

Hermit Park Open Space Community Wildfire Protection Plan

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WUI map

Community Wildfire Protection Plan

Hermit Park Open Space
Larimer County, Colorado

1/4/2008

Introduction

This *Community Wildfire Protection Plan* (CWPP) was developed by the Larimer County Department of Natural Resources (DNR) using input from public meetings and a technical advisory group that was received during development of the *Resource Management and Implementation Plan for Hermit Park Open Space* (2007). Guidance and support in creating the CWPP was provided by the United States Forest Service, Colorado State Forest Service, and Larimer County Emergency Services. This CWPP supplements several Larimer County documents referenced in Appendix A. Information in this plan will be provided at a level of specificity determined by the Larimer County DNR and appropriate agencies.

The process of developing a CWPP can help a community clarify and refine its priorities for the protection of life, property, and critical infrastructure in the wildland-urban interface. It can also lead community members through valuable discussions regarding management options and implications for the surrounding watershed.

Community / Agencies / Interested Parties Involved

Representatives involved in the development of the Hermit Park Open Space CWPP are included in the following table. Their names, organizations, and roles and responsibilities are indicated below:

CWPP Development Team

Name	Organization	Roles / Responsibilities
Citizens of Larimer County who attended public meetings during the management planning process	Citizens of Larimer County	Input in development of CWPP and decision making – community risk and value assessment, development of community protection priorities
Meegan Flenniken, Emily Saeli Staychock	Larimer County Department of Natural Resources	Primary development of CWPP and decision making – community risk and value assessment, development of community protection priorities, and establishment of fuels treatment project areas and methods
Technical Advisory Group (See Appendix F)	Participants on the technical advisory group for the <i>Resource Management and Implementation Plan for Hermit Park Open Space</i> (2007)	Input in development of CWPP and decision making – community risk and value assessment, development of community protection priorities
Boyd Lebeda, District Forester, Fort Collins District	Colorado State Forest Service	Technical planning assistance and approval of CWPP process and minimum standards. Provided input and expertise on forestry, fire, fuels, and FireWise concepts.
Tony Simons, Emergency Services Specialist	Larimer County Wildfire Safety Program	Provided input and expertise on hazard assessment, defensible space, and FireWise concepts.
Dick Edwards, USFS	Relevant federal land management agencies (USFS, BLM, etc.)	Provided input and expertise on federal lands forestry, fire and fuels, and FireWise concepts.

Identification of Values at Risk

Using technology and local expertise, the Larimer County DNR has developed a base map and narrative of the community and adjacent landscapes of interest. This map will act as a visual aid from which the Larimer County DNR can assess and make recommendations. The base map includes, at a minimum, the following:

- Inhabited areas and values at potential risk to wildland fire
- Areas containing critical human infrastructure—such as evacuation routes, municipal water supply structures, and major power or communication lines—that are at risk from wildfire
- A preliminary designation of the community's Wildland Urban Interface (WUI) zone.

Property Risk Assessment

The purpose of the property risk assessment is to help to prioritize areas for treatment and identify the highest priority uses for available financial and human resources. This section is divided into five areas of concern:

- Fuel Hazards – An evaluation of vegetation conditions within the community and on adjacent lands. Products included are:
 - Larimer County Wildfire Safety Program –Property Wildfire Hazard Review
 - Larimer County Fuel Hazard Map

- Risk of Wildfire Occurrence – An evaluation of the probability of fire ignition within the community and surrounding lands.

- Risk to essential infrastructure – An evaluation of the vulnerability of structures within the property to ignition from firebrands, radiation, and convection. Also includes an evaluation of risks to essential infrastructure such as evacuation routes, water supply structures, and power and communication lines. Products may include:
 - Structure Assessment (construction materials, structure access, defensible space, etc.)
 - Infrastructure Assessment (utilities, water, community roads, power lines, etc.)

- Risk to Other Values – An evaluation of risk to other values such as wildlife habitat, recreation and scenic areas, water supplies, and landscapes of historical, economic or cultural value.

