

DEL NORTE TRAILS MASTER PLAN

Adopted October 2008



“Lookout Mountain”



The Windsor Hotel

Colorado State Parks Trails Program
Del Norte Trails Organization
The Town of Del Norte
Rio Grande County



DEL NORTE TRAILS MASTER PLAN – TABLE OF CONTENTS – October 2008

| | |
|---|-----------|
| Chapter 1: Introduction | 1 |
| Vision | 1 |
| Purpose | 1 |
| Goals of plan | 1 |
| Recommendations | 1 |
| Public Process | 2 |
| Chapter 2: Del Norte Trail System Overview | |
| Del Norte Information | 3 |
| Planning Areas | 4 |
| The “Lookout Mountain” Trail Plan | 5 |
| The Rio Grande Hospital Trail Plan | 7 |
| The In-Town Trail Plan | 9 |
| The Riverwalk/Park Trail Plan | 11 |
| The School Trail Plan | 13 |
| Chapter 3: Rio Grande County Overview..... | 14 |
| A. Rio Grande County Information | 14 |
| B. Trails in Rio Grande County | 14 |
| United States Forest Service..... | 14 |
| Bureau of Land Management | 14 |
| State of Colorado..... | 14 |
| C. Regional Trail Connections..... | 15 |
| Colorado Trail | 15 |
| Continental Divide Trail..... | 15 |
| Old Spanish Trail..... | 15 |
| Silver Thread Scenic Byway | 15 |
| Other Connections | 15 |
| Chapter 4: Del Norte Trail Connections and Extensions..... | 16 |
| A. Del Norte Spine Trails | 16 |
| 1. Highways and County Roads | 16 |
| US Highway 160 | 16 |
| State Highway 112 | 16 |
| County Road 13 (San Francisco Creek) | 16 |
| County Road 14 (Pinos Creek)..... | 16 |
| 2. Waterways..... | 16 |
| Rio Grande | 16 |
| River Tributaries..... | 16 |
| 3. Railways | 16 |
| Rio Grande Scenic Railroad | 16 |
| Denver & Rio Grande (D&RG) | 17 |

| | |
|---|-----------|
| 4. Utility Lines..... | 17 |
| Gas Lines..... | 17 |
| Power Lines..... | 17 |
| Fiber Optics Cable Line..... | 17 |
| B. Del Norte Regional Connections..... | 17 |
| 1. Northern Connections; Penitente Canyon..... | 17 |
| 2. Southern Connections; Cedar Springs..... | 17 |
| 3. Eastern Connections; Old Spanish Trail..... | 17 |
| 4. Western Connections; Silver Thread Scenic Byway..... | 17 |
| Chapter 5: Environmental Reviews | 18 |
| A. Wildlife Biology | 18 |
| B. Geology | 19 |
| C. Cultural History..... | 19 |
| Chapter 6: Building the Trail System | 20 |
| A. Planning | 20 |
| B. Partnerships | 20 |
| C. Acquisitions..... | 20 |
| D. Funding Sources..... | 20 |
| Federal Funding Source | 20 |
| State Funding Sources..... | 20 |
| Local Funding Sources..... | 20 |
| Other Funding Sources..... | 20 |
| E. Building..... | 21 |
| 1. Trail Construction Guidelines | 21 |
| 2. Standards, Statutes and Permitting..... | 22 |
| F. Support..... | 22 |
| Signage & User Education | 22 |
| Enforcement, Safety and Rules | 22 |
| Maintenance | 22 |
| Community Involvement & Volunteers..... | 22 |
| Chapter 7: Del Norte Trails Master Plan Construction Priorities..... | 23 |
| Chapter 8: References | 24 |
| Chapter 9: Acknowledgements..... | 25 |
| Chapter 10: Maps | 27 |
| Del Norte Trails Master Plan Map | 27 |
| Regional Trail Connection | 28 |

Chapter 1: Introduction

The Vision

The Del Norte Trails Master Plan has been developed through the grassroots efforts of the Del Norte Trails Organization (DNTO) and its community partners. The DNTO is a non-profit corporation with a goal to provide additional recreational opportunities for both visitors and local residents by creating new hiking, biking, river and equestrian trails and improving existing trails and parks in and around the town of Del Norte, Colorado. This trail plan is meant to supplement the municipal Comprehensive Plans and assist agencies, groups and individuals with objectives and maps to guide future trail development in the county.

Purpose

- Provide a working document and comprehensive tool for trail planning and development.
- Create a plan that supplements current municipal plans and expands existing recreational facilities.
- Create a plan for future trail development that fits the community character and environmental area.

Goals of Plan

- To provide the Town of Del Norte a Trails Master Plan for a non-motorized, multi-use trail system for the citizens and guests of Del Norte and the surrounding areas.
- To provide a sustainable trail system that connects the commercial downtown with residences, schools, churches, medical facilities and scenic areas around the town.
- To provide safe, recreational and functional trails for a variety of users within the community.
- Identify opportunities for trail enhancement, restoration, and new trails
- Identify opportunities for heritage and scenic trails and interpretation
- Identify and protect important access routes to public lands
- Coordinate and cooperate with individuals, agencies and municipalities in trail planning and development
- Identify existing trails and plans and incorporate them into this plan
- Provide maps, drawings and construction priorities
- Provide recommendations for trail implementation, funding, specifications, safety, and maintenance.

Recommendations

- Incorporate the Del Norte Trails Plan into the Comprehensive Plans of Del Norte and Rio Grande County.
- Promote the plan and encourage trail building on Town property.
- Adopt Planning and Zoning subdivision and development regulations that encourage and promote trail development in the Del Norte area.
- Establish a consistent municipal funding source for public parks, open-space & trails.
- Encourage the improvement of highway shoulders and the development of non-motorized trails along highways and county roads.
- Coordinate planning and resources with other agencies and interested parties.
- Prioritize trail building and the addition of trail amenities.
- Encourage and promote civic involvement.

Public Process

Years of cooperation and coordination have gone into the development of the Del Norte Trails Master Plan. Trail planning and mapping, trail construction, and land management plans have helped create the necessary framework to build the plan and public meetings with the municipalities, Chamber of Commerce, Tourism Board, and Economic Development Councils have brought the plan to the attention of the entire community. At the Sept. 2007 Town of Del Norte Community Assessment forum, hosted by the Governor's Office of Economic Development and International Trade, the community strongly expressed support for trail planning, as trail systems tend to increase property values, attract recreation-based businesses, and high value, low impact tourist dollars into the area and encourage residents to live and enjoy a healthy lifestyle.

The Del Norte Trails Master Plan is made possible through a Colorado State Parks, State Trails Program grant and is sponsored by the Town of Del Norte, the Rio Grande County Commissioners, and the Del Norte Trails Organization and its many generous landowners and community partners. The State Parks Planning Grant helped fund the services of Colorado State University (CSU) Landscape Design and Contracting team, trail planning professionals, and environmental consultants. The grant also offered an opportunity for people in the community to be involved in trail planning and development.



Volunteer Trail Builders



Trail Planning & Mapping

Chapter 2: Del Norte Trail System Overview

Del Norte Information

Del Norte, elevation of 7,884 feet, is located in Rio Grande County in southwest Colorado at the junction of US Highway 160 and State Highway 112. Based at the foot of the San Juan Mountains, Del Norte has a moderate, semi-arid climate and a rural community character. Early inhabitants to the area were Folsom peoples 10,000 years ago, followed by Apache, Navajos, and Utes and then the Spanish Conquistadors. In the mid 1800s prospectors and homesteaders came and settled as silver and gold mining activities flourished in the nearby mountains. Del Norte developed just south of the Rio Grande and along the Railroad. The town incorporated in 1872 and became the county seat in 1874.

Del Norte currently has a population of 1,774 with an estimated population growth to 2,049 by 2020. Since the end of the mining and railroad era at the turn of the 20th century, Del Norte has been looking in new directions to ensure future economic survival and growth and to fulfill their Vision Statement. “Del Norte will balance the retention of its western town community character with the promotion of economic development opportunities.” With the abundance of recreational outdoor activities available to people in the area, Del Norte, the *Gateway to all Season Fun*, is promoting recreational facility development and tourism. The Del Norte Plan Framework, as described in the Del Norte Plan Element of the Rio Grande County Joint Master Plan 2004, promotes the following policies:

- *Neighborhoods*: protect residential character and provide a transition to agriculture and open lands
- *Commercial/Industrial Districts*: civic improvements and economic development,
- *Transportation Corridors*: road improvements
- *Recreational Corridors*: expanding the parks and trail system
- *Edges*: expansion, compatible land use, coordinated services and attractive entries.

