



BEAVER BROOK

W A T E R S H E D

OPEN SPACE MANAGEMENT PLAN CLEAR CREEK COUNTY COLORADO

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BEAVER BROOK WATERSHED MANAGEMENT PLAN

Approved by the
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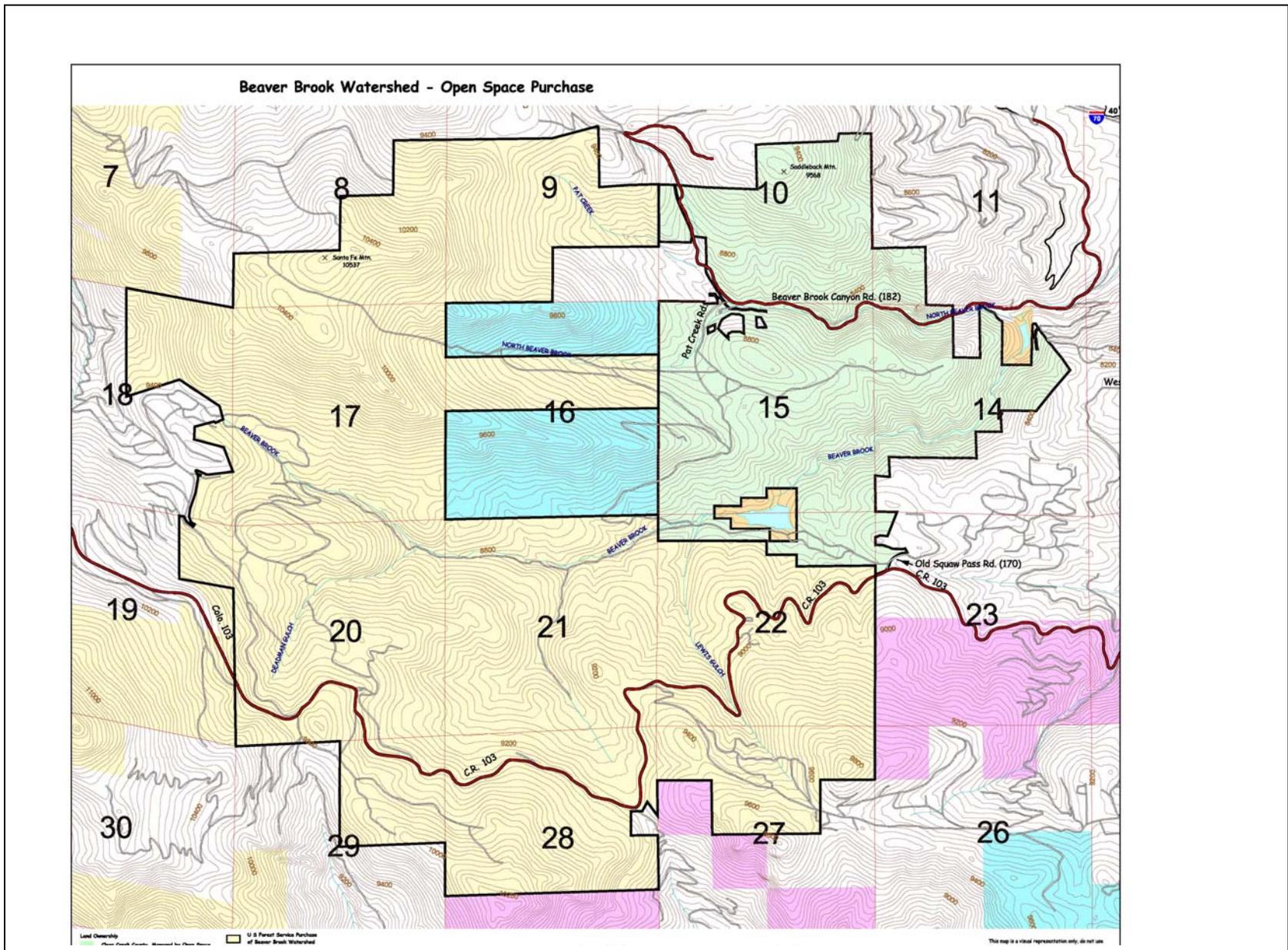
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MAP 1: Beaver Brook Watershed – Open Space Purchase



**EXECUTIVE SUMMARY:
BEAVER BROOK WATERSHED
MANAGEMENT PLAN**



Beaver Brook Watershed (BBW) is the newest Open Space parcel in Clear Creek County. It is located 3.5 miles west of Bergen Park on Squaw Pass Road, the westward continuation of Jefferson County Route 66. Its stunning beauty encompasses a relatively intact ecosystem, joining with surrounding

lands to form a 17-mile wildlife and open space corridor from the Mt. Evans Wilderness to Elk Meadow Park in Evergreen. Beaver Brook Watershed Open Space consists of 1,442 acres. The watershed itself stretches beyond the Open Space area, encompassing a total of 6,000 acres, and serves as the water source for the Clear Creek High School and 500 homes on Lookout Mountain.

Purpose of the Management Plan

The purpose of the management plan is to provide a comprehensive, useful, flexible tool to manage public recreation opportunities while protecting the natural resources in the BBW. The management plan has been developed with invaluable input from a wide variety of constituencies and citizens.

The priority for decision making in this management plan is the protection of the natural resources in the BBW. All the recommendations in this plan are considered in view of the standard of protecting natural resources. For this reason, the allowed uses are non-motorized and include hiking, mountain biking and horseback riding. Management techniques to limit

overuse or resource damage are recommended. One or two trails may be designated hiking only or hiking and equestrian only. Hunting and fishing are also allowed, with limitations. The Open Space includes two management area designations: Sensitive Areas, covering primarily riparian areas, or areas along streams and creeks, and Natural Areas, which include the remainder of the parcel. Sensitive Areas may be closed to visitor use, or other protective actions may be taken as needed to protect natural resources.

Because strong public support exists for the BBW to maintain or improve its ecosystem integrity, facilities and amenities will be limited to only those that are absolutely necessary. Trails are designed to use the existing road system as much as possible, and several old roads are recommended for closure and revegetation. New trail development will be kept to a minimum.

One of the major recommendations is to explore management options and sources of funding. Clear Creek County Open Space (CCCOS) will need secure sources of funding for BBW management in the future. These issues are discussed in the chapter on management.

Included in the plan are implementation actions, time frames and estimated costs. A list of organizations and acronyms used often in this plan is shown in Appendix G, page 62.

EXISTING CONDITIONS



CLEAR CREEK COUNTY OPEN SPACE PROGRAM

The Open Space Program began when the voters approved a mill levy increase in 1999 for the purposes of open space land acquisition and management. This has resulted in an approximate budget of

\$180,000 per year at this writing. Clear Creek County specifies that 25% of this amount can be used for administration and site management.

The Open Space Commission (OSC) was appointed in April, 2000. The mission of the OSC is “to preserve and maintain the county’s unique character and natural environment by protecting our streams, woodlands, meadows, wildlife habitat, recreational opportunities, prominent vistas, geologic features, and cultural resources to enhance the quality of life for residents and the enjoyment of the out-of-doors for residents and visitors.”

Existing Open Space

The United States Forest Service (USFS), the municipalities of Clear Creek County, the City of Denver Mountain Parks (DMP), the Colorado Division of Wildlife (CDOW), the Georgetown Historical Society, the Colorado Historical Society, the Historic District Public Lands Commission and the Clear Creek County Open Space Commission (CCCOSC) provide open space lands in Clear Creek County. The primary owner and manager of public land in Clear Creek County is the USFS with 170,629 acres, including two wilderness areas, Mt. Evans and James Peak. Denver Mountain Parks owns 2,641 acres in Clear Creek County. Jefferson County Open Space

also provides Open Space and outdoor recreation opportunities to eastern Clear Creek County. Parks are provided by the Clear Creek Metropolitan Recreation District, the Clear Creek County School District, the towns of Empire, Georgetown, Idaho Springs, and Silver Plume. Clear Creek County Open Space consists of approximately 4,500 acres. To view a summary of outdoor recreation supplies and demands near BBW, see Table 1, page 12.

ABOUT BEAVER BROOK WATERSHED

Location and Description

Beaver Brook Watershed is a unique open space in the Front Range in that it is one of the last remaining undeveloped subalpine forests. Its wildflower-filled meadows, bubbling streams bounded by lush vegetation, forested slopes, abundant wildlife, and dramatic rock outcroppings are beloved to many people. Only 3.5 miles west on Squaw Pass Road from Route 74 in Bergen Park, it consists of 1,442 acres. Because of its proximity to Evergreen and the Denver metropolitan area, it is easily accessible to visitors. See Map 1, Open Space Purchase.

History and Background

Rich in cultural and natural history, this land has provided a variety of uses as the Rocky Mountain area developed.

In addition to logging, the area was used for ranching in the early 1900s. Foundations of several ranch buildings have been found, as well as traces of an old wagon road from Clear Creek to Idaho Springs. During the late 1800s, there was also a wagon road through the area from Clear Creek and Mt. Vernon Canyon to Bear Creek. Mining activities were also a use in this area, which is within the eastern fringe of the Colorado Rocky Mountain mineral belt.

In 1903, the City of Golden began acquiring BBW lands from private owners and the Federal government for the purpose of developing their water supply. By 1928 the federal government had granted 1320 acres to the city of Golden for watershed purposes. During the 1970s Golden found other water supply sources, and in doing so, negotiated cessation of supply to Lookout Mountain west of Golden. Therefore, the Lookout Mountain Water District (LMWD) was formed to continue to provide water supplies to its residents. It acquired title to the water rights, the two reservoirs and the stream between them to provide a water supply for its residents. It did not acquire title to any of the additional land from Golden.

Beaver Brook Watershed remained relatively unused by the public, except for water supply, until the CDOW leased the land for a few years in the 1990s to offer hunting and recreational opportunities, provide trails, and offer some interpretation. In 1990 a small group of area, state, and federal agency representatives was formed to plan for the future of the watershed in view of the probable future sale of the land by Golden. When Golden began to market the property to sell for development in 1995, the CDOW lease was cancelled.

After 1995 until 2005, many groups and hundreds of area citizens worked toward preservation of this beloved natural area. This effort was led by the Mountain Area Land Trust (MALT), which convinced the USFS to purchase the land and spearhead the effort to secure federal funds for the purchase. Between 2001 and 2004, Congress appropriated sufficient funds to meet the terms of the contract. The agreement, a five-year phased purchase option, provided terms by which the USFS would purchase the watershed property piece by piece over the five-year period for an agreed price. In 2005, when Congress did not appropriate additional funds for the purchase by USFS, a 5.2 million dollar loan from GOCO allowed Clear Creek County to purchase the final 1,442 acres. To be more

specific, the property sold for \$5.7 million. The amount of the GOCO loan was \$5.2 million. MALT contributed \$150,000 and CCCOS contributed the remaining \$500,000. The area purchased includes 35 acres of reservoir and 40 acres of easement in permanent ownership by LMWD. The purchase of this parcel from Golden precluded its sale to a developer.

The eventual goal is for the USFS to purchase the BBW land from Clear Creek County in order to repay the GOCO loan. In any case, this management plan is a necessary ingredient to the preservation of BBW.

Agreements and Regulations

There are several existing agreements regarding BBW. First, there is an agreement with GOCO, which requires the preparation of a management plan for BBW and prohibits motorized uses. In addition, an agreement with LMWD covers a fishing easement. A conservation easement with MALT on the 1,442 acres specifies that there shall be non-motorized uses only, restricts other uses and protects the conservation values of the property. All involved entities concur with these regulations. Also, existing regulations in Clear Creek County govern other uses of this Open Space. See Appendix D, page 52. All totaled, these agreements and regulations reflect the importance of BBW and its natural resources.

Natural Features

Beaver Brook is in the middle of a continuous ecosystem, stretching east from Mt. Evans to Elk Meadow Park in Jefferson County. Linkages are possible through a string of public lands: DMP, USFS land, CCCOS, and others. Beaver Brook Watershed Open Space contains two streams (the north and south forks of Beaver Brook and Pat Creek), and one

LMWD reservoir. A smaller LMWD reservoir is located just outside the northeast boundary of BBW Open Space.