- Local Preparedness and Firefighting Capability
 - Initial response to all fire, medical and associated emergencies is the responsibility of the Estes Park Fire Department. Wildland fire responsibilities of Larimer County, Colorado State Forest Service, United States Forest Service, Bureau of Land Management and the National Park Service are described in the current *Larimer County Annual Operating Plan*. All mutual aid agreements, training, equipment, and response are the responsibility of the local fire department and the agencies listed above.

Hazard Reduction Priorities

Please refer to the attached prioritized list of needs regarding fuel reduction treatments within the WUI zone.

- Fuel reduction needs (Attached map identifying treatment types and ways to reduce structural ignitability.)
- Fire response needs

Action Plan

Using input gathered from the citizens of Larimer County and the technical advisory group during the management planning process, the Larimer County DNR has developed and attached an action plan which identifies roles and responsibilities, funding needs and timetables listed in Hazard Reduction Priorities. The core team will meet annually to evaluate progress and mutually agree on treatment priorities.

In cooperation with the Larimer County Fire Education Group, the Larimer Fire Council, and the Estes Park Fire Department, the Larimer County DNR supports and promotes Firewise activities as outlined in the Larimer County Fire Plan. The Larimer County DNR strives to reduce structure ignitability through meeting Larimer County Building Code Requirements and utilizing Colorado State Forest Service FireWise Construction Fact Sheets.

The following representatives / agencies have reviewed and support this *Community Wildfire Protection Plan*.

Larimer County Department of Natural Resources

Estes Park Fire Department

Fort Collins District
Colorado State Forest Service

USDA Forest Service

Appendix A: Reference Documents

Larimer County Fire Plan a Community Wildfire Protection Plan (Larimer County 2004)

Larimer County Wildfire Mitigation Plan (CSFS 1998)

Recommendations for Improving Wildfire Safety in Larimer County (CSFS 1997)

Larimer County Subdivision Wildfire Hazard Review (Larimer County/CSFS 2002)

Larimer County Annual Operating Plan (updated annually)

FEMA—Northern Colorado Natural Hazard Mitigation Plan (2004)

Resource Management and Implementation Plan for Hermit Park Open Space (2007)

Appendix B Community Values At-Risk

The following values at-risk from the threat of wildfire were identified by citizens of Larimer County at public meetings during the creation of the *Resource Management and Implementation Plan for Hermit Park Open Space* (2007). The meetings took place in Estes Park on May 17 and August 31, 2007, and in Loveland on May 21 and September 6, 2007. The DNR staff, and the technical advisory group also provided input and technical information during the management planning process; see Appendix F for a list of participants on the technical advisory group.

While the public meetings did not specifically address wildfire risk and mitigation, the values and concerns discussed for the management of Hermit Park Open Space can be applied to values at risk from wildfire. In a few cases the values directly addressed wildfire risk concern. Larimer County Department of Natural Resources staff also added input in creating the values at-risk list.

- Human life: Safety of visitors in front and back country locations
- Human life: Safety of handicapped visitors
- Recreation: hiking, mountain biking, horseback riding on trails, and trailheads.
- Opportunities for environmental education
- Access roads
- Campgrounds
- Structures: cabins, picnic shelters, amphitheaters; bathroom/shower houses, the historic “Hermit’s Cabin” and “Line Shack”, maintenance garages, and the caretaker’s house
- Power generator at the group use area
- Utility lines at entrances and at the group use area
- Trees and forest health (including character trees and forest diversity); concern with invasive plants, and insect pests including mountain pine beetle
- Watershed: the headwaters of Big Gulch Creek originate and flow eastward through the property before joining into the Little Thompson River
- Riparian community in the meadow wetlands
- Wildlife and wildlife habitat, including elk severe winter range and major elk migration corridor north to south and east to west.
- Access for wildfire response, evacuation (ingress, egress)
- Aesthetics, including the viewshed from Highway 36
- Domestic animals on-site with visitors (horses and dogs)
- The experience of remoteness and privacy provided to visitors
- The buffer that Hermit Open Space provides to adjacent conservation easement and USFS lands
- Rocky Mountain cinquefoil plant community that has been listed by the Colorado Natural Heritage Program as “B2”, or “high biodiversity significance”

Appendix C Hazard Reduction Priorities

Larimer County Department of Natural Resources (DNR) staff will implement the following actions to address wildfire risk based on the values at risk listed by the citizens of Larimer County, DNR staff, and the technical advisory group during the management planning process for the *Resource Management and Implementation Plan for Hermit Park Open Space* (2007). By ranking proposed actions into categories of high, medium, and low priority, DNR staff can choose the order in which actions are implemented according to pertinence and availability of resources.