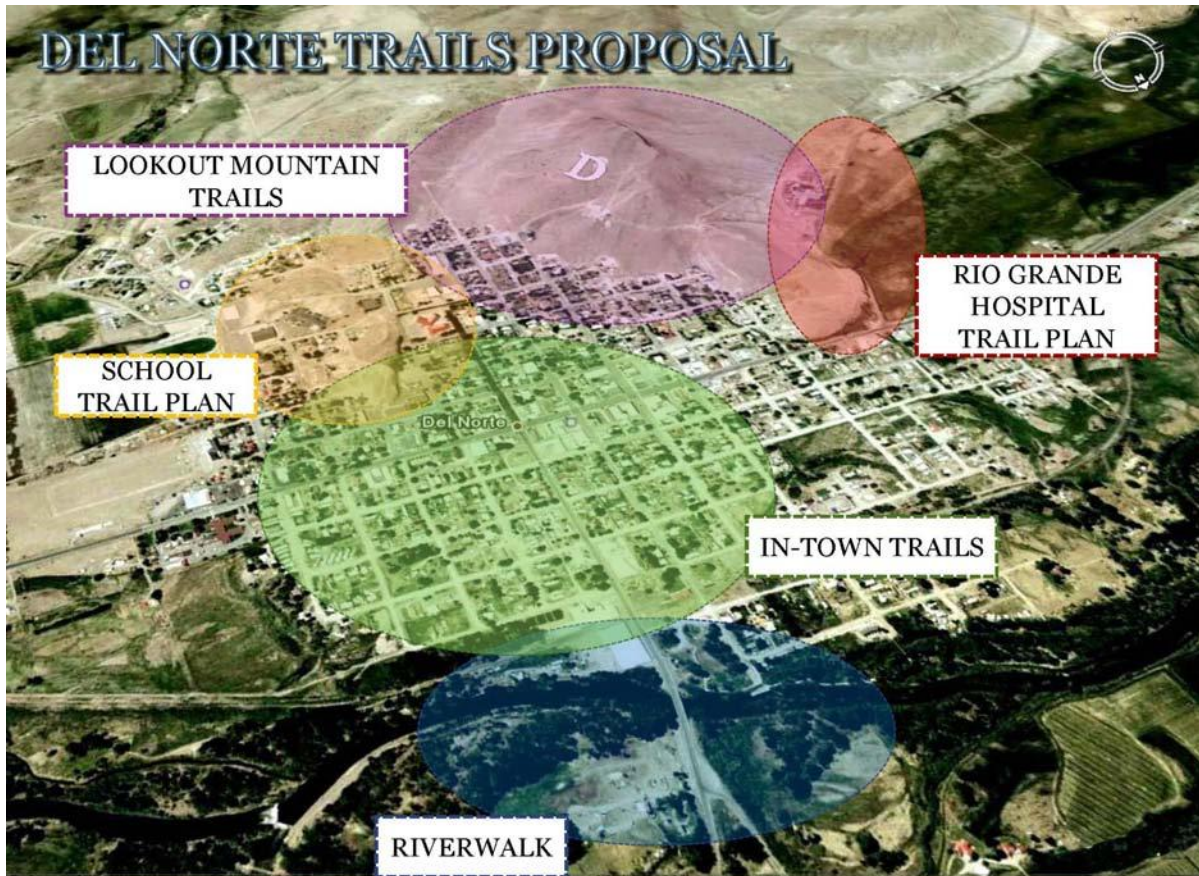
The Trails Master Plan supports and supplements the Del Norte Plan Framework policies and map.



Del Norte

Planning Areas

The Del Norte Trails Master Plan focuses on 5 overlapping planning areas each serving different user groups. Each area encourages trail use as a healthy outdoor recreational opportunity and a transportation alternative. The 5 areas are “Lookout Mountain”, the Rio Grande Hospital, In-town, the Rio Grande Riverwalk/Parks, and the Del Norte Schools.



This proposal is part of an academic exercise & is not intended as a construction document. All work to be reviewed by a licensed landscape architect prior to construction.

1. The “Lookout Mountain” Trail Plan creates a trail system with varying degrees of difficulty that appeals to a variety of recreational uses (biking, walking/hiking, & running) and provides integrated spaces for people to gather and interact with surrounding areas. “Lookout Mountain”, with its white painted “D” on the side, is the prominent southern backdrop of the Town of Del Norte. It has an elevation difference of 600 feet.

The Plan includes:

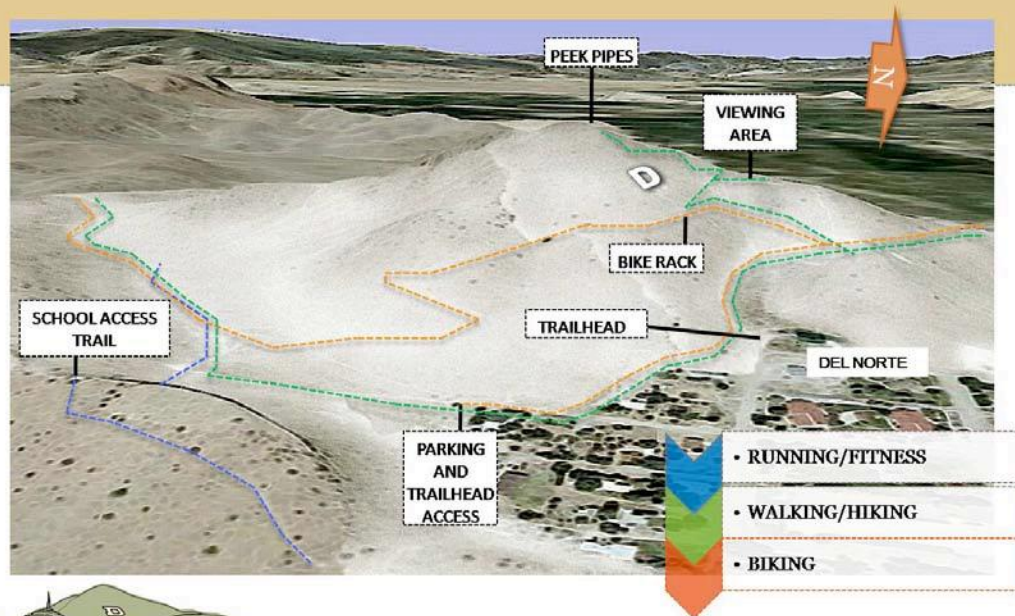
- Enhance existing trails and build new ones
 - Existing: Lookout Mt. Trail (Columbia to Lookout Mt. Loop) difficult trail
 - Lookout Mt. Loop (Spruce to Hospital Trail) easy trail
 - Reservoir Trail (Lookout Mt Trail to Hospital Trail) medium trail
 - Summit Trail (Up from Lookout Mt Trail) (foot only, single track) difficult trail
 - Wellness Trail (Behind Rio Grande Hospital connecting to Lookout Mt Loop)
 - Proposed: School Access Trail (Chico Dr. Trailhead to Lookout Mt. loop)
 - Session Trail (Lookout Mt Loop SW corner to BLM)
 - Saddle to Saddle (Fox Trail to Reservoir Trail)
 - Fox Trail (7th & Alder to the Hospital Wellness Trail)
 - High Loop Trail (Reservoir Trail to South side of Lookout Mt. Loop)
 - CR 14 Trail (Lookout Mountain Gateway to the Rio Grande Hospital)
- Trailhead/Parking Areas at the end of Spruce St., Columbia, and 7th & Alder
- Trail signage
- Bike Rack (Base of Summit Trail)
- Viewing Area (Top of Summit Trail)
 - “Peek pipes” and signage at the historic observatory site
 - Information signs about Rocky Bluffs roosting areas for raptors and vulture

"Lookout Mountain" Trails



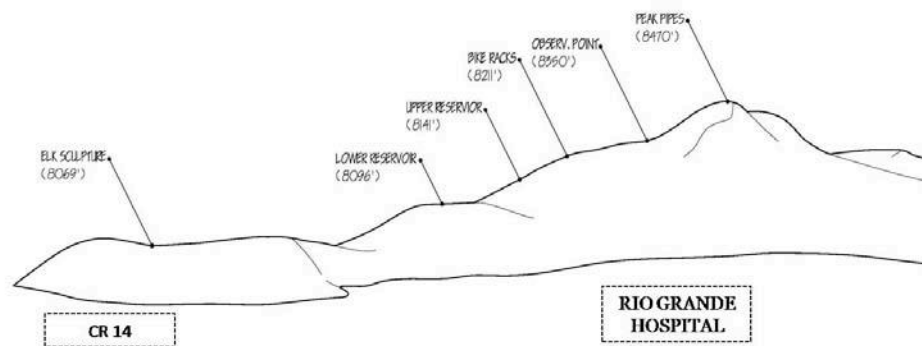
“Lookout Mountain” Trails

LOOKOUT MOUNTAIN



This proposal is part of an academic exercise & is not intended as a construction document. All work to be reviewed by a licensed landscape architect prior to construction.