Slopes range from 0-15% along the streams and in the meadows, to steep slopes in excess of 30% and a few above 45%. Vegetation consists of ponderosa pines on the south facing slopes with lodgepole pines and Douglas fir on the north facing slopes. There are some Englemann spruce at the higher elevations. Aspen are scattered in various areas, mostly on slopes that hold water. Riparian areas include vegetation common to the locality, such as bog birch and willows. The watershed is unique for its transitional nature, blending the western-most edge of the front range ponderosa forests into the eastern edge of the high-country lodgepole forests. Beginning in the times of the Gold Rush and continuing up to Golden's purchase, the area was logged to supply mines, railroads and towns. Forest management by the city of Golden started with their purchase and continued until CCCOS purchased the land.



The north portion of the watershed is winter range for deer and elk. Elk calving areas are located primarily in the Pat Creek drainage. However, deer and elk are found throughout the watershed. Lions, bobcats, and bears live in the area, as well as foxes. Wild turkeys can be found anywhere in the watershed.

The scientific names of species can be found in Appendix F on page 61.

Non-natural Features

Beaver Brook Watershed contains some non-natural features as a result of the consumptive uses in the past, as well as the current uses which require controlled motorized access for mandatory operation and service. A high-pressure underground gas line extends through the area, from east to west. In addition, there are several existing dirt roads, which serve as access for utilities and the water district. These roads are currently used as trails, some extending into adjacent public lands. Finally, the reservoirs and water treatment plant are constructed features owned by LMWD.

Surrounding Uses

Land surrounding BBW is under a variety of ownerships. To the west, two separate State Land Board parcels totaling 480 acres abut Open Space land. The remainder of the land along the west boundary is owned by the USFS. To the east and north are residential areas. To the south, the watershed is bounded by DMP and additional USFS land. The land immediately around the reservoir and the stream between it and the other smaller reservoir (outside of BBW Open Space boundaries) is owned by LMWD. Included are access easements for reservoir maintenance and service by LMWD.



Access Points

While there are a few points of access into the watershed, not all of them are reasonable for general public use. One point of access into the watershed, perhaps the best for public use, is the junction of Old Squaw Pass Road and Squaw Pass Road, along the southeast corner of the property. The Old Squaw Pass Road and Squaw Pass Road junction is easily accessible because it is only 3.5 miles from Highway 74 in Bergen Park and, at this writing, offers a small on-road parking area. In addition, the Pat Creek access is a trailhead with the potential for 2-3 parking spaces on Beaver Brook Canyon Road. Care must be taken that parking in this area does not block access for neighbors. Another point of access is found on the north side of the the Saddleback subdivision. The access in Saddleback subdivision can serve as neighborhood access. See Map 2, Existing Conditions.

Since the BBW opened to the public just recently, there are no statistics on visitor use. However, observation indicates that most visitor use occurs around the reservoir, with access from Old Squaw Pass Road at the Squaw Pass Road junction.

**TABLE 1
LOCAL RECREATIONAL SUPPLY AND DEMAND**

	Gen- esee Park DMP	Chief Hosa Part of G'see	Look- out Mt. JCOS	Buchanan Park EPRD	Alder- fer/ 3 Sisters JCOS	BBW w/in USFS	Stage- Coach Park EPRD*	Elk Meadow JCOS & Bark Park	Hicks Mt. DMP	Fillius- Bergen Park DMP	Ever- green Lake EPRD	Mt. Evans SWA	De- disse DMP	Bergen Peak SWA	Clear Creek County Green- Way*	Beaver Brook Water- shed OS LMWD*
Miles from BBW	6.5	6.0	11.0	3.7	11.0	<1	6.0	5.0	4.5	4.5	8.5	12.0	7.0	8.0	12.0	0

PROVIDED ACTIVITIES/FACILITIES

Fishing				X		X					X	X			X	X
Camping		X				X						X				
Mt. Biking				X	X	X		X	X		X	X	X	X	X	X
Hike/run	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Horse Ride	X				X	X		X	X			X	X	X		X
Dogs On	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X
Dogs Off								X+trls								
Wldlf view	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X
Ice skating											X					
XC skiing	X				X	X		X	X		X	X	X	X	X	X
Pic. tables	X	X		X	X	X	X	X		X		X	X		X	
Pic. facil.	X	X														
ADA acc.	X		X			X	X				X		X		X	Ltd.
Interp, Ed.	X		X					X			X	X				X
Climbing					X	X		X				X				X
Hunting						X						X		X		X
Water sprts											X				X	
Pkg spaces				225	75		150	90			200		50			20
Restrms.		X	X	X	X			X		X	X				X	X
# acres	2341		110	15	1105	4340	11	1385	840	105	40	3438	420	500		1442
Trail mi.			1.5	2	15.2		.5	12	3.0		1.3			3.0		TBA
Sp. Uses		X	X		X			X			X					X
Boats n.m.											X				X	

Notes: "X+trls means dogs can be off-leash on trails. For Elk Meadow this applies to the Stagecoach Rd. Dog Park only. State Wildlife Areas permit dogs off-leash while while "actively hunting" or "training". The west edge of Elk Meadow Open Space is adjacent to CDOW lands where hunting is permitted. "Too Long" trail traverses this area. Some words may be abbreviated (e.g. "pic" means picnic, "interp" means interpretation, "n.m." means non-motorized, etc.)

Sp. Uses means "Special Uses" for which users must obtain a permit (e.g. ceremonies, sports events, etc.) "Water sprts" includes kayaking, swimming, rafting, and other non-motorized. Clear Creek County Greenway is a proposed Open Space.

* Proposed facilities and amenities

BEAVER BROOK WATERSHED MANAGEMENT PLAN

CLEAR CREEK COUNTY OPEN SPACE MISSION

To preserve and maintain the county's unique character and natural environment by protecting our streams, woodlands, meadows, wildlife habitat, recreational opportunities, prominent vistas, geologic features, and cultural resources to enhance the quality of life for residents and the enjoyment of the out-of-doors for residents and visitors.

BEAVER BROOK WATERSHED MISSION

To realize the mission of CCCOS by protecting natural resources for future generations while providing resource-based recreational opportunities in BBW.

MANAGEMENT PLANNING PROCESS

PROCESS AND PARTICIPANTS

The plan was guided by a planning team made up of members of Clear Creek County Open Space Commission, Lookout Mountain Water District, United States Forest Service, citizen representatives, Mountain Area Land Trust and the Friends of Beaver Brook. Planning began on November 9, 2005.

The planning process started with the general and narrowed to the specific, and was shaped by a thorough assessment of existing conditions, rules and regulations, and issues. Discussions of existing conditions and issues were held with county officials, the Planning Team, representatives of user groups, and the public. A public meeting was held early in the process to collect citizen input. Another was held on June 28, 2006 (see Appendix H, page 63) to review the final draft of the plan.

The general statement that serves as the foundation for this management plan is the mission statement. All else is derived from this statement. Goals are more specific than the mission statement and focus on four major areas of the management plan: natural resources, recreational uses, management activities and facilities. A section on data collection and data bank serves to summarize information gathering and use of that information for the four areas of management. See pages 43-44. In each of these four areas, the planning team made recommendations to ensure that the goal would be reached. Finally, the implementation plan describes specifically how the recommendations will be attained through the actions.

OPEN SPACE MANAGEMENT AND PLANNING PRINCIPLES

The approaches described below will guide decision making for the BBW management plan, as well as future management decisions.

Open Space System Perspective

Beaver Brook is part of a larger system of open spaces and parks located in several jurisdictions in the foothills west of Denver. Unique as a 17-mile corridor of public lands close to a major metropolitan area, these public lands form a continuous ecosystem. Planning and decision making considers adjacent and nearby public lands, along with the activities and facilities provided on these lands. This recognizes that Beaver Brook is not an island, and as such does not need to duplicate those activities and facilities. Indeed, BBW Open Space is a linkage in a system of public lands stretching from Mt. Evans to Bergen Park.

Public Demands

There are a variety of public demands for CCCOS. Planning and decision making will take into account the demands and preferences of all residents, not just interest groups. Beaver Brook Watershed is a county-wide as well as a regional resource.

Integrity of Natural Resources

The paramount concern for BBW throughout the management and planning process is resource protection. Planning and management decision making will be based on protecting and enhancing the natural resources.

ELEMENTS OF PLAN

Issues

Issues are defined as “problems, impacts or opportunities that have management solutions.” For example, a recreation user may complain that every time he has a day off of work to hike, it rains. While that may be a problem, since there is no management solution to the weather, it is not an issue that would be considered in this plan.

Appendix E on page 60 lists the issues gathered at the public meeting and through other means in December, 2005.

Goals and Recommendations

Goals are derived from the mission statement and can be defined as broad statements which address the categories of concern. The planning team formulated goals for BBW based on the mission statement, issues and an analysis of existing conditions.

Recommendations are made to respond to each goal. An effort has been made to make a recommendation concerning each issue raised. The planning team is responsible for selecting which recommendations will become policies. It is clear that not every issue can be addressed. Thus, the list of issues addressed is prioritized by way of time frames for completion of actions. Recommendations lead the way to actions.

Actions and Implementation Plans

Actions are specific statements describing how recommendations will be realized, who will be responsible, when actions will occur, what measures will be taken to carry

out a recommendation, and where those actions will take place. Some action statements will also require a description of “why” a certain action is required. Other actions will involve a monitoring plan.

The implementation plan includes the actions plus estimates of costs, when available, for the various actions. All totaled, this is the work plan.

NATURAL RESOURCES GOAL AND RECOMMENDATIONS



Beaver Brook is characterized by golden meadows, bubbling brooks, forested slopes, abundant wildlife and dramatic rock outcroppings. This scenery is also part of a unique ecosystem, one of the most intact ecosystems in the Front Range. It is an essential link in a long wildlife corridor, part of a large system of other open space lands. Protection and enhancement of the natural resources, including wildlife, is the overarching concept of this management plan. It is recognized that any recreational use will create impacts. Thus, only those recreational uses which result in manageable impacts on the natural resources will be encouraged. This philosophy comes in part from the long years spent trying to protect the BBW from development. Preservation was always at the forefront of people's thinking, and it still is.

Active management of the BBW needs to be accomplished to protect the resources and to deal with recreational demand. One example of resource protection action will be the closure of the informal trail along N. Beaver Brook between the reservoirs. Closure will protect a unique riparian area and water quality. As discussed in the management recommendations, there are various ways to manage the area and various staffing patterns. At the least, an enforcement presence will be needed as soon as possible.

In order to protect the resources, a data base of conditions and species needs to be compiled, and a monitoring system put in place. The baseline study, required by a conservation easement, will be completed at a later date by CCCOSC.

Several human actions will need to be monitored so that the resources are protected. First, recreational activities will impact the resources unless they are actively monitored and managed. The limits of acceptable impacts will need to be decided once sufficient data is gathered by Clear Creek County or designees. Until this can happen, visual surveys can be used. Quick corrective action will need to be taken if resources are being damaged.

In addition, actions taken around BBW need to be monitored. For example, if there is tree die-off, or damage to riparian areas because of the use of chemicals on Squaw Pass Road, Clear Creek County will need to work with other entities to reduce impacts in a timely fashion. Also, encroaching subdivisions and other land development can be detrimental. Finally, activities spilling over from the USFS portion of the watershed could be a concern. Consequently, monitoring and coordination with other entities and partners will be important to protect this unique property.

Beaver Brook Watershed Open Space has been classified into management areas according to ecosystem characteristics. This classification is useful for making decisions about resource protection as well as for making area-specific decisions for appropriate activities in each area. See Recreational Uses, page 23.

