INTRODUCTION

Travel is associated with many of the activities that take place within the planning area. Both motorized and non-motorized access are important for outdoor recreation, wildfire management, managing livestock and wildlife, developing natural resources (including timber and minerals), gathering fuel wood, accessing private in-holdings, maintaining electronic sites and utility corridors, and managing and monitoring the planning area. Modes of vehicle travel within the planning area include large commercial trucks, automobiles, pickups, four-wheel drive vehicles, snowmobiles, all-terrain and off-highway vehicles (ATVs and OHVs), motorcycles, mountain bikes, and wheelchairs. Other travel modes include cross-country skiing, horseback riding, and hiking. These modes of travel may be used on designated roads that include paved highways, gravel and dirt roads, unimproved roads, four-wheel drive roads, and trails designated for motorized and/or non-motorized use. Motorized off-road and off-trail travel is allowed only in designated areas.

Motorized route designations are developed through a public travel management planning process. This process is conducted in accordance with the USFS 2005 Travel Management Rule (36 CFR 212.50 through 212.81). This rule requires that motor vehicle use on National Forest System (NFS)roads, on NFS trails, and on any USFS-administered areas allowing cross-country motorized travel, shall be designated according to vehicle class and, if appropriate, to time of year by the responsible official on administrative units or Ranger Districts. The BLM has a similar regulation (43 CFR Subparts 8340 through 8342). The regulation requires that all public lands be assigned an OHV management area designation of “open” or “limited” or “closed” to motorized travel. It prohibits motor vehicle operation that is not in accordance with those designations.

The 2005 Travel Management Rule applies only to USFS-administered lands; however, it meets the requirements of the BLM regulations related to motorized off-road use without exceeding the scope of the BLM’s authority. Therefore, the framework provided by the USFS 2005 Travel Management Rule is employed for joint agency travel management planning across the SJPLC-administered planning area.

This travel planning process was initiated in 2006 as a separate process from the development of this DLMP/DEIS. It entails a separate public involvement process and NEPA analysis. Travel planning will use the travel management direction that is currently in place as a baseline for the process until the revised LMP is implemented. At that time, the travel suitability area classifications would be employed as the baseline condition. To date, no motorized travel designations have been completed.

LEGAL AND ADMINISTRATIVE FRAMEWORK

The location, design, operation, and maintenance of roads and trails are specified in the forest-wide standards and guidelines (see Volume 2, Part 3), the Watershed Conservation Practices Handbook, and the manual direction of both the USFS and the BLM. This direction assures that intended uses will be accommodated over time. Maintenance and other activity accomplishments on SJPLC-administered roads are directly dependent upon funding levels, which vary from year to year.

LAWS

- ***The National Forest Management Act of 1976***: This act substantially amends the Forest and Rangeland Renewable Resources Planning Act of 1974. This act strengthens the references pertaining to suitability and compatibility of land areas; stresses the maintenance of productivity; and seeks to avoid the permanent impairment of the productive capability of the land. This act sets forth the requirements for Land Management Plans for the USFS.

EXECUTIVE ORDERS

- ***Executive Order 11644, as amended***: This EO establishes policies and provides procedures to ensure the control of off-road vehicle use on public lands.

REGULATIONS AND POLICIES

- ***Title 36 CFR 212***: This provides the principle regulations for administration of NFS roads and motorized trails, and requires designation of a motorized transportation system.
- ***Title 36 CFR 219***: This provides resource management requirements that cannot be met without putting a viable transportation system in place.
- ***Title 36 CFR 61***: This prohibits the use of motor vehicles off of the designated transportation system.
- ***43 CFR 8340***: This establishes criteria for the designation of public lands as open, limited, or closed to the use of off-road vehicles, and establishes controls governing off-road vehicle use in such areas.

Additional regulations and policies are directed by FSM 7700 (Travel Management); BLM Manual 9100 (Transportation Facilities); BLM Land Use Planning Handbook H-1601-1, Appendix C; FSH 7709.55 (Travel Planning Handbook); and the Forest Service Travel Management Rule of 2005.

DESIGN CRITERIA

Management guidelines and design criteria describe the environmental protection measures that would be applied to all of the alternatives at the project level in order to protect, enhance, and, where appropriate, improve resources related to access and travel management. Guidelines and design criteria are presented in Part 3 of Volume 2 of the DLMP/DEIS.

Existing Conditions and Trends

Currently, there are more than 3,000 miles of authorized USFS and BLM roads and more than 500 miles of authorized USFS and BLM motorized trails within the planning area. Authorized roads and trails may be permanent or temporary routes constructed to meet some access need. They are periodically maintained. USFS-authorized roads are assigned a maintenance category known as an "objective maintenance level," which represents the maintenance target for a specific route. Maintenance levels are assigned based on a set of criteria that describe how the road will be maintained. These criteria include considerations for protection of resources or improvements, the required road smoothness for the design operating speed, season of use, traffic volume and type, and whether dust production is acceptable. The road maintenance levels are described below.

Maintenance Level	STANDARD
1	Assigned to intermittent service roads during the period of closure, which must exceed one year. Basic custodial maintenance is performed in order to protect resources and the road investment. Motorized travel is prohibited.
2	Assigned to roads open to use by high-clearance vehicles. The road surface is generally native material, which can vary from soil to rock. The roads are typically single-lane roads, and can have steep grades. Passenger vehicles are not considered in maintenance. Traffic volume and speed is normally low. Motorized travel is accepted, but passenger vehicle use is generally discouraged.
3	Assigned to roads open and maintained for travel by a prudent driver in a passenger vehicle. These roads are not maintained for user comfort. These are typically low-speed, single-lane roads with turn-outs. They may be either native or gravel surfaced.
4	Assigned to roads that provide a moderate degree of user comfort at moderate travel speeds. These roads are typically double-lane, and are gravel surfaced. Dust abatement may be employed.
5	Assigned to roads that provide a high degree of user comfort. These roads are typically double-lane, paved roads. Some are dust-abated gravel-surfaced roads.