LOOKOUT MOUNTAIN ELEVATIONS

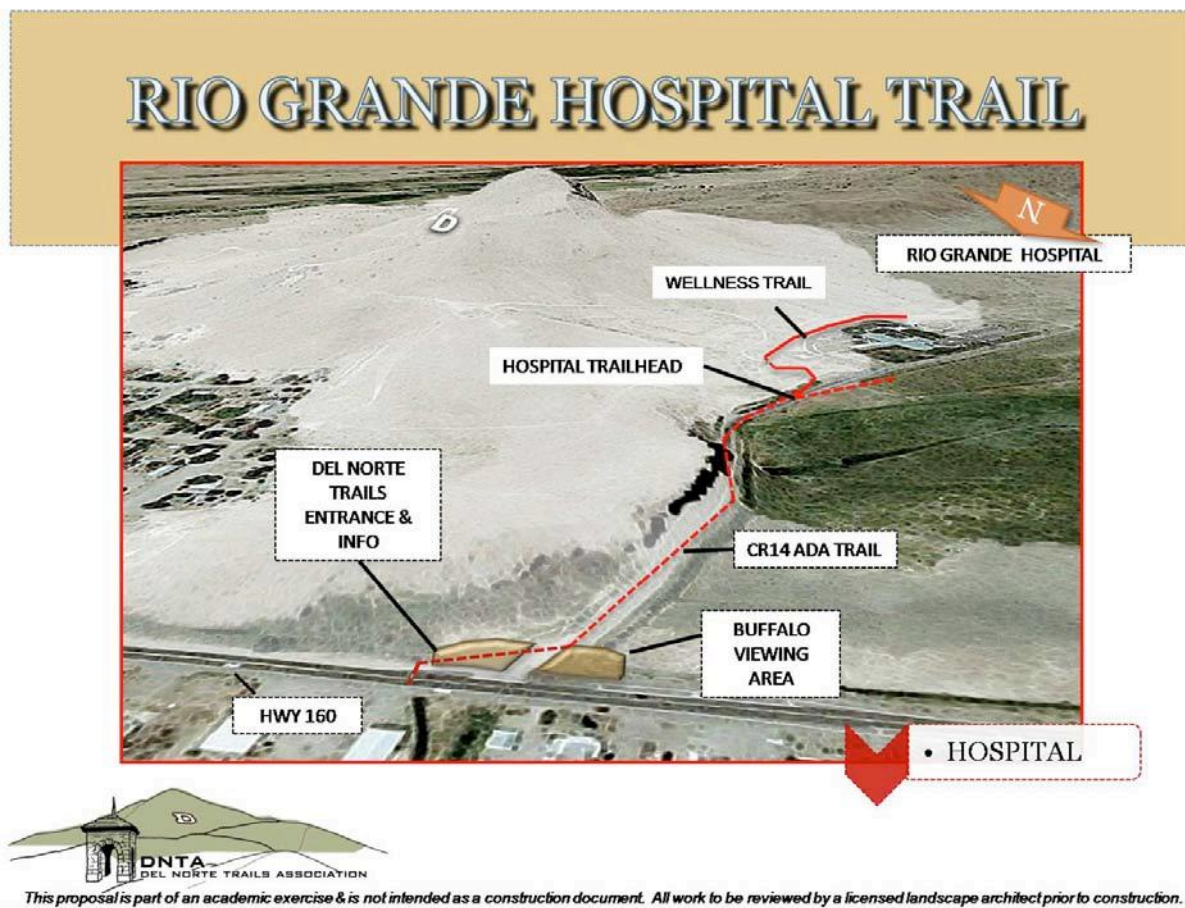


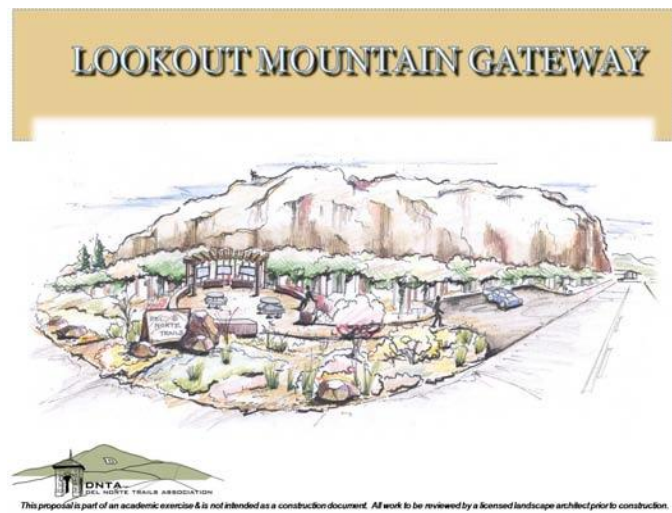
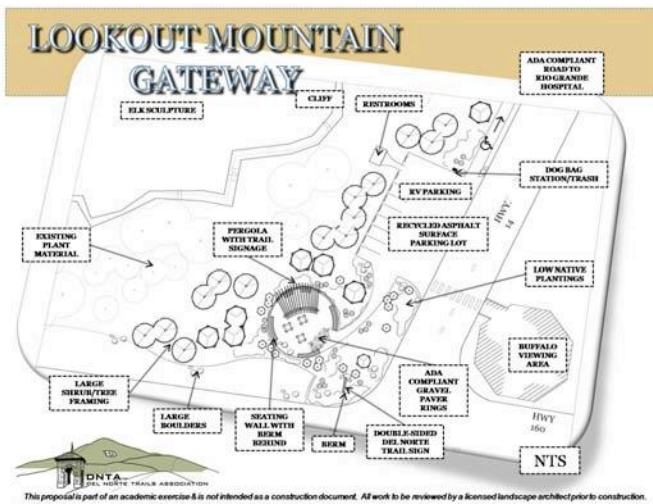
This proposal is part of an academic exercise & is not intended as a construction document. All work to be reviewed by a licensed landscape architect prior to construction.

2. The Rio Grande Hospital Trail Plan identifies handicapped accessible routes and amenities around the hospital as well as an inviting and informative Lookout Mountain Gateway into the Del Norte Trails System.

The Plan includes:

- Lookout Mountain Gateway at US Highway 160 and County Road 14 (Parking, pergola, information kiosks, shaded seating/picnic tables, litter bags, trash bins, landscaping, bathrooms, buffalo viewing area)
- CR 14 Trail: ADA Trail from Lookout Mountain Gateway to the Hospital.
- Hospital Trailhead
- Wellness Trail: Enhance the trail behind hospital connecting to Lookout Mt Loop





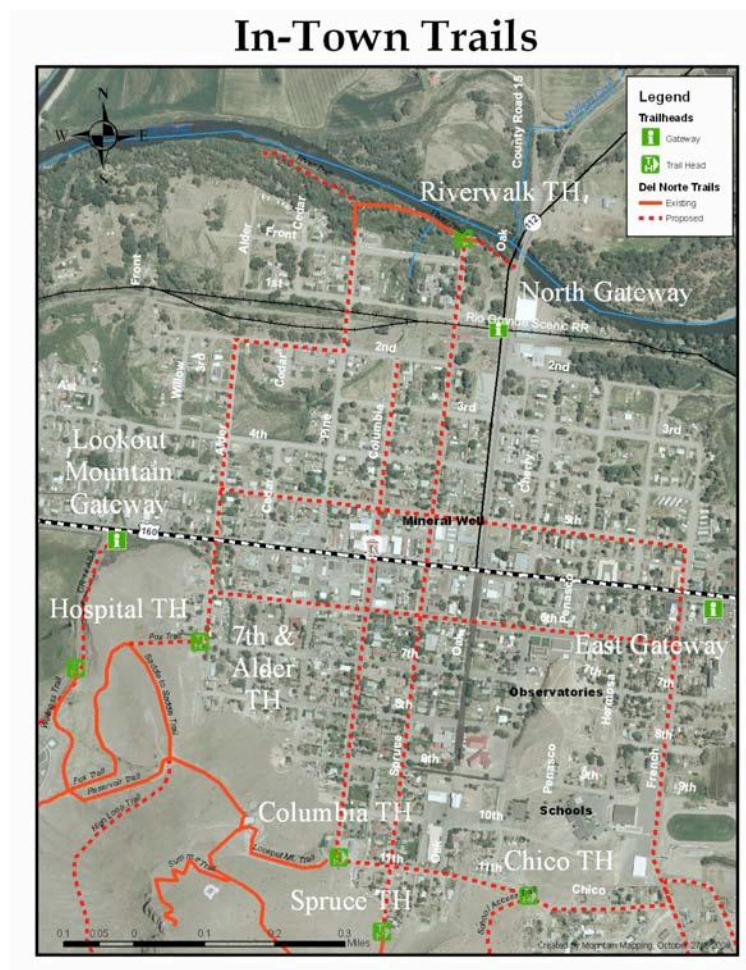
LOOKOUT MOUNTAIN GATEWAY INFO DISPLAY AND PICNIC AREA

