

Modoc Line Rail to Trail Project



Precedent Summary

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I. INTRODUCTION

Trails selected for study included a range of trail types and settings, to provide a broad range of information useful to the Modoc Line Rail to Trail project. The following criteria were used to select an appropriate range of projects.

1. local trail
2. joint CEQA & NEPA required for approval
3. trails that cross multiple jurisdictions including county and federal agency jurisdictions
4. multi-use facilities in rural areas
5. trail standards

Projects selected:

- Susanville Westwood Trail "Bizz Johnson Trail"
- Black Rock Unit - Trail Management Plan
- Oregon, California & Eastern Woods Line State Trail Plan
- Jefferson County Non-Motorized Transportation and Recreational Trails Plan
- Calabasas Trails Master Plan
- Saratoga De Anza Trail Project
- Elora Cataract Trailway Management Plan
- Santa Monica Mountains National Recreation Area Trails Management Plan

The management plans for the projects are profiled, focusing on providing information that may be relevant to the developers of the Modoc Line Rail to Trail project. A consistent structure has been provided in the profiles to provide comparisons between the projects. (See Appendix 1 for Structure for Research) A summary table has also been provided to assist in drawing comparisons, structured in the same way as the more detailed text and identifying subject areas under which content has been provided.

The trail management plans are included in Appendix 2.

II. TRAIL MANAGEMENT PLAN SUMMARY TABLE

Modoc Line Rail to Trail
Study Precedent Summary

Name	Location	Existing Conditions				Proposed Uses and Facilities			Operations and Administration					
		Physical resource documentation	Cultural resource documentation	Land Acquisition	Trail Uses	Developments/Facilities	Trail Construction Standards	Marking/Signage	Restrictions & Regulations	Operation & Maintenance	Costs/Budget	Fundraising	Approval Process/Implementation	Designations
Susanville Westwood Trail "Bizz Johnson Trail"	Susanville, CA	X	X	X	X	X			X		X		X	X
Black Rock Unit - Trail Management Plan	Falls City, Oregon (approx. 3 miles west)							wayfinding, level of difficulty		X			X	
Oregon, California & Eastern Woods Line State Trail Plan	Oregon, California & Eastern Railroad	X			X	X	X			X				
Jefferson County Non-Motorized Transportation and Recreational Trails Plan	Jefferson County, Washington					X					X		X	
Calabasas Trails Master Plan	City of Calabasas, CA (near Santa Monica Mountains)					X	X	wayfinding, public safety & trail policy		X			X	
Saratoga De Anza Trail Project	City of Saratoga, CA							public safety, trail policy	X	X				
Elora Cataract Trailway Management Plan	Ontario, Canada	X		X	X	X		wayfinding & regulatory	specific regs for snowmobiling	X		X		
Santa Monica Mountains National Recreation Area Trails Management Plan	California	Analysis required as part of EIS/EIR	Analysis required as part of EIS/EIR	X	X	some	to be confirmed	to be confirmed	to be confirmed	to be confirmed	to be confirmed	to be confirmed	to be confirmed	to be confirmed

Notes:

1. A shaded "x" denotes the plan has this category of information included
2. Text is included where the type of information provided is specific or needs clarification for the purpose of this summary

III. TRAIL MANAGEMENT PLAN REVIEWS

Susanville Westwood Trail "Bizz Johnson Trail"

Susanville, California

1. BACKGROUND OF DOCUMENT

Year produced: 1983? – to be confirmed

Author & collaborators (if any): BLM & USDA, Forest Service

Description of trail: The 25.4 mile trail is located in north-eastern California in Lassen County along an abandoned rail corridor. A road connects the western end of the trail to Westwood, the adjoining town. The rail corridor comprised federal and private land resulting in a need for land acquisition.

The trail has been constructed.

2. EXISTING CONDITIONS

a. Physical Resource Documentation

The plan documents topography/geology, climate, water, soils, erosion problems, vegetation/timber, wildlife/fisheries and visual quality (VQO for Forest Service land – FS Manual 2380 and VRM for BLM land – BLM Manual 8400).

b. Cultural Resource Documentation

Inventories of the project area were conducted along the length of the trail and a summary of found objects and resources provided.

c. Land Acquisition

The trail corridor was partially located on private land. Land exchanges and easements were pursued to enable completion of the trail and were documented in the Management Plan.

d. Existing Trail Uses

Recreation facilities in the project area were documented. It was noted that they were related to trail use and not to camping use. The type, origin and amount of existing use was documented, including identification of current trail alignments and trailheads.

3. PROPOSED USES & FACILITIES

a. Goals, Objectives & Approach

A broad goal for the project was provided, supported by specific management objectives. The plan defines a management strategy based on Recreation Opportunity Spectrum Classifications (Urban, Roaded Natural, Semi Primitive Motorized and Semi Primitive Non Motorized) for individual parcels, allowing goals to be set for each parcel that can be achieved through specific management actions. The ROS of a parcel is determined based on existing conditions according to physical characteristics, social setting (amount & type of use) and managerial setting (amount of or lack of control placed on recreation use). Each area is given a proposed ROS through the planning process which provides goals for management based on the ROS criteria.

A Management Program is established based on the criteria established by the ROS system and broad recommendations are made for the entire trail system for resource management, land tenure adjustments, visitor services, facility development, maintenance, administration and monitoring. Specific information relevant to the Modoc Line Rail to Trail is outlined below:

b. Uses

Proposed trail uses are identified by trail segment (of which there are 3). They include pedestrian, equestrian, cross country skiing, bicycle and handicapped options. All these uses would share the trail alignment. Motorized use is allowed on specific segments of the trail pending monitoring (for example snowmobiles in winter).

c. Developments/Facilities

Proposed Facilities are identified by trail segment (of which there are 3)

- trailheads
 - access requirements and type of access is defined
 - access to be managed through use of physical barriers
 - directional and informational signage to be provided
 - surface type on paving lot specified (gravel)
- camping areas
 - plan defines if camping is allowed by segment and recommends doing an inventory of appropriate sites
 - separate equestrian camps to be established if alternative equestrian trail alignments are established
- day use areas
 - recommended facilities are outlined: picnic tables, fire grates, vault toilets and trash cans
- trail construction standards
 - trails to be existing surface in some segments and hardened in others only if future use demands
 - if equestrian use provides conflicts, alternative trail alignment to be considered
 - 5' wide segments of trail specified in some segments
- marking/signage

- recommended by segment. Includes directional, information and interpretive signage.

d. Resource Management

Developing access to water and vegetation management is discussed.

4. OPERATIONS & ADMINISTRATION

a. Restrictions & Regulations

Permits required for camping areas & a 7 or 14 day camping limits proposed (varies by segment).

b. Operations & Maintenance

Defined by trail segment. Mostly relates to responsibility and frequency for trail patrol and pack it in pack it out campaign.

c. Costs/Budget

An estimate of staffing needs is provided to support the implementation and operations/management of the trail.

d. Fundraising Opportunities/Strategies

N/A

e. Approval Process & Implementation

The plan discusses the agreements required for effective implementation and operation of the trail. These include a cooperative agreement between the BLM and USFS, a law enforcement agreement, a snow removal agreement and a memorandum of agreement specific to the management of cultural resources.

f. Designations

The plan recommends the trail be nominated for designation as a National Recreational Trail.

g. Monitoring

A series of monitoring objectives and specific related actions are identified in the plan. These range from achieving a compatible mix of trail uses (the action is to conduct surveys and counts) to providing opportunities for information and interpretation of unique resources and features along the trail (complete an interpretive management plan and review effectiveness annually).