NATURAL RESOURCES GOAL: TO PRESERVE, PROTECT, OR IMPROVE THE NATURAL RESOURCES

RECOMMENDATIONS:

All Resources

1. A system will be established to determine existing and future condition of resources.
2. A baseline report is required by the conservation easement. Data will be included in the database.
3. The resources in Beaver Brook will be frequently monitored, and corrective action will be taken to minimize damage to resource condition.
4. Data collection and resource monitoring will be conducted by Open Space staff and volunteers.
5. Sensitive and natural areas will be mapped.
6. Under the terms of the Conservation Easement held by MALT, MALT will monitor for compliance with that agreement annually.
7. CCCOSC will report the condition of the resources to GOCO.

Wetlands and Streams

1. Wetlands will be identified and protected.
2. The wetlands will be preserved by methods such as closing certain areas, rerouting trails, narrowing trails and constructing boardwalks, as needed.
3. The section of informal trail along N. Beaver Brook between the two reservoirs will be closed.

Vegetation

1. Threatened, endangered, “species of concern” and rare vegetation will be identified, along with areas where it can be found.

2. Threatened, endangered, “species of concern” and rare vegetation will be monitored and protected by such methods such as rerouting or closing trails, creating barriers to access and closing certain areas.
3. Noxious weeds will be managed through containment, suppression and eradication where possible.
4. A species inventory will be kept in a data bank and reported to appropriate agencies
5. All native vegetation will be protected.

Meadows

1. The scenic and biological qualities of these meadows will be protected or enhanced by means of trail rerouting, area closures, etc. when adverse impacts occur.

Erosion

1. Eroded areas will be revegetated, and trails will have erosion controls installed (water bars, diversion ditches, etc.).
2. Trails and unused roads in sensitive areas will be revegetated.
3. Trails will be narrowed to a 2-foot width when possible.
4. All trails not part of utility easements will be revegetated and narrowed where applicable.
5. Seasonal closures of roads and trails will be used as needed, with exceptions made in cases of emergencies.

Water Quality

1. The CCOSC will cooperate with LMWD to maintain or improve water quality and quantity.
2. Water sources will be identified and monitored.
3. The impact of Squaw Pass Road on water quality will be monitored.

4. The application of pesticides, the use of magnesium chloride on roads and other pollutants will be monitored.
5. Lookout Mountain Water District will be consulted if use of pesticides is being considered.

Forest Management

1. A forest management study will analyze forest health.
2. The study will recommend forest management techniques, including wildfire mitigation.
3. Fragmentation of the forest will be minimized or reduced.
4. Logged areas will be revegetated when possible.

Wildlife

1. Essential areas (creeks, corridors and calving/nesting areas) for wildlife, including fishes, will be identified.
2. These areas will be protected by such means as seasonal closures, trail routing, and restrictions on use.
3. A species inventory will be kept in a data bank and reported to appropriate agencies.
4. A cooperative relationship with CDOW will be maintained.
5. The connectivity of wildlife corridors will be maintained.

Industrial Use

1. The impacts of industrial use such as gas lines and power poles will be mitigated, using vegetation cover, fencing or other techniques.
2. Conditional motorized use for service and operation will be monitored regarding resource impacts and damage.

Cultural Resources

1. An historical and archeological survey will be conducted to identify cultural resources.
2. Historic foundations and other structures will be studied and preserved, when appropriate, by various means.
3. The Beaver Brook wagon road will be identified.

Ecosystems

1. Linkages and wildlife corridors will be identified and protected.
2. Partnerships will be created and maintained with adjacent ownership agencies to enhance the health of the ecosystem that includes BBW.

Volunteers

1. Volunteers will be involved in identifying and monitoring natural resources described above.

Outside Influences on Beaver Brook Watershed

1. Clear Creek County Regulations will be amended to provide larger setbacks for buildings adjacent to BBW boundaries.
2. Applications for land use change near Beaver Brook will be monitored and commented on by CCOSC.
3. State Land Board lands will be acquired as a priority.

Fencing

1. Whenever fencing is repaired or installed, it will be of wildlife-friendly design.



**NATURAL RESOURCES
ACTIONS AND
IMPLEMENTATION PLAN**

As has been stated previously in this plan, preservation of the natural resources in BBW is the guiding principle. Following is a practical approach to accomplishing this goal. Table 4 identifies what actions must be taken by whom and by when in order to meet the general goal. Available estimated costs are reflected also.



**NATURAL RESOURCES
ACTIONS AND IMPLEMENTATION PLAN
TABLE 2**

IMPLEMENTATION PLAN

ACTIONS	TIME FRAME	RESPONSIBLE PARTY	COSTS**
Monitor resources			
Establish system to determine existing & future conditions	TBD	CCCOSC, MALT, FOBB	TBD
Complete baseline study to establish conservation values and resources to be monitored	2006	CCCOSC	TBD
Include information in data bank	2006	CCCOSC	TBD
Measure visitor use impacts	TBD	Friends of Beaver Brook, CCCOSC	TBD
Monitor BBW resources frequently, take corrective action	TBD	CCCOSC, FOBB	TBD
Map Sensitive and Natural Areas	TBD	CCCOSC	TBD
Monitor for compliance with Conservation Easement	TBD	MALT	TBD
Report condition of resources to GOCO	2006	CCCOSC	NA
Protect wetlands and riparian areas			
S. fork Beaver Brook below upper dam: close area with signs	2006	LMWD Coordinate with CCCOSC	\$112/ sign
S. fork Beaver Brook west of reservoir: reroute trail away from stream, narrow trail	2007	CCCOSC	TBD
West of upper reservoir: use signs to redirect users, consider installation of boardwalk leading to reservoir	TBD	LMWD	TBD
Protect wetlands in Pat Creek area	TBD	CCCOSC	TBD
Protect vegetation			
ID locations of species of concern*, threatened and endangered species, design method to protect (trail closures, rerouting trails, physical barriers)	TBD	CCCOSC, FOBB, Environmental groups	TBD
Report on condition of above species	Annually	CCCOSC	NA
Identify and manage noxious weeds	Annually	CCCOSC, FOBB, TENAS	\$18.3K
ID plant species, include information in data base	TBD	CCCOSC, FOBB, volunteers	TBD
Protect Meadows			
Monitor conditions of meadows; set standard for initiation of protection (trail closures or elimination, revegetation)	TBD	CCCOSC	NA
If conditions deteriorate severely, close area for recovery	As needed	CCCOSC	NA

**NATURAL RESOURCES
ACTIONS AND IMPLEMENTATION PLAN
TABLE 2 (Continued)**

IMPLEMENTATION PLAN

ACTIONS	TIME FRAME	RESPONSIBLE PARTY	COSTS
Erosion			
Revegetate eroded areas (<i>e.g.</i> road cuts, stream banks)	2007	CCCOSC	\$300/acre
Install erosion controls (<i>e.g.</i> lateral ditches and water bars)	2007	CCCOSC	variable
Seasonally close wet or muddy trails to prevent rutting, erosion	As needed	CCCOSC	NA
Water Quality			
Maintain quality of water	Ongoing	LMWD, CCCOSC	NA
Notify LMWD before pesticides are used	As needed	CCCOSC, LMWD	NA
Study use of magnesium chloride on water quality	TBD	LMWD, CCCOSC	TBD
Forest Management			
Contract for forest management plan (analyze forest health, recommend management techniques)	2007	CCCOSC	TBD
Monitor tree mortality and causes	TBD	CCCOSC, CDOT	TBD
Reduce forest fragmentation (limit new, redundant and social trails, close trails)	As needed	CCCOSC	NA
Revegetate logged areas per forest management plan	As needed	CCCOSC	\$300/acre
Wildlife (includes fish)			
ID and monitor areas for wildlife	TBD	CCCOSC, CDOW	NA
Protect by established means (closures, rerouting trails, use restrictions)	Ongoing	CCCOSC	TBD
Study wildlife corridors to eliminate disruptions	Ongoing	CCCOSC	TBD
Work with adjacent land owners to protect wildlife corridors	Ongoing	CCCOSC, land owners, CDOW	NA
Begin species inventory, include in data bank and monitoring	2007	CCCOSC	TBD

**NATURAL RESOURCES
ACTIONS AND IMPLEMENTATION PLAN
TABLE 2 (Continued)**

IMPLEMENTATION PLAN

ACTIONS	TIME FRAME	RESPONSIBLE PARTY	COSTS
Cultural Resources			
Conduct historical survey to ID cultural resources	TBD	CCCOSC	TBD
Protect historical foundations and other structures	TBD	CCCOSC	TBD
Determine route of historic wagon road	TBD	CCCOSC	NA
BBW Outside Influences			
Initiate reviews of regulations re: setbacks from open space	TBD	CCCOSC	NA
Sponsor amendment to enlarge setbacks from BBW Open Space	TBD	CCCOSC	NA
Start acquisition process of State Land Board lands	2007-2008	CCCOSC	TBD
Fences			
Select wildlife-friendly fence for installation	2006-2007	CCCOSC, LMWD	TBD

*Species of Concern, Threatened and Endangered Species are uncommon or unique species or those that require highly specific habitat.

**Cost estimate includes materials and installation.

TBD – To Be Determined

RECREATIONAL USES GOAL AND RECOMMENDATIONS



The management of recreational uses at BBW will reflect the CCCOS mission of focusing on natural resources preservation while allowing quality non-motorized outdoor recreation experiences. Beaver Brook Watershed, which can be viewed as the gateway to CCCOS, is located on the east side of

the county. Therefore, it is close to the Denver urban and suburban population. This suggests the possibility of high visitor numbers. The existing roads and trails can serve as linkages to adjacent lands so that use can be dispersed. In addition, a wide variety of activities are provided in nearby parks so that BBW does not need to provide all activities to all visitors. Also, the topography, vegetation and wildlife migration patterns suggest at least two management units, as described below. Nevertheless, there is a need to determine the recreational carrying capacity of BBW. This is discussed after the Management Areas are described.

MANAGEMENT AREAS

Management Units are designated within the Open Space property to guide decision making about activities with the objective of allowing high quality recreational experiences, facilities, and amenities. The different management units are defined below. See Map 3, page 38 for locations. A recommendation for specific areas follows in another section of this document.

Sensitive Areas

Sensitive Areas are defined as special, fragile and highly valued for their natural and cultural resources. Preservation of resources is the most important consideration for these areas. Visitation to these areas is either limited or not allowed.

Natural Areas

Natural Areas are defined as areas where the natural resources dominate. Humans can experience a sense of nature and remoteness while engaging in high quality recreation experiences. Ensuring the integrity of natural resources is a priority for these areas.

RECREATIONAL CARRYING CAPACITY

Since the watershed recently opened to the public, it is difficult to determine its capacity for recreational use at this time. However, this is an excellent time to gather baseline information about recreational carrying capacity.

Recreational carrying capacity is based on the idea that there is a threshold or number of visitors to a park after which sustainability of the natural environment begins to diminish along with visitor satisfaction. In the case of BBW, capacity can be determined in two ways:

- Impact of recreation on natural systems, cultural resources and quality of facilities (such as trails)
- Perceived visitor satisfaction.

The impacts on natural systems can be determined by starting with a baseline survey, which is being prepared, and observing change in the natural and cultural environment. Visitor satisfaction can be measured by surveying visitors over a period of time. Those surveyed would be asked about perceptions of overcrowding and the impact of additional visitors on the experience. Management policies are then used to trigger action. An example of a policy statement might be: “Areas around the reservoir may be closed for revegetation when impacts create bare areas larger than currently observed.” The corresponding action might read: “Closure signs and fence sections will be installed along the south side of the reservoir. Daily ranger patrol and volunteers will serve to enforce the closures.”

Outdoor recreation opportunities are highly valued by the residents of Colorado. Most parks or Open Space areas experience heavy recreation use, especially during the spring, summer and fall months. In addition, there are a growing number of different uses for parks and Open Space areas. Management of recreational uses improves the quality of the recreational experience while moderating the numbers of users at any given time. While there may be problems with administering use controls, degradation of the resource and visitor crowding may demand more controls.

RECREATION IN BEAVER BROOK WATERSHED

At this writing, BBW has existed as a CCCOS for just one year, with a range of recreational activities occurring. Thus, while much use is congruent with the preservation of the natural resources, there are some uses that will not be continued or, at best, will be limited.