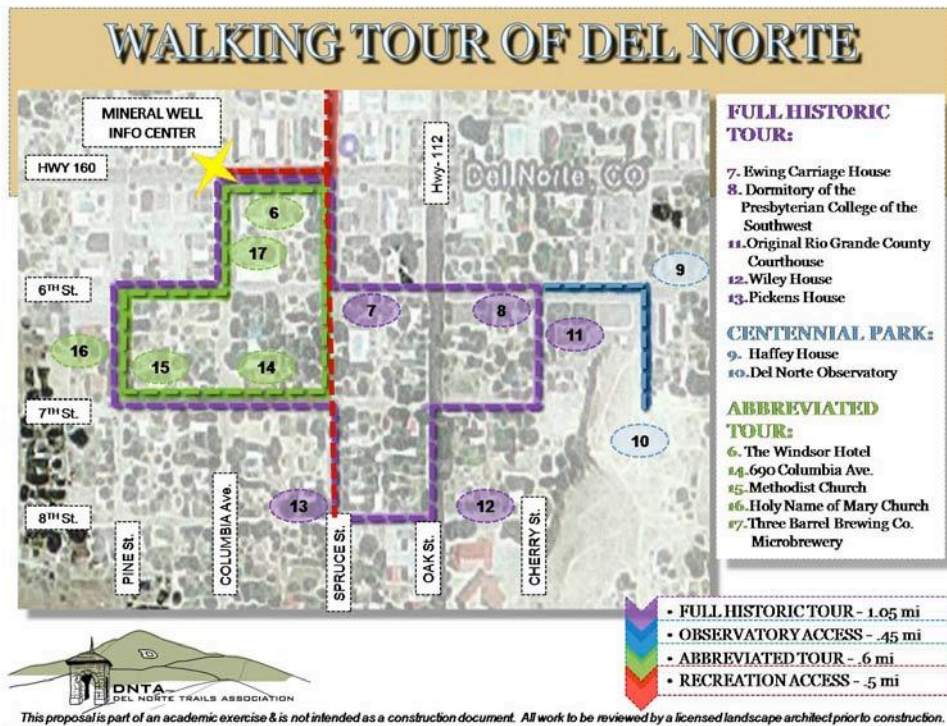
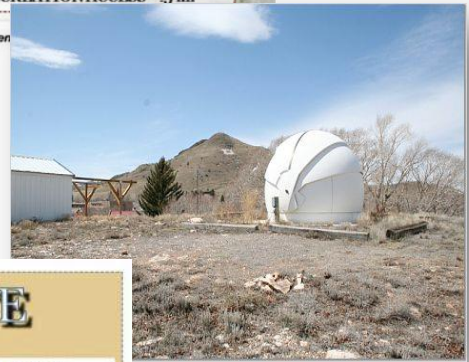
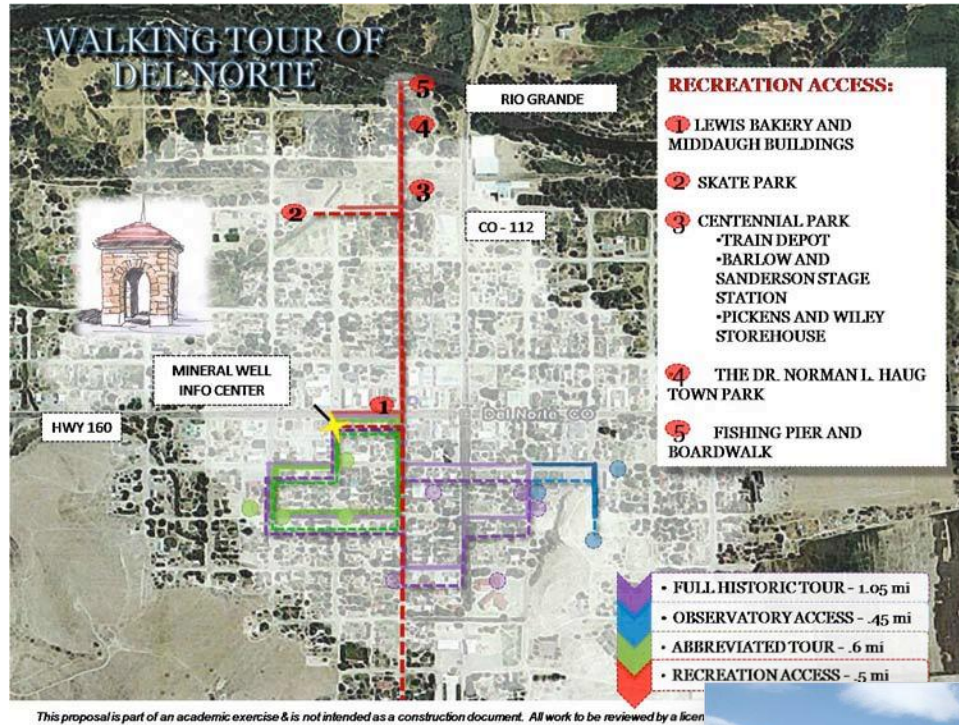


3. The In-Town Trail Plan provides safe, non-motorized transportation routes of varying lengths for commuting as well as Town Gateway/Trailheads accesses for Del Norte citizens and visitors.

The Plan includes:

- Provide safe travel routes for pedestrians and bicyclists using striped lanes, signage and separated trails for transportation and recreational purposes.
 - Major Arterials (US Highway 160 and State Highway 112)
 - Minor Arterials (CR 13 San Francisco Creek and CR 14 Pinos Creek)
 - Major Collectors North/South (Spruce, Columbia, and Pine/Alder)
 - Major Collectors East/West (5th, 6th, and 11th)
- Create the Mineral Well Information Center for walking tour (Columbia St.)
- Create a Walking Tour of Del Norte
 - Complete Historic Tour
 - Condensed Historic Tour
 - Observatory Access
 - Recreation Access
- Construct 3 Town Gateways (Information Kiosks)
 - Highway 160; west, (Lookout Mountain Gateway)
 - Highway 160; Town limits east
 - Highway 112; Town limits north
- Penasco Observatories (current site); enhance trails leading to it, signage, observation platform, picnic tables, benches

