

2.1 INTRODUCTION

This chapter describes the four LMP alternatives (including the No-Action Alternative and the Preferred Alternative) that describe different approaches to the management of the public lands and resources jointly administered by the U.S. Forest Service (USFS) and Bureau of Land Management (BLM) under a cooperative Service First partnership covering the San Juan Public Lands (SJPL) planning area, as administered by the San Juan Public Lands Center (SJPLC). Also a No Lease Alternative for oil and gas is described as part of the oil and gas leasing availability decision in Section 2.8.

One alternative, Alternative A (the “No-Action Alternative”), describes the continuation of current management. This alternative is required by the Council on Environmental Quality (CEQ) regulations, under the National Environmental Policy Act (NEPA), and serves as a baseline for the comparison of the other alternatives. Alternatives B, C, and D (the “Action Alternatives”) describe proposed changes to current management, as well as what current management would be carried forward into future management. Alternative B is the Preferred Alternative, and is described in further detail in Volume 2 of this Draft Land Management Plan/Draft Environmental Impact Statement (DLMP/DEIS). Each of the Action Alternatives represents a complete and reasonable set of proposed objectives, actions, and allocations analyzed during the planning process that would meet the purpose and need described in Chapter 1; varying with regard to their emphasis on allowable uses and on management actions that would guide future conservation and development in the planning area.

The USFS and BLM manage public lands and resource values according to the principles of multiple use and sustained yield. Given these principles, as well as the inherent conflicting nature of resource conservation and resource development, alternative formulation occurs within the limits of planning criteria that address the needs of present and future generations while, at the same time, meeting the requirements of all applicable laws, rules, regulations, standards, policies, and guidelines governing both the USFS and the BLM. Additional action alternatives, or their components (e.g., allowable uses and management actions), that did not fall within the planning criteria; did not meet the purpose and need; or that are already part of an existing plan, policy, requirement, or administrative function that would continue under the Final Land Management Plan/Final Environmental Impact Statement (FEIS) Record of Decision (ROD), were considered, but were not carried forward for detailed analysis in this DLMP/DEIS.

A major goal of the DLMP/DEIS planning process is to ensure a consistent, coordinated approach to managing lands and resources within the planning area. Major themes and management actions for the most emphasized issues within the alternatives are presented in the following sections.

This chapter summarizes the management alternatives and the differences between alternatives that were considered during the planning process for this DLMP/DEIS (the revision of the BLM San Juan Resource Management Plan (1985) and the San Juan National Forest Land and Resource Management Plan (1983)). Descriptive, narrative, and tabular materials are presented under the following sections:

- **Development of Alternatives:** This section describes how the alternatives were developed during the agency and public scoping process, as well as how each alternative emphasizes or reflects different aspects of the “San Juan Niche” (i.e., what makes the area unique).
- **Important Points for All Alternatives:** This section describes how the alternatives would represent, to varying degrees, the principles of multiple use and sustained yield of USFS- and BLM-administered lands in the planning area, as directed by all applicable laws, rules, regulations, standards, policies, and guidelines.
- **Alternatives Considered but Eliminated from Detailed Analysis:** This section details several issues that were raised during the scoping process that were considered, but not carried forward, for further analysis as alternatives, including:
 - Exclusive Use or Elimination of Traditional Uses Alternatives, including:
 - A No-Livestock Grazing Alternative;
 - A No-Coalbed Methane Gas Development in the HD Mountains Alternative;
 - A Maximum Timber-Yield Alternative;
 - The Citizens for the Wild San Juans Alternative; and
 - The Citizens Wilderness Proposal Alternative.
- **General Description of the Alternatives:** This section describes the differences between alternatives, in relation to their different land allocations, or “management areas” (MAs), as well as in relation to issues and concerns raised during the scoping process.
 - **Management Areas:** Areas within the planning area have been allocated to one of eight MAs, ranging from areas where natural processes dominate to areas that are intensely managed, including:
 - **MA 1:** Natural Processes Dominate;
 - **MA 2:** Special Areas and Unique Landscapes;
 - **MA 3:** Natural Landscapes with Limited Management;
 - **MA 4:** High-Use Recreation Emphasis;
 - **MA-5:** Active Management (commodity production to meet multiple use goals);
 - **MA 6:** Grasslands (Not applicable for the planning area);
 - **MA 7:** Public and Private Lands Intermix; or
 - **MA 8:** Highly Developed Areas.

- **Issues and Concerns:** This section describes the four main issues regarding the use and/or management of public lands and resources in the planning area analyzed in this DLMP/DEIS, including:
 - **Issue One:** Balancing Management Between the Ideas of Maintaining “Working Forest and Rangelands” and of Retaining “Core Undeveloped Lands;”
 - **Issue Two:** Providing Recreation and Travel Management within a Sustainable Ecological Framework;
 - **Issue Three:** Management of Special Area Designations and Unique Landscapes; and
 - **Issue Four:** Managing Impacts from Oil and Gas Leasing and Development.
- **Description of the LMP Alternatives Considered In Detail:** This section describes, in detail, the four LMP alternatives considered in detail in this DLMP/DEIS in relation to their different MA allocations, as well as in relation to the four main issues raised during the scoping process, including:
 - **Alternative A:** Alternative A, the No-Action Alternative, would represent the continuation of current management direction;
 - **Alternative B:** Alternative B, the Preferred Alternative, would provide for a mix of multiple-use activities, with a primary emphasis on maintaining most of the large, contiguous blocks of undeveloped lands and enhancing various forms of recreation opportunities while, at the same time, maintaining the diversity of uses and active forest and rangeland vegetation management;
 - **Alternative C:** Alternative C would provide for a mix of multiple-use activities, with a primary emphasis on preserving the undeveloped character of the planning area; and
 - **Alternative D:** Alternative D would provide for a mix of multiple-use activities, with a primary emphasis on preserving the “working forest and rangelands” character of the lands administered by the SJPLC in order to produce the highest amounts of commodity goods and services.
- **Description of the Oil and Gas Leasing Availability Alternatives:** This section describes, in detail, the oil and gas leasing availability and stipulations for the four alternatives considered in detail, plus a No Lease Alternative. The “No Lease Alternative” is included (as required by 36 CFR 228.102(c)(2)&(3)) which requires the Forest Service, when considering oil and gas leasing, to analyze an alternative of not leasing. The oil and gas leasing availability decisions and stipulations described in this section compliment the Description of Alternatives Considered in Detail described in the proceeding section.
- **Summary Comparison Table of Alternatives Considered in Detail:** This table presents a tabular overview of the alternatives.
- **Summary of Environmental Consequences:** This section provides a comparative summary of the effects of the alternatives on each resource.

Land use planning regulations and the National Environmental Policy Act (NEPA) require the USFS and the BLM to develop a range of reasonable alternatives during the planning process. The basic goal of developing alternatives is to prepare different combinations of management scenarios in order to address all identified issues and to resolve conflicts among uses. Alternatives must meet the purpose and need; must be reasonable; must provide a mix of resource protection, use, and development; must be responsive to the issues; and must meet the established planning criteria. Each of the alternatives proposed for this DLMP/DEIS is a complete land use plan that would provide a framework for multiple-use and sustained-yield management of the full spectrum of resources, resource uses, and programs present in the planning area. Under all of the alternatives, the SJPLC will manage the public lands in accordance with all applicable laws, regulations, policies, standards, and guidelines.

The development of management alternatives for this DLMP/DEIS was guided by applicable provisions of the National Forest Management Act of 1976 (NFMA), the Federal Land Policy and Management Act of 1976 (FLPMA), governing the development of land management plans (LMPs), and implementation of the National Environmental Policy Act (NEPA). Management actions (alternatives), including the No-Action Alternative, were developed in order to address these planning issues, concerns, and requirements; and to provide direction for resource programs influencing land management and resource use in the planning area. The alternatives were developed using an iterative process that focused on improving current management. Each management alternative would represent a different combination of resource uses, management allocations, and environmental consequences (see Chapter 3).

The development of the alternatives analyzed in this DLMP/DEIS included a public scoping process that allowed interested members of the public; Native American tribal governments and entities; special interest groups; and Federal, State and local agencies, to comment on, and contribute input with regard to, the planning process. On September 23, 1999, a Notice of Intent (NOI) to revise the USFS Land Management Plan (LMP) for the San Juan National Forest was published in the Federal Register. On December 14, 2004, a second NOI was published, updating timelines and informing all interested parties that the BLM Resource Management Plan (RMP) would be revised concurrently.

Detailed analyses of conditions and trends for social, economic, and ecological elements related to the planning area were developed early in the process. These analyses included consideration of relevant new information, as well as legal, regulatory, and policy changes that have occurred since the last planning period. This work is documented in several assessments and is summarized in the Analysis of the Management Situation (AMS) report. Results from the analyses were used in the public scoping process in order to inform stakeholders, focus the issues, and enhance overall communication.

The public scoping process began in January 2005. Alternatives were developed using a community participation process that centered on a series of meetings held in local communities. Web-based mechanisms were also offered so that all interested parties could interact using the Internet. People were encouraged to participate in the entire series of community study group meetings in order to build upon knowledge gained during earlier meetings, and to stay informed as alternative development progressed. It was a mutual learning experience, for both community members and agency personnel.

During the scoping process, public lands in the planning area were divided into 33 smaller landscapes. This was done so that people could discuss conditions, concerns, and solutions for issues in the context of specific places, rather than at an abstract level. Scoping participants identified outstanding features, primary uses, concerns with current management, and opportunities for improvement for each landscape.

Management direction was depicted primarily in terms of land allocations, or management areas (MAs), that varied in terms of levels of development and suitability for different uses and/or activities. Using information gathered by the public, as well as their knowledge of the area, the SJPLC Interdisciplinary (ID) Team and Ranger District/Field Office staff created a preliminary draft of management area allocations. After a presentation by agency staff, participants discussed the proposed land allocations in facilitated small groups. For many areas within each landscape, participants agreed with the proposed land allocations; for other areas, people suggested changes and described their reasoning for the changes.

The ID Team used the expanded and developing information to improve the proposed land allocations and to delineate additional options that would later be used to develop other alternatives. Alternative A, the No-Action Alternative, was developed by translating the land allocations found in the two existing land management plans into the new management areas. Alternative B, the Preferred Alternative, was developed by agency staff making improvements to the current land allocations incorporating agency and public input, as described above. Other options discussed and analyzed for the planning area were used to develop Alternatives C and D (with options focused on low levels of development and “quiet-use” areas shaping Alternative C, and options focused on commodity production and motorized recreation shaping Alternative D).