BLM-authorized roads do not have a corresponding road classification system. BLM roads are typically native-surface, high-clearance roads that are similar to USFS roads maintained for high-clearance vehicles, and will be considered as such for the purposes of this analysis. Sometimes, the on-the-ground maintenance, known as the operational maintenance level, does not coincide with the objective maintenance level. Generally the operational maintenance level is at, or below, that of the objective maintenance level. Table 3.19.1 presents a breakdown of roads by objective maintenance level.

It is estimated that there are more than 3,400 miles of unauthorized roads and trails within the planning area. Unauthorized roads and trails are not considered SJPL system routes; therefore, they are not managed, and are not assigned an objective maintenance level. Unauthorized routes are typically developed through repetitive use of cross-country travel routes. They may also be out-of-service temporary roads that were not decommissioned or not decommissioned adequately to prevent continued unauthorized use. These unauthorized routes tend to occur most often in areas that have been historically open to cross-country motorized travel.

Table 3.19.1 – SJPLC Road Miles

Maintenance Level	STANDARD	USFS Miles	BLM Miles
1	Basic Custodial Care (closed)	961	0
2	Use by High-Clearance Vehicles	1,016	321
3	Suitable for Passenger Cars	598	0
4	Moderate Degree of User Comfort	117	0
5	High Degree of User Comfort	20	0
	TOTAL AUTHORIZED ROAD MILES	2,712	321
Unauthorized	Unmaintained	940	2,500
	TOTAL ROAD MILES	3,651	2,821

Sources: Infra Travel Routes Database (2006); San Juan Field Office Road Maintenance Schedule.

There are approximately 2,300 miles of authorized roads within the planning area that are either closed to motorized vehicles (maintenance level 1) or managed for high-clearance vehicles, such as pickup trucks and four-wheel drive vehicles (maintenance level 2). These roads were designed for a single purpose, have a low traffic volume, are single-lane, and have surfaces consisting of native materials. Some native soil surfaces retain moisture and will rut severely if used when wet; some are prone to erosion and can be easily washed away if proper drainage is not maintained.

Maintenance level 3 roads, which make up approximately 20% of the authorized road system, are maintained in order to accommodate passenger vehicles. However, they do not necessarily provide a comfortable driving experience. These roads have aggregate surfacing, which may consist of pit-run or crushed gravel that has an expected life of 10 to 20 years when adequately maintained. Assuming an average life of 15 years, the SJPLC should resurface a minimum of 40 miles of maintenance level 3 roads per year. In recent years, resurfacing accomplishments have averaged about 10 miles per year due to budget constraints and competing priorities. This has resulted in a large deferred maintenance backlog (totaling more than $30 million in 2006).

Approximately 137 miles (4.5%) of planning area roads are maintained in order to provide a moderately to highly comfortable driving experience (maintenance levels 4 and 5). Maintenance level 4 roads are generally two-lane gravel roads. Maintenance level 5 roads are generally two-lane paved roads. These roads experience the highest volume of traffic and are the most costly per mile to maintain. Budget constraints have also affected the SJPLC's ability to maintain these to standard, resulting in a 2006 deferred maintenance backlog of $8.1 million.

The roads within the planning area are further classified into one of three functional class categories: arterial, collector, or local.

- ***Arterials***: These roads serve as connections between towns, major county roads, or State highways, and are main thoroughfares through the planning area.
- ***Collectors***: These roads link large areas of the planning area to arterials or to other main highways.
- ***Locals***: These roads are usually single purpose transportation facilities accessing specific areas.

In general, arterial and collector roads are surfaced with asphalt pavement or aggregate material. Local roads are generally native-surfaced, except when the local road accesses developed recreation facilities (including a campground, picnic area, or trailhead), which often have improved surfacing. Table 3.19.2 lists the miles of authorized SJPL roads by functional class.

Table 3.19.2 – SJPL Road Miles by Functional Class

Functional Class	Miles
Arterial	134
Collector	769
Local	2,130
Total	3,033

Sources: Infra Travel Routes Database (2006); San Juan Field Office Road Maintenance Schedule.

Forest Highways

Forest Highways are State-, county-, or USFS-administered roads that provide access to, and within, the planning area. They are designated under the Federal Lands Highways program of the Transportation Equity Act for the 21st Century (TEA21). These routes qualify for highway trust funding for improvement or enhancement. Forest highway funding can be used for planning, design, and construction or reconstruction of these designated routes. Enhancement work may include parking areas, interpretive signing, acquisitions of scenic easements or sites, sanitary and water facilities, and pedestrian and bicycle paths.

The seven Forest Highways within the planning area are listed in Table 3.19.3.

