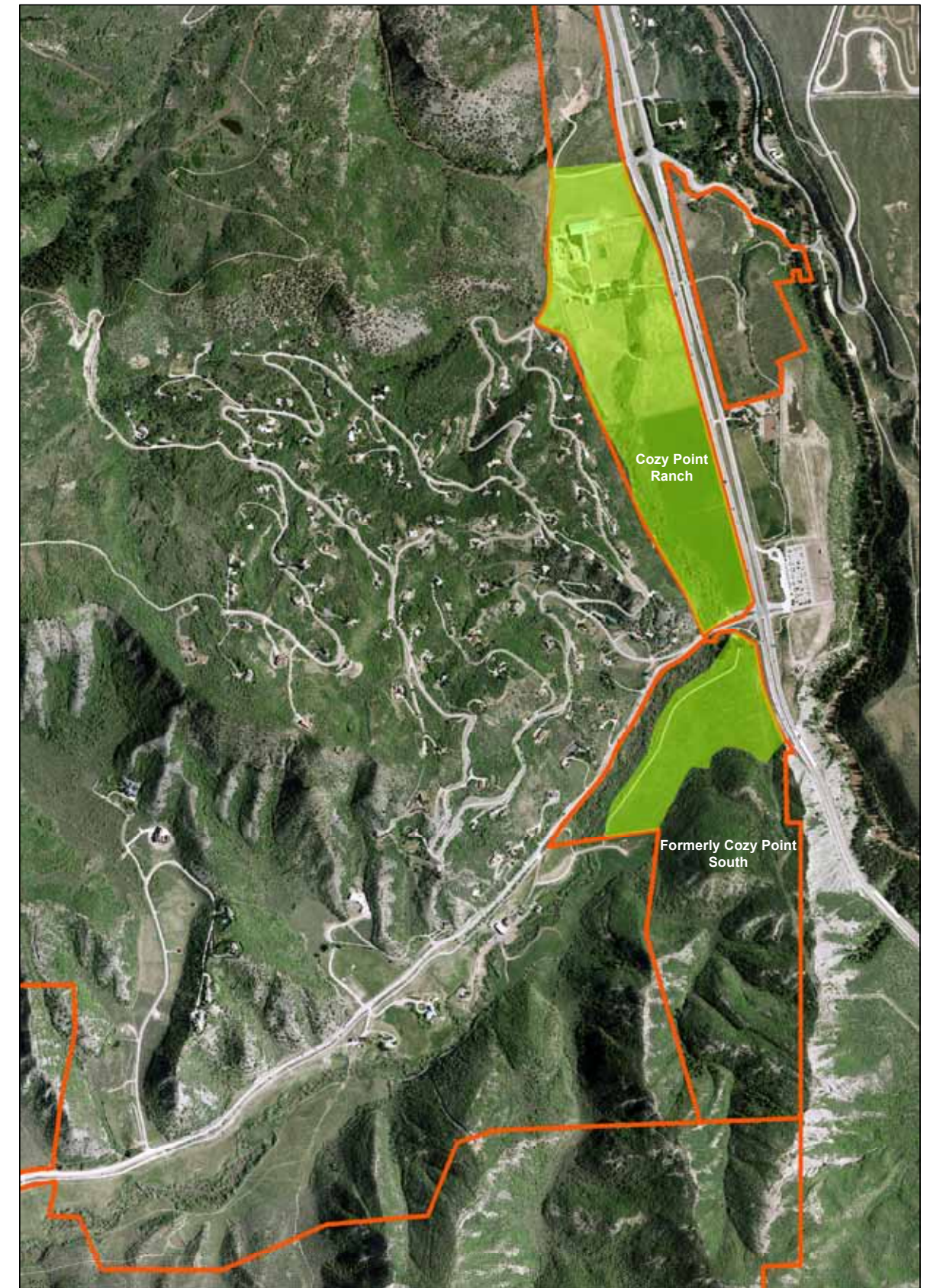
1 in = 3,000 feet



Agriculture

Historically, agriculture was the main economic driver for the Brush Creek Valley. There are portions of Sky Mountain Park that are still in agricultural production. Cozy Point Ranch and the pasture on what was formerly known as Cozy Point South is managed today for agricultural uses. Sustaining agriculture on portions of the park is important to provide a view into the history of the Upper Roaring Fork Valley, provide a commercial horse ranch facility, and provides a place for growing local food.