During meetings held in June and August of 2005, community study group participants discussed the land allocations within the contexts of each USFS Ranger District/BLM Field Office, as well as within the context of the entire planning area. Suggestions from these meetings were used to further refine the alternatives. During this set of meetings, participants also helped refine the “niche” of the SJPL -- what makes the San Juan unique in comparison to other public lands.

The proposed alternatives analyzed in this DLMP/DEIS emphasize different aspects of SJPL. This is especially true with regard to the varying emphasis on either maintaining large expanses of undeveloped lands versus an emphasis on increasing the levels of development (primarily in the portions of the planning area that currently contain roads). Other key differences in alternatives include the mix of motorized versus non-motorized forms of travel, recreation opportunities, and the management of unique landscapes. The amount of lands available for oil and gas leasing also vary under the alternatives, however, the levels of projected development do not vary significantly (due to the fact that most of the currently unleased lands with either moderate or high oil and gas potential are in areas that already contain higher levels of development, including roads).

Alternative development was also influenced by consultation and discussions with other Federal agencies, State and local governments, Cooperating Agencies, Native American tribal agencies, the Colorado Division of Wildlife (CDOW), the SJPL Governmental Water Roundtable, Colorado’s Roadless Areas Review Task Force, and local recreation organizations, as well as by written comments from all interested parties.

San Juan Public Lands “Niche”

The San Juan Public Lands consist of diverse landscapes, including large expanses of relatively pristine lands, as well as more developed areas where roads and a wider variety of human activities are evident. Overall, these public lands provide opportunities for a broad range of human activities and uses, as well as natural processes, to occur.

The San Juan Public Lands are known for beautiful scenery, outstanding prehistoric and historic features, relatively unconfined recreation opportunities, and clean water and clean air. In fact, a large portion of the water in southwestern Colorado originates in mountainous, headwater areas of the San Juan Public Lands.

The USFS and BLM lands that make up the San Juan Public Lands are managed in order to provide multiple benefits to a variety of people in a manner that is sustainable over time. The premise is that the benefits people need and desire will only be sustained as long as the ecosystems from which they are derived are sustained.

The people of southwestern Colorado, as well as numerous visitors to the area, have a strong motivation to participate in the management of their public lands. Many existing relationships and partnerships (with a variety of interests and organizations) serve as tangible evidence of how important attachments to these public lands are -- public lands that offer many opportunities for use, enjoyment, and cooperative stewardship.

All of the alternatives developed and analyzed for this DLMP/DEIS represent, to varying degrees, the philosophies of multiple-use and sustained-yield ecosystem management on USFS- and BLM-administered lands. All of the alternatives would provide basic protection of resources in the planning area. All of the alternatives could be implemented, and all alternatives are fully achievable. In accordance with all applicable laws, rules, regulations, standards, guidelines, and polices governing both agencies, all alternatives would:

- protect basic soil, air, water, and land resources in order to encourage long-term, healthy, and sustainable ecosystems;
- meet the BLM Colorado Public Land Health Standards;
- provide for diverse ecosystems (although differing with regard to the emphasis placed on native plant and animal management);
- recognize the important role Federal lands play in providing for diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple-use objectives. Fish and wildlife habitat is managed to maintain viable populations of existing native and desired non-native vertebrate species in the planning area.
- provide recreation settings and maintain scenic quality in response to the needs of USFS and BLM public land users, as well as to the needs of local communities;
- protect heritage resources, in accordance with applicable laws and regulations, while, at the same time, providing recreational and educational opportunities;
- sustain multiple uses, products, and services in an environmentally acceptable manner (including timber harvesting, livestock grazing, locatable and leasable minerals development, and recreational uses);
- emphasize, through cooperation with other landowners, improved landownership and access patterns that would benefit both private landowners and the public;
- emphasize cooperation with individuals, organizations, Native American tribes, and other agencies in order to better coordinate the planning and implementation of projects;
- implement the revised standards, guidelines and other referenced guidance found in Volume 2, Part Three of this DLMP/DEIS;
- promote rural development opportunities in order to enrich cultural life, enhance the environment, provide employment, and improve living conditions;
- promote actions that would continue to encourage active public participation in the planning and management processes; and
- manage the Inventoried Roadless Areas in compliance with the DLMP and applicable Roadless Rule. In recent years, the management of Inventoried Roadless Areas has been the subject of continuing litigation. Currently, management of the Inventoried Roadless Areas is governed by the 2001 Roadless Area Conservation Rule (36 CFR Part 294) in addition to the Land Management Plan. The State of Colorado is entering into Roadless Rulemaking with the Forest Service for the Inventoried Roadless Areas within the State. While the San Juan DEIS has analyzed several options, future management of the Inventoried Roadless Areas will be governed by both the LMP and the applicable Roadless Rule.

A number of designations and activities would not change under the alternatives, including:

- existing ski-based resorts (although boundaries may vary by alternative);
- existing components of the National Wilderness Preservation System;
- existing developed recreation sites, utility corridors, and electronic sites;
- currently designated national scenic and recreation trails;
- currently designated scenic byways;
- currently designated National Register of Historic Places (NRHP), Archeological Districts;
- currently designated BLM Wilderness Study Areas (WSAs);
- currently designated BLM Wild Horse Herd Management Areas (HMAs); and
- the development of coalbed methane gas in the HD Mountains (as described in the Record of Decision for the Northern San Juan Basin EIS, although availability of that area for new leases may vary by alternative).
- existing current, valid mineral lease rights (lands leased as of the date of the plan decision would be subject to valid existing rights under lease terms);
- currently withdrawn areas from oil and gas leasing within the SJPL, including the designated Wilderness areas—Lizard Head Wilderness, Weminuche Wilderness, South San Juan Wilderness—and the Piedra Area.

Under this DLMP/DEIS, budget estimates have been prepared in order to project potential land management activities and outputs so that a typical program of work could be analyzed for each alternative. Estimated budgets were allocated among the resource programs based on a 3-year historical average, and were modified by anticipated upward or downward trends in some program areas. The funding levels for some resource programs varied based on the emphasis of each alternative, as well as on differences in the relative sizes of the proposed Management Areas.

An infinite number of alternatives could be considered for revising the existing USFS and BLM land management plans. Several alternatives were considered during the planning process, but were eliminated from further detailed analysis. Public input, past management experience, and laws and regulations were used by the ID Team in designing the alternatives that were analyzed in detail during the planning process. Many of the suggestions proposed by interested parties and the public were used to develop and shape the analyzed alternatives (even if they were presented in an alternative that was not carried forward in its entirety). A discussion of alternatives not considered in detail, including the reasons why they were eliminated, is presented below.

EXCLUSIVE USE OR ELIMINATION OF TRADITIONAL USES ALTERNATIVES

Alternatives proposing exclusive use, or protection of one resource at the expense of other resources, were not considered. Several laws mandate that the BLM and the USFS manage public lands for multiple uses and sustained yield. This legal and regulatory requirement eliminates exclusive-use alternatives, such as alternatives that would close all public lands to livestock grazing, or alternatives that would manage only for wildlife values at the expense of other considerations. In addition, the existing on-the-ground resource conditions do not warrant eliminating any of the traditional resource programs currently managed in the planning area. Several proposed alternatives for exclusive use or elimination of traditional uses include:

A No-Livestock Grazing Alternative: This alternative would propose to close the entire planning area to livestock grazing; therefore, it would not meet the purpose and need of revising and combining the existing land management plans. The NEPA requires that agencies study, develop, and describe appropriate alternatives in order to recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources. No issues or conflicts have been identified during this land use planning process that would require the complete elimination of livestock grazing within the planning area for their resolution. Closures and adjustments to livestock use have been incorporated into the alternatives, as appropriate, on an area basis in order to address identified issues. Since the USFS and the BLM, as jointly administered by the SJPLC, have considerable discretion, through their livestock grazing regulations, to determine and adjust stocking levels, seasons-of-use, and livestock grazing management activities, as well as to allocate forage, the analysis of an alternative to entirely eliminate livestock grazing is not needed.

An alternative that proposes to close the entire planning area to livestock grazing would also be inconsistent with the intent of the Taylor Grazing Act (TGA) of 1934 (3 USC Section 315-316(o)). The TGA directs the BLM to provide for livestock use of BLM-administered lands; to adequately safeguard livestock grazing privileges; to provide for the orderly use, improvement, and development of the range; and to stabilize the livestock industry dependent upon the public range.

The FLPMA requires that public lands be managed on a “multiple-use and sustained-yield basis” (Section 302(a) and Section 102(7)). The FLPMA includes livestock grazing as a principal or major use of public lands. The multiple-use mandate does not require that all lands be used for livestock grazing; however, complete removal of livestock grazing on the entire planning area would be arbitrary and would not meet the principles of multiple-use and sustained-yield management.

Livestock grazing is, and has been, an important use of the public lands in the planning area for many years and is a continuing government program. For this reason, as well as those stated above, a No-Livestock Grazing Alternative for the entire planning area has been dismissed from further consideration in this analysis.

A No-Coalbed Methane Gas Development in the HD Mountains Alternative: This alternative, suggested by many people, would propose to no longer allow development on existing leases in the HD Mountains. This alternative would not meet the purpose and need for revising and combining the existing land management plans. This alternative would not be feasible, due to valid existing rights. Some people also recommended that this area be recommended for inclusion in the National Wilderness Preservation System, and/or be managed as a MA 1, where natural process dominate. The HD Mountains Roadless Area was analyzed; however, it was found to not be available for Wilderness, due to its high mineral potential and approved plans to develop existing leases within the area.

The Record of Decision (ROD) for the Northern San Juan Basin Coalbed Methane Development EIS describes how development of current leases will proceed in the HD Mountains. This EIS addresses future management of the HD Mountains, including whether or not the area should be available for leasing after the current leases expire.

A Maximum Timber Yield Alternative: This alternative would propose to maximize timber production; therefore, it would not meet the purpose and need for revising and combining the existing land management plans. This alternative was considered, but eliminated, because it was not considered reasonable (given the required consideration of other resource desired conditions and objectives, likely budget levels, local mill capacities, and expected demand for timber products).