Table 3.19.3 – Federally Designated Forest Highways

Forest Hwy #	STATE HWY, COUNTY, USFS ROUTE NUMBER	NAME	TERMINI	Length (Miles)
1	State Highway 145	Dolores – Rico	Dolores to Lizard Head Pass	61
2	U.S. Highway 550	Durango – Red Mountain	Durango to Red Mountain Pass	76.6
8	U.S. Highway 160	Mancos – Hesperus	Mancos Hill to Cherry Creek	8.5
60	NFSR 535	West Dolores	State Highway 145 to State Highway 145	33.4
61	NFSR 631	Piedra	U.S. Highway 160 to Williams Creek	22.1
63	N/A	Dolores – Norwood	Dolores to Norwood	57.3
64	County Road 501	Vallecito	Bayfield to Vallecito Work Center	19

Source: Infra Travel Routes Database (2006)

Budget and Maintenance

Within the planning area, the annual cost to maintain the entire road system to standard is considerably higher than the amount allocated. In prior years, congressionally appropriated road funding was supplemented by road construction and maintenance work performed by timber purchasers, through the commercial timber sale program. This program has steadily declined over the past 20 years, and this decline is expected to continue. Beginning in 1999, the USFS conducted road condition surveys in order to determine the actual cost of maintaining the road system to standard. Work items were also recorded in order to determine the cost of road maintenance deferred in previous years due to lack of funding. Finally, the road improvement work that would be necessary in order to bring the roads up to the desired maintenance level was identified and documented. The primary maintenance work items identified through this analysis are road surfacing, signing, drainage, brushing, gating, and installing cattle guards. Analysis of the data collected showed that the San Juan National Forest (SJNF) is substantially underfunded for the size of its managed road system (Table 3.19.4).

Table 3.19.4 – Estimated Funding Needs for SJNF Road Maintenance and Operations

Maintenance Level	ANNUAL MAINTENANCE		DEFERRED MAINTENANCE	
	$/mile	Total $	$/mile	Total $
1	$170	$163,370	$6,755	$144,549
2	$3,284	$3,336,544	$25,020	$6,662,958
3	$6,153	$3,679,494	$50,763	$30,804,332
4	$6,854	$801,918	$70,951	$8,103,483
5	$6,537	$130,740	$4,574	$32,977
TOTAL		***$8,112,066***		***$45,748,299***

Sources: Annual Maintenance: Forest Infra Condition Surveys, as of October 1, 2005.
Deferred Maintenance: Infra database, as of June 23, 2006.
Average $/mile: Determined using only those roads for which costs have been entered into Infra.

SJPLC strategies employed in order to reduce maintenance costs and to allocate the limited maintenance funding include:

- seeking opportunities to transfer road management responsibilities to other jurisdictions (including counties), especially where the roads provide access to large private in-holdings and developments;
- working with partners in order to perform necessary road decommissioning and trail maintenance; and
- reducing road maintenance levels for low-value roads, or converting low-value roads to trails.

Road Use

In recent years there has seen a shift in the volume, and in the mix, of travel modes accessing the planning area. Traditionally, commercial use of the transportation system was dominated by the timber industry and, to a lesser degree, by the oil and gas industry. Since the 1990s, commercial timber use has experienced a continual decline. Other commercial use of the transportation system, however, has experienced a marked increase (including oil and gas, Outfitting/Guiding, and recreational vehicle guided tours). Most forms of recreation travel have risen in volume, some more noticeably than others (see Recreation section in this chapter for indicators and trends). Some of this recreation demand has been driven by a local development surge that began in the late 1990s -- a surge that has pushed the urban interface closer to the SJPL boundary.

As use of the planning area increases, travel management planning is becoming an increasingly important tool for reducing resource impacts and for coordinating uses. Over the past 20 years, the use of four-wheel drive vehicles, ATVs/OHVs, snowmobiles, and mountain bikes has increased dramatically. These uses have lead to a proliferation of unauthorized, user-created routes, especially in areas that have historically been open to cross-country motorized travel. Through travel management, the agencies would continue to work closely with the public, as well as with local, State, Native American tribal, and other Federal agencies, in order to identify access needs for the various public land uses. The goal is a balance between motorized and non-motorized recreation opportunities, which would likely require compromises by each user group.

There is a current, and future, anticipated need to provide access for private in-holdings. The Alaska National Interest Lands Conservation Act of 1980 (ANILCA) guarantees that landowners within public lands have a reasonable right of access, commensurate with their use. This act obligates land management agencies to regulate this access in order to limit resource damage. When private access becomes the dominant use, or requires significant improvement of the roads, the users must contribute to maintenance or improvement of the roads. Otherwise, use must be limited to levels that would not result in unacceptable damage to the road. Requests for in-holding access consist of both requests for new road construction and winter access. New access requests are expected to increase as land values increase, making development of in-holdings more profitable. Winter access requests are expected to increase as in-holding development increases, and as property owners seek to inhabit in-holding-located residences year-round.

DIRECT AND INDIRECT IMPACTS

General Impacts

Maintenance and Reconstruction - The ability of the SJPLC to maintain and reconstruct roads and trails to meet standards is a direct function of the funding allocated for that purpose by Congress. Decisions of where to utilize this funding on the ground is aided by a process known as travel analysis. Travel analysis prioritizes each route based on its value to the overall planning area, as well as its risk to the environment, the traveling public, and the SJPLC (in terms of loss of agency investment). None of the alternatives would alter this process, or the ability to secure funding; therefore, there would be no difference between the alternatives for route maintenance or reconstruction.

Access Needs - Under all of the alternatives, coordination and collaboration with other Federal, state, and county officials in the management of transportation facilities to, and through, the SJPLC would be continued in order to ensure that access is maintained, standards are consistent, safety issues are addressed, and efficiency is considered at all times. Reasonable access to private in-holdings has to be considered in travel management. Existing rights-of-way (ROWs) and easements would be maintained, and future easements would be pursued, as needed, to ensure that there is appropriate public access to public lands.