Both Cozy Point Ranch and Cozy Point South, which is now part of Sky Mountain Park share an irrigation system and are managed by the same ranch manager. The pasture on Cozy Point South will be managed by the leasee of Cozy Point Ranch since comanagement benefits both properties and is much more efficient than having separate managers. Cozy Point Ranch is managed under lease from the City of Aspen.



 Agricultural Areas
 Sky Mountain Park

AGRICULTURE

1 in = 774 feet



Surveys

The Biological report provided a great baseline for future management. Management indicator species were selected because they have special habitat requirements. By monitoring population trends for each of these species, the impact and effectiveness of management actions can be assessed and adapted as needed. Future surveys will also help capture the true range for any rare species that were detected in the original baseline. Adaptive management depends on continued surveys on Sky Mountain Park.

Actions

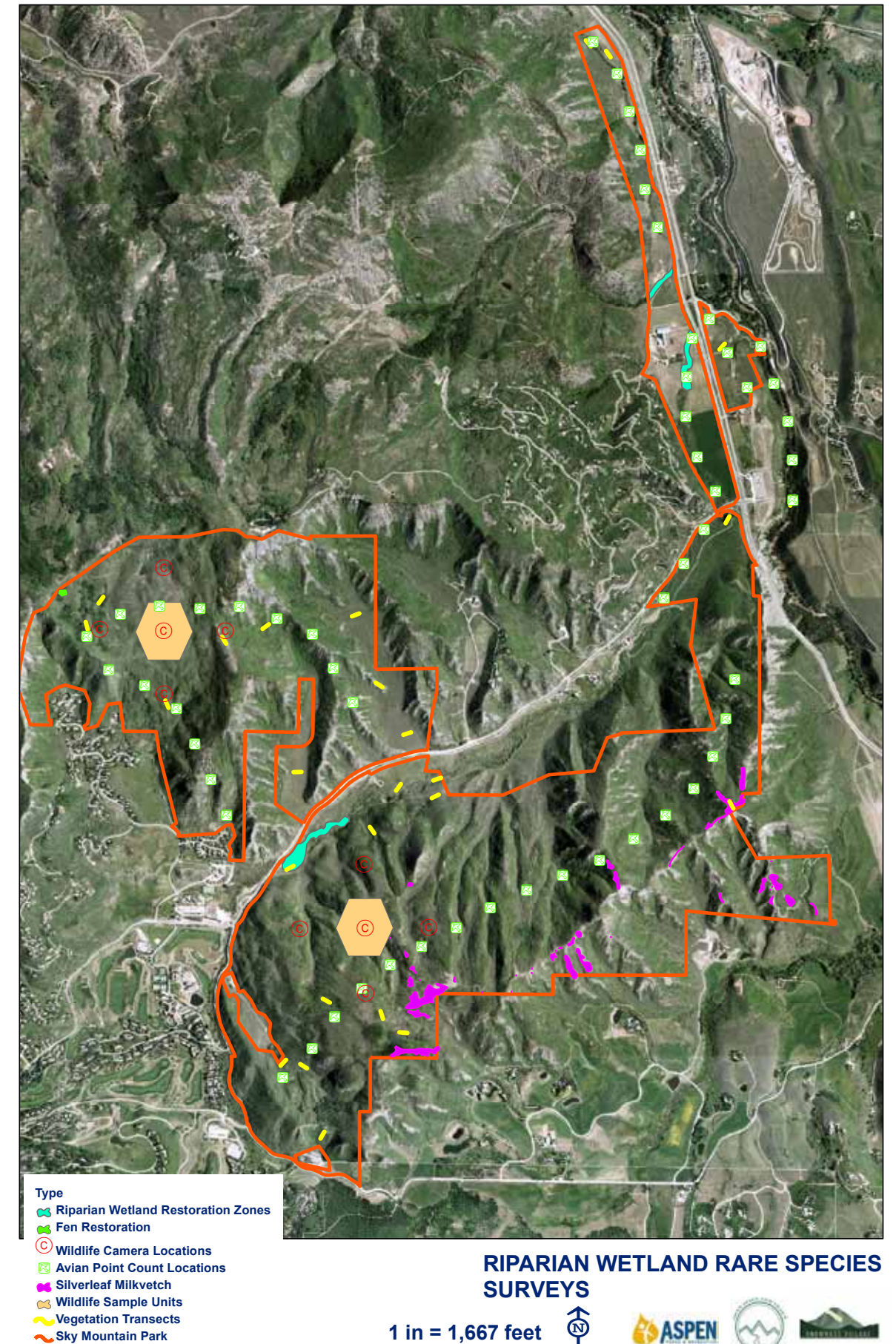
- Complete a thorough inventory of the silverleaf milkvetch (*Astragalus argophyllus* var. *martinii*), a state critically imperiled species.
- Continue avian point counts in a repeatable manner every three years.
- Monitor vegetation transects and establish new transects in areas slated for vegetation manipulation. Monitor vegetative cover, species richness, and the associated Floristic Quality Index on the baseline transects every 3 years.
- Work with Colorado Parks and Wildlife to determine the need for a mule deer movement study in and around Sky Mountain Park. A better understanding of habitat use and movement is necessary prior to making management recommendations for this species.