Black Rock Unit – Trail Management Plan

Falls City, Oregon

1. BACKGROUND OF DOCUMENT

Year produced: unknown

Author & collaborators (if any): Oregon Department of Forestry and the Black Rock Freeride Association

Description of trail: Series of trails located within the Black Rock Unit of the Oregon Department of Forestry (approx. 3 miles west of Falls City, Oregon) which comprises approx. 1000 acres. The trails are focused on “free ride mountain bicycling”.

2. EXISTING CONDITIONS

N/A

3. PROPOSED USES & FACILITIES

a. Goals, Objectives & Approach

The purpose of the document is to “establish a procedure to ensure that trails and man-made technical features are built in a manner that is environmentally responsible, that they create no hazards that are not inherent and understood as common to the sport of mountain biking, that they are properly marked to allow riders to make informed decisions as to the appropriateness of risk and to ensure long term sustainability.”

General guidelines are provided based on the International Mountain Bicycling Association (IMBA) guidelines. They include the following:

1. minimizing liability - through marking trails with difficulty levels, building technical challenges to approved standards and offering alternative routes,
2. maximizing safety - by signing technical trail features, allowing users to see them in advance, and providing flow in the trail design,
3. reducing user conflict – by providing a varied trail system to disperse users, providing accurate trail maps and providing clear trail signage, and
4. improving communication and partnerships – by encouraging involvement in the mountain bike club activities and consulting with freeriders in the design of the trails.

b. Uses

The management plan is focused on “free ride mountain bicycling” as defined by the International Mountain Bicycling Association (IMBA). This use involves negotiating technical challenges/obstacles on the trail.

c. Developments/Facilities

- trailheads
- camping areas
- day use areas
- trail construction standards
 - IMBA’s “Building Better Trails” www.imba.net
 - man-made technical features rated according to Whistler Trail standards
 - Level 1 – Beginner, Level 2 – Easy, Level 3 – Intermediate, Level 4 - Advanced
 - and, specific loads are provided that the trail surface must support
- marking/signage
 - trail markers at trail entrance and each intersection with existing trails
 - signage needs to include trail name, difficulty rating, brief description of the reason for the rating and special considerations (cautions, warnings etc.)
 - need to be able to be submerged in water without affecting the sign markings
 - construction signage to be provided saying “Dead end! Trail in construction – Do not Use”

d. Resource Management

N/A

4. OPERATIONS & ADMINISTRATION

a. Restrictions & Regulations

A trail may be decommissioned if a trail manager is lost and a replacement cannot be found, if maintenance is not carried and/or at the discretion of the District.

b. Operations & Maintenance

The designated trail manager is responsible for annual maintenance which may occur from late Fall to early Spring. Maintenance should include:

1. removal of living obstructions
2. restoration of trail to current technical rating
3. repair of man-made technical features
4. repair and bypass of areas of erosion

The district may require special maintenance be carried out for a specific trail to address erosion or safety concerns.

c. Costs/Budget

N/A

d. Fundraising Opportunities/Strategies

N/A

e. Approval Process & Implementation

Trail alignments can be proposed by individuals who use the trails and submitted on a map with supporting information such as GPS coordinates and proposed technical rating. The trail will be marked in the field, and walked with a Representative of the District Forester who will recommend the project to the District for approval. Once this approval is gained, the trail may be built. Final approval is given once a final trail map has been submitted a final walk-through has taken place.

f. Designations

N/A

g. Monitoring

N/A

Oregon, California & Eastern Woods (O&CE) Line State Trail Plan

Oregon, California, and Eastern Railroad

1. BACKGROUND OF DOCUMENT

Year produced: 2007

Author & collaborators (if any): Rocky Houston, State Trails Coordinator, Oregon Parks and Recreation Department

Description of trail: The 100 mile trail (described as a linear park) is located on the historical Oregon, California & Eastern Railroad. It is a non-motorized trail that provides opportunities for hiking, equestrian, snow-skiing and bicycling opportunities. Some sections of trail are paved but much of it is unpaved.

Trail segments have been installed incrementally since 1995 as have trailheads, crossing signals and interpretive signs.

2. EXISTING CONDITIONS

a. Physical Resource Documentation

A natural resource inventory is provided which includes an inventory of wetlands and sensitive habitats and a review of the Oregon Natural Heritage Information Database to identify potential threatened or endangered species. Two distances were established for the survey, 5 miles and 1/10th of a mile. This was to identify potential species that could have habitat on the trail and those that could be impacted by the trail and surrounding activities. In visually or environmentally sensitive areas, special construction methods were identified to protect the site. See Resource Management.

b. Cultural Resource Documentation

The plan includes information about relevant regional and state-wide planning efforts that may assist or affect the project.

c. Land Acquisition

Property was identified that could benefit the trail through providing access and areas for trailheads.

d. Existing Trail Uses

N/A

3. PROPOSED USES & FACILITIES

a. Goals, Objectives & Approach

The plan establishes a vision and a series of goals and objectives to meet in order to achieve the vision. It also details benefits of greenways and trails and safety issues, including economic, social, community safety, crime control and emergency vehicle access, community involvement and park trail events and publicity.

b. Uses

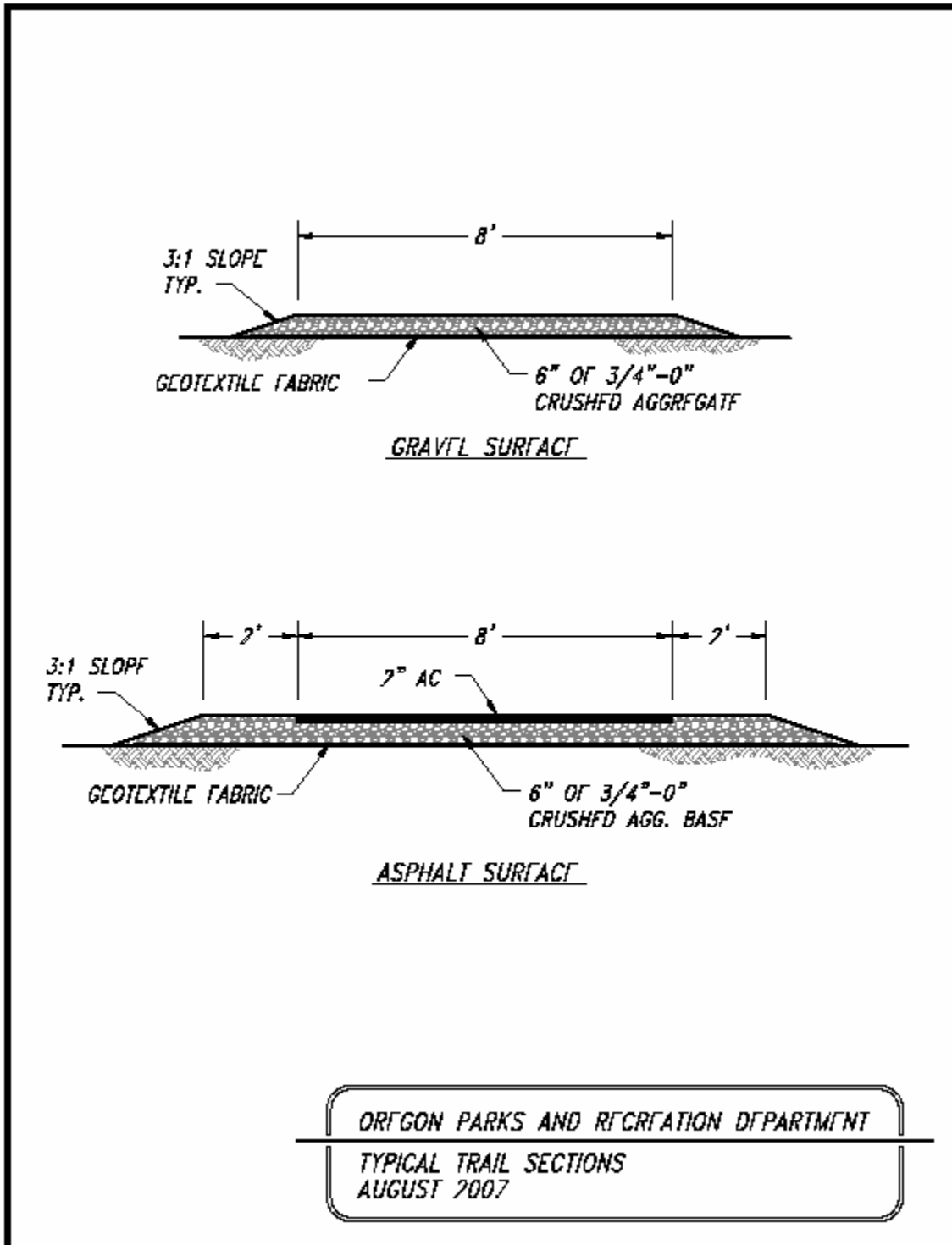
Hiking, equestrian, snow-skiing and bicycling opportunities are the primary focus of the trail. Other non-recreational uses are also identified and include grazing, vehicle access, access points/crossings, cattle movement and cultural, historical, natural & wildlife resources preservation. The plan observes that non-recreational uses are secondary and will be allowed only on specific sections of trail for specific circumstances at specific times of year. Specific policies and implementation steps are included.