Impacts Related to Management Area (MA) Designations

General travel management schemes are tied to each of the action alternatives, and are illustrated in the acreages allocated to motorized travel suitability areas (see Chapter 2, Comparison of Alternatives Table, Suitable Lands by Alternative). The MA designations and route densities proposed under each alternative are discussed below. Motorized travel suitability is based on the allocation of the MA prescriptions by alternative and, therefore, is applied to areas. Summer motorized travel suitability is divided into three classes: “not suitable” or “suitable” or “suitable opportunity.” Winter motorized travel is divided into two classes: “not suitable” or “suitable.” (The suitability classifications are described in Chapter 2, Section 2.4.2.2.) These motorized travel suitability areas satisfy the BLM requirements in 43 CFR 8340. They define the parameters by which future motorized road and trail designations may be subsequently made, in accordance with the USFS 2005 Travel Management Rule and BLM travel management regulations.

DLMP/DEIS Alternatives: Under Alternative A, the current summer travel management direction and motorized travel suitability areas would remain unchanged. Alternatives B, C, and D would increase the area not suitable for motorized travel by approximately 66% (Alternative D), 82% (Alternative B), and 222% (Alternative C). (See the motorized over-ground suitability figures and the motorized over-snow suitability figures located in Chapter 2 for a geographic representation of motorized travel suitability proposed under each alternative.) The primary reason for this major change is that each of the action alternatives would result in eliminating areas open to cross-country motorized travel, as is allowed under the current travel management. The suitable acres allocated under Alternative C would be approximately 23% less than under current conditions (Alternative A). Alternative B would be approximately 1% less than under current conditions (Alternative A), and Alternative D would be approximately 4% greater than under current conditions (Alternative A). Relative to the existing conditions represented by Alternative A, the suitable opportunity acres allocated under Alternative C would be approximately 53% less; Alternative B would be approximately 52% less; and Alternative D would be approximately 47% less. The acreages allocated to the suitable and suitable opportunity classes would be fewer under Alternative C than they would be under any of the other alternatives (primarily due to the MA 1 emphasis of this alternative).

Under Alternative A, the current winter travel management direction and winter motorized travel suitability areas would remain unchanged, with more than 1.3 million acres suitable for over-snow motorized travel. Compared with Alternative A, over-snow motorized travel would be reduced by approximately 36% under Alternative B; by 52% under Alternative C; and by 33% under Alternative D. The primary reason for this major reduction is that approximately 482,000 acres of BLM lands (located primarily in the northwest portion of the planning area), which are currently classified as suitable in Alternative A, would become classified as not suitable for over-snow motorized travel under all of the other (action) alternatives. These lands lie in a lowland area with unpredictable snow patterns, and, therefore, are not reliable as over-snow recreation areas. In addition, restriction of motorized over-snow travel may be required during heavy snow pack years, since this land may serve as critical winter range for wildlife. (See the Recreation section for additional discussion on motorized travel suitability.)

Alternative A would maintain current travel management direction, and would leave large areas (approximately 908,651 acres) open to cross-country motorized travel. The anticipated impacts would include development of additional user-created routes, impacts to terrestrial and aquatic habitats and wildlife, and conflicts between motorized and non-motorized users. Alternatives B, C, and D would eliminate cross-country motorized travel, and would result in the development of a designated system of roads and trails for motorized travel. Development and implementation of a designated system of motorized roads and trails, and closure of areas currently open to cross-country motorized travel, is expected to have the following beneficial impacts: reduced user conflicts, reduced habitat and wildlife impacts, reduced erosion and sedimentation, and improved health of aquatic systems.

Under Alternatives B, C, and D, maximum road densities within the planning area would be prescribed under the specific guidelines established for MA 3s (less than 1 mile/square mile), MA 5s (less than 3 miles/square mile), and MA 7s (less than 1.5 miles/square mile). Also, by default, the road density guideline in MA 1 in Wilderness Areas, WSAs, and the Piedra Area, would be zero (because natural processes would dominate in these areas). These guidelines would result in a reduction of road densities and road miles available for public use in these management areas. Road densities would remain unchanged under Alternative A. Table 3.19.5 presents the resulting average road densities by alternative for MA 1s, 3s, 5s, and 7s, that would result with full implementation of these guidelines (and assuming that the entire MAs lie within a 6th HUB watershed). The average road density over the four management areas (MA 1, MA 3, MA 5, and MA 7) for each of the alternatives would be less than under the current management (Alternative A). The lowest density would be experienced under Alternative C (due to a major road density reduction), followed by Alternative B (due to a moderate road density reduction), and then by Alternative D (due to a minor road density reduction). Since actual road density reductions would be performed at a project level, this is more of a qualitative analysis. It does, however, illustrate that there is variation in road densities by alternative, which would, in turn, result in a variation in resource impacts. Reduced road densities would benefit water resources and aquatic species (by reducing run-off and sedimentation) and wildlife species (by reducing habitat segmentation). They would also reduce necessary expenditures by the SJPLC for route maintenance and repairs.