Riparian and Wetland Restoration

The biological report evaluated the proper functioning condition of riparian and wetland habitats on Sky Mountain Park. All habitats that did not meet the standard for a proper functioning condition were mapped as *Functional at Risk* and are slated for restoration.

Actions

- All mapped areas of Brush Creek that are rated *Functional at Risk* will be monitored and plans to restore these areas will be developed.
- Create a plan to restore the fen, protect it from trail users, and provide educational signage to explain the importance of this wetland.
- Realign existing trails and design new trails to be a minimum of 100 meters from wetlands and riparian areas where possible.



Recreation

Building an outstanding trail network on Sky Mountain Park that connects existing trail networks in Aspen and Snowmass Village will provide residents and visitors with breathtaking views and different types of trail options for hikers, bikers, and equestrians. The goal of this management plan is to provide a trail network that maintains trail grades that are sustainable, easy to maintain, and provide hiking, biking, and equestrian opportunities for all skill and endurance levels while providing large undisturbed areas for wildlife. All recreation use will be limited to developed trails. No off-trail use is allowed, unless authorized in this plan or by agency staff.

Throughout the area, including many trails that connect with the Sky Mountain Park Trail System, there exists plenty of intermediate to advanced grades. One goal heard from the community was to provide options for people not in peak physical shape and young riders to balance the overall system in the Roaring Fork Valley. The Viewline Trail built in 2011 was constructed with a goal of keeping the average trail grade below 7 percent. Once the Viewline Trail was constructed staff has seen through trail cameras many young mountain bikers and hikers using the trail throughout the summer.

Over 15 miles of trails exist on Sky Mountain Park. Some of the existing trails and old roads will be realigned to provide more consistent and sustainable grades. It is envisioned that approximately 14 miles of new trail will be created in the park with three new public trailheads.

Creating trailheads with adequate parking at strategic locations is a main goal of this plan. New trailheads are envisioned at Owl Creek Road, Hidden Valley Road, and Cozy Point Ranch. This will complement the existing trailheads at the Brush Creek Intercept Lot and Town Park providing parking and access for all types of users. Horse trailers will be accommodated at all trailheads except off Owl Creek Road due to the limited size of the area for the trailhead and restricted access to Owl Creek Road.

Dogs are prohibited on Sky Mountain Park except on-leash on the Highline, Lowline, Brush Creek, and Aspen Mass Trail. The Brush Creek Trail is currently closed to all users from December 1 – March 31 and closed to dogs from October 15 – May 15. The Rim Trail North is currently closed to dogs and the biological report recommends enforcement of this closure to protect wildlife habitat. Additional recreation opportunities with dogs will be explored on individual properties.

Many trail projects will incorporate volunteers to help design and build all reroutes on existing and new trails. Youth Corps will also be utilized for trail projects and some restoration. Youth corps will be allowed to camp on Sky Mountain Park to facilitate trail and restoration work.