CITIZENS FOR THE WILD SAN JUANS ALTERNATIVE

This alternative would propose to expand and protect large, wild core habitats; return native fish and wildlife species; secure critical landscape connections; and promote living, working, and playing in harmony with native species and wild habitats in the planning area. In its entirety, this alternative would not meet the purpose and need for revising and combining the existing land management plans. This alternative was presented to the SJPLC by the San Juan Citizens Alliance, with endorsements from the Southern Rockies Ecosystem Project, The Wilderness Society, the Sierra Club – Rocky Mountain Chapter, the Rocky Mountain Recreation Initiative, the Center for Native Ecosystems, the Sinapu, the Biodiversity Conservation Alliance, the Colorado Environmental Coalition, the Colorado Wild, the Western Resource Advocates, and the Upper Arkansas South Platte Project.

This alternative, along with similar comments and suggestions from participants in the community study group process, was the primary basis for Alternative C. Many ideas from this alternative would be represented under Alternative B, and, to a lesser extent, under Alternative D. The exact alternative was not analyzed in detail because it included Wilderness recommendations for some lands that were found not to be capable, or available, for Wilderness status; and Wild and Scenic River (WSR) recommendations for some stream segments that were found not to be eligible for WSR status.

THE CITIZENS WILDERNESS PROPOSAL ALTERNATIVE

This alternative would recommend Citizens Proposed Wilderness areas to be managed by the SJPLC. In its entirety, this alternative would not meet the purpose and need for revising and combining the existing land management plans. This alternative was presented to the SJPLC by the San Juan Citizens Alliance, the Colorado Environmental Coalition, The Wilderness Society, the Southern Rockies Ecosystem Project, the Rocky Mountain Recreation Initiative, the Colorado Wild, the Sinapu, the Central Colorado Wilderness Coalition, the Sierra Club – Rocky Mountain Chapter, the Western Resource Advocates, the Upper Arkansas South Platte Project, the Colorado Mountain Club, the Center for Native Ecosystems, and the San Luis Valley Ecosystem Council. This group provided information and suggestions on Wilderness character and Wilderness characteristics of the citizens-proposed Wilderness area.

Most of the Wilderness recommendations from this proposal are represented under Alternative C. The exact alternative was not analyzed in detail. This is due to the fact that it included Wilderness recommendations for some lands that were found to not be capable, or available, for Wilderness status. Also, the BLM is no longer considering additional WSAs (IM-2003-075). Although the addition of new WSAs, or boundary changes to existing WSAs, was not considered in detail, management of the areas proposed is being analyzed with regard to their Wilderness characteristics, such as naturalness, solitude, and unconfined and uncontrolled opportunities for recreation.

This section summarizes the alternatives analyzed in detail as part of this DLMP/DEIS process. These alternatives were fully developed in order to analyze management goals and objectives within a reasonable range of management actions, and to assist decisionmakers and the public in understanding the potential consequences and benefits of alternative scenarios.

In order to implement actions permitted under the selected plan alternative, site-specific environmental analysis would have to be completed at the project level. For example, although some oil and gas leasing would be allowed under the alternatives and made available for lease, actual oil and gas development of the leases would not be permitted until proposed well locations, road and pipeline alignments, and other facility plans were subjected to site-specific environmental analysis.

Additionally, while the assumptions associated with the alternatives represent reasonable projections of what could occur, it is impossible to predict with certainty the precise outcome of any of the alternatives due to the large number of variables involved. Actual resource use and/or development may differ substantially from the scenarios presented. Under all of the alternatives, any action or development must be consistent with applicable Federal, State, and local laws and regulations. Nothing presented in the following discussion of the alternatives would exempt activities from applicable legal or regulatory requirements.

The differences between the alternatives analyzed in detail in this DLMP/DEIS can be understood primarily by their different land allocations. Management areas (MAs) with different themes, or emphasis on varying levels of development and suitability for uses and activities, are used to characterize the land allocations. The MAs are described below.

2.6.1 MANAGEMENT AREAS (MAS)

Management emphasis, the desired level of development, and the suitability for different resource uses and activities varies from location to location across the planning area. To aid in the scoping and planning process, areas within the planning area have been allocated to one of eight management areas (MAs). These MAs range from areas where natural processes dominate and shape the landscape to areas that are intensely managed. MAs are intended to describe the overall appearance desired within the area, as well as the uses and activities that may occur. Briefly, the eight different MAs are described below (see Suitability in Volume 2 of this DLMP/DEIS for a complete description of MAs):

- **MA 1 - Natural Processes Dominate:** Areas allocated under this MA would include relatively pristine lands where natural ecological processes operate free from human influences. Succession, fire, insects, disease, floods, and other natural processes and disturbance events shape the composition, structure, and landscape pattern of the vegetation. These areas would continue to contribute significantly to ecosystem and species diversity and sustainability. They would also continue to serve as habitat for fauna and flora, wildlife corridors, reference areas, primitive recreation sites, and places for people seeking natural scenery and solitude. Roads and human structures would be absent and management activities would be limited on MA 1 lands. In most case, motorized travel and equipment would be prohibited. MA 1s would include designated Wilderness, WSAs, the Piedra Area, and other non-designated lands where the desired condition would be to maintain the undeveloped natural character of the landscape.

- **MA 2 - Special Areas and Unique Landscapes:** Areas allocated under this MA would include areas possessing one or more special feature, or characteristic, that would make them and their management unique from other areas within the planning area. MA 2s would include Research Natural Areas (RNAs), Areas of Critical Environmental Concern (ACECs), Wild Horse Herd Management Area, Archaeological Areas, Habitat Management Areas (HMAs), Botanical Areas, and other unique areas that have a mix of special features and uses. In general, MA 2s would be managed in order to protect and/or enhance their unique characteristics and, as such, management intensity and suitability would vary by each area.
- **MA 3 - Natural Landscapes with Limited Management:** Areas allocated under this MA would include relatively unaltered lands where natural ecological processes operate mostly free from human influences. Succession, fire, insects, disease, floods, and other natural processes and disturbance events would continue to predominantly shape the composition, structure, and landscape pattern of the vegetation (although management activities might also have an influence). These areas would continue to contribute to ecosystem and species diversity and sustainability, and to serve as habitat for fauna and flora, wildlife corridors, reference areas, primitive and semi-primitive recreation sites, and places for people seeking natural scenery and solitude. Roads and human structures would be present, although uncommon.

Management activities would be allowed, but would be limited in MA 3s. They would be reserved primarily for restoration purposes brought about by natural disturbance events and/or by past management actions. Management activities could include restoration of ecological conditions or habitat components; prescribed fire; wildland fire use; salvage logging following fire, insect epidemics, or a wind event; hazardous fuels reduction; invasive species reduction; etc. Temporary road construction and motorized equipment could be used in order to achieve desired conditions; however, most roads would be closed upon project completion. Motorized and non-motorized recreation opportunities would exist, and livestock grazing would occur on many of these lands.

- **MA 4 - High-Use Recreation Emphasis:** Areas allocated under this MA would include places where recreation would be managed in order to provide a wide variety of opportunities and experiences to a broad spectrum of visitors. The area allocations would be associated with, and would often provide access to, popular destinations, transportation corridors, scenic byways, scenic vistas, lakes, and/or streams. These areas tend to be altered, but would also include some more undeveloped places, such as backcountry travel corridors. In MA 4s, visitors could expect to see a wide range of human activities and development including roads, trails, interpretive sites, campgrounds, trailheads, fences, mountain bikes, and day-use facilities. Motorized and non-motorized activity would be common. Natural ecological processes and disturbance agents, including succession and fire, would often be influenced by humans on most of these lands. Resource uses (such as livestock grazing, timber management, wildlife management, etc.) might occur in conjunction with surrounding recreation and scenic objectives.

- **MA 5 - Active Management (commodity production to meet multiple use goals):** Areas allocated under this MA would include multiple-use areas where active management would occur in order to meet a variety of social, economic, and/or ecological objectives. These areas would be easily accessible, occurring mostly on roaded landscapes and on gentle terrain. These would include lands where timber harvesting, oil and gas activities, and intensive livestock grazing would occur, and would, as a result, influence the composition, structure, and landscape pattern of the vegetation. Natural ecological processes and disturbance agents, including succession and fire, would be influenced by humans on many of these lands. A mosaic of vegetation conditions would often be present, with some showing the effects (impacts) of past management activities, and others appearing predominantly natural. These areas would continue to contribute to ecosystem and species diversity, and to serve as habitat for fauna and flora.

Visitors in MA 5s could expect to see a wide range of human activities, development, and management investments (including roads, trails, fences, corrals, stock ponds, timber harvesting equipment, oil and gas wells, mountain bikes, and/or livestock). Maintenance of past and current investments is anticipated to be continued for future management opportunities. Motorized and non-motorized recreation opportunities would be easily accessed by the relatively dense network of roads found on these lands. Hiking trails would provide access for visitors who could expect contact with others. Developed recreational facilities that provide user comfort, and resource protection would be present.

- **MA 6 - Grasslands:** This MA does not occur in the SJPL planning area.
- **MA 7 - Public and Private Lands Intermix:** Areas allocated under this MA would include places where public lands are in close proximity to private lands (in such a manner that coordination with communities and local governments would be essential in order to balance the needs of both parties). MA 7s would often be associated with towns and cities, as well as with the houses, structures, people, and values associated with them. Visitors in MA 7s could expect to see a wide range of human activities and development (including roads, trails, fences, signs, mountain bikes, ATVs, pets, and/or livestock).

The close proximity of these areas to private lands would make them a priority for fuels and vegetation treatments in order to reduce wildfire hazards. The “backyard” or rural recreation setting provided by many of these lands would be an amenity to the active lifestyles and quality of life for local residents. Hiking and biking could be common activities. These areas would continue to contribute to ecosystem and species diversity, and to serve as habitat for fauna and flora. Winter range for deer and elk would continue to be a common component of MA 7s, as would seasonal closures in order to reduce animal disturbance. Natural ecological processes and/or disturbance agents, including succession and fire, would be influenced by humans on most of these lands.

Land exchanges, acquisitions, and/or land disposals could be used in order to improve the intermingled land ownership patterns that are common in MA 7s. Cooperation with adjacent landowners and local governments would continue to be necessary in order to improve access and to convey roads to county jurisdictions, where appropriate. Such cooperation would also be necessary in order to improve the transportation network, protect resources, and allow authorized legitimate access to public lands. Utility and communication distribution lines would tend to be more common in these areas.