Table 3.19.5 – Estimated Route Density by Alternative with Full Implementation of Route Density Guidelines

Management Area	Road Density Guideline (Mile/Sq. Mile)	MANAGEMENT AREA ACRES BY ALTERNATIVE			
		Alternative A (no-action alternative)	Alternative B (preferred alternative)	Alternative C	Alternative D
1	0	538,658	652,307	1,080,621	553,786
3	1	891,718	822,143	472,010	788,289
5	3	675,014	529,413	487,299	682,632
7	1.5	71,9291	81,756	71,929	89,116
Average Route Density Estimate by Alternative		1.44	1.21	0.97	1.41

[1] Urban Interface prescription not in current LMP; assumed minimum from Alternative C for comparative purposes.

Impacts Related to Timber Management

Timber management activities may result in the need for construction of new roads or in the reconstruction of existing roads (in order to accommodate the resulting increased and heavier traffic). There may also be an increased need for road maintenance of the new or reconstructed roads developed to access timber, as well as existing collector and arterial roads used to transport timber off the planning area. Road construction and timber hauling may potentially impact roadway safety (due to increased traffic and to mixing haul trucks with recreational traffic, including light-duty passenger vehicles, recreation vehicles (RVs), and ATVs/OHVs). Other impacts may include increased noise levels, and an increased need for dust abatement.

There may be long-term impacts related to temporary roads when decommissioning does not require recontouring. A temporary road that is not recontoured so that it blends in with the natural grade can contribute to the development of an unauthorized route. This is because it offers easy (minimal grade and vegetation obstructions) off-road access.

DLMP/DEIS Alternatives: Projected road construction projects related to timber management, which would be similar under all of the alternatives, would be negligible (less than a 0.27% increase). The road construction projected for Alternatives A and D is 3 miles. No construction is projected under Alternatives B and C. Projected reconstructed road miles would vary under the alternatives, from 5.6 miles for Alternative C to 8.2 miles for Alternative D. These roads would be temporary and would not be made available for public use. These mileage projections do not represent a major difference between the alternatives. The projected road construction under Alternatives A and D would represent an increase of 0.1% to the current road system. The projected road reconstruction would increase the existing road system by 0.25% under Alternative B, by 0.18% under Alternative C, and by 0.27% under Alternative D.

Impacts Related to New Oil and Gas Development Leasing

Oil, gas, and mineral exploration and development requires roads to be available for drilling, construction, maintenance, and production. These roads would not be available for use by the public; however, they may be used by the SJPLC for resource management purposes. These roads would be constructed and maintained by the permittee; however, many would intersect with collector and arterial roads within the planning area.

The amount of new roads constructed, in conjunction with any new oil and gas development leasing would be concentrated in the Paradox Basin and San Juan Sag areas. There would be minimal to no road development in other portions of the planning area. Some roads may be temporary (including where unsuccessful exploratory drilling is conducted). The speculative nature of mineral exploration makes it difficult to predict where, when, and how much road development would be needed. The need for road development is based on the estimated number of well sites by alternative that would be developed on currently unleased lands. It is estimated that the number of new well sites constructed would be 166 for Alternative A, 166 for Alternative B, 157 for Alternative C, and 168 for Alternative D. Based on the number of potential wells, it is estimated that 70 miles of new road construction would be needed, regardless of which alternative is selected.

New oil and gas development leasing would affect several various aspects of access and travel management. There would be an increased demand of agency staff and resources, as well as impacts on ecological resources. Agency resource and engineering staff would be needed to monitor the design, construction, maintenance, and reclamation activities associated with the development of the roads and well pad facilities. Resource impacts would include increased storm water runoff, sedimentation, erosion, wildlife disturbance, increased noise, diminished visual quality, and increased traffic on state and county collector and arterial roads. There would be increased commercial traffic on arterial and collector roads that intersect these oil and gas development roads. This increased traffic would likely require increased maintenance and could require reconstruction of segments of these roads. Commercial use may potentially increase safety hazards due to increased traffic and to mixing commercial vehicles with recreational traffic, such as light-duty passenger vehicles, RVs, and ATVs/OHVs.

DLMP/DEIS Alternatives: There is no difference between the alternatives in terms of projected oil and gas development (or associated road miles needed); therefore, there would be no difference among the alternatives in terms of access and travel management. If no new oil and gas leases were made available, none of the oil and gas associated impacts related to access and travel management would occur.

Impacts Related to Recreation

Table 3.19.6 summarizes the changes in road and motorized trail miles that would result from the full implementation of motorized route designations, in accordance with the summer motorized suitability classifications, by alternative. This illustrates that Alternative C would result in a major (38%) reduction in motorized trail miles, and a minor (3%) reduction in road miles. Alternative B would result in a moderate (11%) reduction in motorized trail miles, and a minor (1%) reduction in road miles. Alternative D would result in a minor (6%) reduction in motorized trail miles, and a negligible (0.6%) reduction in road miles. The reductions in road and motorized trail miles correspond to the area allocated to MA 1 by alternative. Therefore, Alternative C would result in the greatest MA 1 allocation, followed by Alternative B, then by Alternative D. Alternative A would not alter current travel management; therefore, there would be no change in travel suitability. There would be no change to the number of miles of designated roads and motorized trails under this alternative. (See the Recreation section for an evaluation of the recreational opportunity impacts related to reducing the available miles of designated roads and motorized trails.)