This section presents the overall goal for recreational uses of BBW, recommendations and actions. The selected recommendations emphasize a high degree of resource preservation while providing visitors with a range of opportunities for recreational involvement. This plan recognizes that the values of BBW extend far beyond its capacity to provide outdoor recreation experiences. The protection of the natural and cultural resources, wildlife and vegetation are of critical importance in this plan.

The planning team carefully determined a defined set of recreation uses. Thus, some uses, management alternatives, and use controls were not selected. These are described in Appendices B and C. Additional recreational activities or uses can be found in Appendix A. Alternative 2, described in Appendix B, and use controls, described in Appendix C, could be used if overcrowding or resource degradation occurs.

RECREATIONAL USES GOAL: TO PROVIDE OPPORTUNITIES FOR HIGH QUALITY NON-MOTORIZED OUTDOOR RECREATION EXPERIENCES AND EDUCATION.

The goal identified forms the foundation of the Recreational Uses Recommendations. It is intended to capture the values, concerns and desires expressed by the public and the BBW Planning Team members. Therefore, the success of the final plan can be measured against the extent to which it fulfills this goal.

“High quality experiences” indicates that the recreational uses will aim to protect the resources which attract visitors while monitoring the effects of crowding.

DEFINED MULTIPLE RECREATIONAL USE

These recreational use recommendations provide a defined or specified range of visitor access and recreational opportunities. The plans are a compromise between the public’s desires to have access at all times for all non-motorized uses AND high quality recreational experiences in a well-protected resource. They emphasize the protection of resources along with the quality of the recreational experiences.

Along with this set of recommendations, there needs to be at least a two-tiered system of management units, consisting of Sensitive and Natural Areas. See page 23 for a description and rationale. Perhaps in the future, a third tier could be added to designate Quiet Areas where only hikers would be permitted. In any case, restrictions to access for Sensitive Areas with threatened, endangered and “species of special concern” and threatened and endangered species, needs to be implemented. In addition, most of the BBW is to be designated as a Natural

Area where a selected range of non-motorized activities will be allowed. Controls for recreation include the management areas, a limited parking lot, designation of separate trails for different uses, trail design and limits on the size of vehicles in the parking lot. Other controls may be implemented when an acceptable level of resource impact, damage or crowding has been surpassed. See Appendix B, Alternative 2 and Appendix C for other controls that were rejected by the planning team at this time, but may be useful in the future.



RECREATIONAL USES RECOMMENDATIONS:

Activities - General

1. Activities, particularly hunting, will be directed away from residences.
2. Activities, other than fishing, will be directed away from the reservoir.
3. Buffer zones will be created where needed.
4. Visitor uses and trends will be monitored to determine natural resources impacts and recreational carrying capacity.
5. Trails may be closed to all uses or one use if resource damage is occurring or if the trails are muddy.
6. All fires will be prohibited.
7. All users are encouraged to stay on trails. Signs will enforce this standard.
8. All user groups will be represented in volunteer patrols.

Fishing

1. All anglers must hold a current Colorado fishing license and are subject to regulations of the Colorado Division of Wildlife.
2. Fishing will only be allowed from designated parts of the shore of the reservoir.
3. Fishing is not permitted from the dam or where posted.
4. Only artificial flies and lures will be used (no live bait).
5. Fishing will be allowed from ½ hour before sunrise to ½ hour after sunset.
6. Anglers will not wade in the water or use belly boats, pontoons, canoes or other floating equipment.
7. Catch and release will be the standard.
8. Anglers will contact the water only as needed to release a catch.
9. Ice fishing will not be permitted

10. Fishing activities will be monitored on a regular basis to determine types and number of fish in the reservoir, amount of fishing use, health of fish *etc.*
11. Violators of standards subject to federal, state and local laws and penalties, including LMWD regulations.

Hunting

1. Muzzle loading firearms and bow hunting (i.e. primitive weapons) will be permitted in assigned areas during specified seasons, per CCCOS and CDOW agreement.
2. Hunting seasons may begin on or after the first rifle season (usually in mid-October to reduce user conflict). Additional seasons may be added at the discretion of CCCOS.
3. Signs will be posted indicating hunting activities so other visitors can take precautions.
4. It is recommended that hunters have any deer or elk harvested tested for Chronic Wasting Disease (CWD) and results submitted to CDOW.
5. Hunting activities will be monitored by CDOW and Open Space on a regular basis to determine types and numbers of animals harvested, health of animals, etc.
6. A minimum 500-foot setback will be established along all BBW property lines that are shared with private residences.

Hiking, Jogging and Running

1. Hiking, jogging and running will be permitted at all times that the BBW is open to use. Snowshoeing and skiing will also be permitted.

2. Hikers, joggers and runners will have right-of-way after horses but before mountain bikers. Signs at the kiosks will instruct hikers/joggers/runners to move off the trail for other users when it is safe.

Dog Walking

1. All dogs will be kept on a leash, per Clear Creek County Law.
2. Dog owners will be required to clean up after their animals.
3. Dogs are not permitted to enter the water.
4. Volunteer patrollers will be trained to deal with off-leash dogs and their owners.
5. Paid rangers will have ticketing and fining duties.
6. Visitors who want to exercise their dogs off-leash will be referred to nearby off-leash dog parks and trails.

Mountain biking

1. Mountain biking will be allowed at all times that the BBW is open to use.
2. Mountain bikers will be directed to designated trails.
3. All other users will have right-of-way before bikers. Signs will educate users about ROW rules, including how to ask other users to yield the trail.

ADA Accessibility

1. Principles of Universal Design¹ will be followed as much as is practical in amenity design.
2. Accessible parking and a restroom will be provided.



¹ “Universal Design” is defined as an approach to design of all products and environment to be as usable as possible by people regardless of age, ability or situation.

Wildlife Viewing

1. Wildlife viewing is encouraged.

Horseback Riding

1. Horseback riding will be allowed at all times that the BBW is open to use.
2. Horseback riders will be encouraged to stay on trails. This will be enforced with signage.
3. There will be at least two horse trailer parking spaces at the Old Squaw Pass Road access. These can be in the pull-out area along the fence on Old Squaw Pass Road. These also can serve as school bus and large van parking spaces.
4. Signage will indicate that all users are to clean up after their animals in the parking area.
5. Where there are gates at an access point, there will be horse-friendly access as well.
6. Equestrians will have the right-of-way on all trails at all times. Signs at the kiosks will instruct riders to move off the trail for other users when it is safe.
7. Horses are not permitted in the reservoir.
8. Equestrians will be included in the volunteer patrols.

Overnight Camping

1. Overnight camping (except by Special Use Permit) will not be permitted in BBW. The Special Use Permit criteria will include strict resources protection standards.

Recreational Carrying Capacity

1. A study will be conducted to determine the recreational carrying capacity of BBW.
2. The results of this study will suggest the deletion or addition of recreational uses.

RECREATIONAL USES ACTIONS AND IMPLEMENTATION PLAN

As with the Natural Resources section, a practical approach to accomplishing the recreational uses goal is presented below. Table 3 identifies what actions must be taken by whom and by when in order to meet the general goal. Available estimated costs are reflected also.



**TABLE 3
RECREATIONAL USES
ACTIONS AND IMPLEMENTATION PLAN**

IMPLEMENTATION PLAN

ACTIONS	TIME FRAME	RESPONSIBLE PARTY	COSTS**
Post trail use signs that reflect management areas and trail uses	2006	CCCOSC	\$112/sign
Post signs limiting size of vehicles in parking lot	TBD	CCCOSC	“
Post and enforce “No Parking” signs on east side of Old Squaw Pass Rd.	TBD	CCCOSC	“
Post “Large Vehicle Parking” signs on west side of Old Squaw Pass Rd.	TBD	CCCOSC	“
Reduce width of trails or close trails in sensitive areas	2006-2007	CCCOSC	\$5/linear ft.
Monitor and report visitor use numbers yearly	Annually, begin w/ 2007	FOBB, CCCOSC	TBD
Use visitor reporting to correct problems	2010	FOBB, CCCOSC	TBD
Post signs at reservoir to encourage visitors to travel beyond the reservoir	TBD	CCCOSC	\$112/sign
Install 10’ sections of spilt rail fence and/or boardwalk at reservoir to direct traffic	TBD	LMWD (consult with CCCOSC)	\$290/section
Post right-of-way/trail use signs at trailheads & trail junctions	2007	CCCOSC	\$112/sign
Erect kiosk with the following signs and notices: Allowed recreational uses, proper trail use, right-of-way, dog regulations, weed education, fishing and hunting regulations, rules about overnight camping, smoking, alcohol, motorized vehicles, etc.	2006	CCCOSC	Has been purchased Kiosk=\$2K Graphics=\$400
Post hunting buffer zone signs	2006	CCCOSC	\$112/sign
Post fishing regulations at kiosk & reservoir fence sections	2006	LMWD, CCCOSC	“
Post hunting regulations at kiosk & on entrance gate (seasonally)	2006	CCCOSC	“
Post dog regulations (on-leash and clean-up) at trailheads	2006	CCCOSC	“
Post notices of nearby dogs-off-leash areas at kiosk	2006	CCCOSC	“
Post signs for equestrians to clean up after animals at parking area (Old Squaw Pass Road)	2007	IB-JCHC*, CCCOSC	“
Post interpretive signs at kiosk	2006-7	CCCOSC	“
Conduct study of Recreational Carrying Capacity	TBD	CCCOSC	TBD

* IB-JCHC is the Intermountain Branch of Jefferson County Horse Council.

** Cost estimates includes materials and installation.

MANAGEMENT GOAL AND RECOMMENDATIONS



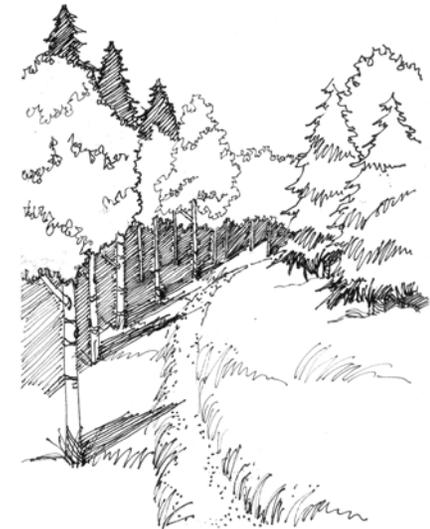
Management for BBW will be challenging because of the limited funding available to realize the Open Space mission of resource protection while providing recreational uses. Yet the quality of management is crucial, since this is the first Open Space parcel in Clear Creek County which will be actively managed for recreation. There are several options for management. The management structure could continue as it is, relying completely on volunteers with the Sheriff's Department for enforcement. In this case, effective enforcement of BBW regulations would be somewhat difficult. Another option would be to form a funding foundation, which might provide the funding for staff, management and facilities. A third option would be to form a special district, funded by a mill levy, to contract for operations, design, maintenance and building facilities. This type of structure would be more appropriate for the entire Open Space system, particularly for the Clear Creek Greenway, but would also benefit BBW. Yet another option would be to contract for management services. A final option, and the easiest to accomplish, would be to staff BBW at a modest level in 2006 by hiring a seasonal or temporary ranger or law enforcement official. Then, additional funding for management in the future would need to be secured. There at least needs to be some additional enforcement of rules and regulations.

Volunteer work will continue to be vitally important with all options. At least promoting visitor contact by Open Space staff and volunteers can form a sense of stewardship among visitors. None of these options are mutually exclusive, and any option or part of an option could be initiated at any time.

Some on-site paid presence is necessary for resource management and law enforcement. To start, a seasonal ranger with substantial volunteer help might be sufficient as long as effective back-up is provided by the Sheriff's department.

Eventually, when more of Clear Creek County's open spaces are actively used, a year-round natural resources ranger could become a site manager for 3-4 parks, including BBW, with assistance from a complimentary law-enforcement ranger for the same parks. It may become desirable in the future to employ a ranger for the May-October season.

Of note are the stewardship responsibilities that MALT has and will continue to have regarding management of BBW. Specifically these responsibilities may include (but are not limited to): annual monitoring of various functions, maintenance of the partnership with CCCOSC and required reporting to GOCO.