High

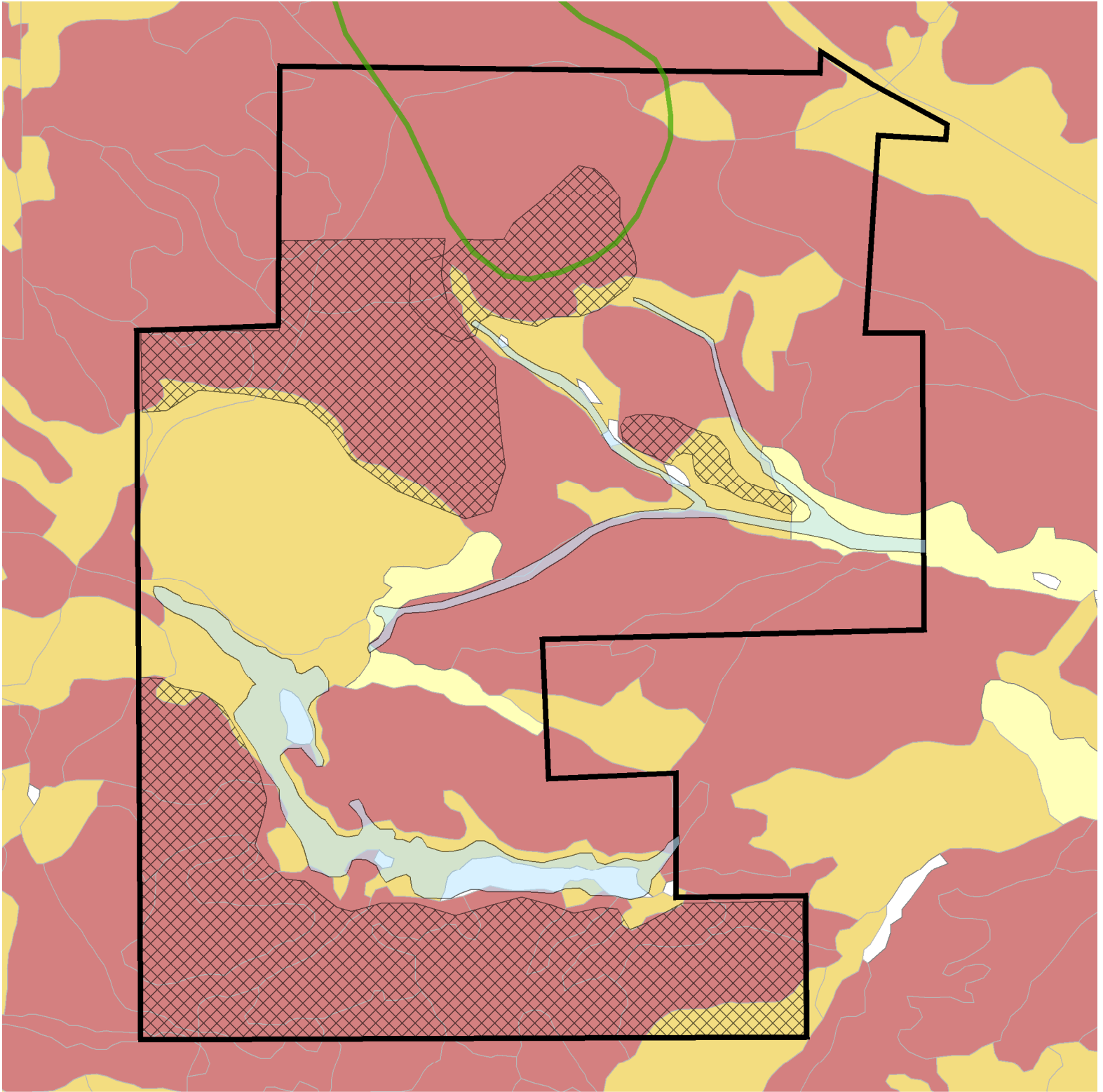
- Regulate use of campfires; limit them to designated fire grates
- Educate visitors about wildfire risk and the proper use of campfires, as well as campfire bans during high wildfire risk periods
- Ensure effective ingress/egress routes for firefighter response and evacuation
- Create an emergency evacuation plan, including evacuation of people with disabilities as well as horses, that will be shared with the visiting public
- Implement forest management activities including mechanical thinning and/or prescribed burning.
- Create defensible space along the roads in high wildfire-risk areas
- Create defensible space within and around campgrounds in high wildfire-risk areas
- Maintain defensible space around structures and utilities, including removing flammable vegetation within 15-feet from structures, avoiding stacking firewood within 30-feet and locating propane tanks away from structures as feasible
- Continue partnering with CSFS and Larimer County Emergency Services to address forest management and wildfire mitigation, including prescriptions for thinning stands, creating defensible space, and addressing forest health concerns (especially mountain pine beetle infestations)
- Continue to apply for grants to implement wildfire mitigation projects
- Provide emergency responders with a map of the open space that clearly identifies roads, campgrounds, trails, trailheads, cabins and locations of other structures.