c. Developments/Facilities

- trail segments
 - Urban section, approx. 9 miles – 10-12 ft wide, paved, allows all non-motorized recreation. A natural surface trail less than 2' in width will be allowed for equestrian, mountain bikers and hikers.
 - Gateway section, approx. 30 miles – 8 ft wide, compacted gravel, allows all non-motorized recreation. A natural surface trail less than 2' in width will be allowed for equestrian, mountain bikers and hikers.
 - A 5' wide paved trail. With 5' compacted gravel trail connected will be considered in the future (long term goal a 10' wide pavement trail)
 - Sprague River Section, approx. 25 miles – 8 ft wide, compacted gravel, allows all non-motorized recreation.
 - Woods Line Section, approx. 30 miles – 8 ft wide, rolled native materials, allows all non-motorized recreation.
- trailheads
 - outlines existing and proposed locations and amenities for:
 - pedestrian access trailheads
 - Could contain minimal signage & bollards to reduce unauthorized access to the trail. Could have an information kiosk, trail map, park rules sign and benches.
 - vehicle access trailheads
 - Standard – surface typically gravel. Could contain bollards, informational signage, an information kiosk, trash receptacles and benches or picnic tables. Seasonal restrooms may be provided.
 - Developed – as for standard with the addition of a vault toilet. May have additional day use facilities, interpretive features or serve as destination trailheads along the trail.

- Deluxe – key sites for enhancing access to outlying sections of the trail and will include amenities like water, electricity, hosts. Trailheads typically paved.
 - equestrian/large vehicle access trailheads
 - These will have a larger turning radius (up to 85’) and parking for trailers. The trailhead may have any of the amenities associated with the vehicle access trailheads.
- camping areas
 - Primitive camping could be an added feature at vehicle access trailheads (developed and deluxe) and at equestrian/large vehicle access trailheads.
- day use areas
 - incorporated into trailhead areas – see above.
- trail construction standards
 - Trail construction guidelines should include width, surface materials, slopes, appropriate sight distances, signs and trail curvatures. Trail use types should be identified and different standards for various trail type uses delineated.
 - Roads at trail crossings need to be designed to minimize potential vehicle/trail user conflict.
 - Create pedestrian friendly zones at crossings.
 - American Association of State Highway and Transportation Officials (AASHTO) and/or national standards should be followed where practical but the dynamic nature of outdoor recreation on the OC&E Trail may require unique standards.
 - Materials indigenous to the site should be used if possible and if they are not indigenous, they should be appropriate to the historic character of the site.
 - Trails to be located and constructed in a manner to minimize maintenance and maximize access.
 - Trails should follow natural contours where possible.
 - Drainage features should be constructed to reduce erosion.
 - Trail cross slope should be between 5-8% for natural surfaced trails and 1-2% for paved and concrete surfaced trails.
 - Trail running slope should be less than 8% as allowed by natural contours.
 - Trail slopes should match expected user volumes and types (Refer to AASHTO Guide for the Development of Bicycle Facilities).
 - Environmentally sensitive sites need to have special construction methods applied on a case by case basis to reduce impacts and minimize disturbance.
 - 10’ vertical clearance from the trail surface recommended for 10’ across the clear width of the path.
 - 2’ minimum horizontal clearance guideline.
 - Surface materials

- Natural – will be existing rail bed that will have ballast or native soils. These will be rolled and be an average 8' in width. Other natural surface trails will be trails adjacent to the main trail that will serve as alternatives for equestrians, mountain bikers or hikers. They will typically be 2' in width, less than 10% in their slope and have a 5-8% cross-slope.
- Gravel – typically 8' in width with a geotextile under aggregate to minimize compaction of material into ballast and native soils. Aggregate will be 6"



- contractor's grade $\frac{3}{4}$ minus crushed aggregate. In sections where there is sufficient ballast, 4" of aggregate can be used.

- Asphalt – typically 8’ width that could be 10’-12’ in Urban sections to reduce user density issues. Outlying sections of the trail could reduce to 5’. Geotextile should be used in all asphalt sections of trail. Surface will comprise a minimum of 2” asphaltic concrete with a minimum 4” ¾ minus crushed aggregate base, with a preferred base of 6” depth. Shoulders will be 2’ width, 3’ where possible.
- Americans with Disabilities Act (ADA) compliant facilities
 - All trails that provide access between parking lots and public facilities will comply with ADA. All of the OC&E State Trail grades comply with ADA but the firmness may not meet requirements on certain segments of trail.
- marking/signage
 - Regulatory signs will be governed by the Manual on Uniform Traffic Control Devices (MUTCD) section on ‘Traffic Control Devices for Bicycle Facilities’ and will apply to all multi-use paved trails within the jurisdiction of road right of way. The Oregon Parks and Recreation Department (OPRD) and OC&E State Trail Sign Manual will be followed for all other signs.
 - Signs at trailheads and significant access points should specify allowed uses and define user etiquette. Information will be provided for direction, safety and trail policy.
 - Trail User information sign – should include a trail map
 - Trail courtesy sign – at all trailheads and access points
 - Trail mileage markers – every ½ mile
 - Yield hierarchy sign – all major access points or multi-use trails
 - The Management Plan requires an Interpretation Plan be developed.
 - Based on Interpretive Level of Service Descriptions, the OC&E trail has been determined to be a Level 2 park. This means that self-guided opportunities would be provided such as sign structures, walks and tours. Occasional seasonal staffed programs would be run with staff coming from an area office. Programming might be event or request based.
 - Trailhead counters to be placed at a minimum of 1 per trail section, with goal of trail counter at the major trailheads.

d. Resource Management

Where visually or environmentally sensitive areas exist, guidelines for design/construction were established. These related to construction practices for sensitive sites, erosion control, existing vegetation, re-vegetation, noxious weeds, wetlands, visually sensitive areas, environmentally hazardous areas, and micro-climatic trail use opportunities (good for summer and winter use).