- **MA 8 - Highly Developed Areas:** Areas allocated under this MA would include places where human activities have permanently changed the planning area, and have, in most cases, completely altered the composition, structure, and function (ecological processes and disturbance agents) of the associated ecosystems. On SJPL, these areas, which often provide large socioeconomic benefits, include downhill ski areas and the McPhee Dam and Marina.

Table 2.1 - Comparison of Management Areas by Alternatives

MANAGEMENT AREAS	Alternative A (No-Action Alternative)	Alternative B (Preferred Alternative)	Alternative C	Alternative D
MA 1 Natural Processes Dominate	538,658	652,307	1,080,606	553,786
MA 2 Special Areas and Unique Landscape Areas	100,755	193,503	198,512	151,040
MA 3 Natural Landscape with Limited Management	891,718	825,000	472,022	788,289
MA 4 High-Use Recreation Emphasis	148,465	79,711	54,765	86,236
MA 5 Active Management (commodity production in order to meet multiple-use goals)	675,014	529,413	487,299	682,632
MA 7 Public and Private Lands Intermix	0	81,756	71,929	89,116
MA 8 Highly Developed Areas	14,475	7,395	3,952	17,986
TOTAL ACRES	2,369,085	2,369,085	2,369,085	2,369,085

Figure 2.1 - Management Areas Alternative A

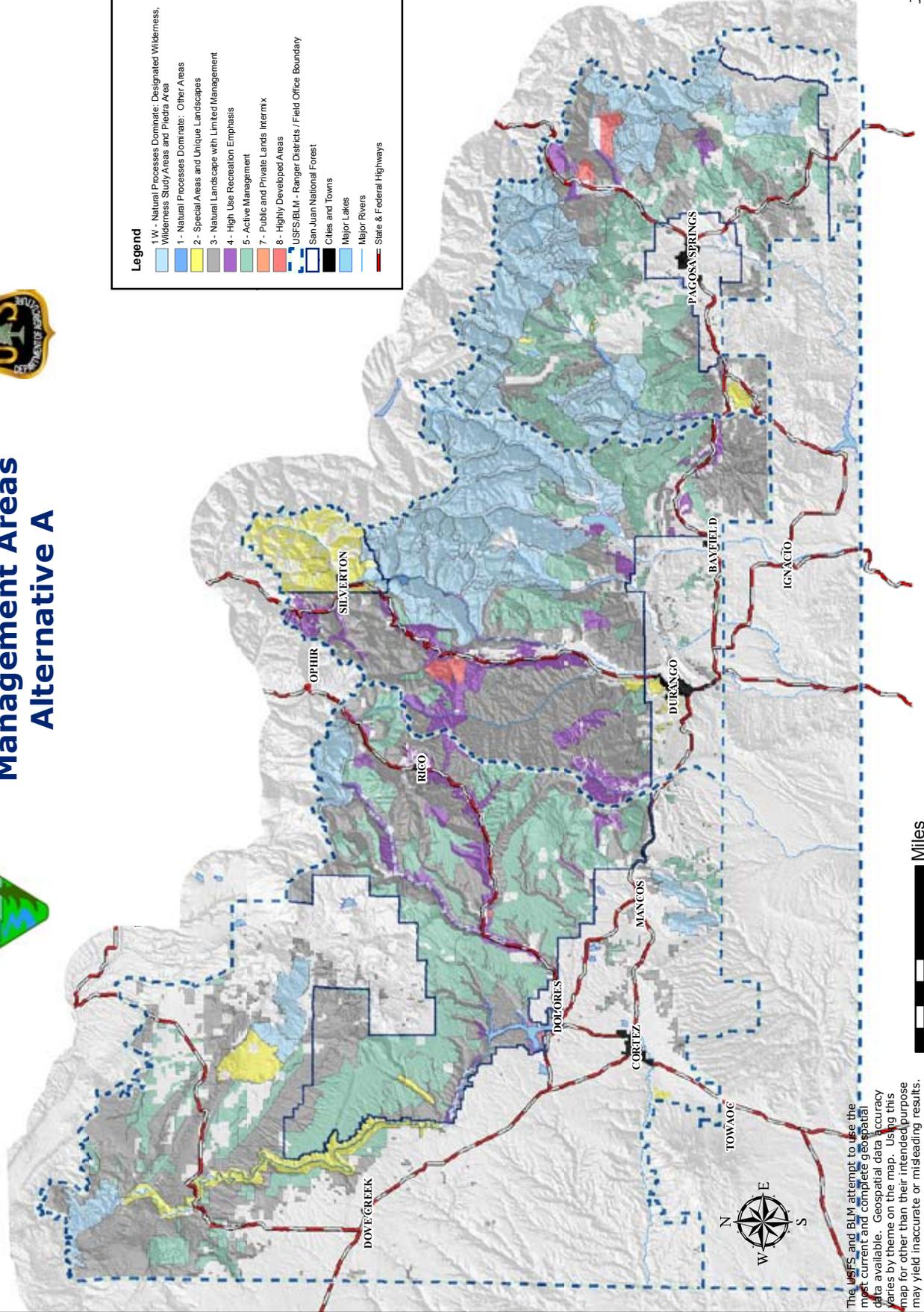


San Juan Public Lands Management Areas Alternative A



Legend

- 1W - Natural Processes Dominate: Designated Wilderness Study Areas and Pleistocene Area
- 1 - Natural Processes Dominate: Other Areas
- 2 - Special Areas and Unique Landscapes
- 3 - Natural Landscape with Limited Management
- 4 - High Use Recreation Emphasis
- 5 - Active Management
- 7 - Public and Private Lands Intermix
- 8 - Highly Developed Areas
- USFS/BLM - Ranger Districts / Field Office Boundary
- San Juan National Forest
- Cities and Towns
- Major Rivers
- State & Federal Highways



The USFS and BLM attempt to use the most current and complete geospatial data available. Geospatial data accuracy varies by theme on the map. Using this map for other than their intended purpose may yield inaccurate or misleading results. The USFS and BLM reserve the right to correct, update or modify geospatial inputs without notification.

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Figure 2.2 - Management Areas Alternative B

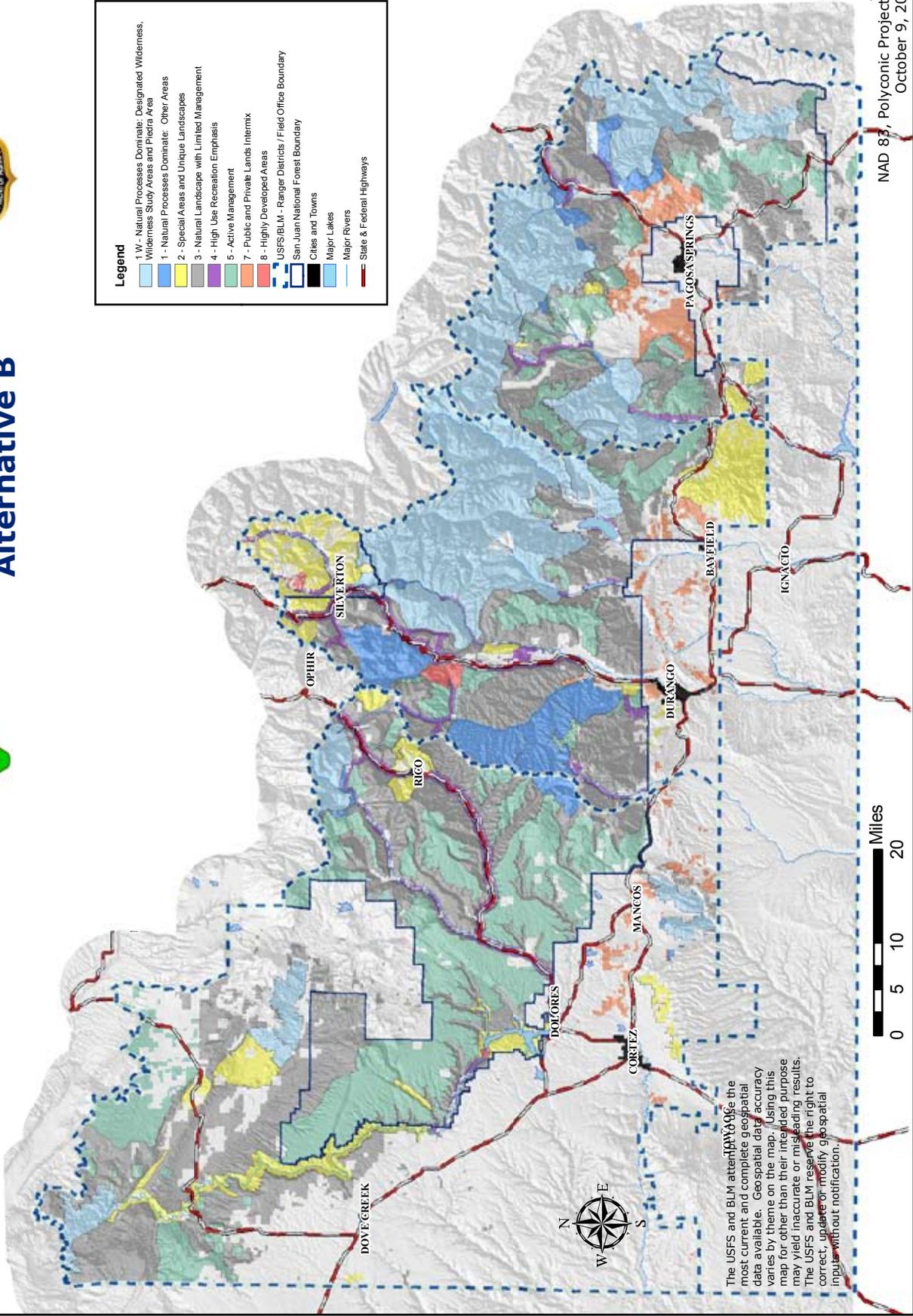


San Juan Public Lands Management Areas Alternative B



Legend

- 1W - Natural Processes Dominate; Designated Wilderness, Wilderness Study Areas and Piedra Area
- 1 - Natural Processes Dominate; Other Areas
- 2 - Special Areas and Unique Landscapes
- 3 - Natural Landscape with Limited Management
- 4 - High Use Recreation Emphasis
- 5 - Active Management
- 7 - Public and Private Lands Intermix
- 8 - Highly Developed Areas
- USFS/BLM - Ranger Districts / Field Office Boundary
- San Juan National Forest Boundary
- Cities and Towns
- Major Lakes
- Major Rivers
- State & Federal Highways