Medium

- Collaborate with the USFS and private landowners to conduct forest management and fuels mitigation along shared boundaries
- Contract with the CSFS to develop a forest stewardship implementation plan for the open space including forest inventory, prescriptions for thinning stands, creating defensible space, and addressing forest health concerns

Low

- Institutionalize annual review and update of the CWPP as part of Larimer County DNR staff duties



Appendix E

Hermit Park Open Space Background

Introduction

Hermit Park Open Space, comprising 1,362 acres, is located in the Estes Valley, approximately 2 miles southeast of the Town of Estes Park along US Hwy 36. Hermit Park Open Space was purchased by Larimer County and partners, for its natural, visual and outdoor recreational values.

Hermit Park Open Space is geographically located in the Southern Rocky Mountains and includes a variety of topographic features including open high meadow grasslands, wetland meadow draws, rounded granite rock outcrops and moderately steep forested slopes. The property ranges from 7,880 feet to the highest point at 8,964 feet in elevation at the western extent with multiple peaks and ridges within the boundary.

Surrounding lands are a combination of large private lands, private lands protected with conservation easements and Roosevelt National Forest. Hermit Park Open Space is predominantly bordered on the south and portions of the east and west by Roosevelt National Forest, providing continuity of these protected lands. The Homestead Meadows trail system, an approximately 12-mile natural surface trail system leading to historic homestead cabins, lies to the south and is connected by trail to Hermit Park. To the north and remaining east and west portions, there are large private lands. Meadowdale Conservation Easement lands (two separate conservation easements held by Estes Valley Land Trust) are along portions of the north boundary and northeast boundary. The property is bordered in part along the north boundary by US Hwy 36.

Once part of the Crocker Ranch, Hermit Park Open Space was operated as part of a large livestock operation. The best known history of the open space is that it was occupied by a hermit named Dutch Louie who squatted on the Crocker Ranch, and built a 2-storey log cabin around 1910. The structure still stands although Dutch Louie was allegedly hanged for livestock rustling. There is also a one-storey log cabin or line shack still on-site that was used by Crocker Ranch cowboys when they were tending livestock in the area.