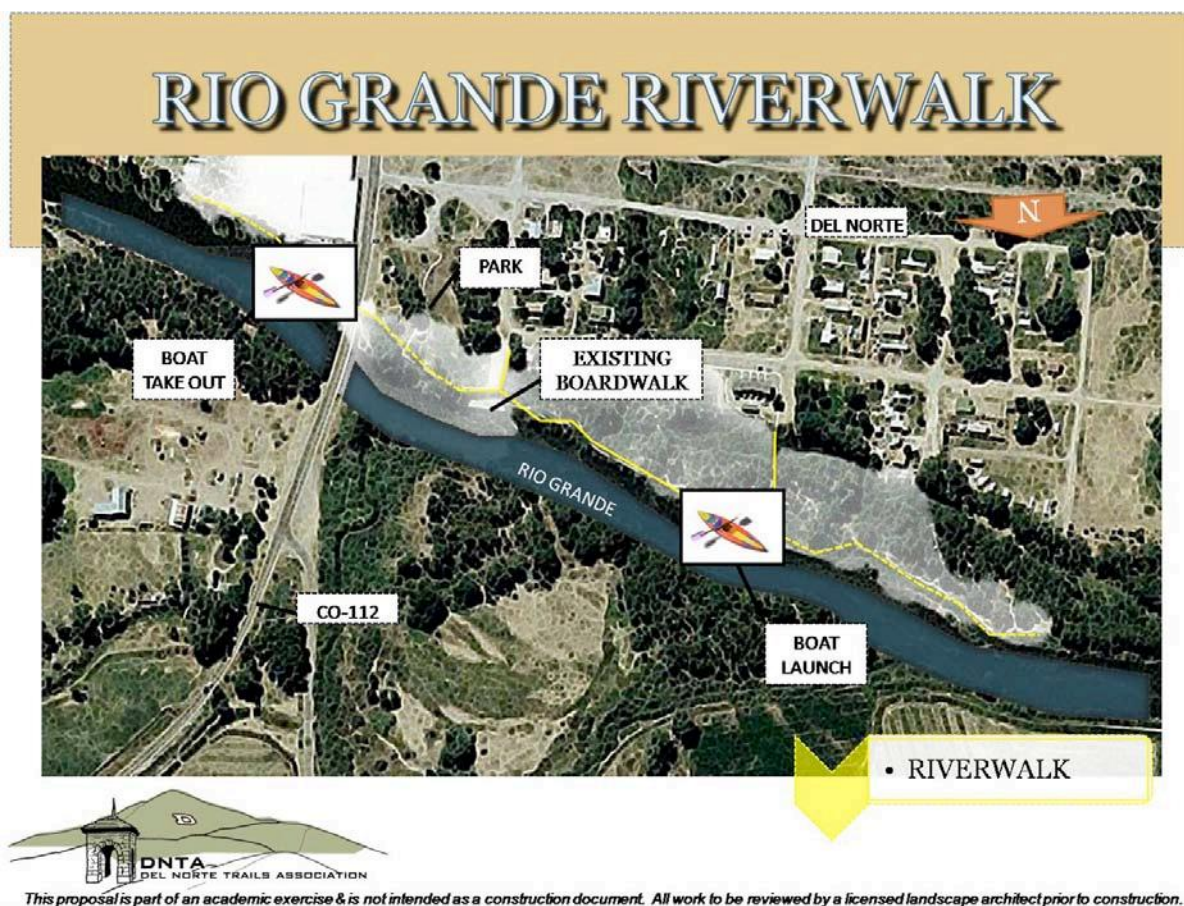




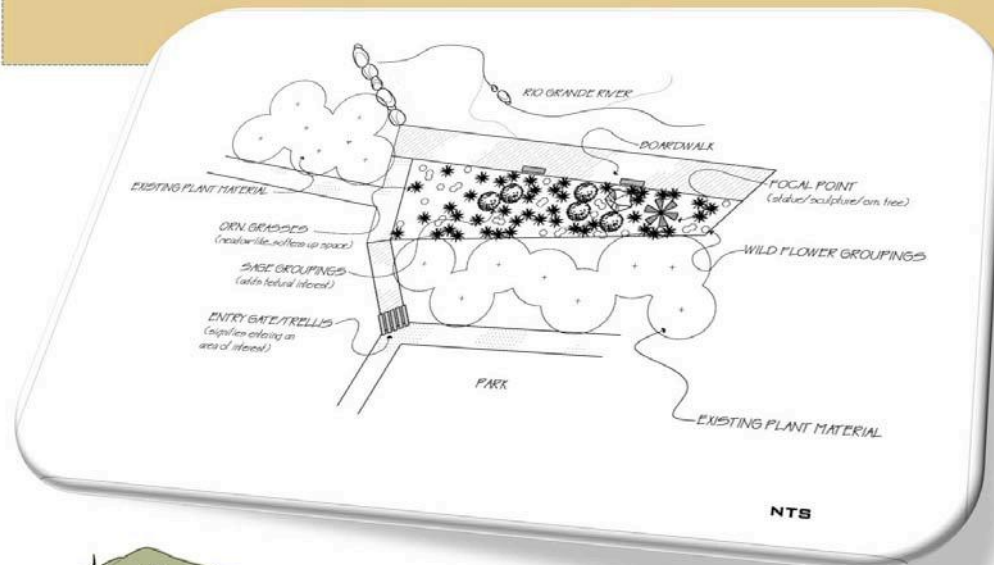
4. The Riverwalk/ Park Trail Plan enhances and extends the 2,600 linear feet, ADA accessible Rio Grande Riverwalk (1994 DOW Fishing is Fun grant) to the Skateboard Park (2006 GOCO grant) to the playing fields and open space of Centennial Park and Town Park.

The Plan includes:

- Enhance the existing Rio Grande Riverwalk Boardwalk and Fishing Pier Trailhead
 - Introduce entrance features and landscaping
 - Add informational signage and kiosk about the River and the riparian ecosystem
- Extend and enhance the existing concrete (ADA) Rio Grande Riverwalk Trail
 - Identify and secure land for trail development along the River
 - Provide areas for additional fishing spots
 - Provide kayak put-in and take-out
 - Build a Whitewater Park paralleling the Riverwalk Trail
- Enhance the existing Town Parks
 - Tie the Rio Grande Riverwalk Trail to the Town Parks and Trail System with ADA concrete trail ribbon
 - Trailhead/kiosk at Town Hall Hwy 112 Gateway
- Pursue rail-with-trail possibilities along the existing Railroad right-of-way



RIVERWALK ENTRANCE



This proposal is part of an academic exercise & is not intended as a construction document. All work to be reviewed by a licensed landscape architect prior to construction.

RIVERWALK ENTRANCE

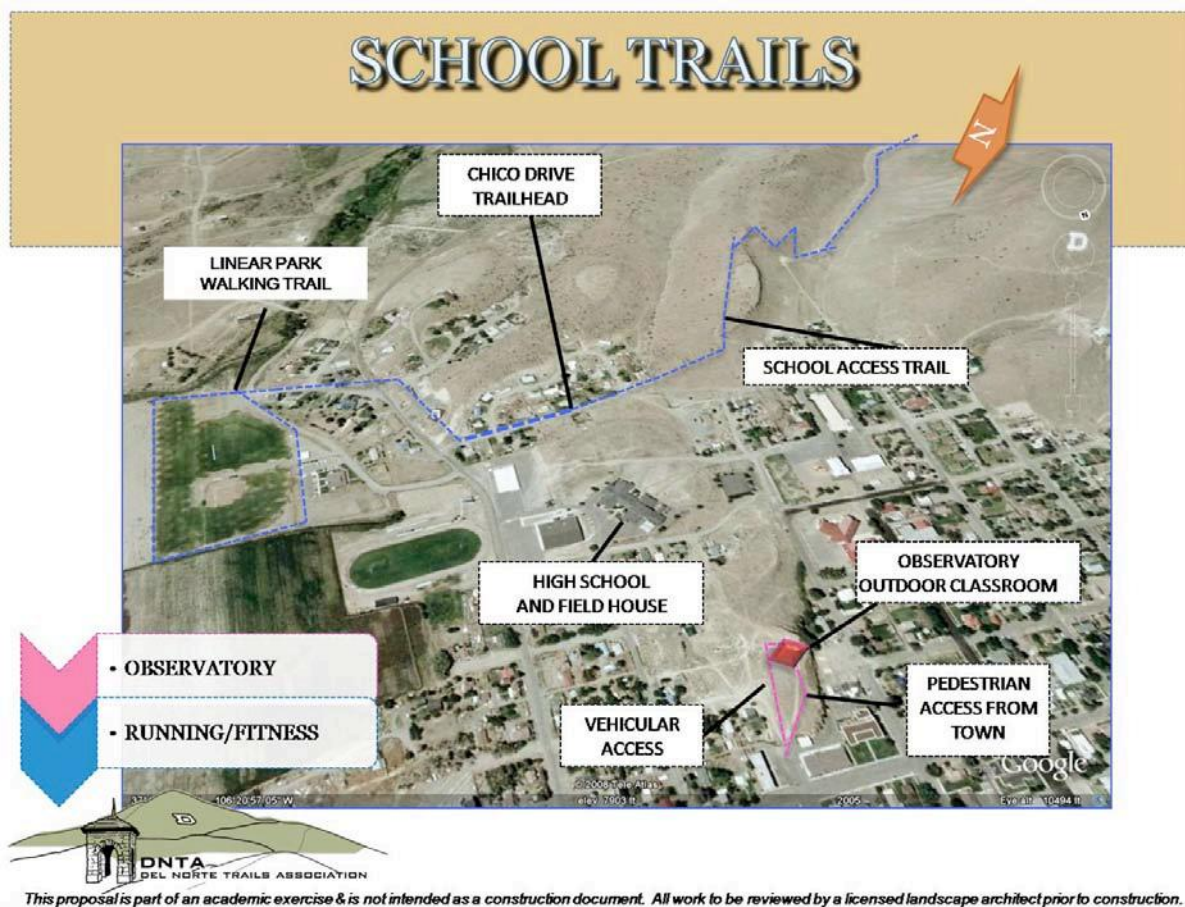


This proposal is part of an academic exercise & is not intended as a construction document. All work to be reviewed by a licensed landscape architect prior to construction.