Existing Trail Actions

- Continue to realign the Skyline Ridge Trail to provide more sustainable grades.
- Realign and provide the necessary maintenance on the existing equestrian trails.
- Assess the Highline and Lowline trails to ensure sustainable grades and good connections with all new trails and trailheads. Also investigate the existing and former equestrian trails in this area to see what separation of use can be accommodated.
- Survey wildlife use along the Brush Creek Trail corridor during the winters of 2012 and 2013 to determine how wildlife use and cross the trail corridor

and the potential for allowing Nordic skiing on the trail. The trail is currently not mapped as winter range for elk or mule deer, but there are wildlife concerns on most of the rest of the property, so this will be investigated to determine if human use of this corridor in the winter months will impact elk and mule deer during the critical winter months.

- Monitor the existing picnic areas to determine if any upgrades are necessary. The existing hitching post in the picnic area on the Skyline Ridge trail is in need of repair.

New Trail Actions

- Rimline Trail would use an old existing trail. Some reroutes and new trail segments will be necessary to ease the grades to make the trail more sustainable. The trail would intersect with Brush Creek Road at the location with best site lines to allow a safe crossing of Brush Creek Road. Signage would be installed on the trail and road to provide a safe crossing. The trail would then connect with the Brush Creek Trail.
- Cozyline Trail connects Cozy Point Ranch and the Brush Creek Trail to Sky Mountain Park. Separation of uses is not possible in this location. The trail will be created with good sight-lines and as few switchbacks as possible to lessen conflicts between users.
- Modify the existing island at the entrance to Brush Creek Road from Highway 82 to allow a safe equestrian crossing of Brush Creek Road to connect Cozy Point Ranch to Sky Mountain Park.
- Airline Trail will connect the Owl Creek Trail to the Cozyline Trail. This will replace the Radar Road in the future. OST is working with the Airport on this alignment and the final alignment may be different than what is proposed on the map.
- Flatline Trail is an equestrian and hiking connection to the Skyline Ridge Trail. This will allow separation of uses in this area. Once this trail is complete the Viewline Trail will be a mountain bike and hiking only trail.
- Cozy Point Loop Trail provides a trail opportunity out of Cozy Point Ranch. Nordic skiing opportunities will also be explored on Cozy Point Ranch.
- Ditchline Trail connects the Viewline Trail to the Skyline Ridge Trail. This alignment uses an old ditch and ranch roads till it reaches the old road that connects to the Skyline Ridge Trail. The old road to the Skyline Ridge Trail is way too steep and eroded. This road will be reclaimed and a new trail with sustainable grades will be built around the old road corridor.
- Highline to Viewline Connector Trail will create a loop opportunity from the Highline Trail. The type of uses will be determined based on the assessment of the Highline and Lowline listed in the existing trail management actions. This trail may be deemed unnecessary if alternative access can be obtained from the neighboring private landowners. There is an existing radio tower road that could be utilized in whole or part and would negate the need for this trail.
- Cozy Point South Loop Trail uses the old ditch and provides a short loop from Cozy Point Ranch or the Brush Creek Intercept Lot. No trail building will occur and signage will be installed to direct trail users around the agriculture pasture.

- Buttermilk Connector links Sky Mountain Park and Buttermilk via singletrack.