Table 3.19.6 – Approximate Change in Designated Road and Motorized Trail Mileage by Alternative

ROADS		APPROXIMATE CHANGE IN MILEAGE BY ALTERNATIVE			
Route Number	**Route Name**	**A**	**B**	**C**	**D**
039	Fall Creek	0	-3.3	-7.5	-3.3
060	Lewis Creek	0	-0.9	-0.9	-0.9
071	Baldy Mountain	0	-2.8	-2.8	-2.8
209	Mavreeso	0	-3.5	-3.5	0
251	Groundhog Cutoff	0	-1.8	-1.8	0
307	Wommer	0	-1.0	-1.0	-1.0
332	Golconda	0	0	-0.9	0
344	Bedrock Creek	0	0	-1.0	0
353	Caviness Mountain	0	0	-0.2	0
424.A	Lizard Head A	0	-1.1	-1.5	0
475	Cabin Rim	0	0	-0.4	0
525	Trail Canyon	0	0	-0.9	0
525.G	Trail Canyon G	0	0	-0.2	0
538	Johnny Bull	0	-0.6	0	0
559	Millwood	0	0	-0.7	0
560	Lost Canyon	0	0	-3.8	0
566.A1	Echo Basin A1	0	0	-0.6	0
568	Railroad Grade	0	0	-0.9	0
571	La Plata Canyon	0	-0.3	-0.3	-0.3
585	South Mineral	0	-1.4	-1.4	-1.4
631	Piedra	0	0	-18.3	0
638	Palisade Lake	0	-0.1	-0.1	0
642	San Bench	0	0	-2.5	0
657.C	Blanco Basin C	0	-0.5	-0.5	-0.5
661	Black Mountain	0	-2.9	-2.9	-2.9
665	Nipple Mountain	0	-2.4	-0.1	0
665.H	Nipple Mountain H	0	-0.1	0	0
665.H1	Nipple Mountain H1	0	-0.3	0	0
802	Grassy Mountain	0	-0.5	-0.6	-0.5
809	Freeman Park	0	-0.4	-0.4	-0.4
821	Silver Cloud	0	0	-0.3	0
822	Bullion King	0	0	-1.3	0
823	Black Bear	0	0	-1.9	0
854.B	Sand Divide B	0	0	-1.1	0
855	Coldwater	0	0	-2.6	0
TOTAL CHANGE IN ROAD MILES		0	-23.9	-64.0	-13.4

Notes and Assumptions:

1) Trails identified are either existing designated motorized trails or are system trails located in areas open to cross-country motorized travel.
2) No non-system, user-created, or system routes that are not depicted on SJNF Visitors Map (2005) are included in this analysis.
3) Road and trail miles were calculated using the geographic information systems (GIS) data current as of August 24, 2007. Road and trail mile reductions were calculated from the mileage of roads and trails situated within areas identified as unsuitable for motorized travel in accordance with MA prescriptions that correspond to each of the action alternatives.

Table 3.19.6 – Approximate Change in Designated Road and Motorized Trail Mileage by Alternative, continued

TRAILS		APPROXIMATE CHANGE IN MILEAGE BY ALTERNATIVE			
Route Number	Route Name	A	B	C	D
102	First Notch Winter	0	-0.4	-0.4	-0.4
190	Mcjunkin	0	0	-0.9	0
200	Section House	0	0	-0.1	0
203	Kilpacker	0	-0.5	-0.5	-0.5
207	Wildcat	0	-2.6	-2.8	0
208	Calico	0	0	-17.5	0
435	Rough Canyon	0	0	-3.8	0
501	Blackhawk - Co.Trail	0	0	-0.4	0
509	Columbine Lake	0	0	-2.3	0
514	Hermosa Creek	0	0	-14.1	0
521	Corral Draw	0	-5.1	-5.3	0
524	Pine-Piedra	0	-9.8	-9.8	-9.8
530	Runlett Park	0	0	-4.7	0
534	Endlich Mesa	0	-3.3	-3.3	-3.3
550	Clear Creek	0	-4.9	-4.9	0
565	Treasure Mountain	0	0	-6.8	-6.8
566	Windy Pass	0	0	-3.8	-3.8
569	Fourmile Stock Drive	0	-0.6	0	0
577	Navajo Peak	0	0	-1.9	0
580	Turkey Creek	0	0	-1.6	-1.5
581	Coal Creek	0	-0.4	-0.5	0
582	Connection	0	0	-1.8	0
589	Middle Fork	0	0	-1.0	0
592	Weminuche	0	-2.2	-2.3	0
593	Sand Creek	0	0	-3.4	0
600	Devil Mtn.	0	0	-3.0	0
607	Bear Creek	0	-7.7	-8.0	0
608	Grindstone	0	-4.0	-4.0	0
609	Little Bear	0	-0.8	-0.8	0
610	Morrison	0	0	-1.7	0
617	Box Canyon	0	0	-2.1	0
618	Gold Run	0	-2.0	-2.0	0
621	West Mancos	0	0	-6.4	0
624	Stoner Mesa	0	0	-10.4	0
625	Stoner Creek	0	0	-3.8	0
626	Horse Creek	0	0	-2.7	0
627	Spring Creek	0	0	-0.5	0
629	Eagle Peak	0	0	-6.0	0
631	Aspen Loop	0	0	-4.7	0

Table 3.19.6 – Approximate Change in Designated Road and Motorized Trail Mileage by Alternative, continued