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Figure 2.3 - Management Areas Alternative C

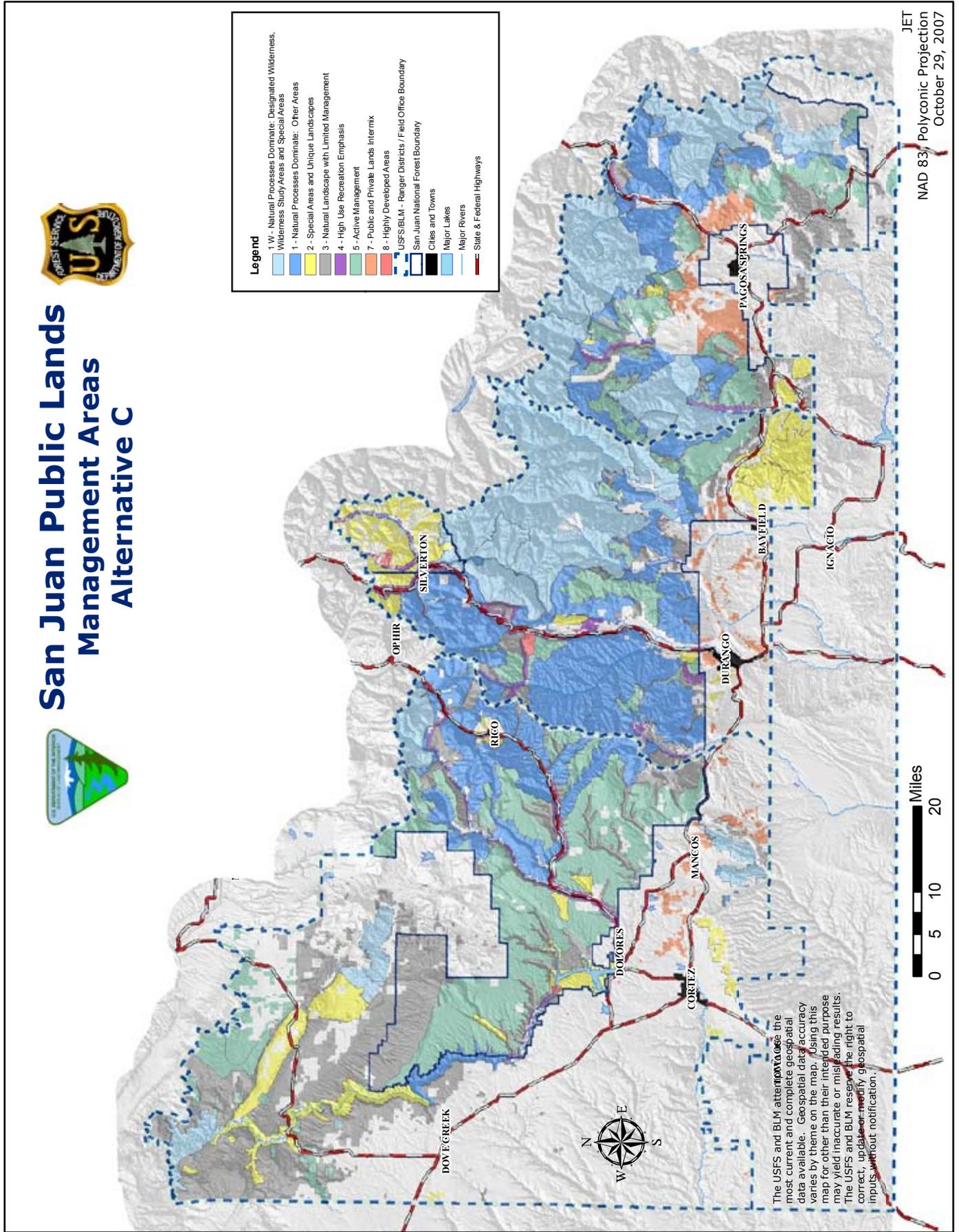
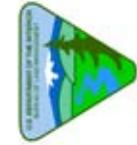
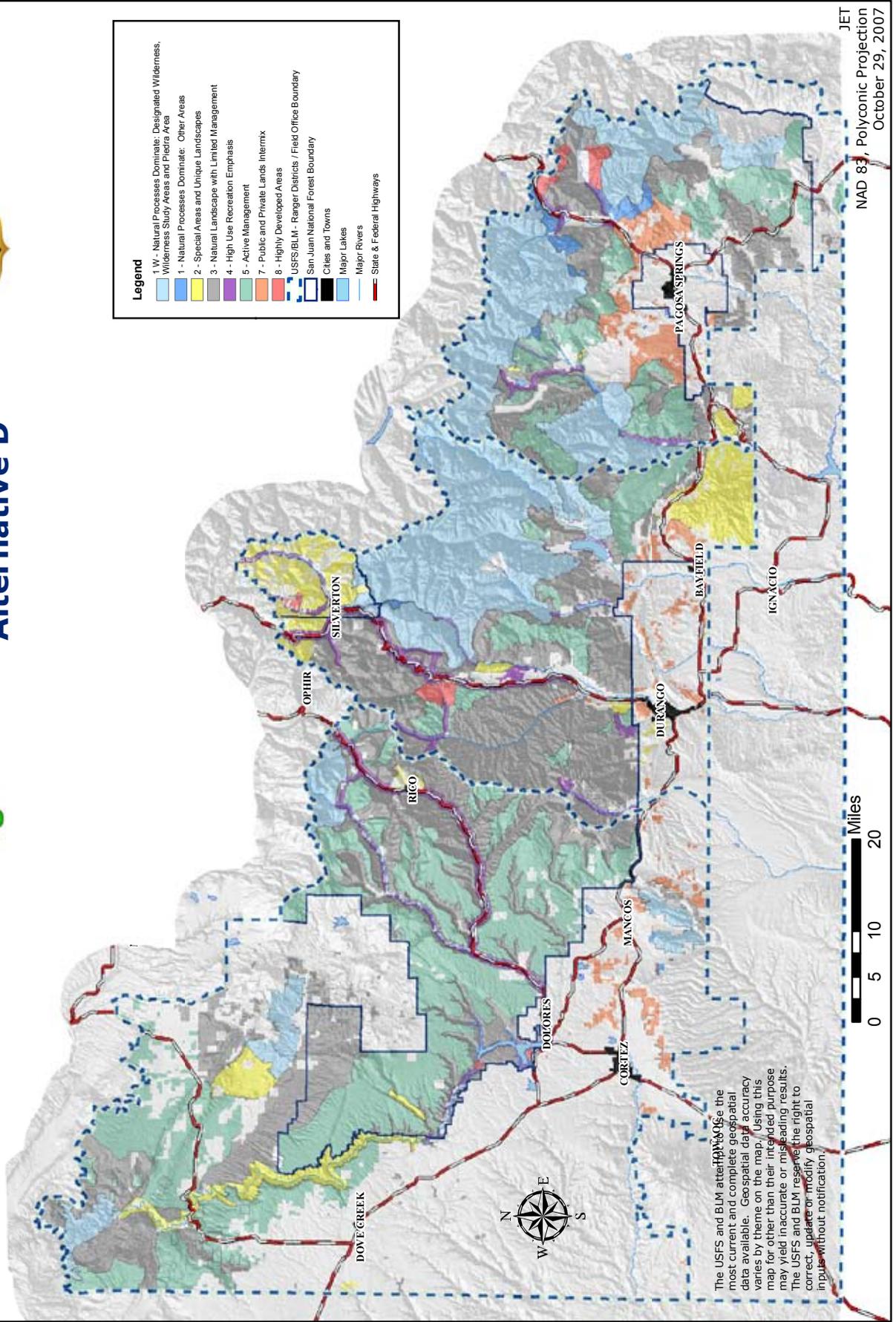


Figure 2.4 - Management Areas Alternative D



San Juan Public Lands Management Areas Alternative D



Legend

- 1 - Wilderness Study Areas and Piedra Area
- 2 - Special Areas and Unique Landscapes
- 3 - Natural Landscapes with Limited Management
- 4 - High Use Recreation Emphasis
- 5 - Active Management
- 6 - Public and Private Lands Intermix
- 7 - Highly Developed Areas
- 8 - USFS/BLM - Ranger Districts / Field Office Boundary
- San Juan National Forest Boundary
- Cities and Towns
- Major Lakes
- Major Rivers
- State & Federal Highways

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2.6.2 ISSUES AND CONCERNS

The varying composition of MAs (in terms of the desired future conditions and the variety of multiple uses that may occur within each MA) represents the primary differences among the alternatives. The composition of MAs was used in the planning process as a starting point for developing and analyzing land and resource suitability (such as, but not limited to, determining lands suitable for timber development, lands suitable and capable for livestock grazing, and lands suitable for motorized travel); as well as for discussing and analyzing related issues and concerns.

In this DLMP/DEIS, issues represent a matter of conflict or controversy, with regard to choice, over how resource management activities and/or land uses are to be managed (i.e., “this way” or “that way”). Considering the principles of multiple-use and sustained-yield management governing the administration of public lands, it is understood that different user groups, different individuals, and different agencies have differing opinions, goals, and desires as to the use of their public lands. Basically, different entities have different interests in the resources, different values for those resources, and different ideas (alternatives) as to how to resolve the competition or demand.

In contrast to “issues,” concerns represent questions regarding a specific resource management activity or land use (i.e., “Why this?” or “What now?”). Although some concerns overlap with broader issues, a management or public concern is generally more important to an individual, or to a few individuals, and is generally agreed upon by the greater public (as opposed to an “issue,” which has a more widespread point of conflict). During the public scoping process, many concerns were identified, yet there was not a pronounced point of conflict or debate. Rather, most agreed on the concern and wanted the planning process to address the concern. For example, most agree that invasive plant species are a problem and that ponderosa pine stands need restoration. These concerns did not shape different alternatives; rather they are addressed in the Draft Land Management Plan sections (including desired conditions, objectives, and design criteria) and are common to all alternatives.