5. The School Trail Plan focuses on safe routes to schools and amenities around the 5 public schools to encourage the students and staff to walk and bike and identifies trail loops to be used for outdoor classroom education and recreation.

The Plan includes:

- Create the Chico Drive Trailhead Location
- Build a Linear Park Walking Trail around soccer and baseball fields that can connect to the County on the east
- Build the School Access Trail (Chico Dr. Trailhead to the “Lookout Mt.” Trail System)
- Establish access to trail loops with hills, mile markers, and exercise stations.
- Education/information trail signage (historic & natural interpretation)
- Engage schools in the planning and building of trails
- Improve existing social trails to school by encouraging private landowner partnerships



Chapter 3: Rio Grande County Overview

A. Rio Grande County Information

The Del Norte Area Trails Master Plan places Del Norte at the center of a trails network providing access to fishing, rafting, cycling, hiking, rock climbing, hunting, skiing, horseback riding and wildlife watching in the Town as well as the surrounding county. Rio Grande County is located in the west-central portion of the San Luis Valley, covering 913 square miles in the largest high mountain valley in the world. The San Juan Mountains border Rio Grande County to the west, with the Sangre de Cristo Range across the valley to the east. The Rio Grande River has its headwaters in the San Juan Mountains, and flows west to east through the county, passing through the communities of South Fork, Del Norte and Monte Vista.

The economy of Rio Grande County is dependent upon agriculture, which is dependent on irrigation. The main cash crops are potatoes, wheat, barley, oats, alfalfa and native hay.

The County Vision Statement:

“Rio Grande County will balance the protection of its agricultural, rural residents and outdoor recreational economy with the direction of new growth and development into appropriate areas.”



B. Trails in Rio Grande County

Rio Grande County has an abundance of public lands with access to trails and open space. Sixty percent of all land in Rio Grande County is managed by a public agency. Almost half of Rio Grande County (47 percent) is comprised of the Rio Grande National Forest, which is under the jurisdiction of the US Forest Service (USFS). The 1.8 million acre Rio Grande National Forest contains 1,280 miles of trails. Other public lands are managed by the Bureau of Land Management (BLM), US Fish and Wildlife Service (USFWS), Colorado State Land Board, and the Colorado Division of Wildlife (CDOW).

Rio Grande County recognizes the importance of recreational trails and supports the Great San Luis Valley Trails and Recreation Plan (1996) in its recommendation to provide a regional trail system through various rail/trail projects. The County supports the tourism and outdoor recreation economy while conserving the natural resources and preserving the cultural heritage of Rio Grande County for future generations.

C. Regional Trail Connections

Rio Grande County is centrally located to several regional and long-distance trails and for several recreational events.

Colorado Trail

The Colorado Trail is a wilderness path that runs north to south through some of the most scenic areas of the Rocky Mountains and the Continental Divide. This popular trail runs 400 miles through Colorado and is located west of Rio Grande County.

Continental Divide Trail

The CDT has been given federal designation as a national scenic trail. The trail uses primarily existing trails, runs from Canada to Mexico along the Continental Divide and enters Rio Grande County in the SW corner. The trail is accessed from Pinos Creek Road (CR 14) past Summitville from Del Norte or 15 miles southwest of South Fork.

Old Spanish Trail

Please see Chapter 4: Del Norte Regional Connections

Silver Thread Scenic Byway

Please see Chapter 4: Del Norte Regional Connections

Other Connections

Del Norte is a rest stop destination along the Great Divide Race, Tour Divide Race, and the Race Across America (RAAM) and for several bicycle tours including Ride the Rockies and the Great Divide Mountain Bike Route.



Old Spanish Trail

Chapter 4: Del Norte Trail Connections and Extensions

Cradled at the base of the Rio Grande National Forest and the San Juan Mountains, Del Norte offers a wide range of trail experiences and opportunities. Due to the rich history and diverse landscape of San Luis Valley and the mountains around it, trail connections and extensions from the Del Norte Trail System hub are desirable and identified in this plan as Spine Trails and Del Norte Regional Connections.

A. Del Norte Spine Trails

Spine Trails are long distance trails that connect the entire county. Such trails provide transportation links between the communities, and allow access to a myriad of trails running from the valley floor to higher elevations. Del Norte trail connections can be created by combining easement accesses along major roadways, waterways, railroad corridors and utility lines.

1. Highways and County Roads

The following are the two arterial highways that are major transportation routes in and out of the Del Norte and two county roads that provide access to the areas south of Del Norte. Efforts should be made to widen the shoulders or create separated trails along side these roadways.

US Highway 160

US Highway 160 extends west from Del Norte through South Fork and over Wolf Creek Pass to southwestern Colorado and east to Interstate 25 and Colorado's front range.

State Highway 112

Colorado State Highway 112 connects Del Norte with US Highway 285 and the eastern part of the San Luis Valley.

County Road 13 (San Francisco Creek)

CR 13 runs southerly from Del Norte ending at the trail access to the Rio Grande National Forest.

County Road 14 (Pinos Creek)

CR 14 runs southwesterly from Del Norte into the Rio Grande National Forest to historic Summitville accesses the CDT, the San Juan National Forest and the South San Juan Wilderness Area.

2. Waterways

The following are natural waterways that connect communities and provide trail opportunities. Efforts should be made to support the creation of trails along these corridors.

Rio Grande

The Rio Grande is a major recreational area running west to east through Del Norte.

River Tributaries

Pinos Creek and San Francisco Creek converge in the Del Norte area from the South.

3. Railways

The following railroad corridors provide possible trail routes. Rail/trail efforts should be explored.

Rio Grande Scenic Railroad

This line runs from South Fork on the west through Del Norte to Alamosa continuing east over La Veta Pass to the Colorado front range. From Alamosa it goes southerly to Antonito, where it meets the historic narrow gauge Cumbres & Toltec Railway.

Denver & Rio Grande Railroad (D&RG)

This line is a historic short spur that runs from South Fork to just south of Creede.

4. Utility Lines

The following are utility easements that could provide trail routes. Efforts should be made to explore trail possibilities along existing and future utility easements.

Gas Lines

The Public Service Company of Colorado (Xcel Energy) has underground gas lines connecting all communities.

Power Lines

The San Luis Valley Rural Electric Cooperative power lines provides power to and connects all 6 counties in the valley.

Fiber Optics Cable Line

The Qwest Telecommunication Company lines could provide trail possibilities.

B. Del Norte Regional Connections

Del Norte Regional Connections are proposed routes that extend out from Del Norte to reach desirable destinations in Rio Grande County and beyond. Although currently accessible via county roads, alternate routes should be sought that are away from motor traffic and innovative in their design and interpretation.

1. Northern Connections

Penitente Canyon

Penitente Canyon is located 12 ½ miles north of Del Norte off State Highway 112. This BLM renowned world class rock climbing destination has camping available as well as trails for hiking, biking and horseback riding. Penitente Canyon is accessed on existing trails and roads north of the Del Norte Airport. The route provides connections to the Summer Coon Volcano area, the Old Woman Creek Loop, the Natural Arch and Elephant Rocks geological features and connects to the Rio Grande National Forest.

2. Southern Connections

Cedar Springs

Cedar Springs is a park area accessed from the Session Trail on “Lookout Mt.” running 6 miles south along the spine between CR 13 (San Francisco Creek) and CR 14 (Pinos Creek). Cedar Springs is on public land and offers trail connections to Forest Service trails.

3. Eastern Connections

Old Spanish Trail

The West Fork of the Old Spanish Trail is located 6 miles east of Del Norte off US Highway 160. The Old Spanish Trail consisted of a network of trails that once connected northern New Mexico to southern California’s Pacific coast. For centuries these trails served as pathways for animals, hunters, traders and settlers. The trail has a wealth of interpretive opportunities.

4. Western Connections

Silver Thread Scenic Byway

The Silver Thread Scenic Byway is a 75-mile drive between South Fork and Lake City, Colorado along Highway 149. This Byway offers scenic beauty, natural wonders and deep mining history and is accessed in South Fork, 16 miles west of Del Norte along US Highway 160.