Hermit Park Open Space was acquired by Larimer County in February 2007, with the intent to protect the native vegetation and wildlife populations, preserve scenic views, and provide outdoor recreational opportunities. This property was purchased in partnership between Larimer County, the Estes Valley Land Trust, Town of Estes Park, Estes Valley Recreation and Park District, City of Loveland, City of Fort Collins, private donors and in part with funds from Great Outdoors Colorado (GOCO), and therefore, is subject to a deed of conservation easement, held by the Estes Valley Land Trust. The property was previously owned by Hewlett Packard (and then deeded to Agilent Technologies, Inc. in 1999) since 1967 and was managed as a private retreat for the

company's employees. The property will be managed and operated by the Larimer County Department of Natural Resources (DNR).

Natural Resource Values

Hydrology

The headwaters of Big Gulch Creek originate and flow eastward through the property before joining into the Little Thompson River. Small tributaries feeding the mainstem of Big Gulch Creek flow through the large wetland complexes on-site and provide important habitat needs, water, cover and forage, for wildlife. In addition, there are two large wetland communities on the property that were surveyed and ranked by Cooper and Merritt in their 1996 wetlands survey of Larimer County and meet both the Clean Water Act and United States Fish and Wildlife Service definitions of a wetland. In the past 20 years, cylindrical plastic piping or tiles were laid in the upper portions of this wetland to drain the area that is currently developed for the group picnic site.

Montane Forests

The montane forest on Hermit Park Open Space ranges from open stands of ponderosa pine at the lowest elevations to mixed ponderosa pine and Douglas fir at mid-elevations and finally to lodgepole pine at the highest elevations. These montane forests are broken up by pockets of aspen and open meadows and include a diverse array of native understory species including wax currant, mountain muhly, blue grama, alpine timothy, mountain brome, and others.

Wetlands and Riparian Areas

There are two large wetland communities on the property that are important for their highly productive habitat, ecological benefit, and provision of significant vegetation diversity to the Hermit Park landscape. Both wetlands have been surveyed and ranked by Cooper and Merritt in their 1996 wetlands survey of Larimer County and meet both the Clean Water Act and United States Fish and Wildlife Service definitions of a wetland. The southern large wetland is dominated by herbaceous wetland plants (three-square, tufted hairgrass, timothy, rush, sedge, redtop, etc.) and has been ranked "4-high" due to its pristine condition, little sign of human impact, high functional value, large extent and known or high likelihood of sensitive species. The northern wetland/riparian area is dominated by both riparian shrubs (sandbar willow, birch, alder, and snowberry) and herbaceous plants (rushes, sedges, etc.) and has been ranked a "3 – medium" because, while it has pristine condition with little impact, it only has probable habitat for sensitive species.

The additional numerous riparian drainages that bisect the property and feed Big Gulch Creek include more mesic vegetation including cottonwood, plum, aspen, willow and others.

Rare or Endangered Plant Species

The northwest portion of the property is identified by the Colorado Natural Heritage Program as a "B2" or "high biodiversity significant" site (Figure 2) due to the presence of

Rocky Mountain cinquefoil (*Potentilla rupincola*) (CNHP ranking “G2S2”; USFS ranking “Sensitive Species”). Imperiled both globally and state-wide, there are only 23 known populations (19 of which are in Larimer County) of this rare flowering plant in the world.

Wildlife

The entire Estes Valley Area, including Hermit Park Open Space, plays a crucial role in providing wildlife habitat for a variety of species including migratory big game, state threatened species, and globally rare species. An important wildlife feature of the open space is the gap it fills in providing an uninterrupted connection with Roosevelt National Forest and the Meadowdale Conservation Easement lands allowing movement for migratory species and their predators. The sheer size of the connected lands in this corridor provides habitat for wildlife that require intact ecosystems to sustain their habitat needs and home ranges.

Due to the diversity of habitat types on Hermit Park Open Space, the property supports a variety of wildlife including elk, deer, great-horned owl, Aberts’ squirrel, Colorado chipmunk, mule deer, mountain lion, bobcat, moose, black bear, vole, amphibians, butterflies, songbirds, raptors, and many other species. The Division of Wildlife shows the open space as prime elk severe winter range and part of a major elk migration corridor north to south and east to west.