MANAGEMENT GOAL: TO PROVIDE MANAGEMENT STRATEGIES WHICH ARE COST EFFECTIVE AND EFFICIENT, WHILE PROTECTING THE RESOURCES.

RECOMMENDATIONS:

Management Options

There are several options (not mutually exclusive) for CCCOSC to consider for management of Beaver Brook:

1. Continue volunteer patrols and contract law enforcement.
2. Hire a seasonal ranger and ultimately a site manager.
3. Contract for site management and maintenance services.
4. Utilize FOBB to a greater extent for management.
5. Hire maintenance staff.

Funding

Alternative funding will be sought. Existing county property taxes will not be the only source of funding. Alternative sources of funding could include a Beaver Brook Foundation or a special improvement district.

1. A fee structure for special uses will be considered.
2. Joint ventures and partnerships with other organizations (such as JCOS, DMP, MALT, Clear Creek County Metropolitan Recreation District) will be formed.
3. OSC will consider the following funding strategies:
 - Investigate a value-added fee for recreational and tourist activities.
 - A special district will be considered for operations, design, construction and maintenance services.
 - Formation of a foundation to receive 501(C)3 monies will be considered.

- Alliances with real estate, tourism, sporting goods businesses and other interests will be established to raise funds.
- Increase of the mill levy for additional funding may be possible.
- Investigate increase of the sales tax through the legislature.
- Initiate a real estate transfer tax.
- Use revenue bonds for a specific project or acquisition.
- In the future, consider instituting a small user fee at the entrance of Beaver Brook.
- Expand grant process to include the following potential sources of funds:

GOCO

USFS

Arapaho Roosevelt Pawnee Foundation

Natural Resource Conservation Service-USDA

CDOW- Wetlands Initiative

EPA-Regional Geographic Initiatives Program

Colorado Council for the Arts

Colorado Tourism Board

Qwest

Coors

Nature Conservancy Grant

IREA

Casinos

Others to be determined

Enforcement and Staffing

1. A Park Ranger with enforcement and natural resources management capabilities or other law enforcement personnel will be hired for at least weekends and holidays from May 1 – October 1 of the year.
2. Open Space will work with the Clear Creek County Sheriff to develop agreements for enforcement on Open Space properties and the Sheriff will provide backup to rangers and volunteers.
3. The Animal Control Department will be trained to manage Open Space calls regarding dogs off leash or other animal related problems.
4. Volunteers will be trained to educate visitors about rules and regulations.
5. College interns could be employed to assist seasonal rangers.
6. When funds allow, a natural resources ranger will be hired, preferably with law enforcement capabilities, to serve as site manager for 3 or 4 open space parcels. The hiring of a Natural Resources Ranger and a Law Enforcement ranger to cover 3-4 actively used Open Spaces may be considered.
7. Volunteer program coordination will be provided by the Open Space Coordinator.
8. A volunteer program will train volunteers to perform a broad range of duties, from weed control to interpretation to patrolling.
9. Volunteers from Colorado Trails Initiative and Volunteers for Outdoor Colorado could be used for trail rerouting, extensions, maintenance or rebuilding.
10. The existing regulations will be revised to reflect the recommendations in this plan.

Interpretation and Education

1. An interpretive plan will be completed as soon as funds permit.
2. Signage educating users about other aspects of Open Space will be placed at the kiosks near entries. Examples might include signs about what to do when encountering a lion or bear, elk calving process, the history of the wagon road, the ecosystems, etc.
3. Volunteer personnel will be available at scheduled times during peak season to provide topic-specific interpretation and education.
4. The natural resource ranger will give interpretive talks and guided hikes.

Area Identity

1. Clear Creek County Open Space signs with the logo will be placed at each access, including neighborhood accesses.
2. The design theme will be used when constructing facilities.
3. Boundary fencing will be installed with signs attached where inappropriate access is being used.
4. Private property will be clearly identified with signs to reduce conflict between visitors and private property owners.
5. The reservoir will be identified as separate from BBW Open Space. Sections of fence or a boardwalk to the shore from the trail may be installed on the LMWD property to protect the water resource.

Adjacent and Outside Influences

1. Clear Creek County regulations should be amended to provide larger setbacks from Open Space boundaries for new buildings.
2. Highway maintenance will be monitored for impacts on BBW and water quality.
3. Nearby development applications will continue to be monitored by the OSC.
4. Coordination and cooperation with the USFS, DMP, LMWD and Xcel will be a priority.
5. Consult with the State Land Board to nominate lands for the State Stewardship Trust or to designate a conservation easement for preservation of the SLB lands.

MANAGEMENT ACTIONS AND IMPLEMENTATION PLAN

Previous sections of this plan describe the actions that must take place for the goals to be realized. That is also the case with Management. Because of funding constrictions for Clear Creek County, much of the Management Actions and Implementation Plan rely on seeking non-tax funding alternatives.



TABLE 4
MANAGEMENT
ACTIONS AND IMPLEMENTATION PLAN

ACTIONS	TIME FRAME	RESPONSIBLE PARTY	COSTS
Management			
Secure funding; hire seasonal ranger/law enforcement	2007	CCCOSC	\$12-15/hr.
Train volunteers to assume patroller duties	2006	FOBB	NA
Form agreement for enforcement w/Sheriff and agencies	2006	CCCOSC & Sheriff's Department	NA
Assign OSC staff to coordinate volunteers	2006	CCCOSC	NA
Investigate employing ranger interns	2006	CCCOSC & OSC Coordinator	TBD
Develop criteria, establish special use permit system	TBD	CCCOSC	TBD
Provide MALT monitoring and stewardship	On-going	CCCOSC, MALT, GOCO	TBD
Revise existing regulations to reflect this plan	2006	CCCOSC	NA
Funding			
Assign staff to study grant sources, value-added fee, real estate transfer tax, special district, foundations	2006	CCCOSC & OSC Coordinator	NA
Apply for grants from identified sources for facilities and trails	2006	CCCOSC & OSC Coordinator	NA
Interpretation*			
Place interpretive material in kiosk	TBD	CCCOSC	\$2K-kiosk
Train volunteers to perform interpretive activities	2006	FOBB, CCCOSC	“
Apply for funds to design interpretive plan	2007	CCCOSC	“
Area Identity			
Place Open Space signs along all boundaries	2006	CCCOSC	\$112/sign
Place split rail fence sections along reservoir	2006	LMWD, coordinated with CCCOSC	\$250/section
Construct boardwalk in wetlands west of reservoir	2008	LMWD, CCCOSC	\$25/sq. ft.
Adjacent and Outside Influences			
Initiate amendment to Clear Creek County regulations to increase setbacks	2006	CCCOSC	NA
Formulate/complete agreements with other agencies	TBD	LMWD, USFS, TENAS	NA
Nominate State Land Board land for Steward-Ship Trust	TBD	State of Colorado, CCCOSC	NA
Enforce “no dumping” rules	2006	CCCOSC	NA

* Cost for free-standing interpretive signs approximately \$2000 per sign.

*TBD means To Be Determined.

RECREATIONAL FACILITIES GOAL AND RECOMMENDATIONS



In keeping with the philosophy of resources protection and the funding constraints of CCCOSC, only those facilities that are critically necessary will be provided. As a resource based Open Space unit, BBW will not attempt to offer all the facilities and recreational opportunities users might expect at a public park. Facilities which correct a problem or help protect resources are a priority. For instance, if an existing trail is in a roadbed, it may be narrowed to a 4' cross-section for multi-use. Another example is possibly building a boardwalk to provide access to the lake and protect the wetland west of the reservoir.

Proposed trail locations are shown on Map 3, page 38. Both multi-use and single-use trails are provided. Trail locations are intended to link to trails in other open spaces, such as the USFS portion of the watershed.

Parking is an important consideration. While a parking lot is needed to reduce parking on Old Squaw Pass Road, on-site parking will reflect the estimated carrying capacity of BBW. For aesthetic reasons, it also needs to be carefully sited. Therefore, a modest size parking lot is proposed inside the gates at this location. Old Squaw Pass Road will be posted with no parking signs on the east side and large vehicle parking on the west side. The regulation will be enforced. The Pat Creek trailhead will have very limited parking in a designated area on Beaver Brook Canyon Road. "No Parking" signs will be placed where needed near Pat Creek Road and enforced.

The facilities that are built will follow an established design theme to unify them and reduce the visibility of the facilities.

Of necessity, a rest room will be provided at the Old Squaw Pass Trailhead, adjacent to the parking lot. A portable toilet could be used initially. When funds permit, another type of toilet could be constructed.

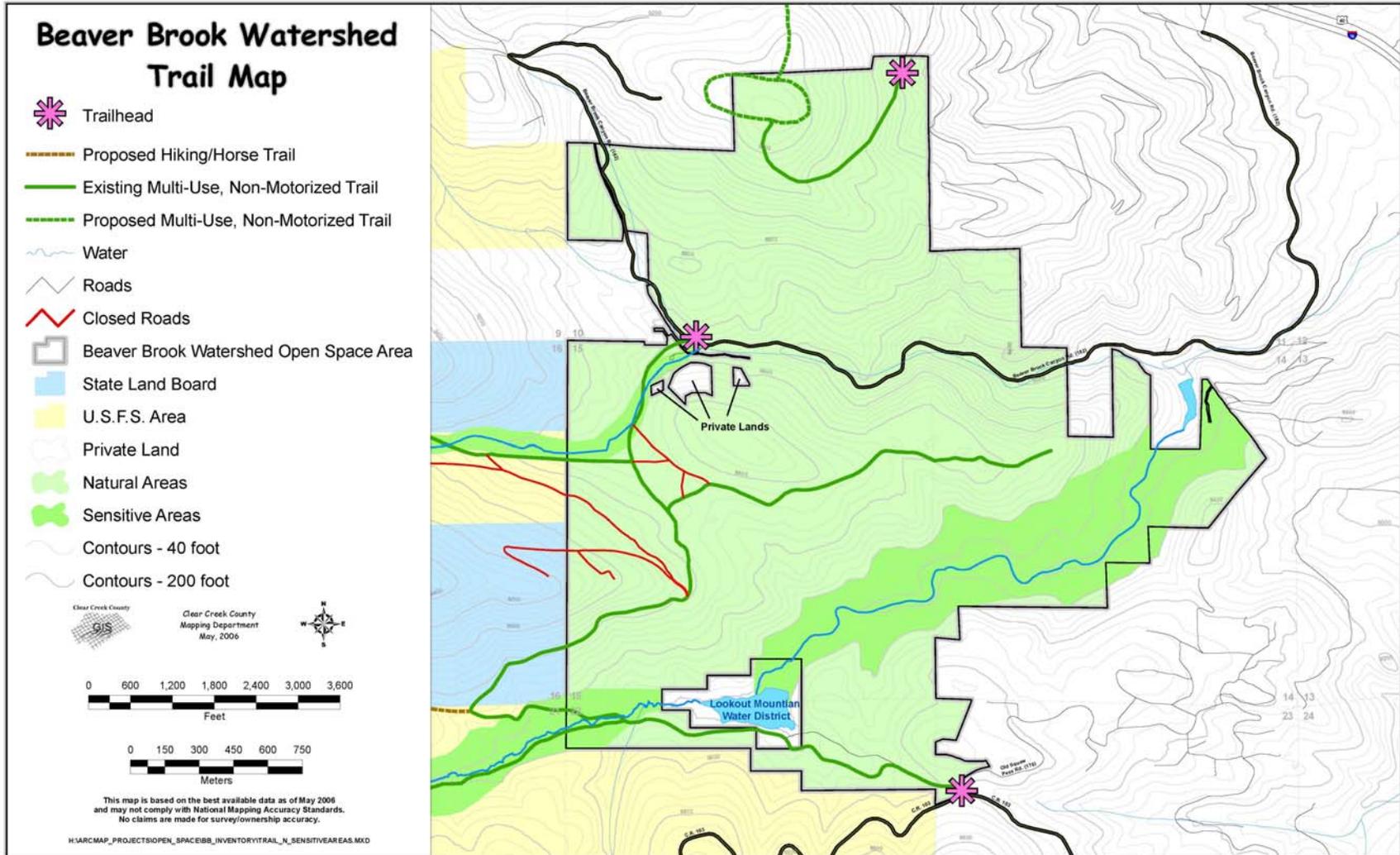
Interpretive facilities will be installed after an interpretive plan is developed. Interpretive material could be displayed at the trailhead kiosks in the interim.