4. OPERATIONS & ADMINISTRATION

a. Restrictions & Regulations

See Marking/Signage above.

b. Operations & Maintenance

The management plan requires a staffing plan be prepared in addition to a maintenance plan that provides annual, quarterly, monthly and weekly maintenance prioritizations. It provides guiding principles for successful operations and maintenance programs and what should be included in the plan:

1. Maintenance: routine and remedial
2. User safety and risk management
3. Programming & Events
4. Resource Stewardship and enhancement
5. Marketing & Promotion
6. Oversight & Coordination
7. Mile markers (for maintenance & trail user information)

c. Costs/Budget

An annual budget should be developed based on an Operations and Maintenance Manual that lists all functions, frequency of tasks, quality standards and estimated unit costs. This should be extrapolated into 5 year increments and potential funding/revenue sources identified with a methodology for review and application for funds.

d. Fundraising Opportunities/Strategies

The Management Plan requires a Development Plan be prepared that would identify resources internally from Oregon Parks and Recreation Department and externally (grants, volunteer organizations, donations etc.)

Oregon Parks and Recreation Department encourages its trail partners (38 partner groups identified at the beginning of the planning process) to seek funding opportunities.

e. Approval Process & Implementation

Phasing was identified through developing a priority list for trail features and segments of trail based on benefit to trail users and meeting overall project goals set by the steering committee. Priority one was for 2-3 funding cycles, Priority two was for 3-6 funding cycles, Priority three was for 5-10 funding cycles and Priority four was not time specific, being taken on if funding and opportunities arise.

a. Designations

N/A

f. Monitoring N/A

Jefferson County Non-Motorized Transportation and Recreational Trails Plan

Jefferson County, Washington

1. BACKGROUND OF DOCUMENT

Year produced: 2002

Author & collaborators (if any): Jefferson County

Description of trail: The plan deals with non-motorized transportation and recreational trails in Jefferson County, Washington. A number of trail types, routes and user groups are detailed. Although the planning context is different to the Modoc Line Rail to Trail because it is County based, the information in the plan and its overall structure is still relevant, particularly relating to trail standards.

2. EXISTING CONDITIONS

a. Physical Resource Documentation

Information is provided on climatic conditions

b. Cultural Resource Documentation

Existing highway/road/street/trail facilities are outlined in addition to transit services. Socioeconomic and population forecast numbers are included.

The plan details the destinations that may be of interest to trail users, concluding that there is a concentration of sites associated with urban areas that should have access to/from trails. There is a wide spread of other sites through the County (of historical and environmental interest), potentially requiring a large network of trails to access.

c. Land Acquisition

Possible sites for land acquisition are listed based on a 20 year vision and a \$\$ value established based on an area of acreage. This is focused on establishing a regional network rather than a linear trail facility.

The multipurpose trail corridors described are most applicable to the Modoc Line Rail to Trail project. The plan states these may be developed on other publicly-owned lands using public use agreements or special easements; or on lands owned as portions of road and highway right-of-way, stream corridor conservation or buffer zones of independent title.

d. Existing Trail Uses

Existing non-motorized trails in the County are inventoried, with a brief description of type of trail including: multi-purpose, walking, walking & hiking, shoreline, urban bikeways, off-road bike.

The plan assesses the demand for non-motorized transportation and recreational trail land and facilities using various methodologies, including population ratios, participation models, level-of-service (LOS) measurements, and state and national comparisons. Many of these are based on standards for recreation facilities that are considered appropriate per 1000 people (National Recreation and Park Association 1983). A planning jurisdiction can look at their current and projected population and compare against existing conditions inventories to establish what facilities should be provided to serve the future population of that area.

3. PROPOSED USES & FACILITIES

a. Goals, Objectives & Approach

Goals and objectives were developed through analyzing existing conditions, working with the public in a series of forums and working with the Non-motorized Transportation Task Force and the Parks Advisory Board in planning sessions. They focus on making links within the County and to adjacent communities for non-motorized travel and are separated by trail/use type. Objectives were broken into categories of destination and standards/services. The multi-purpose trail type is the most applicable to the Modoc Line Rail to Trail project. Specific objectives that may be useful to consider as a precedent include:

Destinations

- Linking across major jurisdictional lines
- Provide connections to other recreation facilities and opportunities such as parks and forest lands
- Connect major historic areas and landmarks to be available to a high volume of user
- Provide trail access to unique and significant environmental features and scenic vistas of interest to a high volume of users

Services

- Design multipurpose trails to reflect different user volumes and mode mix as well as different site and location contexts including hikers, bikers, and horseback riders – and young children, senior citizens, and the handicapped.
- Furnish multipurpose trails with a comprehensive system of services including permanent or structured parking, bike racks and storage facilities, permanent and temporary restrooms, interpretive exhibits, directional signage, picnic shelters and benches for all trail users except equestrians, who may be serviced from separate sites.
- Locate trailheads with other public uses and facilities (and business districts) where appropriate

b. Uses

Multipurpose trails, Pedestrian systems, Bicycle systems, Horse trails and Water trails.

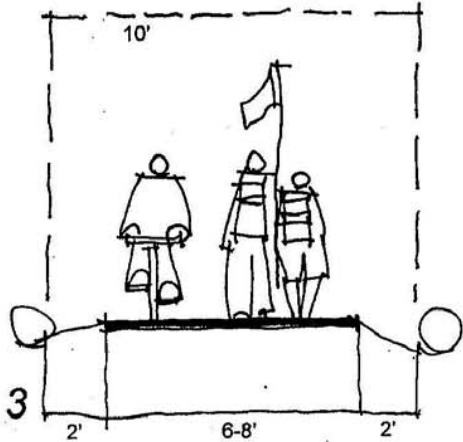
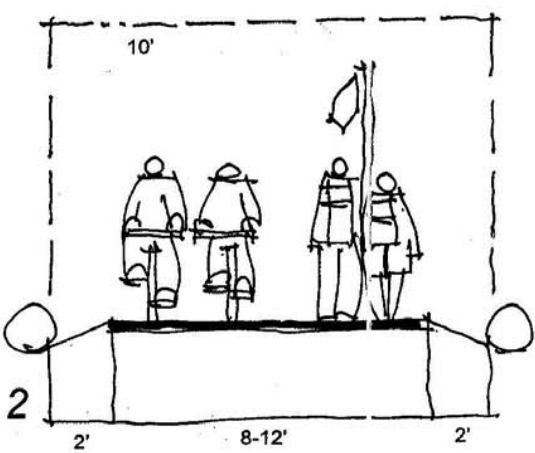
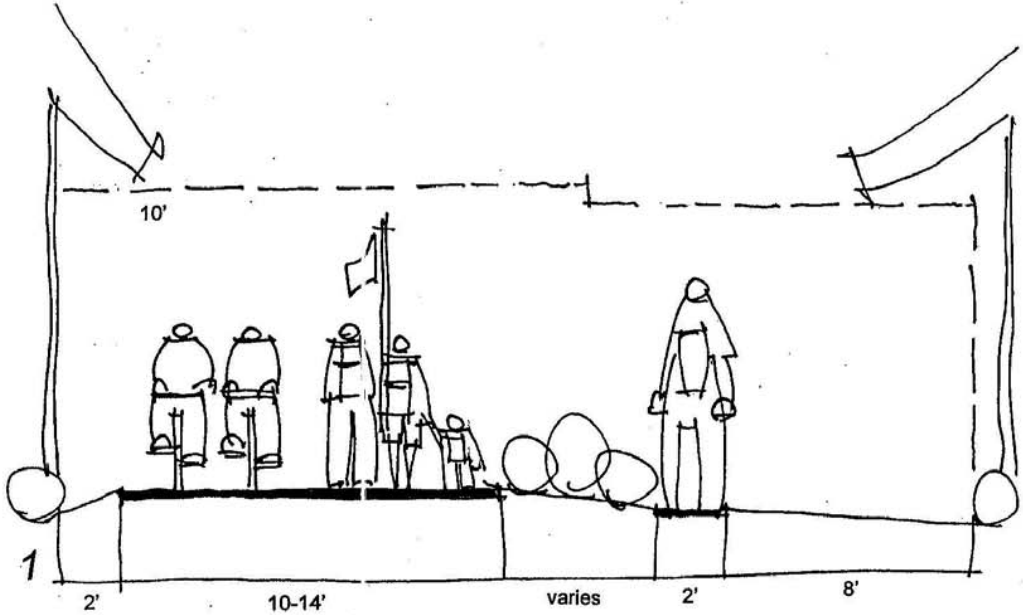
The multi-purpose trails are most applicable to the Modoc Line Rail to Trail project. There are 2 different types of multi-purpose trail based on volume of use. Refer to Developments/Facilities – Trail Construction Standards for more information. The trails may be usable by all age and skill groups and handicap accessible.