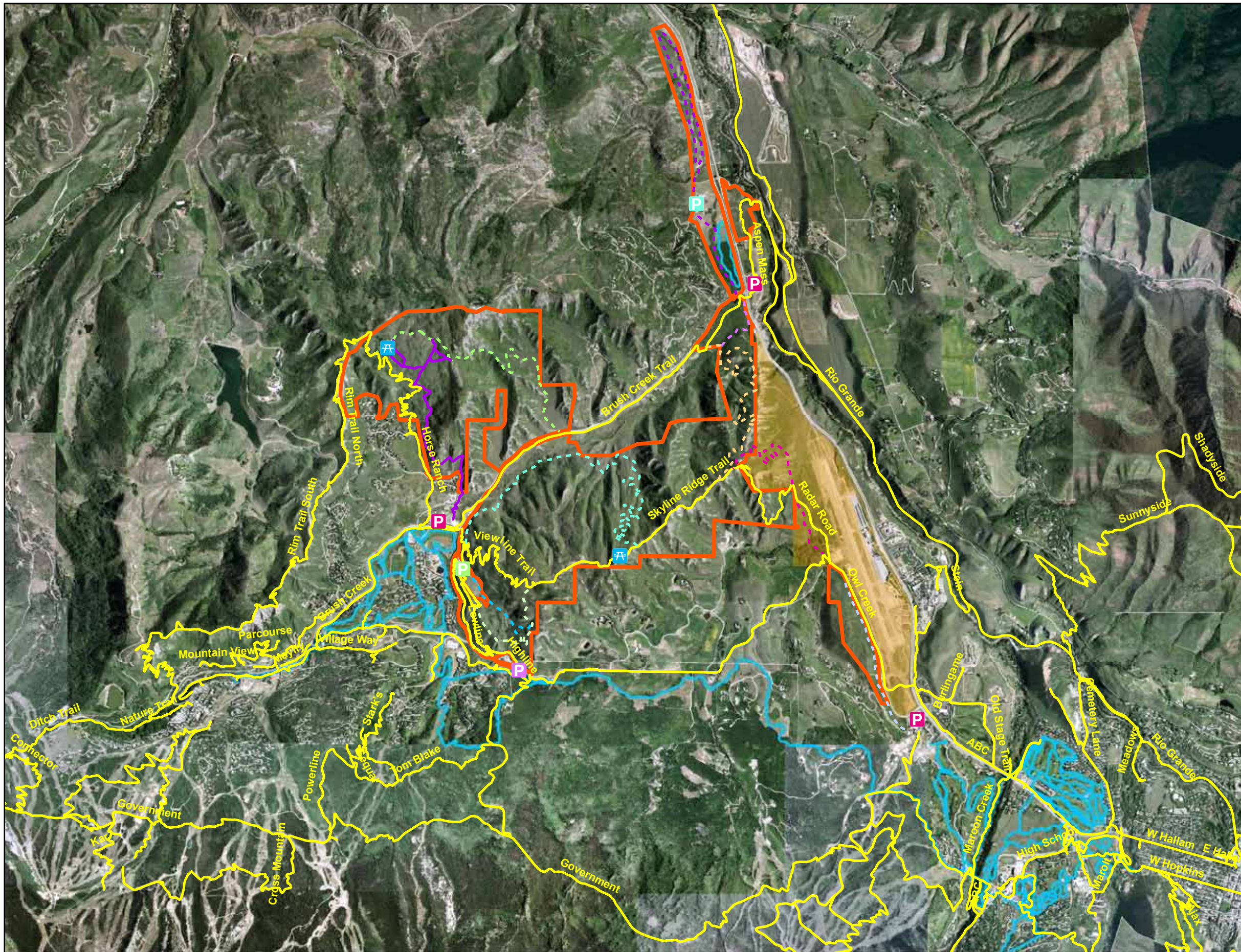
Trailhead Actions

- Create a plan to reopen the former trailhead on Owl Creek Road.
- Formalize an agreement with the Snowmass Chapel to utilize a portion of the cemetery property off of Highline Road for the creation of a trailhead that can accommodate horse trailers.
- Explore the possibility of allowing public parking at Cozy Point Ranch. This would allow horse trailers to access the new trails on Cozy Point Ranch and provide access to the Cozyline and Skyline Ridge Trail.

Commercial and Special Use Actions

- Create a permit system to allow limited equestrian commercial use on Flatline, Cozyline, Skyline Ridge, Radar Road, Ditchline, and Rimline Trails operating out of Cozy Point Ranch. Limited use will begin with a guided 4-6 person group two times a day only when trails are dry and open for public use.
- Continue to permit equestrian commercial use on the equestrian trails originating out of Town Park in Snowmass Village.
- Develop permit guidelines for other commercial uses, like bike or nature tours if there is demand.
- Allow only limited special uses to prevent conflicts with public use and impacts to natural resources. Limited special uses are events organized by Pitkin County, Town of Snowmass Village, and/or the City of Aspen. Non-profit organizations can obtain a special use permit if the event is determined by the agency partners to be consistent with the goals of this management plan and do not impact the natural resources. Special Use regulations may be adopted in the future if demand increases for events on Sky Mountain Park.