The sign program in this plan will be used to design and place signs. The sign program will result in an uncluttered look. Trail signs will be placed sparingly, but at a minimum they will be placed at trailheads and at trail junctions with a directional arrow and mileage. Colors could indicate difficulty, if desired. Regulatory signs will be minimized, and only used when absolutely necessary. Signs at the entrance will be consolidated to one or two signs. Other signs will be placed at the kiosk. Rules and regulations will be posted in the kiosk.

Other amenities such as shelters and picnic tables will not be provided.



MAP 3: Beaver Brook Watershed (Proposed) Trail Map



RECREATIONAL FACILITIES GOAL: TO PROVIDE FACILITIES THAT ARE CONSISTENT WITH NON-MOTORIZED OUTDOOR RECREATION OPPORTUNITIES.

RECOMMENDATIONS:

Trails

1. Trails will be multi-use, unless otherwise specified. Map 3, page 38 shows the trail designations and locations.
2. Trails will be no wider than 4' wide. Existing roads will be narrowed where possible and revegetated.
3. Trails in sensitive areas will be 2' wide.
4. Linkages to other trails and open spaces will be provided in cooperation with the appropriate jurisdiction. Trail use designations will be coordinated with other jurisdictions.
5. Trail surfaces will be natural.
6. Erosion control devices will be installed.
7. Roads unused for trails or required utility access will be closed and revegetated.

Parking

1. Parking for approximately 20 cars will be provided at the Old Squaw Pass Road entrance.
2. Parking will be arranged so that the trees are preserved and vehicles are minimally visible from the road. Additional landscape screening (using native materials) will be planted and maintained between the road and the parking lot if water is available.
3. Large vehicle parking will be provided along the west side of Old Squaw Pass Road.
4. Parking for 3 cars will be provided on Beaver Brook Canyon Road near the Pat Creek trailhead.

5. Additional small parking areas may be designated along Beaver Brook Canyon Road as needed

Design Theme

1. A design theme will be used for all improvements. This design theme consists of the use of wood, optional stone and metal strapping accents. Simple wood timber structures and optional stone foundations will be used for kiosks, fences and other appropriate structures. Signs will be constructed from routed wood as often as possible.

Signs

1. Signs will be used sparingly, and the sign program will result in an uncluttered look.
2. The sign program will consist of the following signs:
 - Kiosks at trailheads will contain rules, regulations, interpretive material and weed information.
 - Interpretive signs at trailheads and at significant natural features or natural systems.
 - Trail signs with mileage and arrows.
 - Regulatory signs.
 - "Carsonite" trail markers.
 - Boundary signs.
3. Signs will be constructed of routed wood, except for regulatory signs. Trail signs and regulatory signs are designed to be low profile.



Rest Rooms

1. A portable toilet screened by an 8' wood fence will be provided at the Old Squaw Pass entrance.
2. When funds permit, the portable toilet can be replaced with a permanent structure.

Fences

1. Wildlife-friendly design will be used when replacing or installing fence.
2. Fencing will be placed along Beaver Brook Canyon Road where necessary to prevent vehicular access to BBW.
3. A fence will be constructed around the parking lot.

Dog Waste Bag Dispenser

1. Dispenser will be placed at each trailhead.

Gate Design

1. Gates at trailhead will be of a style that discourages motorized use.

Map Box

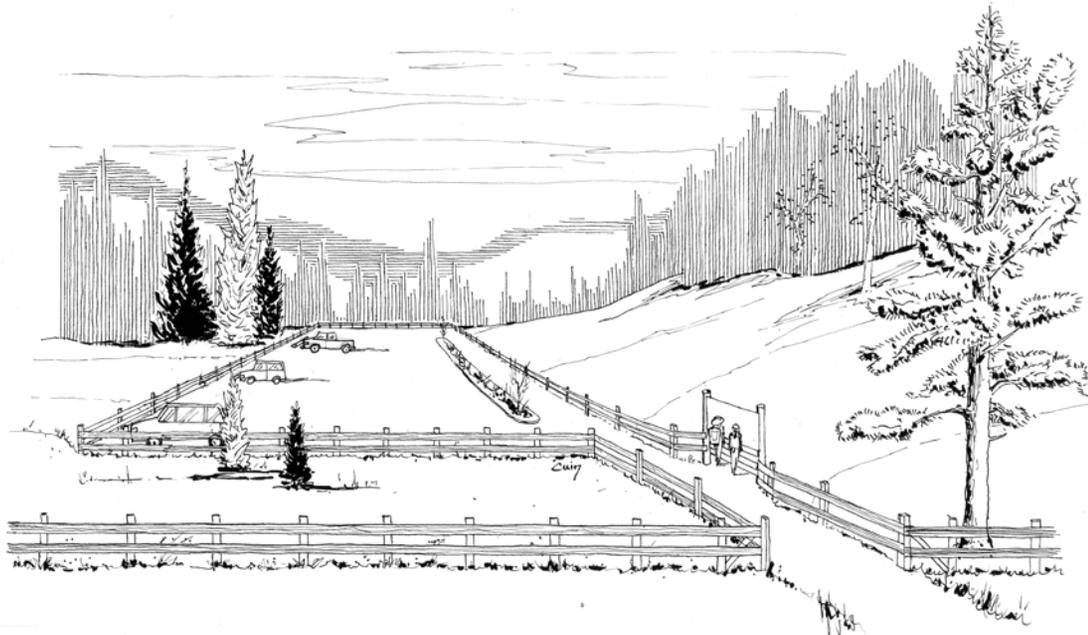
1. Map box will be placed at trailheads.

Shelters

Not recommended.

Picnic tables

Not recommended.



RECREATIONAL FACILITIES ACTIONS AND IMPLEMENTATION PLAN

As with previous sections, a practical approach to accomplishing the facilities goal is presented below. Table 5 identifies what actions must be taken by whom and by when in order to meet the general goal. Cost estimates are provided when available.

**TABLE 5
RECREATIONAL FACILITIES
ACTIONS AND IMPLEMENTATION PLAN**

ACTION	TIME FRAME	RESPONSIBLE PARTY	COSTS*
Trails			
Post trail use sign at trailheads & trail junctions	2006	CCCOSC	\$112 each
Construct designated trails (see Map 3, pg. 38)	TBD	CCCOSC	18K/1 mi.
Reduce trail width to 4 ft. (slope determines costs)	2007	CCCOSC	\$5-8/linear ft.
Construct loop trail at Broken Fence, about ½ mi. NW of reservoir	TBD	CCCOSC & USFS	\$18K/1 mi.
Reduce width of trails in sensitive areas to 2'	TBD	CCCOSC	TBD
Revegetate areas; narrowed and social trails	TBD	CCCOSC	\$300/acre
Post signs closing sensitive areas N and W of reservoir	2006	CCCOSC	\$112 each
Provide trail linkages to adjacent public open space	TBD	CCCOSC	TBD
Place trail map box at trailheads	2008	CCCOSC	\$120
Parking			
Construct gravel parking lot for 20 cars; mark spaces with timbers, remove no trees (Old Squaw Pass)	TBD	CCCOSC	\$80K
Plant and maintain screen using native vegetation along roadside	2007	CCCOSC	\$1000
Construct low fence around parking to discourage motorized uses	2007	CCCOSC	\$80/linear ft.
Construct parking for three cars & kiosk on Beaver Brook Canyon Rd.	2008	CCCOSC	\$12K
Include 1 handicapped parking space in lot at OSP	TBD	CCCOSC	included
Design Theme			
Use wood, rock and metal strapping (optional)	TBD	"	NA
Make signs of routed wood	TBD	"	\$112 each
Place signs sparingly; unobtrusive	TBD	"	NA
Consolidate signs on post or in kiosk	TBD	"	NA
Sign placement			
Trailhead kiosks, trail signs, regulatory	2006	CCCOSC	\$2K-kiosk
Clean up after animals, remove trash at parking lots	2006	Park visitors, CCCOSC, maintenance or ranger	TBD
Interpretive, right-of way (trail junctions), carsonite or routed wood trail markers	TBD	CCCOSC	\$112 each carsonite-TBD
Trailhead amenities			
Place accessible portable toilet at OSP, build screen	2006	CCCOSC	Screen-\$300-500
Employ monthly service for maintenance of toilet	TBD	CCCOSC	\$75/month
Construct step-over to deter motorized uses	2007	CCCOSC	
Install dog waste bag dispenser at trailheads	2008	CCCOSC	\$75 each

*Costs reflect materials plus installation and labor.

TBD means "To Be Determined."

DATA COLLECTION AND DATA BANK ACTIONS AND IMPLEMENTATION PLAN

Two of the four sections of the BBW management plan (Natural Resources and Recreational Uses) identify several points where data collection takes place, as well as responsible parties for banking that information. This section serves a very practical function by pooling the data collection actions along with the “banks,” and identifies responsible parties. All of the actions and implementations can be found in their respective chapters elsewhere in this document.

Because BBW is Clear Creek County’s first Open Space to be managed as described in this plan, there will be numerous data points providing baseline information. Also, there will be a variety of partners involved in collecting and providing data. For example, MALT maintains a Present Conditions Report (PCR) that should be closely tied to the data bank. Clear Creek County Open Space Commission will need to maintain relationships with the various groups handling the data. It is important that the data be kept in a fashion that benefits future management and amenities planning.

**DATA COLLECTION AND DATA BANK
ACTIONS AND IMPLEMENTATION PLAN
TABLE 6**

ACTIONS	TIME FRAME	RESPONSIBLE PARTY	COSTS
Natural Resources			
Establish system to determine existing & future conditions	TBD	CCCOSC	TBD
Establish data bank and include baseline reports	TBD	CCCOSC	“
Measure visitor use impacts	TBD	FOBB, CCCOSC	“
ID locations of species of special concern, design methods to protect (trail closures, rerouting trails, physical barriers)	TBD	CCCOSC, FOBB Environmental groups	“
Report on condition of above species	Annually	CCCOSC	“
ID plant species, include information in data base	TBD	CCCOSC	“
Monitor conditions of meadows; set standard for initiation of protection (trail closures or elimination, revegetation)	TBD	CCCOSC	“
Study use of magnesium chloride on water quality	TBD	Lookout Mountain Water District, CCCOSC	“
Contract for forest management plan (analyze forest health, recommend management techniques)	2007	CCCOSC USFS	“
Monitor tree mortality and causes	TBD	CCCOSC, CDOT	“
ID and monitor areas for wildlife	TBD	CCCOSC, CDOW	“
Begin species inventory, include in data bank and monitoring	2007	CCCOSC	“
Conduct historical survey to ID cultural resources	TBD	CCCOSC	“
Recreational Uses			
Monitor and report visitor use numbers & behavior	Annually, begin w/ 2007	FOBB, CCCOSC	“
Survey visitors re: crowding	2007	FOBB, CCCOSC	“

TBD means “To Be Determined.”

APPENDICES

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**APPENDIX A
ADDITIONAL RECREATIONAL USES TO BE
CONSIDERED**

The following recreational uses will be considered by the OSC at a later date.

Climbing

1. Climbing will be permitted in (ID area of BBW).
 1. Traditional climbing and bouldering will be allowed. Permanent bolts, as used in sport climbing, will not be allowed.
 2. Pull-out will be constructed along Beaver Brook Canyon Road for climber parking.
 3. Climbers will clean up after themselves.
 4. Climbing activities will be monitored for impacts on the resources, including wildlife.

Orienteering

1. Caches will be placed within 20 feet of the trail.
2. Orienteers will clean up after themselves.

Education and Interpretation

1. Paid ranger staff and volunteers will be trained to provide education and interpretation.
2. Signs will be used to educate visitors and interpret the resource.