The four primary issues addressed by the different alternatives considered in this DLMP/DEIS analysis are:

- ***Issue One - Balancing Management between the Ideas of Maintaining “Working Forest and Rangelands” and of Retaining “Core Undeveloped Lands”:*** This issue reflects the debate about which lands should be actively managed (including for timber production, and roads) versus which should be managed in a manner that allows natural processes to shape the landscape. In general, alternatives with greater land allocations to MA 4s, 5s, 7s, and 8s would primarily represent preferences for working forest and rangelands. Alternatives with more MA 1 and MA 3 allocations would represent preferences for retaining core undeveloped areas. Options for MA 2 lands would vary, depending on the objectives of each area.

The differences in emphasis between MA 1 and MA 3 allocations reflect the point of debate regarding how much management flexibility there should be, as well as whether or not options that address forest and rangeland health concerns should be used. In addition, whether or not USFS IRAs should be managed as MA 1 (and recommended or not for inclusion in the National Wilderness Preservation System) or as MA 3, is one of the main differences between the alternatives.

Commercial timber production would occur only on MA 5 lands. Timber harvesting might occur on some lands in other management areas (except for MA 1s) in order to meet resource objectives other than timber production, including hazardous fuels treatments, and insect and disease management.

New permanent road construction would primarily be associated with either timber harvesting or with oil and gas exploration and development occurring on MA 5 lands. Roads constructed for these activities in other management areas would normally be temporary, and would be reclaimed after the project was completed.

MA 7 lands would be intensely managed in order to address various activities and mixed-land ownership patterns that occur near communities. MA 7 allocations would vary only slightly among alternatives, because there was general agreement on how and where MA 7 management should be emphasized.

MA 8 allocations would be applied to downhill ski areas and the McPhee dam. The MA 8 acreage differences among the alternatives represent the debate about whether or not existing ski areas should be expanded and whether or not more areas should be considered for ski resort development.

The Management Area maps displayed for each alternative in this chapter provide an illustration of MA land allocations.

- ***Issue Two - Providing Recreation and Travel Management within a Sustainable Ecological Framework:*** This issue reflects the debate about access, as well as about how many areas should be made available for recreational motorized or non-motorized travel in both the summer and winter (i.e., over-ground and over-snow motorized areas). Travel suitability would be determined based on the need for access, recreational experiences, resource protection, reducing user conflicts, and/or wildlife habitat considerations.

MA 1 lands would be considered unsuitable for over-ground motorized travel. Most MA 3 lands that do not currently have motorized routes would also be considered unsuitable. The “suitable” category identifies areas with existing motorized roads, and trails where the desire is to maintain the current motorized route density. Suitable areas would be generally represented by MA 2s, 3s, 4s, and 7s where motorized routes currently exist.

The “suitable opportunity” category identifies areas with existing routes for motorized travel and where opportunities exist for expanding motorized recreation routes. Most suitable opportunity over-ground motorized areas would correlate with the MA 5 roaded and actively managed areas. In general, areas that would be allocated to MA 5s currently have an existing road and/or a motorized trail system, as well as the potential to improve and increase motorized opportunities (by connecting existing roads or trails in order to create loop opportunities using existing unauthorized roads and/or trails, or by adding road and/or trail segments).

With regard to motorized travel, some of the more predominant areas that change by alternative would include the northwestern BLM lands on the Dolores District/Field Office; the Canyons, primarily on the Dolores District/Field Office; the Taylor Mesa, Stoner Mesa, and Ryman areas on the Dolores District/Field Office; and the Hermosa area of the Columbine District/Field Office.

Over-snow motorized suitability would be divided into two classes: 1) unsuitable, and 2) suitable. In general, unsuitable acres would consist of MA 1 lands, as well as most RNAs and areas considered critical winter wildlife habitat. In determining suitability for over-snow motorized uses, consideration was given to the availability of parking/staging areas, to the goal of reducing user conflicts, as well as to concerns regarding resources and wildlife. Particular areas of difference in the over-snow motorized travel suitability included Molas Pass, Red Mountain Pass, Lizard Head Pass, and Wolf Creek Pass.

The recreation and travel management issue also reflects public comments regarding improving recreation management (especially in heavily used recreation areas) and to improving how users are directed to areas where they can seek particular recreation experiences. Under all of the alternatives, the concentration of users recreating in the “backyard” of communities on public lands are identified as MA 7s under the different alternatives. The over-snow and over-ground motorized travel suitability maps are presented for each alternative in the discussion of Alternatives Considered in Detail section of this chapter.

- **Issue Three: Management of Special Area Designations and Unique Landscapes:** This issue reflects the point of debate about which areas should be recommended for special designations and/or managed in order to emphasize unique features. Special designations would include recommendations for inclusion in the National Wilderness Preservation System, identification of river segments suitable for inclusion in the National Wild and Scenic Rivers System, and designations of RNAs and ACECs. Additional unique landscapes with management emphasizing heritage, recreation, scenery, and/or botanical resources are identified as MA 2s under the different alternatives.
- **Issue Four: Managing Impacts from Oil and Gas Leasing and Development:** This issue reflects the debate about where energy development should take place, and how it should be done. The planning area contains locations of known, high and moderate potential energy reserves, some of which have been developed. Oil and gas production is a significant sector of local economies and affects most local residents through its favorable impact on local property taxes, as well as on its fiscal contribution to county tax bases and to local school systems. People are concerned about how to best balance the extraction of oil and gas with the protection of other resources and values.

Oil and gas development on lands under lease as of the date of the revised LMP will be managed under the terms of those leases. Most existing leases are in the San Juan Basin portion of the SJPL; some existing leases are in the Paradox Basin portion of the SJPL. The revised LMP and Forest Service oil and gas leasing availability decision will, however, provide for where and how oil and gas development may occur on future leases by identifying National Forest System and BLM lands available for leasing and identifying where certain lease stipulation (restrictions) will apply to future leases on SJPL.

Under all alternatives, the most likely areas for new leases would be in currently unleased lands with moderate or high potential on NFS lands in the Paradox Basin and in the San Juan Sag both of which have expression of interest for oil and gas leasing.

Oil and gas leasing availability alternatives are described in detail in Section 2.8 of this chapter to accommodate both USFS and BLM leasing availability requirements and decision making authorities. The oil and gas leasing availability decisions are described by alternative and complement Alternatives A, B, C, and D described Section 2.7 - Description of the Alternatives Considered in Detail. Additionally, this section includes a No Lease Alternative and as required by 36 CFR 228.102 (c)(2)&(3).

Four LMP alternatives are considered in detail in this DLMP/DEIS. These alternatives, discussed in relation to proposed MA allocation, as well as in relation to the four major issues raised during the agency and public scoping process, are described below.

2.7.1 ALTERNATIVE A (THE NO-ACTION ALTERNATIVE)

Under this DLMP/DEIS, Alternative A would represent the continuation of existing management under the existing BLM and USFS land management plans (the BLM's San Juan/San Miguel Resource Management Plan (1985) and the San Juan National Forest Land and Resource Management Plan (1983), both as amended). It meets the requirements of the NEPA (40 CFR Part 1502.14) that a No-Action Alternative be considered. ("No-Action" means that existing management practices based on existing land use plans and other management decision documents would continue.) This alternative would serve as a baseline for comparing the impacts of the other alternatives. Direction from existing laws, regulation, and policy would also continue to be implemented.

Alternative A is based on reasonably foreseeable actions, available inventory data, existing planning decisions and policies, and existing land use allocations and programs. The current levels of products, services, and outputs based on multiple-use and sustained-yield management of the public lands in the planning area would continue, except for fluctuations due to budget.

Alternative A is based more on historical and expected output levels than on projections of outputs from the earlier land management plans. For example, the San Juan National Forest has only been harvesting about one-half as much timber as was estimated in the existing plan. This is due to both budget constraints and to lower demand for wood products.

Issues were identified where travel management direction conveyed in the Visitor Map for the planning area and on-the-ground signing was inconsistent with existing plan direction. In those instances, Alternative A would be based on how the area is currently being managed.

Alternative A would emphasize allowing a wide variety of uses to occur on any given piece of land, and resolving conflicts on a case-by-case basis as they arise. This alternative would have less separation of potentially conflicting uses of the public lands, and fewer designations of special areas than would any of the other alternatives.

Alternative A - MA Land Allocations

Figure 2.1 - Management Areas Alternative A illustrates where management areas would occur. The table below shows the distribution of MAs for Alternative A.

Table 2.2 - Alternative A Management Area Allocations

MANAGEMENT AREA	Alternative A (acres)	Percentage (%) of Geographic Area (USFS and BLM Lands only)
MA 1 Natural Processes Dominate	538,658	22.7%
MA 2 Special Areas and Unique Landscapes	100,755	4.3%
MA 3 Natural Landscapes with Limited Management	891,718	37.6%
MA 4 High-Use Recreation Emphasis	148,465	6.3%
MA 5 Active Management (commodity production in order to meet multiple-use goals)	675,014	28.5%
MA 7 Public and Private Lands Intermix	0	0%
MA 8 Highly Developed Areas	14,475	0.6%
TOTAL	2,369,085	100%

Note: The current resource emphasis land allocations used in the existing BLM and USFS plans were converted to the Management Areas for comparison of alternatives and analysis purposes.

Alternative A - Issues and Concerns

Alternative A (the No-Action Alternative) was analyzed in relation to the four primary issues raised during the scoping process, and the oil and gas leasing availability decisions described in Section 2.8.

- Issue One - Balancing Management between the Ideas of Maintaining “working Forest and Rangelands” and of Retaining “Core Undeveloped Lands”:** As under all of the alternatives, commercial timber production occurs only within the MA 5 lands. Alternative A would include the largest amount of acreage suitable for timber production, including about 119,107 acres in IRAs. However, timber harvesting conducted in these areas would be incompatible with the 2001 Roadless Area Conservation Rule. In the decade preceding this Rule, few timber sales were conducted in roadless areas due to their high costs, and to the tradeoffs with other resource values. This, along with changes in mill capacity and timber demand, has resulted in difficulty in meeting the levels of timber harvesting projected under the existing plan. Timber harvesting conducted in order to meet resource objectives, other than timber production, was allowed within most of the MA 3 lands under the existing land management plan; however, some of these lands are in IRAs and would not be compatible with the 2001 Roadless Area Conservation Rule.

This alternative would continue the range management practices required under the existing USFS and BLM land management plans. No changes to allotment status or stocking rates are proposed under this alternative.

Under this alternative, the land allocation for the Durango Mountain Resort would remain the same as under current management, allowing potential expansion mostly to the north. The land allocation for Silverton Mountain would also remain as currently approved. The proposed East Fork and Wolf Creek Valley Ski Areas would continue to remain in MA 8, with the potential for ski area development. Expansion of Wolf Creek Ski Area onto the public lands in the planning area would not meet desired conditions under this alternative. More detailed site-specific analysis would be required before any development plans were authorized.