TRAILS AND TRAILHEADS

PROPOSED TRAILS

- Airline Trail
- Buttermilk Connector Trail
- Cozy Point Loop Trail
- Cozy Point South Loop Trail
- Cozyline Trail
- Ditchline Trail
- Flatline Equestrian Hiking
- Highline to Viewline Connection
- Rim Connector Trail

Existing Trailheads

PROPOSED TRAILHEADS

- Cozy Point Ranch
- Hidden Valley
- Owl Creek Road

- Equestrian Trails
- Main Existing Trails
- Picnic Areas
- Nordic Trails
- Sky Mountain Park
- Airport



0 0.5 1 Miles



Signage and Education

Installing consistent wayfinding and informational signage is critical for visitor use and enjoyment of the park. Educating visitors on the special natural resources, management actions, and cultural history is important to inspiring people to protect similar habitat and resources throughout the intermountain west.

Actions

- Use the Smuggler Mountain Open Space sign plan as a model for the type of signs and kiosks that will be used on Sky Mountain Park.
- Locate areas to place educational signage throughout the park. Work with environmental organizations like Roaring Fork Conservancy and Aspen Center for Environmental Studies to assist in educational sign design and placement.
- Continue and expand offerings for guided environmental education tours of Sky Mountain Park.

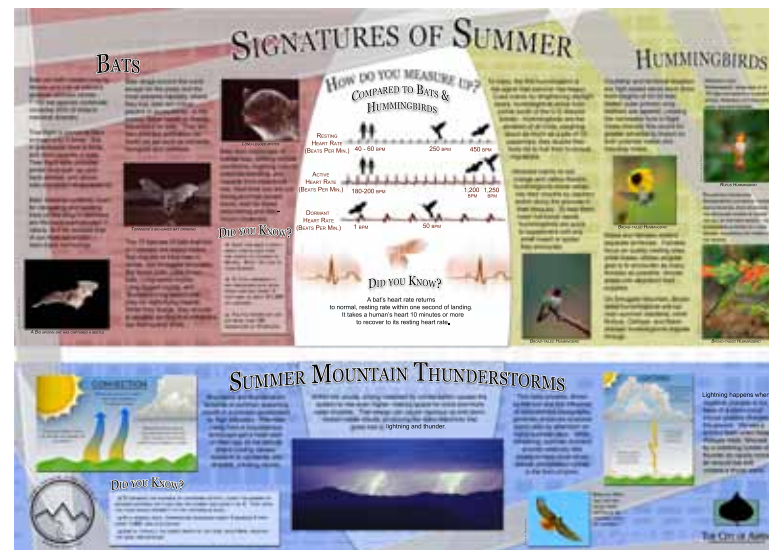


TABLE 1 - SKY MOUNTAIN PARK MANAGEMENT ACTIONS PRIORITIES AND COSTS

item	quantity	unit	unit cost	total	notes	entity responsible	Timing
NEW TRAIL PROJECTS							
Cozyline Trail	2.30	miles	\$6,200.00	\$14,260.00	Youth Corps will build the trail	OST, COA	2012
Rimline Trail	2.50	miles	\$1,920.00	\$4,800.00	Staff time to clear vegetation, perform maintenance on the old trail, and build reroutes.	OST, TOSV	TBD when TOSV decides on dog management on Rim Trail
Flatline Trail	1.00	miles	\$2,250.00	\$2,250.00	Staff time to layout and supervise. Roaring Fork Horse Council volunteers will build this trail.	OST,TOSV	2013
Airline Trail	1.50	miles	\$6,200.00	\$9,300.00	Staff time to layout and supervise. RFOV volunteers and staff time to build this trail.	OST, COA	TBD due to working out an agreement with the Airport
Viewline to Highline Trail	1.25	miles	\$2,250.00	\$2,812.50	Staff time to layout and supervise. Volunteers and some staff time to build this trail.	TOSV	obtained from the neighboring landowners and when TOSV decides on dog management on Hidden Valley
Ditchline Trail	3.60	miles	\$5,500.00	\$19,800.00	Youth Corps will build the trail	OST,COA,TOSV	2014
Cozy Point South Loop	0.50	miles	\$400.00	\$200.00	Trail is an old ditch. Staff time to clear some vegetation.	OST	2013
Cozy Point Ranch Loop	3.00	miles	TBD	TBD	COA is creating a sub area management plan for operations at Cozy Point Ranch. This trail will be included in that planning effort.	COA	TBD
Buttermilk Connector	1.20	miles	\$2,250.00	\$2,700.00	Staff time to layout and supervise. Volunteers and staff time to build this trail along the old ditch.	COA	2014
				SUBTOTAL	\$56,122.50		
EXISTING TRAIL PROJECTS							
Skyline Ridge Trail Reroutes	2.00	miles	\$6,200.00	\$12,400.00	Staff time, RFOV projects, Youth Corps	OST, COA	2012
Equestrian Trails on Upper North Mesa	3.50	miles	\$1,250.00	\$4,375.00	Staff time to supervise. Commercial operators and volunteers will maintain and realign trails.	TOSV	2012-2013
Highline and Lowline Trails	2.75	miles	\$1,250.00	\$3,437.50	Staff time to layout and supervise. Volunteers and some staff time to build any reroutes	TOSV	2014