APPENDIX B

ALTERNATIVES FOR MANAGING RECREATIONAL USES

Alternatives for managing recreational uses and controls are summarized in Table 7 on page 51. The planning team considered many techniques for managing recreational uses and selected those described on pages 23-30, “Defined Multiple Use.” However, as situations shift in the future, Clear Creek County may want to refer to the techniques not chosen. The following alternative techniques were considered and rejected by the planning team:

Alternative 1: Maximum Multiple Use

This alternative would provide the maximum range of visitor access and recreational opportunities. Considered to be compatible with the public’s desire to have access at all times for all non-motorized uses, Alternative 1 would protect resources only so far as they are the main attraction for visitors.

Restrictions would be implemented when an acceptable level of resource damage or crowding has been surpassed, rather than at the beginning of active management.

Alternative 1: Recommendations

Activities - General

1. Activities, particularly hunting, will be directed away from residences.
2. Activities, other than fishing, will be directed away from the reservoir.
3. Buffer zones will be created where possible.

4. Visitor uses and trends will be monitored to determine natural resources impacts and recreational carrying capacity.
5. Fires will be prohibited.
6. Representatives of user groups will be included in the volunteer patrols.
7. All users except hunters and anglers will be encouraged to stay on trails.
8. All existing roads and trails will remain open for visitor use.

Fishing

1. All anglers must hold a current Colorado fishing license and are subject to regulations of the CDOW.
2. Fishing will be allowed from the shore of the reservoir.
3. Fishing is not permitted from the dam or where posted.
4. Only artificial flies and lures will be used (no live bait).
5. Fishing will be allowed from ½ hour before sunrise to ½ hour after sunset.
6. Anglers will not wade in the water or use belly boats, pontoons, canoes or other floating equipment.
7. Catch and release will be the standard. Anglers will contact the water only as needed to release a catch.
8. Ice fishing will not be permitted.
9. Fishing activities will be monitored on a regular basis to determine types and number of fish in the reservoir, amount of fishing use, health of fish, *etc.*
10. Violators of standards are subject to federal, state and local laws and penalties, including LMWD regulations.

Hunting

1. Hunting will be allowed according to CDOW rules and regulations.
2. Signs will be posted indicating hunting activities so other visitors can take precautions.
3. Any deer or elk harvested will be tested for CWD and results submitted to CDOW.
4. Hunting activities will be monitored on a regular basis to determine types and numbers of animals harvested, health of animals, etc.
5. A minimum 500-foot setback will be established along all BBW property lines that are shared with private residences.

Hiking, jogging and running

1. Hiking, jogging and running will be permitted at all times that the BBW is open to use.
2. Hikers, joggers and runners will have right-of-way after horses but before mountain bikers. Signs at the kiosks will instruct hikers/joggers/runners to move off the trail for other users when it is safe.

Dog Walking

1. All dogs will be kept on a leash, per Clear Creek County Law.
2. Dog owners will be required to clean up after their animals.
3. Dogs are not permitted to enter the water.
4. Volunteer patrollers will be trained to deal with off-leash dogs and their owners.
5. Paid rangers will have ticketing and fining duties.
6. Visitors who want to exercise their dogs off-leash will be referred to nearby off-leash dog parks and trails.

Mountain biking

1. Mountain biking will be allowed at all times that the BBW is open to use.
2. All other users will have right-of-way before bikers. Signs will educate users about ROW rules, including how to ask other users to yield the trail.

Horseback riding

1. Horseback riding will be allowed at all times that the BBW is open to use.
2. There will be at least two horse trailer parking spaces at the Old Squaw Pass Road access. These can be in the pull-out area along the fence on Old Squaw Pass Road or in the parking lot. If they are on Old Squaw Pass Road, they can serve as school bus and large van parking spaces also.
3. Signage will indicate that all users are to clean up after their animals in the parking area.
4. Where there are gates at an access point, there will be horse friendly access as well.
5. Equestrians will have the right-of-way on all trails at all times. Signs at the kiosks will instruct riders to move off the trail for other users when it is safe.
6. Horses are not permitted in the water.

Overnight Camping

1. Overnight camping will not be permitted in BBW (except by special use permit).

Alternative 2: Pedestrian Single Use

This alternative would provide the highest quality visitor experience for a single user group, pedestrians. Alternative 2 would emphasize the protection of the resources most of all the alternatives. In addition, it would still provide a popular recreational use, hiking.

If Alternative 2 is selected, there would still need to be at least a two-tiered system of management units. Thus, restrictions to access for Sensitive Areas with threatened and endangered species and species of special concern would need to be implemented. In addition, most of the BBW would be designated as a Natural Area where pedestrian activities would be allowed. Because equestrians are only about 1% of the visitors to Front Range trails, they may be included in this alternative. A model for “non-mechanized” or “traditional” uses has been established by the USFS designated Wilderness Areas that allows hiking and equestrian use on trails.

Alternative 2 Recommendations:

Activities – General

Same as for Alternative 1.

Fishing

Same as for Alternative 1.

Hunting

Same as for Alternative 1.

Hiking, jogging and running

Same as for Alternative 1.

Dog Walking

Same as for Alternative 1.

Mountain biking, Overnight Camping

Not Permitted.

Horseback Riding

Optional

Alternative 3: No Action

This alternative would not have a budget and would not have recommended actions. Alternative 3 would emphasize “keeping things as they are.” It would still provide a site for popular recreational uses along with other activities that are required (hunting and fishing). However, there would be no system for management. The main feature of this alternative is that no facilities or amenities would be provided and there would be no paid enforcement. Since this is a “No Action” alternative, there are no recommendations.

APPENDIX C

Alternative Techniques to Control Recreational Uses

The BBW Planning Team considered and rejected the controls identified below. Nevertheless, there may come a time when the OSC will need to select a different alternative. Below are alternative techniques that can be considered for control or management of recreational uses:

1. Alternate weekends of use (biking, horseback riding)
Purpose of this technique: Reduce crowding
Suggested strategy: Alternate weekends of use May 1 – Oct. 1
PRO: Allows high quality recreation experience
CON: Negative attitudes towards management can arise, difficult to establish and monitor
2. User fees
Purpose of this technique: Limit number of users
Suggested strategy: Fee box at trailhead
PRO: Reduce crowding while collecting funds for Open Space, increase value of experience
CON: Taxpayers may resent additional fees above mill levies; requires enforcement
3. Disperse uses to USFS, other nearby areas
Purpose of this technique: Reduce crowding, encourage different users
Suggested strategy: Signage and volunteer efforts
PRO: Reduce crowding in BBW
CON: May be labor intensive, especially at first; USFS may not be prepared for more parking and more uses
4. Restrict types of uses
Purpose of this technique: Reduce crowding

Suggested strategy: ID types of uses, educate and enforce

PRO: Provide high quality experience for allowed users

CON: May cause resentment among disallowed users

5. Use volunteers to disperse use
Purpose of this technique: Reduce crowding, illegal parking
Suggested strategy: Set acceptable number of users, use volunteers to disperse additional users to nearby areas
PRO: Economical, uses recreationists to manage other recreationists
CON: May be difficult to achieve adequate staffing; some nearby areas may not be prepared to accommodate more users
6. Require decals or “lift” tickets for cyclists
Purpose of this technique: Provide high quality experience to all users
Suggested strategy: Determine desired level of use, issue decals for that number only to use
PRO: Reduces crowding
CON: Hard to administer; requires enforcement
7. Provide separate and equal areas
Purpose of this technique: Provide high quality experience to all users
Suggested strategy:
Develop a separate area away from Beaver Brook exclusively for cyclists, where other uses are not permitted
PRO: Reduces crowding
CON: May be costly and inconvenient for the cyclists

**APPENDIX D
BEAVER BROOK OPEN SPACE
EXISTING RULES AND REGULATIONS***

RESOLUTION 05-106

**ADOPTING RULES AND REGULATIONS FOR THE
PROTECTION, USE AND MANAGEMENT OF THE
BEAVER BROOK WATERSHED LANDS**

WHEREAS, Clear Creek County has recently acquired certain real property, hereinafter described and known as the Beaver Brook Watershed Lands, for public open space and public recreation purposes; and

WHEREAS, the Beaver Brook Watershed Lands are a “recreational facility” within the meaning of §29-7-107, CRS; and

WHEREAS, the Beaver Brook Watershed Lands are under the management of the Clear Creek County Open Space Commission; and

WHEREAS, the Clear Creek County Board of County Commissioners acknowledges the need for rules and regulations to ensure the proper protection, use and management of the Beaver Brook Watershed Lands; and

*Regulations may be amended to reflect the recommendations of the BBW Management Plan.

WHEREAS, these rules and regulations have been recommended by the Clear Creek County Open Space Commission to the Clear Creek County Board of County Commissioners, which acknowledges that community input is both necessary and appreciated in formulating rules and regulations with regard to the protection, use and management of the Beaver Brook Watershed Lands; and

WHEREAS, pursuant to §29-7-101, CRS, Clear Creek County has the power, authority and jurisdiction to enact such rules and regulations respecting the protection, use, and management of the Beaver Brook Watershed Lands as may be deemed by the Board of County Commissioners to be in the best interests of the county and its inhabitants; and

WHEREAS, recreational use of lands is an important aspect to the quality of life of the residents of and visitors to Clear Creek County; and

WHEREAS, the impacts on such lands need to be minimized in order to preserve and maintain the quality of the experience in Clear Creek County.

NOW, THEREFORE, BE IT RESOLVED BY The Board of County Commissioners of the County of Clear Creek, Colorado that the following Beaver Brook Watershed Lands Rules and Regulations are adopted:

Section 1: Definitions.

Archaeological resource means any material remains of prehistoric or historic human life or activities which are of archaeological interest and are at least 50 years of age, and the physical site, location, or context in which they are found.

Beaver Brook Watershed Lands means all land acquired by Clear Creek County and described in that certain Deed, recorded in the real estate records of Clear Creek County, Colorado, on April 11, 2005, at reception number 232580, Book 727, and Page 205.

Beaver Brook Watershed Lands trails means any trail which lies either wholly or partly within the Beaver Brook Watershed Lands and which is currently in existence at the time these rules and regulations are enacted and/or any trail which is hereafter constructed, or which has been included in the Beaver Brook Watershed Lands Trails system plan.

Campfire means a fire, not within any building, mobile home, or living accommodation mounted on a motor vehicle, which is used for cooking, personal warmth, lighting, ceremonial or esthetic purposes. Fire includes campfires.

Camping means the temporary use, not to exceed 14 days, of the Beaver Brook Watershed Lands for

the purpose of overnight occupancy without a permanently fixed structure.

Damaging means to injure, mutilate, deface, destroy, remove, cut, chop, girdle, dig, excavate, kill or in any way harm or disturb.

Firearm means any pistol, revolver, rifle, or other weapon of any description from which any shot, projectile, or bullet may be discharged.

Historical Resource means any structural, architectural, archaeological, artifactual or other material remains of past human life or activities which are of historical interest and are at least 50 years of age, and the physical site, location and context in which they are found.

Motorized equipment means any machine except small battery powered, hand held devices such as, without limitation, cell phones, flashlights, shavers, Geiger counters, and cameras.

Motor vehicle includes any self-propelled device by which persons or property may be moved, carried, or transported from one place to another by land, water, or air, except devices operated on rails, tracks, or cables fixed to the ground or supported by pylons, towers, or other structures

Person means natural person, corporation, company, partnership, trust, firm, or association of persons.

Special use authorization means a written permit which allows occupancy or use rights or privileges on Beaver Brook Watershed Lands.

Stove fire means a campfire built inside an enclosed stove or grill, a portable brazier, or a pressurized liquid or gas stove, including a space heating device.

Section 2: Beaver Brook Watershed Lands Rules and Regulations

2.1.1 *Permitted Activities*

The following recreational activities are permitted on Beaver Brook Watershed Lands:

- a. Hiking.
- b. Mountain biking on trails.
- c. Snowshoeing.
- d. Cross country skiing.
- e. Picnicking.
- f. Hunting and fishing under DOW regulations and as otherwise described herein.
- g. Horseback riding.