Rare or Endangered Wildlife

The property has the potential to support the state imperiled boreal toad (*Bufo boreas boreas*) (CNHP ranking “G4S1” – globally common, state rare; and State of Colorado “T1” ranking - “threatened”), statewide vulnerable wood frog (*Rana sylvatica*) (CNHP ranking G5S3 – globally secure, state vulnerable; and USFS “Sensitive” ranking) and a state special concern species, the northern leopard frog (*Rana pipiens*). While an amphibian survey conducted in July 2007 resulted in no species found, the potential habitat does exist on-site to support these species.

Aesthetics

Hermit Park Open Space provides a scenic backdrop to US Highway 36, the main access corridor from the Front Range to Estes Park and Rocky Mountain National Park. The spectacular open meadows and forests interspersed with meadows visible from US Highway 36 create an appealing backdrop for visual aesthetics. On a clear day, Longs Peak, Twin Sisters and Kruger Rock are visible from the open space. Unique and interesting rock outcrops dot the landscape and create a feeling of isolation and solitude within the property. There are a few structures on the open space that are within view corridors including those in the open near the group use area and the flag pole atop a rock outcrop near the Line Shack, many of which will be removed.

Infrastructure Values

Buildings and Recreational Amenities

The site currently has a number of facilities and amenities developed during Hewlett

Packard's and Agilent's ownership. These amenities include 15, 350 square foot (s.f.) log camper cabins with decks, outdoor fire grates, picnic tables, bunk beds, small cabinet with counter space and propane heaters, cook stoves and lights; 5 camping areas with a total of 75 campsites (each equipped with fire grate and picnic table); 3 granite vault toilets; a corral area with a water tank; a 40-acre group picnic area (including a band stage, volleyball court, large picnic shelter, shower house with flush toilets, outdoor kitchen/grill with propane cook stoves, a large charcoal grill, a walk-in cooler, refrigerator, two large storage garages, concession stand, playground structures, picnic tables, horseshoe pits and a large generator); two historic cabins; and, an 8,000 gallon dump station for recreational vehicles. Also on-site near the entrance are a ~2,000 s.f. caretaker's house (3 bedroom, 1 bathroom, living room, office, deck and 2-car garage), a large 1,536 s.f. maintenance garage with storage and office space, and a 1,122 s.f. storage building/wood shop all serviced with electricity, well water, septic system and phone service.

Trails

Currently, there are approximately 3 miles of natural surface trails on the property. Two of the trails lead onto Roosevelt National Forest and connect to either the 12-mile Homestead Meadows Trail System or lead to the summit of Kruger Rock. Trails within Hermit Park Open Space are being evaluated for their sustainability and for their fit within a larger recreation planning framework both on-site and with the USFS as well as their locations and impacts to sensitive plant and wildlife species.

Roadways and parking

There are nine miles of gravel access roads within Hermit Park Open Space. The roads are generally in good condition, although they need some drainage work and resurfacing to meet county standards. There are two, two-track access roads, one leading into the Meadowdale Conservation Easement lands to the northeast and the other to the southeast onto USFS lands. There is no public access on either roadway, however in the event of an emergency, Larimer County has secured a memorandum of agreement with Meadowdale Ranch so responding personnel and emergency vehicles can access the property through the Meadowdale Conservation Easement.

Public Facilities, Utilities and Services

Fire protection. Hermit Park Open Space is served by the Estes Park Fire Department located at 901 N. St. Vrain.

Electricity is available to the manager's residence on Highway 36, provided by the Town of Estes Park. A diesel powered generator provides electricity to lights and a walk-in refrigerator at the group use area.

Public safety. Larimer County DNR ranger staff are responsible for regulation and law enforcement at Hermit Park Open Space. However, Larimer County Sheriff's Department and other law enforcement agencies are available to assist in responding to

emergencies and preventing criminal activity. DNR staff also provide visitor assistance and emergency and medical needs. The Estes Park Ambulance Service responds to more serious medical emergencies while the Larimer County Search and Rescue team of the Sheriff's Department conducts rescues.