c. Developments/Facilities

Trail segments (existing and proposed) are identified, mapped and quantified in terms of length and proposed improvements. Specific trail elements discussed are:

- trailheads
 - Existing and proposed trailheads are identified and facilities suggested - mostly interpretive signage, parking, bike racks and storage facilities, restrooms, and other trail services
- camping areas
 - N/A
- day use areas
 - Where the trail is located in association with another park and recreational improvement or public facility, the trailhead may be improved with active picnic, playgrounds, and play areas.
- trail construction standards
 - Typically, multipurpose trails may be developed in accordance with Washington State Department of Transportation (WSDOT) and American Association of State Highway & Transportation Officials (AASHTO) guidelines. Multipurpose trails typically provide 2-way travel on asphalt, very fine crushed rock, compact dirt, or other base of varying widths.

Multipurpose trails



- marking/signage
 - N/A

d. Resource Management

N/A

4. OPERATIONS & ADMINISTRATION

a. Restrictions & Regulations

N/A

b. Operations & Maintenance

For planning purposes, facility repairs and renovations, as a rule of thumb, cost approximately 5% of facility value per year.

c. Costs/Budget

A cost estimate was provided based on a 20-Year Vision of non-motorized transportation and recreational trails, developed through public consultation and stakeholder (Task Force) working groups. After the 20-Year Vision was compiled, typical unit costs for each type of facility were developed, such as cost per acre for land acquisition or cost per mile for trail construction. These unit costs were used to calculate a total cost for each proposed facility and Jefferson County's share for facilities that might be jointly developed with other public and private agencies. All of the individual facility costs were aggregated to yield a total cost.

A telephone survey was conducted in order to determine recreation program priorities, facility priorities in general, specific project priorities and how growth impact fee amounts might be leveraged to provide funding based on managing growth in the County. Other methods of funding were also explored including Local Option Taxes, General obligation bonds, Recreational service areas and Joint venture opportunities.

In general, the results of the telephone survey indicated resident County voters will support user fees, growth impact fees, general obligation bonds, and joint venture projects if the programs and projects are conceived along the lines indicated in the survey results.

d. Fundraising Opportunities/Strategies

Many non-motorized transportation and recreational trail projects are eligible for grant funding from State and Federal agencies. There may be opportunity for local revenues to be used to match additional grants (grants typically require a 25% local match), providing a higher level of available funds.

Transportation funding sources, such as County Road Fund revenues and transportation growth impact fees, may only be used to fund transportation facilities (projects that provide or enhance a travel mode between destinations) and would not cover recreational trail facilities. Non-motorized

transportation facilities would be included in the County's Six Year Transportation Improvement Plan. Multipurpose trails perform both a transportation function and a recreational function. Facilities that combine transportation and recreational functions may be funded either by the Road Fund or by parks and recreation funds. Purely recreational trails would be funded by parks and recreation funds.

Three funding strategies are presented in the plan (Chapter 11). The strategies used a combination of existing and new revenue sources to fund maintenance and operation of existing facilities, site acquisition, and new facility development. The strategies are based on alternative funding levels (\$2 million to \$7 million) for a specific 5 year period.

e. Approval Process & Implementation

The Non-motorized Transportation and Recreational Trails Plan will be implemented through the County's annual budget. The Board of County Commissioners will determine projects, funding levels, and the mix of revenue sources during their annual budget process.

f. Designations

N/A

g. Monitoring

N/A

Calabasas Trails Master Plan

City of Calabasas, California (near Santa Monica Mountains)

1. BACKGROUND OF DOCUMENT

Year produced: 2007

Author & collaborators (if any): The City of Calabasas Community Development Department with assistance from the Community Services and Traffic & Transportation Departments.

Description of trail: The City of Calabasas is located in Southern California along the Highway 101 corridor between Los Angeles County and Ventura County, in the western part of Los Angeles County. The terrain comprises rugged hills bisected with canyons and seasonal creeks. The trail system will be a continuous pedestrian, equestrian, and bicycle trail system that will incorporate trail connections to open spaces, public facilities, and nearby regional parks. Existing off-street trails will be incorporated into the system.

Note: The Plan is intended to complement the General Plan Circulation Element (1995), the Calabasas Parks and Recreation Master Plan (2005), the Calabasas Bicycle Master Plan (1997), and various other land use and corridor plans that have been prepared for specific parts of Calabasas. In addition, the Plan reflects trails identified by the National Park Service (Santa Monica Mountains National Recreation Area), the Santa Monica Mountains Conservancy (Mountains Recreation and Conservation Authority), California State Parks, and Los Angeles County. Once adopted by the Calabasas City Council, the Plan will provide the vision and policy guidance for the City's trail planning efforts.

2. EXISTING CONDITIONS

a. Physical Resource Documentation

N/A

b. Cultural Resource Documentation

N/A

c. Land Acquisition and Collaboration with Land Owning Partners

Many of the existing trails in the City are located on land owned by other public agencies (Santa Monica Mountains Conservancy, Las Virgenes Municipal Water District, etc.), local homeowners associations or private land owners. Typically the City, or where appropriate, the Mountains Restoration Trust (MRT), in consultation with the City, will hold a dedicated trail easement on privately owned properties.

The plan states that liability concerns are often raised in the process of acquiring trail easements. California Government Code Section 831.4 states that a public entity, public employee, or grantor of

a public easement to a public entity for specified recreational purposes cannot be held liable for injuries caused by the condition of certain roads, paths, and trails that provide access to recreation. While there are always circumstances that could nullify this immunity, typically courts have liberally construed this immunity in favor of public agencies.

For existing and planned trails across land owned by other public agencies, the City will work with these agencies to determine maintenance and management responsibilities. A number of regional planning efforts and trail plans have been undertaken/prepared by other agencies for adjacent cities and areas and were considered in the Trails Master Plan. These include:

- Santa Monica Mountains Area Recreational Trails Coordination Project -SMMART (1997)
- The Interagency Regional Trail Management Plan, National Park Service (Pending)
- California State Parks Recreational Trails Plan (2002)
- Santa Monica Mountains North Area Plan (2000)
- Santa Monica Mountains Local Coastal Plan (1986 – currently under review)
- Caltrans 101 Valley Circle Interchange Plan (Trail Crossing)
- Simi Hills Comprehensive Design Plan, Santa Monica Mountains National Recreation Area, NPS (1996)
- The Rim of the Valley Trail. Rim of the Valley Trail encompasses the entire upper Los Angeles River watershed area within the Angeles National Forest and portions of the Upper Santa Clarita River watershed. The Trail is 150 miles long and approximately 60% complete. Trails connecting into the Rim of the Valley trail are the Backbone Trail, Pacific Crest trail, De Anza Trail, and the Los Angeles River Parkway. Responsible jurisdictions are Los Angeles County, Ventura County, City of Los Angeles, US Forest Service, National Park Service and California Department of Parks and Recreation. The Corridor was created to form an interlinking system of parks, trails, open space, wildlife habitat, and recreational opportunities within and between the Santa Monica, Santa Susana and San Gabriel Mountains. Trails located in the City of Calabasas should be designed to connect up with the Rim of the Valley Trail system where appropriate.

d. Existing Trail Uses

Existing trails form an off-street system that is not formalized and has conflicts between pedestrians, bicycles and equestrians.