Chapter 5: Environmental Reviews

Del Norte is situated in a scenic and historic area where recreational and cultural opportunities abound and wildlife is plentiful. Care has been taken to protect the environment and reduce negative impacts from trail development. Biologists and cultural experts have assisted in the designs and management strategies of the Del Norte Trails Master Plan.

A. Biology

Three diverse habitats are represented in the 5 overlapping areas of the Del Norte Trails Master Plan.

1. The Upland Habitat: All the “Lookout Mountain” trails are included in this area. The Upland Area is vegetated with coniferous spruce, fir, pinon pine, juniper, wild herbaceous plants, shrubs. Animals in the area include antelope, deer, bighorn sheep, elk, bear, mountain lion, snakes, lizards, raptors, vultures. A major migration route for elk and deer is located on the southern slope of “Lookout Mountain”.
2. The Valley Habitat: The In Town trails are included in this area. Domestic grasses and trees are located in the area as well as cattle and domestic animals.
3. The Riparian Habitat: The Rio Grande and its banks make up this area. Cottonwoods willows, wetland plants, shrubs, and grasses are found the area while birds, fish, insects and bears live and move along this important migration corridor.

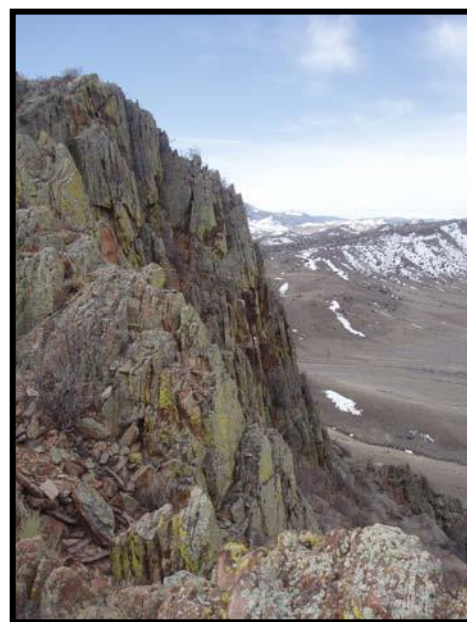
Four major environmental opportunities are involved with the wild plants and animals in the area.

1. Migration corridors exist along the back side of Lookout Mountain and along the Rio Grande River.
2. Areas on the south facing slopes of Lookout Mountain are winter ranges for deer, elk and Big Horn sheep.
3. The Rio Grande River area is a fragile riparian habitat that has signs of human contact.
4. Two federally endangered species in the area are the southwestern willow catcher and whooping crane and three federally threatened species are the lynx, Mexican spotted owl and bald eagle.

A good trail plan will minimize conflicts with wildlife.

- Confine and define trail use to non-sensitive areas
- Consider seasonal trail use (minimize trail activity during winter fawning & calving)
- Respect threatened and endangered species
- Avoid habitat fragmentation (minimize fencing, development)
- Avoid erosion and habitat destruction
- Respect migration patterns
- Encourage environmental stewardship (Information signs)
- Make enforceable trail rules
- Pursue open space (conservation easements, land acquisition)
- Consider Rio Grande water rights issues (fishing & boating pressure)
- Anticipate growth

In the Rio Grande County Plan Framework Questionnaire citizens agreed that “The County should provide subdivision guidelines for land developers to protect significant habitats and migration corridors.”

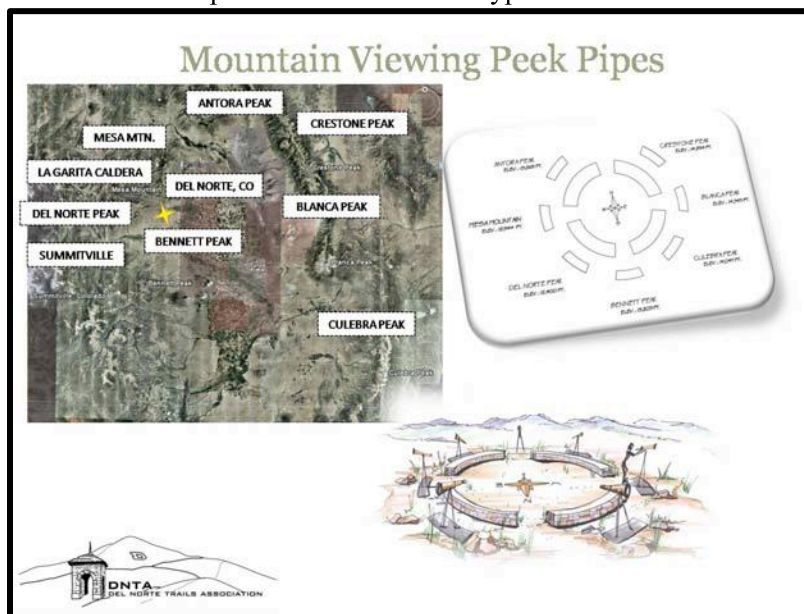


Rocky Bluffs Roosting Area

B. Geology

Tectonic events over millions of years have given the Del Norte area a tremendous geologic variety, including pumice and sandstone sculpted formations, alluvial terraces, and precious metal deposits. Early volcanic activity uplifted the outcrops that dominate the landscape around Del Norte. Typical is Lookout Mountain which is composed mostly of lava flows and breccias comprised of andesine and quartz. Mineral resources in the area include gold, silver, lead, copper, alumina and pumice. Several sand and gravel pits are operating along the Rio Grande corridor. The area has nearly level to steep soils with conditions to constrain development due to high water, bedrock conditions or unstable gravel.

Opportunities for regional geologic interpretation are the “Lookout Mt” Peek Pipes and deposits of artifact grade jasper on “Lookout Mt”. Trail construction will have to avoid steep slopes, areas of fluctuating ground water, and areas with seasonal water flow.



C. Cultural History

Due to the long, interesting history of the Del Norte area many historic and cultural resources exist including buildings, features and archeological sites. Careful trail planning is necessary to balance protecting the past while promoting heritage tourism through interpretation and exploration. Historic and cultural resources along or near trails must be evaluated and sensitive areas identified. The trail design should maintain flexibility to eliminate or minimize any negative impacts to historical or cultural resources and sensitive areas should be eliminated and avoided by separation from the trail.

Opportunities for cultural trail interpretative include:

- Prehistoric Rock Art Sites
- Mammoth Rubs
- Indian artifacts
- Del Norte Cemetery
- Penasco Observatories



Mammoth Rubs

Chapter 6: Building the Trail System

A. Planning

The first step in building a trail system is to assess the topography and physical features of possible trail corridors and identifying them on a map.

A comprehensive trail plan, reflecting the principles of continuity, potential use, destinations, and safety, should then be produced and integrated into policy and planning documents

B. Partnerships

Public input is important to identify community needs concerning recreation, transportation, open space, natural & historic preservation and neighborhood development.

Partnerships between political jurisdictions, local, state, federal and utility agencies, landowners and tenants and community organizations will build alliances for a successful trail system.

C. Acquisitions

Acquiring land to build a trail can range from a purchase of land to the granting of an easement for trail construction. The acquisition of land can be a continuing process and trails are often built in segments, as rights-of-way become available.

D. Funding Sources

Federal Funding Sources

- Intermodal Surface Transportation Efficiency Act (ISTEA) (Colorado Department of Transportation)
- National Recreational Trails Trust Fund (US Department of Transportation)
- US Forest Service- Challenge-Cost Share Program.
- Bureau of Land Management Challenge-Cost Share Program
- National Park Service: Rivers and Trails Conservation Program
- National Park Service: Land and Water Conservation Fund
- Soil Conservation Service: Resource Conservation and Development Program

State Funding Sources

- Great Outdoors Colorado
- Colorado Division of Wildlife
- Department of Local Affairs: Energy Impact Assistance Program
- State Historical Society
- State University System programs
- Colorado State University Extension Program
- Colorado State Parks
- Colorado Center for Community Development

Local Funding Sources

- Private sector contributions
- Local taxes
- Impact Mitigation Funds
- Growth-Impact Ordinances
- Bonds
- Dedicated Sales Tax

Other Funding Sources

- Open Space Special Benefit Assessments
- Fiber Optics/Other Utilities

- Corporate Funding
- Foundation Funding
- Railroad Franchise Agreements
- User Fees

E. Building

1. Trail Construction Guidelines

These trail construction guidelines are meant to be used by Del Norte and Rio Grande County and surrounding municipalities in their planning and development of trails. These are minimal trail construction guidelines that may be used alone or with the additional references that are listed below. Every trail is unique and land ownership, funding and usage may necessitate additional requirements.