Under Alternative A, the only lands identified as MA 1 are USFS designated Wilderness areas, the Piedra Area, BLM WSAs, and the wild portion of the Piedra River corridor that was found suitable as a WSR in an earlier study. This alternative would offer the least protection for the currently undeveloped portions of the planning area.

- ***Issue Two - Providing Recreation and Travel Management within a Sustainable Ecological Framework:***
Under this alternative, travel management opportunities would continue as they currently exist, with 1,819,523 acres suitable for motorized travel over-ground; and 1,329,159 acres suitable for over-snow motorized travel. Overall, this alternative would have the least amount of acres identified as “unsuitable” for over-ground motorized travel. It would have the largest amount of acres suitable (counting both “suitable” and “suitable opportunity” areas) out of all the alternatives. However, for more than one-quarter of the NFS lands, this would be inconsistent with the 2005 Travel Management Rule. Also, travel management for most of the BLM lands outside of the Silverton area would be inconsistent with existing BLM policy. Under this alternative, nearly all of the lands on the Dolores District/Field Office would be identified as suitable or suitable opportunity areas, with the exception of Wilderness, WSAs, RNAs, the segment of the Dolores River that was found suitable as a WSR, and a couple of other areas. Under this alternative, the areas of particular interest would be identified as suitable or suitable opportunity areas. Again, many of these areas would be inconsistent with the 2005 Travel Management Rule, as well as with the BLM policy.

Alternative A would have the largest amount of acres identified as suitable for over-snow motorized travel. With regard to the over-snow motorized opportunities on the passes, this alternative would keep both sides of Lizard Head Pass suitable for motorized use, both sides of Red Mountain Pass suitable for motorized use, and the largest amount of motorized suitable acres in the Wolf Creek Pass area. The over-snow motorized acres for Molas Pass would be the same as that proposed under Alternative D.

Under Alternative A, existing BLM Structured Recreation Management Areas (SRMAs) would continue to be managed as SRMAs. These areas would specifically include the Dolores River Canyon SRMA, the Silverton SRMA, and the Durango SRMA. The Cortez SRMA would not be included under this alternative.

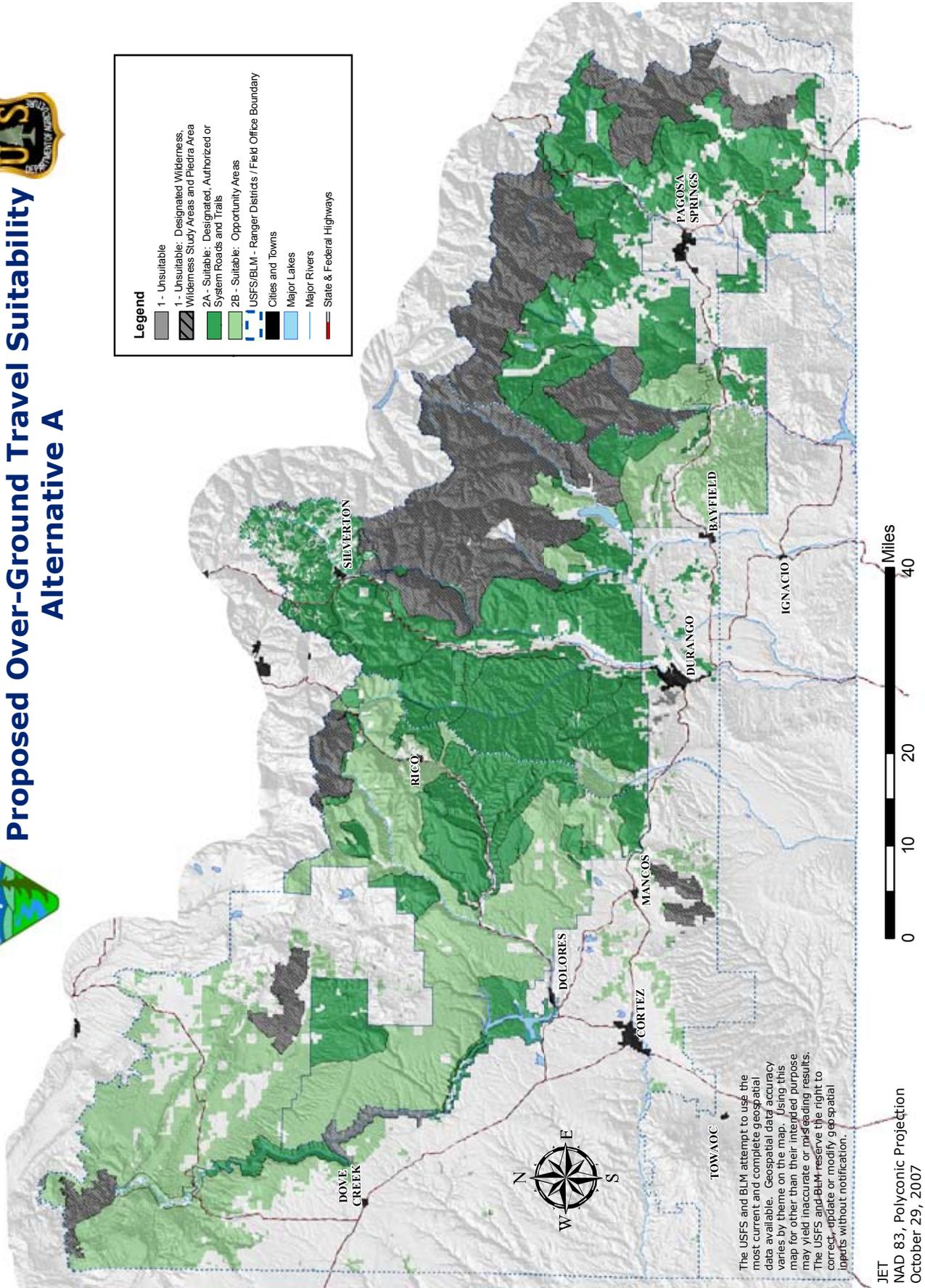
Figure 2.5 – Overground Motorized Suitability - Alternative A

San Juan Public Lands Proposed Over-Ground Travel Suitability Alternative A



Legend

- 1 - Unsuitable
- 1 - Unsuitable: Designated Wilderness, Wilderness Study Areas and Piedra Area
- 2A - Suitable: Designated, Authorized or System Roads and Trails
- 2B - Suitable: Opportunity Areas
- USFS/BLM - Ranger Districts / Field Office Boundary
- Cities and Towns
- Major Lakes
- Major Rivers
- State & Federal Highways



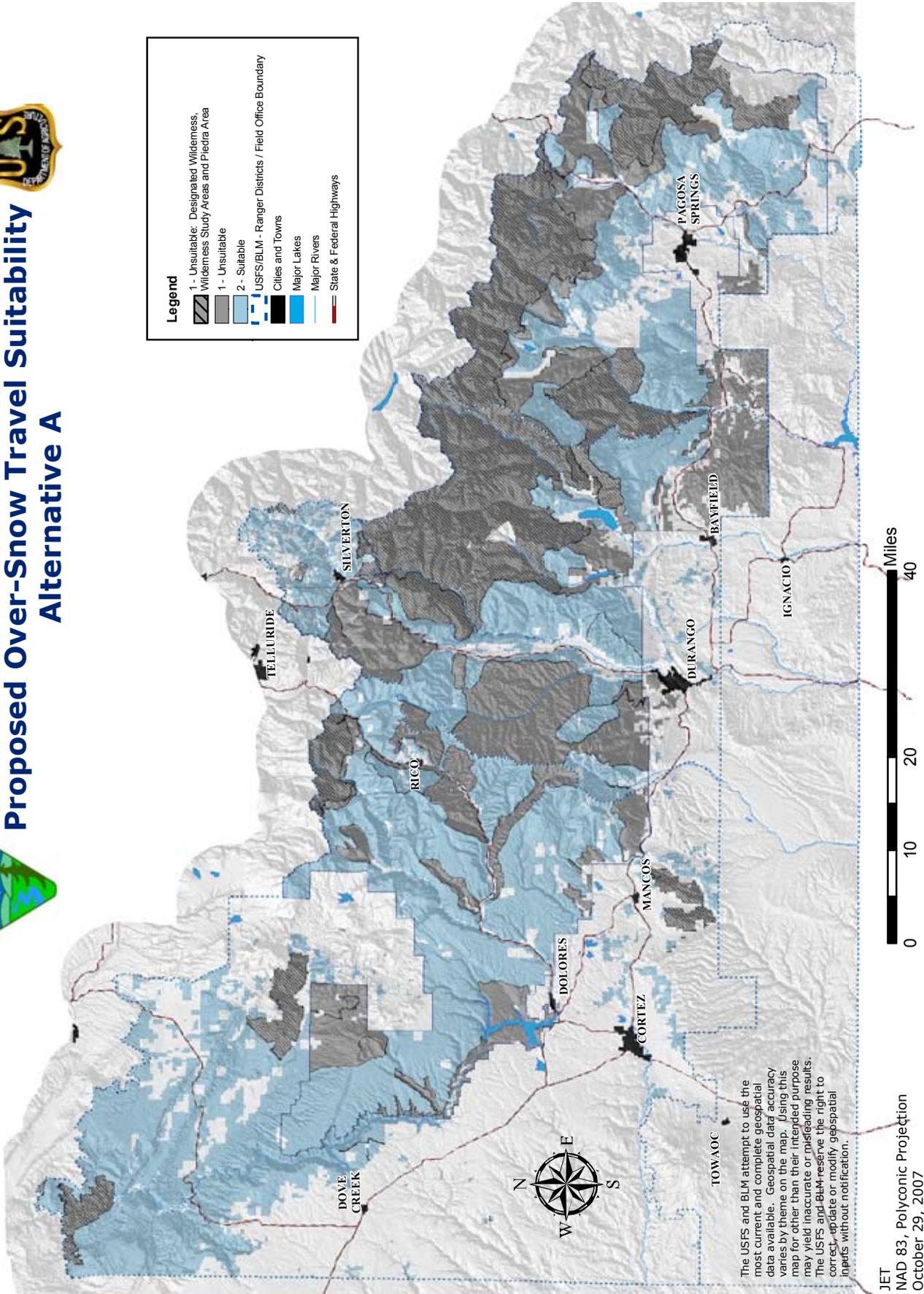
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Figure 2.6 – Over Snow Motorized Suitability - Alternative A



San Juan Public Lands Proposed Over-Snow Travel Suitability Alternative A



- **Issue Three: Management of Special Designations and Unique Landscapes:** Under Alternative A, no new additions to the National Wilderness Preservation System would be recommended. The existing Weminuche, South San Juan, and Lizard Head Wilderness Areas, the Piedra Area, and the BLM WSAs would continue to provide solitude, and primitive and unconfined recreational opportunities.