Cozy Point Ranch Connection to Sky Mountain Park	TBD		TBD	TBD	Modify existing island on Brush Creek Road to allow equestrian and maintenance access	COA, OST	2012
				SUBTOTAL	\$20,212.50		
TRAILHEADS							
Owl Creek Road Trailhead	1.00	ls	\$12,000.00	\$12,000.00	Reopen old trailhead with improvements	TOSV	2012-2013
Hidden Valley Road/Cemetery	1.00	ls	\$25,000.00	\$25,000.00	Create new trailhead on Hidden Valley Road	OST,TOSV	2012-2013
Cozy Point Ranch	1.00	ls	\$2,000.00	\$2,000.00	Use existing parking area. Minor improvements and signage	COA	2013
				SUBTOTAL	\$39,000.00		
WILDLIFE IMPROVEMENTS							
Mountain Shrub Treatment	30.00	acre	\$600.00	\$18,000.00	Mechanical treatment with masticator or similar equipment	OST	2012
Mountain Shrub Treatment	60.00	acre	\$600.00	\$36,000.00	Mechanical treatment with masticator or similar equipment	OST	2014
Mountain Shrub Treatment	60.00	acre	\$800.00	\$48,000.00	Mechanical treatment with masticator or similar equipment and hand crews	OST	2016
Mountain Shrub Treatment	60.00	acre	\$800.00	\$48,000.00	Mechanical treatment with masticator or similar equipment and hand crews	OST	2018
Mountain Shrub Treatment	60.00	acre	\$800.00	\$48,000.00	Mechanical treatment with masticator or similar equipment and hand crews	OST	2020
Fence Removal	20.00	day	\$100.00	\$2,000.00	Remove wire and metal posts. Leave wood posts.	OST	2012-2015
				SUBTOTAL	\$200,000.00		

ASPEN REGENERATION

Monitor all aspen stands and determine restoration need	1.00	ea	\$2,500.00	\$2,500.00	Hire consultant to assess aspen condition and prescribe treatments if necessary	OST, TOSV	2013
SUBTOTAL			\$2,500.00				

SAGEBRUSH, GRASSLAND, FORMER AG AND DISTURBED AREA RESTORATION

Increase species diversity in the understory in sagebrush areas	20.00	acre	\$775.00	\$15,500.00	Work with Colorado Mountain College in Leadville to perform this project and monitor effects.	OST	2012
Plan to reclaim ponds and surrounding disturbed areas	1.00	ls	\$10,000.00	\$10,000.00	Hire consultant to prepare conceptual design	OST	2013
Reclaim ponds and surrounding disturbed area	1.00	ls	TBD	TBD	Cost and project scope to be determined	OST	2014
Restore old roads	16.00	acre	\$775.00	\$12,400.00	Rip and reseed old road surface. Weed control after seeding.	OST	2014
SUBTOTAL			\$37,900.00				

NOXIOUS WEED CONTROL

Plan	1.00	ls	\$1,500.00	\$1,500.00	Staff will create plan	OST, COA, TOSV	2012
Treat noxious weeds	90.00	acre	TBD	TBD	Staff from all jurisdictions will determine costs based on integrated pest management plan	OST, COA, TOSV	2012-2016
SUBTOTAL			\$1,500.00				

SURVEYS

Full survey of silverleaf milkvetch	1.00	ls	\$8,740.00	\$8,740.00	Consultant will survey entire park for rare plant and provide full report with management recommendations	OST, COA, TOSV \$1,200 for Upper North Mesa and Hidden	2012
Continue avian point counts	4.00	ea	\$3,000.00	\$12,000.00	Consultant repeat point counts established in 2011 every three years	OST	2012,2015,2018, 2021
Monitor vegetation transects	4.00	ea	\$4,000.00	\$16,000.00	Monitor vegetation transects created in 2011 and create new ones in areas of vegetation treatments.	OST	2015,2018, 2021
Mule deer study	1.00	ea	TBD	TBD	Work with Colorado Parks and Wildlife to determine if a mule deer study is needed in park and determine costs if feasible.	OST, TOSV, COA	TBD
SUBTOTAL			\$36,740.00				