- h. Dogs are permitted on leash only.

2.1.2 *Hours*

All legal activities are permitted only between the hours of four a.m. and midnight.

2.2 Prohibited Activities

2.2.1 Fire:

- a. The construction, ignition, or use of any fires, including, without limitation, campfires or stove fires without first obtaining a Special Use Authorization is prohibited.
- b. Carelessly or negligently throwing or placing any ignited substance or other substance that may cause a fire is prohibited.
- c. Causing timber, trees, slash, grass or brush to burn is prohibited except if done pursuant to Special Use Authorization or for approved management purposes.
- d. Leaving a fire without completely extinguishing it is prohibited.
- e. Allowing a fire to escape control is prohibited.
- f. Building, attending, maintaining a campfire without

removing all flammable material from around the campfire adequately to prevent its escape is prohibited.

g. Building, maintaining or using fire or campfire in posted fire safety areas is prohibited.

h. Campfires, stove fires, and all other fires, including smoking, may be eliminated, curtailed, or otherwise further regulated by order of the Clear Creek County Sheriff, Fire Chief, or other responsible County official in the event it is determined, in conformance with any fire ban ordinance promulgated by Clear Creek County, that a fire hazard restriction or closure is necessary and/or warranted.

2.2.2 Natural and Cultural Resources:

a. Damaging any natural feature or other property of the Beaver Brook Watershed Lands is prohibited.

b. Removing any natural feature or other property of the Beaver Brook Watershed Lands is prohibited, except as approved by the Clear Creek County Board of County Commissions and/or Open Space Commission, and subject to

both the state permitting process in C.R.S. §24-80-401(ff) and the conservation easement recorded in the real estate records of Clear Creek County, Colorado, on March 11, 2005, at Reception Number 232582, Book 727, and Page 212.

c. [left intentionally blank]

d. Removing any plant materials without a written permit is prohibited.

e. Using any pesticide except for personal use or as provided by Special Use Authorization is prohibited.

f. Digging in, excavating, disturbing, injuring, destroying, or in any way damaging any prehistoric, historic, or archaeological resource, structure, site, artifact, or property is prohibited.

g. Removing any prehistoric, historic or archaeological resource, structure, site, artifact or property is prohibited.

h. [left intentionally blank]

2.2.3 Timber and other forest plants:

a. Cutting or otherwise damaging any timber, tree, or other forest plants without a Special Use Authorization is prohibited.

- b. Removing any timber, tree or other forest plants is prohibited, except as authorized by a Special Use Authorization.
- c. All timber, tree, or other forest plant prohibitions may be waived and

2.2.4 Uses:

- a. Constructing, placing, or maintaining any kind of road, trail, structure, fence, enclosure, communication equipment or other improvement on Beaver Brook Watershed Lands without a Special Use Authorization or except as allowed by an approved operating plan is prohibited.
- b. Overnight use of any fixed structure and/or historic ruin unless permitted pursuant to Special Use Authorization is prohibited.
- c. Camping on Beaver Brook Watershed Lands without a Special Use Authorization is prohibited.
- d. Selling or offering for sale, bartering or trading any merchandise or conducting any business activity or service which uses Beaver Brook Watershed Lands or resources without a Special Use Authorization is prohibited.

permitted by Special Use Authorization or for those management purposes which have been approved by the Clear Creek County Open Space Commission.

- e. Discharge of a firearm except during established hunting seasons for the purposes of hunting is prohibited.
- f. Abandoning any personal property on Beaver Brook Watershed Lands is prohibited.
- g. Disseminating, posting, placing or erecting any paper, notice, advertising material, sign, handbill, petition or similar written and/or graphic matter on Beaver Brook Watershed Lands without a Special Use Authorization is prohibited.
- h. Operating or using, without a permit or license, any devices on Beaver Brook Watershed Lands which produce noise in such a manner and at such a time so as to unreasonably disturb any person is prohibited.
- i. The possession and/or use of fireworks on Beaver Brook Watershed Lands is prohibited.

2.2.5 Trails:

- a. Damaging and leaving in damaged condition any designated road, trail, or segment thereof within the Beaver Brook Watershed Lands is prohibited.
- b. Blocking, restricting or otherwise interfering with the use of a road, trail or gate within the Beaver Brook Watershed Lands is prohibited, except for administrative or management purposes by members of any Clear Creek County agency and/or County designees.

2.2.6 Vehicles:

- a. Possessing or using any motorized vehicle on any road, trail or property located within the Beaver Brook Watershed Lands is prohibited, unless within an area specifically designated and posted for vehicular use or under Special Use Authorization or for management purposes by County agencies and/or County designees.
- b. This section 2.2.9 shall not apply to persons utilizing existing roads and easements for access to private property interests, disabled persons using mechanized conveyances such as wheelchairs,

and law enforcement and emergency personnel.

2.2.7 Regulations Subject to Amendment:

The Board of County Commissioners reserves the right to amend or adopt additional rules and regulations and/or use closures as it deems necessary, from time to time.

Section 3.0: Special Use Authorizations:

When in its judgment such authorization is in the best interest of preserving the Beaver Brook Watershed, the Clear Creek County Open Space Commission may authorize by written Special Use Authorization uses otherwise prohibited in these rules and regulations. Said Special Use Authorizations must be in writing and may only be issued by the Clear Creek County Open Space Commission.

Section 4.0: Enforcement

4.1 Penalty Assessment:

More restrictive statutes and County ordinances may apply to activities in and to the use of the Beaver Brook Watershed Lands, notwithstanding anything to the contrary contained in these rules and regulations. Unless a penalty is otherwise established in the Colorado Criminal Code, Clear Creek County Ordinances, or other laws, for the violation of conduct which is also prohibited by

these rules and regulations, any person who violates any provision of these rules and regulations commits a class 2 petty offense and, upon conviction thereof, shall be punished by a fine of not more than three hundred dollars for each separate violation.

4.2 Procedure:

The penalty assessment procedure provided in C.R.S. Section 16-2-201 may be followed by any arresting law enforcement officer for any violation of these rules and regulations.

///remainder of page intentionally left blank///

BE IT FURTHER RESOLVED that the foregoing Rules and Regulations shall be in force and effect beginning August 25, 2005.

ADOPTED this _____ day of _____, 2005, at a regularly scheduled meeting of the Clear Creek Board of County Commissioners.

Harry Dale, Chairman

Kevin J. O'Malley, Commissioner

Joan Drury, Commissioner

ATTEST:
Approved as to form:

Deputy Clerk and Recorder
Robert W. Loeffler, County Attorney

**APPENDIX E
BEAVER BROOK WATERSHED ISSUES
FROM PUBLIC OPEN HOUSE, DEC. 2005**

ISSUES:

Management and administration

- Enforcement
- Interpretation
- Public Relations
- Funding
- Staffing
- Area Identity
- Property line adjustment needed
- Maintenance.
- Site management
- Need review of easement agreement and Beaver Brook regulations

Rule Violations

- Alcoholic beverages
- Motorized vehicles
- Fires
- Pontoon boats on reservoir
- Dogs off-leash
- Swimming in reservoir
- Overnight camping
- Unauthorized shooting activities
- Hunting violations
- Fence cutting
- Fishing

Resource Impacts

- Erosion
- Water Quality
- Protection of endangered vegetation
- Forest health
- Wetlands
- Wildlife
- Fire mitigation

- Fencing
- Industrial waste materials
- Weeds
- Impacts of recreational use
- Industrial uses
- Historic foundations

Facilities

- Restrooms
- Kiosks
- Memorial recognitions
- Interpretive facilities
- Trail surfaces
- Benches
- Hitching posts
- Parking
- Gate design
- Signs
- Shelters

Recreational Uses

- Fishing
- Hunting
- ADA accessibility
- Trail system
- Horseback riding
- Mountain biking
- Hiking/jogging
- Rock climbing
- Camping
- Special management areas
- Visitor use, trends
- Wildlife viewing
- Visual qualities
- XC skiing
- Dogs
- Orientation

Education & Interpretation

APPENDIX F
SCIENTIFIC NAMES OF SPECIES FOUND IN
BEAVER BROOK WATERSHED

VEGETATION

Ponderosa pine - *Pinus ponderosa*

Lodgepole pine - *Pinus contorta*

Douglas fir - *Pseudotsuga menziesii*

Englemann spruce - *Picea englemanii*

Aspen - *Populus tremuloides*

WILDLIFE

Red fox - *Vulpes vulpes*

Gray fox - *Urocyon cinereoargenteus*

Coyote - *Canis latrans*

Black bear - *Ursus americanus*

Elk - *Cervus elaphus*

Mule deer - *Odocoileus hemionus*

Bobcat - *Lynx rufus*

Mountain lion - *Felis concolor*

Wild turkey - *Meleagris gallopavo*

**APPENDIX G
ORGANIZATIONS AND ACRONYMS**

Beaver Brook Watershed	BBW
Great Outdoors Colorado	GOCO
Clear Creek County Open Space	CCCOS
Open Space Commission	OSC
United States Forest Service	USFS
City of Denver Mountain Parks	DMP
Colorado Division of Wildlife	CDOW
Clear Creek County Open Space Commission	CCCOSC
Lookout Mountain Water District	LMWD
Mountain Area Land Trust	MALT
Friends of Beaver Brook Watershed	FOBB
The Evergreen Naturalists and Audubon Society	TENAS
Jefferson County Open Space	JCOS
Intermountain Rural Electric Association	IREA
State Land Board	SLB
Open Space Program	OSP
Colorado Department of Transportation	CDOT

**APPENDIX H
SUMMARY OF COMMENTS FROM PUBLIC MEETING**

**June 28, 2006
7-9 PM
Clear Creek High school**

HDDP consultants presented a summary of the plan using a Powerpoint slide show. Questions and comments followed.

Comments:

Ty Petersburg, CDOW- Fishing regulations will need to be coordinated with CDOW. CDOW wants to see rifle hunting allowed. A single use closure is a possibility. This means closing BBW to all uses except hunting during hunting season. Another approach is to permit hunting later in the season to reduce user conflicts. Most hunting accidents occur near the hunter's vehicle and occur with game bird hunting.

CDOW will not enforce Clear Creek County regulations regarding hunting in BBW if they do not match CDOW regulations.

Frank Young, CCOSC

said the Planning Team recognized the need to harvest elk. The Planning Team looked at several options provided by CDOW and considered safety, the various uses, and attempted to reduce potential overlap between user groups.

It was stated that there is no water contact in the reservoir.

Dianne Gensauer, GOCO, stated that a management plan was required by GOCO. They commend the management planning process. The money for the purchase of Clear Creek County's 1500 acres was a loan, but could become a grant if necessary. GOCO's concern is that nothing in the management plan limits the desirability for a USFS purchase.

It was explained by Frank Young that Clear Creek Open Space will continue to manage BBW per the management plan, as if the County will continue to own it. To try to consider all possible futures is too complex.

A member of the audience stated opposition to the closure of the existing trail below the dam along N. Beaver Brook.

A question was asked about whether the BBW Management Plan was coordinated with surrounding public land managers. The consultant answered that the plan was referred to the surrounding agencies and that a representative from the USFS and also Lookout Mountain Water District were on the Planning Team.

Another question was asked about completing a forest management plan. The consultant answered that the plan calls for this action as soon as possible. The USFS is planning to complete a forest management plan for their portion of the watershed in cooperation with Clear Creek County.

A question was asked about the prohibition of camping. It was explained this regulation exists primarily because of fire danger. Camping for groups and special events could be allowed via a special permit. It was stated that criteria need to be written for granting such a permit. It was also asked whether the public could have input on the permits. Frank Young replied that the OSC meetings are open with the agenda posted on the web site. Residents could comment by e-mail or regular mail.

A question was asked about the lack of picnic areas in the plan. The consultant replied that the focus is on natural resources and that picnicking gives a different image than the team wanted. Picnicking also brings a new set of problems, including trash and increasing use. There are several picnic areas nearby.

An attendee commented that he appreciates the concern for the forest.

The meeting adjourned at 8:45 PM.