TRAILS, continued		APPROXIMATE CHANGE IN MILEAGE BY ALTERNATIVE			
Route Number	**Route Name**	**A**	**B**	**C**	**D**
634	Groundhog	0	-1.5	-1.5	-1.5
635	Navajo Lake	0	-0.2	-0.2	-0.2
638	East Fork	0	0	-4.8	0
639	Johnny Bull	0	0	-5.5	0
640	West Fall Creek	0	0	-1.8	0
641	Burnett Creek	0	0	-2.0	0
645	Priest Gulch	0	-4.1	-5.1	0
646	East Fall Creek	0	0	-1.5	0
647	Fish Creek	0	0	-0.3	0
648	Geyser Spring	0	-0.6	-1.2	0
649	Burro Bridge	0	-0.7	-0.7	-0.7
650	Groundhog Creek	0	0	-1.5	0
654	Middle Mountain	0	0	-2.3	0
656	North Canyon	0	0	-0.1	0
660	School House	0	0	-0.1	0
662	Stump Lake	0	0	-0.0	0
663	Lost Lake	0	0	-0.4	0
666	Ute Creek	0	-1.4	-1.8	0
707	Devils-Hole	0	-2.9	-2.9	-2.9
733	Salt Creek	0	0	-0.4	0
735	Ryman Creek	0	0	-4.7	0
738	Loading Pen	0	0	-0.2	0
739	West Twin Springs	0	0	-0.5	0
746	Owens Basin	0	0	-2.5	0
815	Cave Basin	0	0	-0.1	0
TOTAL CHANGE IN ROAD MILES		0	-55.7	-192.1	-31.4

Notes and Assumptions:

1) Trails identified are either existing designated motorized trails or are system trails located in areas open to cross-country motorized travel.
2) No non-system, user-created, or system routes that are not depicted on SJNF Visitors Map (2005) are included in this analysis.
3) Road and trail miles were calculated using the geographic information systems (GIS) data current as of August 24, 2007. Road and trail mile reductions were calculated from the mileage of roads and trails situated within areas identified as unsuitable for motorized travel in accordance with MA prescriptions that correspond to each of the action alternatives.

Impacts Related to Travel Management from Wildlife

Wildlife habitat improvements and seasonal restrictions for key habitats (including winter concentration areas, winter severe range, and spring calving/fawning areas) may lead to fewer miles of road open to motorized travel in certain areas. Habitat improvements may include reducing road densities through decommissioning roads, rehabilitating abandoned roadbeds, and allowing the growth of cover vegetation along road corridors. Seasonal closures are used in order to protect wildlife during critical periods while, at the same time, allowing for motorized use during less critical times.

Protection measures for Canada lynx and lynx habitat may result in minor impacts to road-related activities. In terms of lynx protection, there would be no difference between the alternatives. The protection measures identified are already required under current SJPLC policies and procedures, in compliance with the ESA and the Lynx Conservation Assessment Strategy (LCAS).

DLMP/DEIS Alternatives: Wildlife management strategies would apply regardless of the alternative selected; therefore, there would be no difference between the alternatives in terms of impacts related to wildlife management.

Table 3.19.7 – Summary of Direct and Indirect Impacts by Alternative

AREA OF DIRECT/ INDIRECT EFFECT	Alternative A (no-action alternative)	Alternative B (preferred alternative)	Alternative C	Alternative D
Management Area Designations	Approximately 908,651 acres open to summer cross-country motorized travel. Route Density = 1.44 miles/sq. mile. Continued impacts on terrestrial and aquatic habitats and wildlife, and conflicts between motorized and non-motorized users would occur.	Zero acres open to summer cross-country motorized travel. Route Density = 1.21 miles/sq. mile. Reduced user conflicts, reduced habitat and wildlife impacts, reduced erosion and sedimentation, and improved health of aquatic systems would occur.	Zero acres open to summer cross-country motorized travel. Route Density = 0.97 miles/sq. mile. Reduced user conflicts, reduced habitat and wildlife impacts, reduced erosion and sedimentation, and improved health of aquatic systems would occur.	Zero acres open to summer cross-country motorized travel. Route Density = 1.41 miles/sq. mile. Reduced user conflicts, reduced habitat and wildlife impacts, reduced erosion and sedimentation, and improved health of aquatic systems would occur.
Timber Management	Potential safety impacts due to increased traffic and from mixing haul trucks with recreational traffic would occur. Need for road maintenance and dust abatement construction traffic noise would occur. Easy access from decommissioned roads may encourage unauthorized motorized use. Approximately a 0.1% temporary increase in road system and approximately a 0.24% increase in road system reconstruction would occur.	Impacts similar to Alternative A would occur, except, approximately a 0.25% increase in road system reconstruction would occur.	Impacts similar to Alternative A would occur, except approximately a 0.18% increase road system reconstruction would occur.	Impacts similar to Alternative A would occur, except approximately a 0.1% temporary increase in road system and approximately a 0.27% road system reconstruction would occur.
Oil and Gas Development	Approximately 70 miles of road constructed. Increased traffic and maintenance needs on SJPL roads. Potential safety impacts due to increased traffic and from mixing commercial vehicles with recreational traffic would occur.	Impacts similar to Alternative A would occur.	Impacts similar to Alternative A would occur.	Impacts similar to Alternative A would occur.
Recreation	No change in designated road and motorized trail mileage.	Designated road miles reduced by 23.9 miles. Motorized trail miles reduced by 55.7 miles.	Designated road miles reduced by 64 miles. Motorized trail miles reduced by 192.1 miles.	Designated road miles reduced by 13.4 miles. Motorized trail miles reduced by 31.4 miles.
Wildlife Management	Seasonal restrictions to motorized travel in key habitats during critical periods for the species of concern would occur. Road closures designed to reduce densities and improve habitat may result in fewer miles of road open to motorized travel in certain areas.	Impacts similar to Alternative A would occur.	Impacts similar to Alternative A would occur.	Impacts similar to Alternative A would occur.