RIPARIAN AND WETLAND RESTORATION

Monitor Functional at Risk rated sections of Brush Creek	1.00	ls	\$750.00	\$750.00	Staff with the assistance of the Roaring Fork Conservancy will monitor	OST,COA	2013
Create plan to restore fen	1.00	ls	TBD	TBD	Hire consultant to develop plan.	TOSV	2013
Realign trails that are within 100 meters of wetlands where possible	1.00	ls	TBD	TBD	Staff will map trails that need to be realigned and develop a cost.	OST, COA, TOSV	2013
SUBTOTAL			\$750.00				

SIGNAGE

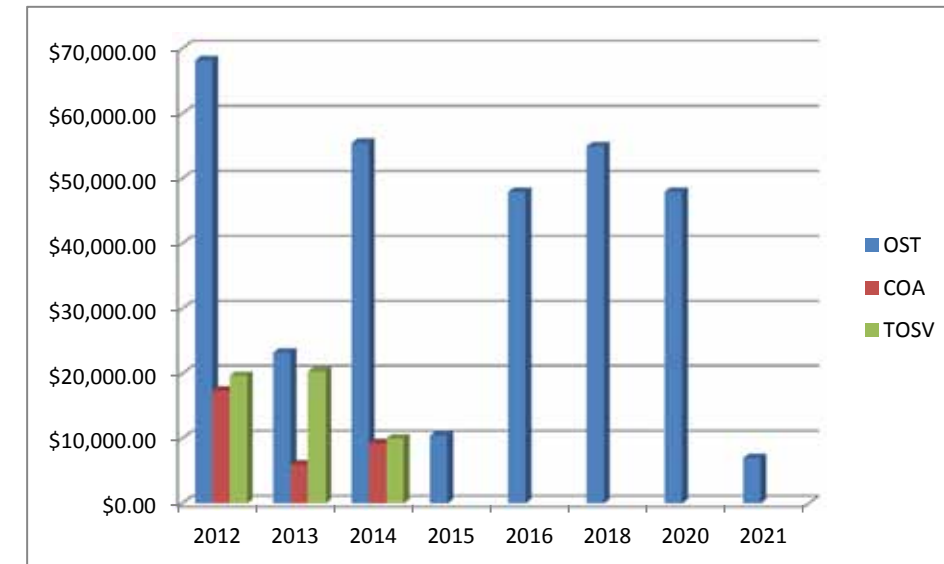
Double kiosks	3.00	ea	\$3,800.00	\$11,400.00	Place one each at Owl Creek and Hidden Valley Trailhead and one at entrance off of Owl Creek Trail	OST, COA, TOSV	2012-2013
Single kiosks	5.00	ea	\$2,000.00	\$10,000.00	Brush Creek Intercept Lot, Viewline Trail, Rim Trail, Town Park at beginning of equestrian trails.	OST, COA, TOSV	2012-2013
Directional signage	1.00	ls	TBD	TBD	An inventory and sign plan will be created	OST, COA, TOSV	2012
Educational signage	1.00	ls	TBD	TBD	An inventory and sign plan will be created	OST, COA, TOSV	2013
SUBTOTAL			\$21,400.00				

TOTAL \$416,125.00

TOTAL BY ENTITY*

	OST	COA	TOSV
2012	\$68,186.67	\$17,396.67	\$19,704.17
2013	\$23,266.67	\$5,941.67	\$20,379.17
2014	\$55,500.00	\$9,300.00	\$10,037.50
2015	\$10,500.00		
2016	\$48,000.00		
2018	\$55,000.00		
2020	\$48,000.00		
2021	\$7,000.00		
TOTAL	\$315,453.34	\$32,638.33	\$50,120.84

* These are cost estimates. Actual funding commitments will occur during the normal budget process for each jurisdiction.



TOTAL BY MANAGEMENT ACTION SECTION