The word “trails” in the context of this plan refers to the network of roads, streets, paths and routes which people use for transportation and recreation.

Construction Guidelines

- a. Natural Trails: (foot, bike)
 - 2-6’ wide, no shoulders
 - Natural surface
 - 10’ right of way (suggested)
- b. Soft Surface Trails: (foot, bike, horse)
 - 4-8’ wide, 1’ shoulders (minimum)
 - Unpaved; natural material or road base
 - 8-20’ right of way
 - 10’ separation from roadway
- c. Hard Surface Trails: Class I Bikeways (foot, bike, skates)
 - 8-12’ wide, 2’ shoulders
 - Asphalt, concrete or hard surface
 - 15-25’ right of way
 - 10’ separation from roadway
- d. Shared Roadways: Class III Bikeway (foot, bike)
 - Roads with little or slow traffic that are signed only
- e. Bike Lanes: Class II Bikeways (Bicycles)
 - Roadway striped, marked, signed for bicycle use
 - 5’ wide/ both sides of roadway

Sidewalks (side paths) generally intended for foot traffic only, unless designated differently.

Additional Trail Construction Guidelines

- A trail easement should be approximately twice as wide as the tread width for construction, clearance and future development.
- Design overhead and side clearances for user types.
- Separate trails from roads, parking lots and structures.
- Construct trails with grades that average 10% or less overall. If steeper grades are necessary for short distances due to the terrain, sign for difficulty.

- Consider safe sight distances.
- Minimize impacts of habitat fragmentation. (Don't cut across open spaces)
- Avoid driveway/roadway crossings.
- Use trail buffers to protect privacy.
- Link points of interest.
- Select materials and accessories that are available and resistant to vandalism.
- Use sustainable trail building practices.
- When planning for trails remember: -Alignment, design, engineering, materials, construction, amenities and maintenance.

2. Standards, Statutes, and Permitting

A variety of local, state and federal standards, statutes, and permitting often apply to trail development and construction. Other regulatory and legal considerations include trail use designations, local land use codes and private property rights.

Please refer to Chapter 8: References

F. Support

Signage & User Education

Trail signage, trail maps, and the promotion of trail etiquette and stewardship in the community will encourage respect for the trails. Signs should be uniform in style and design throughout the entire Trail System and should include the following categories:

- Informational/Directional
- Regulatory/Warning
- Education/Interpretation

Enforcement, Safety and Rules

Law enforcement agencies should be involved in the planning, building and the everyday use of community trails. Trail rules should be approved and posted along the Trail System. Regulation enforcement reduces user conflict and increases user safety and trail appreciation.

Maintenance

The agency responsible for maintenance should be determined prior to construction of a new trail. Funding for maintenance should be included as a multi-year item in the sponsoring agencies budget whenever possible.

Community Involvement & Volunteers

Once a trail is open, the community gains a sense of "ownership" toward the trail. Individuals develop strong personal attachments, creating tremendous citizen support for trail maintenance and development. Community schools, organizations and individuals can help with the addition of trail amenities and a local, volunteer Adopt-a-Trail Program will relieve and assist municipalities in patrolling and maintenance.

Chapter 7: Del Norte Trails Master Plan Construction Priorities

The Del Norte Trails Master Plan construction priorities are as follows

- Continue trail construction on trail easements donated to the Town of Del Norte on and around Lookout Mt.
- Pursue, accept, survey and record all easements and corridors sold, donated or traded to the Town by landowners.
- Build the Del Norte Trail Gateways and Trailheads
 - Gateways: US Highway 160 west (Lookout Mountain Gateway), US Highway 160 east, and State Highway 112.
 - Trail Heads: Spruce St., Columbia Ave., 7th & Alder St., Rio Grande Hospital, Rio Grande Riverwalk, and Chico Drive
- Complete all in-town trail connections emphasizing “Safe Routes to School”.
- Build new trails.
- Provide additional trail amenities (landscaping, structures, lighting, pocket parks, restrooms, interpretation and signage)



Chapter 8: References

Trail Standards

Alexander, Ishikawa and Silverstein, *“A Pattern Language (Towns Buildings Construction)”*
American Association of state Highways & transportations Officials, *“AASHTO Guide for the Development of Bicycle Facilities”*
Colorado Asphalt Pavement Association, *“A Guideline for the Design and Construction of Asphalt Pavements for Colorado Trails & Paths”*
Colorado Department of Transportation, *“Standards for Road and Bridge Construction”*
Colorado Division of Parks and Outdoor Recreation, *“Trail Construction Guidelines”*
Colorado State Parks, *“Planning Trails with Wildlife in Mind”* & *“Colorado Greenway Planning Guide”*
Colorado Trail Foundation, *“The Colorado Trail”*
Conservation Fund, *“Greenways: “A Guide to Planning, Design, and Development”*
Dramstad, Olson & Forman, *“Landscape Ecology Principles in Landscape Architecture and Land-Use Planning”*
Federal Highway Administration (FHA), *“Rails-with-Trails Lessons Learned”*
Fink, Olkja and Searns, *“Trails for the Twenty-First Century”*
Francis M., *“Urban Open Space”*
International Mountain Bicycling Association, *“IMBA Trails Solution Book”*
McCoy M, *“Cycling the Great Divide”*
State Trails Program & Colorado Department of Transportation (CDOT), *“Colorado Railroad & Rail Corridor Guide”*
USDA Forest Service and USDI National Park Service, *“Design Guide for Accessible Outdoor Recreation”*
USDA Forest Service, *“Trail Construction and Maintenance Notebook”*

Trail Statutes and Permitting

The American with Disabilities Act of 1991 (ADA)
The National Environmental Protection Act of 1969 (NEPA)
U.S. Army Corps of Engineers (wetland 404 permitting)
Manual on Uniform Traffic Control Devices (MUTCD) used for Bikeway Class
Municipal Public Works Department Regulations
Rio Grande County Joint Master Plan (2004)
San Luis Valley, Colorado, 2007 Comprehensive Economic Development Strategy
Colorado Recreational Use Statute 33

Additional Resources

Leave No Trace Center for Outdoor Ethics, educational program
Volunteers for Outdoor Colorado
Youth Corps: Colorado Youth Corps Association, Southwest Conservation Corp
Tread Lightly! Educational Program

Chapter 9: Acknowledgements

Town of Del Norte

Bernadette Martinez, Town Administrator
140 Spruce Street
Del Norte, CO 81132

Rio Grande County Commissioners

Suzanne Benton, Administrator
925 6th Street, Room 207
Del Norte, CO 81132

Del Norte Trails Organization

Cristi Larsen, President
Marty Asplin, Gary Blakley
P.O. Box 250
Del Norte, CO 81132

Private Land Owners, (Easement Donations)

Off Island Ranches, Inc.
Gordon, Suzie, Shawna, David, Kevin
Cristi Larsen

Asplin & Associates

560 Columbia Ave.
Del Norte, CO 81132

Colorado State Parks, State Trails Program

Casey Swanson, Trails Coordinator
4255 Sinton Road
Colorado Springs, CO 80907

Colorado State University

Landscape Design and Contracting Program
Zachary Johnson, Professor
Jamie Jeffers, Sarah Kuehn, Matt Tingley
208 Shepardson Bldg.
Fort Collins, CO 80523

Adams State College

Adams State Adventure Program (ASAP)
Mick Daniel, Coordinator
Alamosa, CO

Colorado Division of Wildlife

Jerry Pacheco, District Wildlife Manager, Del Norte
0722 S. Road 1E
Monte Vista, CO 81144

National Forest Service

Steve Brigham, Forester/Snow Ranger
Ken Frye
13308 W. Hwy 160
Del Norte, CO 81132

Reynolds Engineering Company

Martin Reynolds, P.E., P.L.S.
21626 CR AA.5
Alamosa, CO 81101

Farrish & Hobbs, P.C.

Eugene Farrish, Attorney at Law
739 First Ave. / P.O. Box 430
Monte Vista, CO 81144

Rio Grande County Museum & Cultural Center

Fred M. Oglesby, County Archeologist
580 Oak Street
Del Norte, CO 81132

Rhoads & Associates

Donna J. Rhoads, Trail Planner
John Rhoads, Geologist
Yvonne Barnes, Cartographer
Mark Wiard, Computer Specialist
334 E. First Street
Salida, CO 81202

Del Norte Trails Master Plan



Regional Trail Connections