CUMULATIVE IMPACTS

Impacts Related to Providing Access to Private Land In-holdings

The following impacts are predicted to be the same under all of the alternatives, since the influence of private land development would be similar under each alternative.

Historical Impacts

Since the late 1990s, there has been a surge in residential and commercial development in southwestern Colorado. This has resulted in increased land values, as well as in changes in land use. Increased land values have made the development of in-holdings highly profitable.

Current Impacts

The planning area is experiencing mounting pressure from private land in-holding owners to provide reasonable access, as required under ANILCA. This issue is further complicated when system roads pass through some portion of an in-holding and then continue on to provide public lands access.

Foreseeable Future Impacts

There may be several cumulative impacts related to providing access to private land in-holdings. Increased road miles and densities are expected to have the longest reaching cumulative impacts because this would have connected impacts on aquatic resources, aquatic species, wildlife, and road maintenance. Development of in-holdings would increase traffic on SJPLC-administered roads -- roads needed for access to the development. This may result in an increased need for maintenance and may require upgrading some public lands roads to all-weather roads. Where routes pass through private in-holdings, legal agreements and/or ROW easements may be needed. In cases where a road, or a segment of a road, becomes primarily a private in-holding access road, it may be appropriate to transfer the jurisdiction to the county.

Impacts Related to Providing Access to Utility Corridors

The demand for utility corridor access is expected to increase, regardless of the alternative selected; therefore, there would be no difference between the alternatives for the following cumulative impacts.

Historical and Current Impacts

The southwestern region of the United States has experienced a surge in oil and gas, and electrical energy development. This surge has created a demand for creating new utility corridors, and upgrading existing utility corridors, in order to convey fuel and power economically. These corridors cross many miles of public lands and are generally linear in construction. Some impacts during construction (predominantly those related to ground disturbance for corridor installation and construction of temporary roads, including sedimentation, erosion, and increased run-off) would be relatively short-lived. These impacts would diminish with the re-establishment of vegetation over time. Other impacts related to the operation of the utility corridor would continue for the life of the facility (including increased run-off, sedimentation, and erosion due to increased road densities; visual impacts resulting from linear corridor and access roads contrasting with the surrounding natural areas; increased disturbance to wildlife, and impacts to “quiet-use” recreation when the corridor crosses an otherwise non-motorized area).

Foreseeable Future Impacts

Existing utility corridors are aging, with some facilities in excess of 30 years old. These aging facilities are often in need of maintenance or replacement. Utility company requests for permanent roads to construct, maintain, and replace facilities have increased in recent years. These requests may result in new road construction and increased road densities. Increased road miles and densities would have connected impacts on aquatic resources, aquatic species, and wildlife. These types of roads are generally closed to public use; therefore, no impacts related to public traffic are expected. Road use permits would be issued for commercial use, requiring more agency staff time to manage the permits.

Impacts Related to the Northern San Juan Basin Coal Bed Methane Project

Foreseeable Future Impacts

A record of decision (ROD) was issued in April 2007 for the Northern San Juan Basin Coal Bed Methane (NSJB-CBM) project that would allow for the development of coal bed methane (CBM) on USFS, BLM, and private lands within the project area. The ROD is currently under appeal. However, regardless of the outcome, there would be some CBM development that occurs within the project area. For the purposes of this analysis, it is assumed that the project would reach full build-out, as described in the NSJB-SBM FEIS and associated ROD.

The project calls for the construction of 226 well pads. Twenty-seven would be located on BLM-administered lands, 100 would be located on USFS-administered lands, and the remaining 99 would be located on private lands. Access would be provided by the construction of 92 miles of roads. Eight miles would be located on BLM-administered lands, 64 miles would be located on USFS-administered lands, and 20 miles would be located on private lands. These roads would not be open for use by the public. The operators would be responsible for construction, maintenance, and the prevention of public access. They would also be responsible for obtaining required easements, ROWs, and permits; controlling noxious weeds, and complying with agency and landowner requirements. Maintenance would blading, ditch and drainage facility cleaning, gravelling, and applying dust palliative. The roads would be temporary and the operators would be responsible for reclaiming and revegetating the roads on public lands following project completion.

The impacts of this project to access and travel management would include an increased demand of agency staff and resources, as well as impacts to ecological resources. Agency resource and engineering staff would be needed in order to monitor the design, construction, maintenance, and reclamation activities associated with the development of the NSJB-CBM project roads and well pad facilities. Resource impacts are disclosed in the NSJB-CBM FEIS and would include increased storm water run-off, sedimentation, erosion, wildlife disturbance, noise, increased traffic on State and county roads, and diminished visual quality.

The proposed contribution of the road miles constructed and reconstructed within this DLMP/DEIS is approximately equal to the miles of road planned on public lands as part of the NSJB-CBM project road development. The cumulative impacts would be a doubling of the impacts associated with road construction and maintenance during the life of the NSJB-CBM project. Impacts related to the alternatives under the DLMP/DEIS, however, would be distributed over a much larger area of 2.6 million acres, verses 125,000 acres in the NSJB-CBM project. These impacts would be diminished as the roads are reclaimed and revegetated; however, these areas are not expected to ever reach pre-existing conditions.

If no new oil and gas leases were made available, new oil and gas development road construction would be about one-half of that if new leasing were to occur. Reducing the road construction by one-half would also reduce the impacts associated with road construction by one-half. Most new road construction would be associated predominantly with the NSJB-CBM project. Access and travel management in the areas proposed for leasing under the alternatives would remain unchanged.