3. PROPOSED USES & FACILITIES

a. Goals , Objectives & Approach

The document is a master plan that addresses the development of community trails for a 10 year period, with the intention of linking neighborhoods with services and open space, and providing local and regional connections. The objectives of the Plan are to:

1. “Create safe multiple-use trails within the City that provide alternative transportation and recreational opportunities for a wide variety of user groups.
2. Develop trails to promote the health and well being of citizens and visitors.

3. Design an integrated trail system that connects activity centers and neighborhoods within and around Calabasas.
4. Provide connections to regional trails surrounding the City.
5. Provide trail construction and maintenance guidelines.
6. Locate trails in a manner that does not cause environmental degradation and protects environmentally sensitive areas.
7. Establish a protocol and standards for trail identification.”

b. Uses

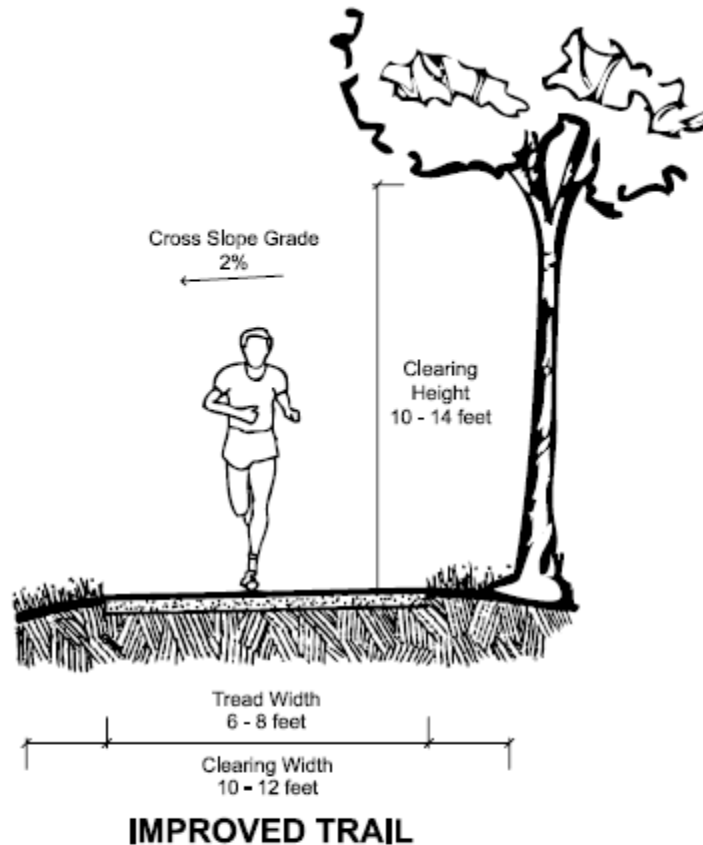
The trail system will accommodate a broad variety of interests and abilities; hiking, mountain biking, horse riding, jogging, and walking. All trails will be designed for multi-use where conditions allow but the City will determine the use of trails on an individual basis during detailed design and construction, taking into consideration the steepness of the trail, available right-of-way, safety, user frequencies, and other conditions.

c. Developments/Facilities

- Trailheads
Trailheads are focused on providing information to trail users. Some may only have a couple of parking spaces and a trailhead sign that includes the length of trail and difficulty level. Major trailheads would include additional signage (see under signage).
- camping areas

N/A
- day use areas

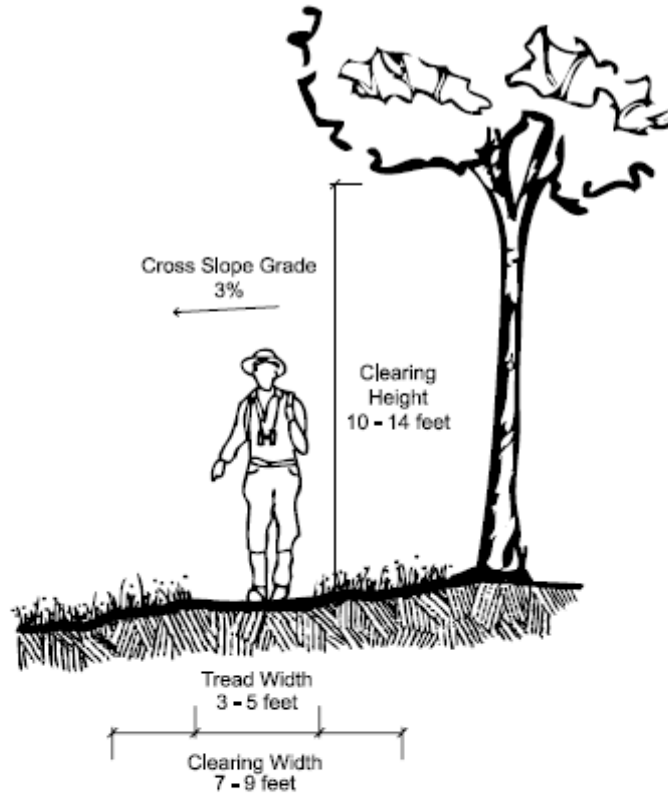
N/A
- trail construction standards
Two trail types are identified, improved trails (in urban areas – used to connect activity centers such as schools, shopping centers, sports fields) and natural trails (used to provide access to open space areas surrounding the City). Design standard sections were included for each trail type.



IMPROVED TRAIL

Preferred Standards:

Tread Width	6 -10 feet
Clearing Width	10 -12 feet
Tread Surface	Crushed rock, decomposed granite or asphalt
Percent Grade	Grades should not exceed 10 percent <u>Desired Grade:</u> 0 to 5 percent <u>Maximum Grade:</u> 0 to 10 percent (sustained, 15 percent (shorter than 50 yards) <u>Cross Slope Grade:</u> 2 percent (maximum)
Clearing Height	10 – 14 feet to allow for equestrian use



NATURAL (OPEN SPACE) TRAIL

Preferred Standards:

Tread Width	3 – 5 feet
Clearing Width	7 – 9 feet
Tread Surface	Natural/native soil
Percent Grade	Grades should not exceed 10 percent <u>Desired Grade:</u> 0 to 5 percent <u>Maximum Grade:</u> 5 to 10 percent (sustained, 15 percent (shorter than 50 yards) <u>Cross Slope Grade:</u> 3 percent (maximum)
Clearing Height	10 – 14 feet to allow for equestrian use

- marking/signage
 - Trail naming should utilize existing regional trail names as appropriate, with the addition of local names identifying specific sections of trail. Local trail names could be derived from landmarks, natural features, habitats etc. The City would be identified on each sign by name and logo.
 - The Community Services Department of the City is responsible for gathering public input and recommending trail names to the City Council. The name will be confirmed by resolution.
 - As new trails are completed, signs should be installed along the major corridors of the trail system with information on direction, safety and trail policy.
 - Major trailheads should have signage that incorporates the following information:
 - map of the trail,
 - destination and distances,
 - permitted uses,
 - regulations and rules
 - how to handle emergencies,
 - information on hazards in the area,
 - trail conditions,
 - trail difficulty,
 - hours of use, and
 - access for the disabled.
 - May also contain interpretive information.
 - Minor access points along a trail should have signs that provide general information, such as mileage, directions and warning signs. Trail signs may also include small scale location maps and the city logo.
 - All signs should be designed and built with high quality materials that will be vandal resistant and weatherproof. The City should coordinate with the various agencies that maintain trails in the City to ensure consistency for trail users. All signs should be consistent through the city-wide trail system and complement the existing sign system.
 - Appropriate warning signs should be installed to detail hazards, limited sight distance or where the slope exceeds the recommended standard or where the trail width or vertical clearance is less than the recommended standard. Signs identifying private property should be installed to ensure that the trail user does not trespass on private property.

d. Resource Management

Trail alignments are shown within a 100' wide corridor for this planning level document. Detailed alignments would need to be designed based on resource analysis and assessment (including geology, topography, environmental, hydrology and property ownership).