Wildfire Risk

The montane forest on Hermit Park Open Space ranges from open stands of ponderosa pine at the lowest elevations to mixed ponderosa pine and Douglas fir at mid-elevations and finally to lodgepole pine at the highest elevations. These montane forests are broken up by pockets of aspen and open meadows and include a diverse array of native understory species. There are numerous down and dead trees on the southern and western boundaries and into USFS lands from past infestations of western spruce budworm. This defoliating insect eats needles of spruce, Douglas fir, and other fir species in its caterpillar stage and was prevalent in the area in the 1980's. To maintain a healthy forest defined as a diverse species composition, age classes and structure, management activities will include the use of mechanical thinning and/or prescribed burning. A forest stewardship plan will be developed in partnership with the Colorado State Forest Service to further evaluate the current conditions of the forest and strategize phasing and management actions. Any structures within the forested areas of the property should meet wildfire-defensible zone recommendations including removing flammable vegetation within 15-feet from structures, avoiding stacking firewood within 30-feet and locating propane tanks away from structures as feasible. See Appendix C for a map of the property showing wildfire risk as well as priority management areas for 2008-2015.

Completed Wildfire Mitigation Projects

In 2007 the Larimer County DNR completed a memorandum of agreement with Meadowdale Ranch for an emergency access easement through their property to provide a secondary access to Hermit Park Open Space for responding emergency and fire personnel and evacuation purposes. The Larimer County DNR also worked with Larimer County Emergency Services to create defensible space around all structures in 2007, via grant funding from CSFS. This defensible space work, which reduces structural ignitability, is indicated on the Hermit Park Open Space Wildfire Risk and Mitigation Treatment Priorities Map by the "2007" polygon. In addition, the DNR inspected and upgraded all fire grates on the property.

Future Infrastructure Additions

As infrastructure is added to the Hermit Park Open Space per the *Resource Management and Implementation Plan for Hermit Park Open Space* (2007), additional wildfire mitigation will be addressed through the annual CWPP review process.

Appendix F
Technical Advisory Group for the *Resource Management and Implementation Plan*
for Hermit Park Open Space (2007)

Core Team

- Meegan Flenniken, Resource Management & Planning/Project Manager
- Dan Rieves, Blue Mountain District Management
- K-Lynn Cameron, Recreation and Open Space Planning
- Gary Buffington, Director Parks and Open Lands
- Chris Fleming, Hermit Park Open Space Management

User Groups and Subject Experts

- Joe Andrews, Larimer County Horseman Association (equestrian)
- Ed Seely, Colorado Mountain Club (hiking)
- Barb Allan, Diamond Peaks Mountain Bike Patrol (mountain biking)
- Al Stevens, Good Sams Club (RV camping)
- Boyd Lebeda, Colorado State Forest Service (forest stewardship)
- Rick Spowart, Division of Wildlife (wildlife, hunting)
- Doug Robinson, Rocky Mountain Elk Foundation (hunting)
- Scott Roderer, Audubon (birding)
- Stephanie Neid, Colorado Natural Heritage Program (ecology/conservation)
- Jim Pickering, Local Historian (local history)
- Rodney Ley, CSU Outdoor Adventure Program (rock climbing)
- Andre Duvall, Parks Plan Task Force (liason)

Partners and Agencies

- Randy Repola, Town of Estes Park
- Bill Pinkham, Estes Valley Land Trust
- Stan Gengler, Estes Valley Recreation and Parks District
- Gary Mathews, Estes Valley Trails Committee
- Kevin Cannon, United States Forest Service
- Larry Gamble, Rocky Mountain National Park
- Deb Eley, City of Loveland Natural Areas Program

Larimer County Staff Subject Experts

- Jerry White, Land Transactions/Planning, DNR
- Maxine Guill, Weed Management, DNR
- Joel Wykoff, Trails Construction and Management, DNR
- Joe Temple, Engineering and Design, Engineering Department
- Rick Goltz, Facilities and Maintenance, DNR
- Doug Ryan, Water, Septic and Health Requirements, Health Department
- Tony Simons, Wildfire Safety and Emergency Services, Sheriff's Department

Hermit Park CWPP