Guidelines are provided for managing vegetation resources and creek/drainage crossings.

4. OPERATIONS & ADMINISTRATION

a. Restrictions & Regulations

Basic regulations include keeping dogs on a leash, no smoking and restrictions relating to high fire danger.

Motorized vehicles are not allowed on the trail other than authorized maintenance and emergency access vehicles. Trail signage, barriers, fences, and active trail management will help restrict use by motorized vehicles.

Evening use (after sunset) is only allowed on trails managed by the City with signage indicating the restriction.

Should conflicts arise on specific multi-use trail segments in the future, the City reserves the right to restrict the use on certain segments to avoid environmental degradation, conflicts with property adjacent to the trail, or trail user conflicts.

b. Operations & Maintenance

The Community Services Department will be responsible for the management of trails owned or managed by the City and maintenance principles are identified in the Plan:

- Determine maintenance responsibilities - Trail maintenance in residential areas will typically be funded through landscape and lighting districts.
- Design trail to minimize maintenance
- Schedule design and maintenance reviews
- A trail maintenance program and budget is required to be prepared annually and involves review of any public comments. The Community Services Department is responsible for inspecting trails at least twice a year and once every twelve weeks during the peak usage season.

The plan recommends a trail management plan be drafted for each new trail that would address the following issues:

- Public education about trail usage and respecting the rights of adjoining properties.
- Identification of user groups, potential conflicts and solutions to conflicts.
- Rules for public use and safety, who will oversee enforcement and distribution of rules to trail users (posting of rules at trail heads, including them on trail maps and brochures, etc.)
- Accountability for implementation of the management plan. Assignment of specific trail management responsibilities to volunteer and service groups.
- Risk management issues and identification of a strategy to reduce trail injuries.
- Education of trail users in trail safety.

c. Costs/Budget

d. Fundraising Opportunities/Strategies

The Calabasas Trails Plan lists funding opportunities at different levels:

1. Local Funding Sources
 - *Bonds and assessments*
 - *General Fund*
2. State Programs
 - *Transportation Development Act (TDA)* - Funds are allocated by the Los Angeles County Metropolitan Transportation Authority (LAMTA).
 - *California Wildlife Coastal and Parkland Conservation Act of 1988*
 - *Land and Water Conservation Fund* - administered by the California State Department of Parks and Recreation.
 - *Habitat Conservation Fund* - administered by the California State Department of Parks and Recreation.
 - *Trail Grant Program* - administered by the California State Department of Parks and Recreation.
 - *Water Security, Clean Drinking Water, Coastal and Beach Protection Act (Prop 50)*
 - *Urban Stream Restoration Program*.
 - *Environmental Enhancement and Mitigation Program* - administered by the California State Resources Agency and is available for projects that provide mitigation for the environmental effects of transportation facilities.
3. Federal Programs
 - *Transportation Efficiency Act for the 21st Century (TEA-21) Funds* - administered by the California Department of Transportation
 - *Recreational Trails Program (RTP)* - administered at the federal level by the Federal Highway Administration (FHWA). It is administered at the state level by the California Department of Parks and Recreation (DPR). A 20% match is required.
 - *Federal Highway Administration Funds* - These funds are made available based on a three year Transportation Improvement Program (TIP) prepared by LAMTA, the regional transportation planning agency for Los Angeles County.
 - *Congestion Mitigation and Air Quality (CMAQ) Improvement Program*
 - *Safe Routes to School Program*
4. Other Grant Sources
 - *American Hiking National Trails Fund Awards* - administered by American Hiking Society.
 - *The Robert Wood Johnson Foundation*
5. Public/Private Partnerships
 - Donations
 - Fundraising
 - Contributions commemorating an event or memorializing an individual
 - Club or organizations sponsorship (Kiwanis, Boy Scouts, etc.)
 - California Conservation Corps (CCC)

- Private landowners interested in accruing state and federal tax benefits from whole or partial donations of land for trails.
- Citizen involvement

e. Approval Process & Implementation

N/A

f. Designations

N/A

g. Monitoring

N/A

Saratoga De Anza Trails Plan

City of Saratoga, California

1. BACKGROUND OF DOCUMENT

Year produced: 2007

Author & collaborators (if any): City of Saratoga

Description of trail: The trail is a 1.6 mile Class 1 trail located along a PG&E easement. A Parks and Trails Master Plan was completed in 1991.

2. EXISTING CONDITIONS

a. Physical Resource Documentation

N/A

b. Cultural Resource Documentation

N/A

c. Land Acquisition

N/A

d. Existing Trail Uses

N/A

3. PROPOSED USES & FACILITIES

a. Goals , Objectives & Approach

The Trail Management Plan incorporates and implements the project description and mitigation measures in the Initial Study.

b. Uses

Bike and pedestrian

c. Developments/Facilities

- Trailheads
A 5-space parking area and trail staging site is identified.
- camping areas
N/A
- day use areas

N/A

- trail construction standards
12-foot wide trail surfaced with decomposed granite. Bridges would be provided for stream crossings.
- marking/signage
Installation of Standardized regulatory signs is recommended to be installed at regular intervals along the Bike Trail. This could include “Bicyclists Yield to Pedestrians,” “Pass on the Left,” “Slower Traffic Stay Right” and speed limits (if applicable).

d. Resource Management

N/A

4. OPERATIONS & ADMINISTRATION

a. Restrictions & Regulations

Trail use regulations will be posted at main access points. Establishing that the Trail facility is a regulated traffic environment like other public rights-of-way is critical for compliance and often results in a facility requiring minimal enforcement. Appropriate civil statutes and penalties will be referenced on regulatory signs other than basic traffic control signage such as speed limit signs.

Regulations include hours of use (sunrise to sunset), 20mph speed limit, bicycles always yield to pedestrians, travel no more than 2 abreast, keep to the right unless passing, no alcoholic beverages on the trail, bicycles yield to maintenance vehicles, and the trail is subject to closure for maintenance.

Enforcement of civil regulations will be by the City of Saratoga Code Enforcement Officer and the Santa Clara Sheriff’s Department.

b. Operations & Maintenance

The City is to provide security measures including: maintaining vegetation along the trail to maximize visibility, enforcing speed limits and other rules of the road, providing adequate access to the trail and providing “No Trespassing” signs along the City property line. The City is also to provide emergency services with a map of the trail, clearly designating vehicle access points.

Maintenance needs and their frequency are summarized in Table 1.

Table 1: Trail Maintenance Activities and Frequencies

Item	Estimated Frequency
Shoulder and grass mowing	As needed (3 times per year average)
Trash pickup/disposal	Weekly
Path surface repair	As needed
Graffiti removal	Immediately or within 24 hours of discovery

Trail litter	Monthly - annually as needed
Weed control	Monthly - as needed
Sign replacement/repair	As needed

c. Costs/Budget

N/A

d. Fundraising Opportunities/Strategies

N/A

e. Approval Process & Implementation

N/A

f. Designations

N/A

g. Monitoring

N/A

Elora Cataract Trailway Management Plan

Ontario, Canada

1. BACKGROUND OF DOCUMENT

Year produced: 1995

Author & collaborators (if any): A Planning Committee was formed from the three partners (The Grand River Conservation Authority (GRCA), Credit Valley Conservation (CVC) and Wellington Rails to Trails (WRT)) from the project, and they oversaw the development of the management plan. The plan involved a comprehensive consultation and research process including:

- Land inventory
- Landowner surveys
- Review of current rail trail management programs
- Public meetings
- Municipal consultation
- User group discussions
- CVC and GRCA Board approvals

Description of trail: A 47 kilometer disused rail line in a rural area of Ontario, Canada. The railway abandonment application was approved in 1988.

What has been implemented: unknown

2. EXISTING CONDITIONS

a. Physical Resource Documentation

Provides a summary of geologic features of interest and other natural features.

b. Cultural Resource/Social Impact Documentation

The plan states the trail runs through several communities but does not provide specific information about cultural resources.

c. Land Acquisition

The abandoned Elora to Cataract rail corridor was purchased from Canadian Pacific in September 1993. Funds for the acquisition came from seven sources including provincial ministries, conservation authorities and private donations made to Wellington Rails to Trails.

d. Existing Trail Uses

Unregulated hiking, cycling, horseback riding, cross country skiing. Existing uses that may conflict with the permitted uses outlined in the management plan include off road motorized vehicles, storage of materials, parking of vehicles, dumping of fill and property encroachments.

3. PROPOSED USES & FACILITIES

a. Goals , Objectives & Approach

The goal for the project was to create a co-operatively managed multi-purpose recreational trail and greenway that linked communities, natural heritage areas and inter-regional trails. The trailway will encourage safe use for a variety of recreational activities while ensuring the protection of natural and cultural heritage values for future generations. The management plan was prepared to minimize conflicts between user groups, to respond to local needs and to set standards for the operation and management of the trail.

Objectives as stated in the plan are:

Protection: To protect the greenway function of the corridor and the integrity of associated natural heritage features and the rights of adjacent property owners.

Appreciation: To create opportunities for understanding the cultural and natural heritage of the Trailway as a greenway including the diverse range of natural processes occurring along the Trailway and historically significant features associated with it.

Recreation: To provide opportunities and facilities for a variety of trail uses that are accessible to all genders, ages and abilities, high in quality, environmentally sustainable, promote four season use and link with local recreation initiatives.

Tourism: To support economic growth by encouraging local initiatives to supply trail users with goods and services.

b. Uses

As existing, with improvements for ADA needs.

Snowmobiling will be a permitted use for specified trail segments for a trial period with the condition that use of the trail be restricted to members of the Ontario Federation of Snowmobile Club Members, that clubs will be responsible for insurance, maintenance & monitoring and that clubs prepare and implement a program for signage, safety training and speed enforcement for approval by the Management Committee.

c. Developments/Facilities

The trail was to have design guidelines developed so all facilities along the length of the trail corridor will be consistent and have been designed with form, function and economy in mind.

General recommendations are made regarding crossings, bridges, trail surfacing, signage, interpretive themes and educational opportunities.

d. Resource Management

Objectives for a vegetation management plan are defined.

4. OPERATIONS & ADMINISTRATION

a. Restrictions & Regulations

See under Uses for snowmobiling restrictions/regulations.

b. Operations & Maintenance

The Elora Cataract Trailway Management Plan is a joint undertaking by three partners: The Grand River Conservation Authority (GRCA), Credit Valley Conservation (CVC) and Wellington Rails to Trails (WRT).

The management plan will be reviewed after 5 years following its approval or as needed. Any proposal to deviate from this plan would require a period of consultation from the Management Committee and a resolution from one of, or both, conservation authority boards. Significant amendments would only be undertaken after a period of public consultation.

Any permitted uses may have annual time restrictions placed on them and/or the trail may be closed to limit surface degradation, allow for maintenance or to limit conflicting uses.

Operational aspects of trail management will be undertaken by Wellington Rails to Trails – their 500 family membership will provide volunteers and assist in fundraising efforts.

Administrative support and capital works, planning & design will be the responsibility of the Credit Valley Conservation and the Grand River Conservation Authority.

c. Costs/Budget

N/A

d. Fundraising Opportunities/Strategies

Private sector fund raising will be required for some types of facilities as government funding has been decreasing and this pattern is likely to continue. Part of demonstrating a need or demand for recreational facilities is the ability to find independent sources of funding for projects and operating expenses.

e. Approval Process & Implementation

N/A

f. Designations

N/A

g. Monitoring

N/A

Santa Monica Mountains National Recreation Area Trails Management Plan

California

1. BACKGROUND OF DOCUMENT

Year produced: Joint EIS/EIR not yet finalized and cannot find a draft of the trails management plan. Have a call in to NPS planner to confirm/discuss. Sounds like there was a shift in priorities at the agency?

Author & collaborators (if any): Public scoping for an interagency trail plan began with the Santa Monica Mountains Area Recreational Trails (SMMART) project that culminated in the 1997 *SMMART Report*. Subsequently, the National Park Service issued a Notice of Intent (NOI) for the Environmental Impact Statement (EIS). The California Department of Parks and Recreation (CDPR) and the Santa Monica Mountains Conservancy (SMMC) were cooperating agencies in the Trails Management Plan EIS/EIR effort. CDPR was responsible for issuing a Notice of Preparation (NOP) for the Environmental Impact Report (EIR).

Description of trail: Within the Santa Monica National Recreation Area, there is a 320 mile public trail network. There is an additional 80 miles of trails adjacent to the national recreation area. Many of the trails are old roads/alignments that do not meet public trail management standards and criss-cross jurisdictional boundaries.

2. EXISTING CONDITIONS

a. Physical Resource Documentation

Environmental resources/issues analyzed included trail and/or trailhead adjacency to sensitive plant and animal species' habitats; erosion and impacts on water resources; soils and geology impacts from trail presence and new trail construction; back country camp impacts including fire hazard potential.

b. Cultural Resource/Social Impact Documentation

Cultural resources/issues analyzed were trail and/or trailhead adjacency to cultural and archaeological resource sites. Social impacts analyzed included allowable uses and user conflicts on trails; trail network public access; trail network compliance with Americans with Disabilities Act requirements; proposed trail and trailhead construction; trail network management and operation guidelines; and trail network signs.

c. Land Acquisition

N/A

d. Existing Trail Uses

Equestrian, hiker, mountain bike and trail runner.

3. PROPOSED USES & FACILITIES

a. Goals , Objectives & Approach

N/A

b. Uses

As existing with improvements for ADA.

c. Developments/Facilities

- Trailheads
- camping areas
- day use areas
- trail construction standards
- marking/signage

d. Resource Management

To be confirmed

4. OPERATIONS & ADMINISTRATION

a. Restrictions & Regulations

To be confirmed

b. Operations & Maintenance

To be confirmed

c. Costs/Budget

To be confirmed

d. Fundraising Opportunities/Strategies

To be confirmed

e. Approval Process & Implementation

To be confirmed

f. Designations

To be confirmed

g. Monitoring

To be confirmed