Under this alternative, segments of the Dolores, West Dolores, Los Pinos, and Piedra Rivers that were found suitable for designation as WSR in previous studies would continue to be managed in order to protect their outstandingly remarkable values, and to maintain their classification as wild, scenic, or recreational.

Under this alternative, no new BLM ACECs would be proposed. The 1,160-acre portion of the Mud Springs ACEC that was not included in the proclamation that designated The Canyons of the Ancients National Monument would continue to be managed as an ACEC in order to mitigate archaeological impacts from other resource activities in the area. Two RNAs, totaling 2,450 acres, would remain on NFS lands; no new RNAs would be recommended under Alternative A.

This alternative would not identify any new unique landscapes as MA 2s; however, it would continue to manage the ones identified in the existing plans: the Dolores River Canyon, the Wild Horse Herd Management Area, Silverton, the Falls Creek and Chimney Rock Archaeological Areas, and the Perins Peak Habitat Areas.

2.7.2 ALTERNATIVE B (THE PREFERRED ALTERNATIVE)

Based on public scoping, Alternative B would represent a balance among the revision issues. This alternative would provide for a mix of multiple-use activities, with a primary emphasis on maintaining most of the large, contiguous blocks of undeveloped lands and on enhancing various forms of recreation opportunities while, at the same time, maintaining the diversity of uses and active forest and rangeland vegetation management.

This alternative would represent a mix and a variety of actions that would resolve the issues and management concerns raised during public scoping, in consideration of all of the resource values and all of the management programs. Alternative B would incorporate the goals of the Forest Service’s Strategic Plan (36 CFR 219.12(f)(6)), the Department of the Interior’s Strategic Plan, and the BLM’s Annual Operating Plan.

The Responsible Officials, the Regional Forester for USFS lands and the State Director for BLM lands, have identified Alternative B as the Preferred Alternative in this DLMP/DEIS.

Alternative B - MA Land Allocations

Figure 2.2 - Management Areas Alternative B illustrates where MAs would occur. The table below shows the distribution of management areas for Alternative B.

Table 2.3 - Alternative B Management Area Allocations

MANAGEMENT AREA	Alternative B (acres)	Percentage (%) of Geographic Area (USFS and BLM Lands only)
MA 1 Natural Processes Dominate	652,307	27.5%
MA 2 Special Areas and Unique Landscapes	193,503	8.2%
MA 3 Natural Landscapes with Limited Management	825,000	34.8%
MA 4 High-Use Recreation Emphasis	79,711	3.4%
MA 5 Active Management (commodity production in order to meet multiple-use goals)	529,413	22.3%
MA 7 Public and Private Lands Intermix	81,756	3.5%
MA 8 Highly Developed Areas	7,395	0.3%
TOTAL	2,369,085	100.00%

Alternative B - Issues and Concerns

Alternative B (the Preferred Alternative) was analyzed in relation to the four primary issues raised during the scoping process, and the oil and gas leasing availability decisions described in Section 2.8.

- **Issue One - Balancing Management between the Ideas of Maintaining “Working Forest and Rangelands” and of Retaining “Core Undeveloped Lands”:** Under Alternative B, the lands suitable for timber production would be 20% smaller than that proposed under Alternative A. This is due to the fact that lands within IRAs are not included. Projected timber harvesting levels would remain the same as under current management. That would be possible because mill capacity, the demand for timber, and the available budget for preparing and administering timber sales would be more limiting than the land base. Under Alternative B, timber harvesting conducted in order to meet resource objectives other than timber production would remain at similar levels as that proposed under Alternative A. However, it would be more likely to occur closer to communities for fuels reduction purposes, rather than in roadless areas.

Under Alternative B, lands suitable and capable for livestock grazing would be relatively similar to that proposed under Alternative A, with some exceptions. The 11 “C” category BLM allotments in the Pagosa District/Field Office would be closed (due to the difficulties of managing small parcels of public lands within larger private land parcels undergoing development). Also, the remaining unstocked “C” category allotments would also be closed across the planning area in order to improve program administration efficiency.

This alternative would allocate currently permitted ski resorts (Silverton Mountain and the Durango Mountain Resort) as MA 8s. The land allocation for the Durango Mountain Resort would remain the same as under current management, allowing potential expansion mostly to the north.

The potential East Fork and Wolf Creek Valley Ski Areas would be managed as MA 1 and 3 in Alternative B and would not be compatible for ski development. Under Alternative B, ski area development would not meet the desired conditions for these areas, and would only occur if the FLMP/FEIS was amended, based on a detailed site-specific analysis.

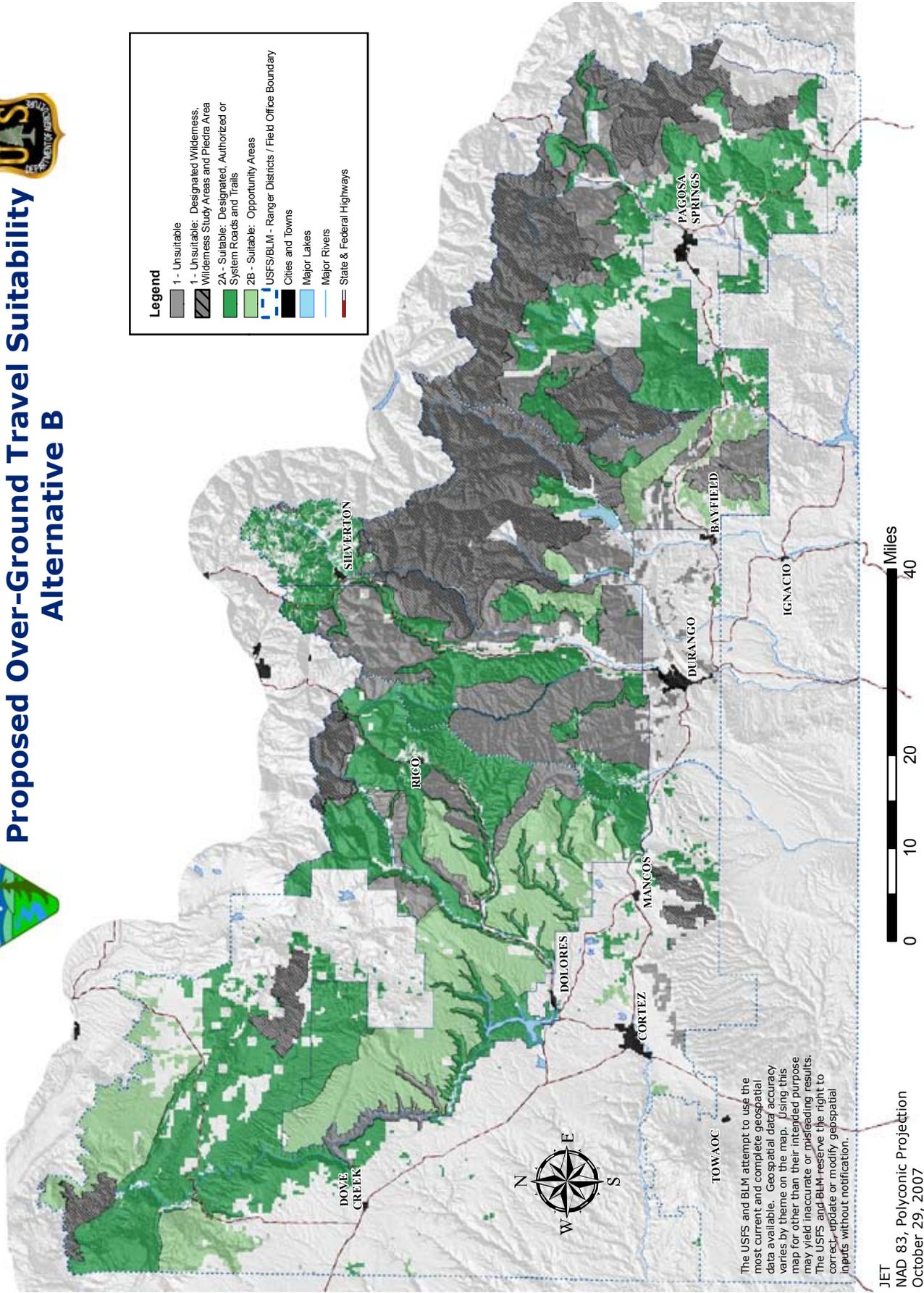
Under this alternative, most of the IRAs would be managed as either MA 1s or as MA 3s in order to preserve their undeveloped, natural character. Compared with Alternative C, this alternative would identify more of the IRAs to be managed as MA 3s in order to retain more management options addressing forest health problems. Under this alternative, no new permanent road construction would occur in IRAs.

- **Issue Two - Providing Recreation and Travel Management within a Sustainable Ecological Framework:** Alternative B would aim to find a balance between motorized and non-motorized opportunities. Under this alternative, approximately 1,002,388 acres would be unsuitable for over-ground motorized travel. In general, about half of this acreage consists of designated as Wilderness, WSAs, and/or other areas that prohibit motorized travel; the other half would include IRAs and areas not conducive to motorized road and trail systems (due to resource, wildlife habitat, recreation experiences, and/or construction feasibility reasons). Under this alternative, approximately 955,403 acres would be identified as suitable areas for motorized travel on designated roads and trails. These areas generally have an existing developed road and/or motorized trail system that adequately serves the recreation and resource access needs of the particular area. Compared with Alternative A, this alternative would reduce the “suitable” and “suitable opportunity” acres for motorized travel. This would be done primarily by tightening the suitable boundaries in order to reflect areas with existing and desirable motorized routes, identifying areas without any existing motorized routes as unsuitable, and identifying suitable opportunity areas

Figure 2.7 – Over Ground Motorized Suitability - Alternative B



San Juan Public Lands Proposed Over-Ground Travel Suitability Alternative B



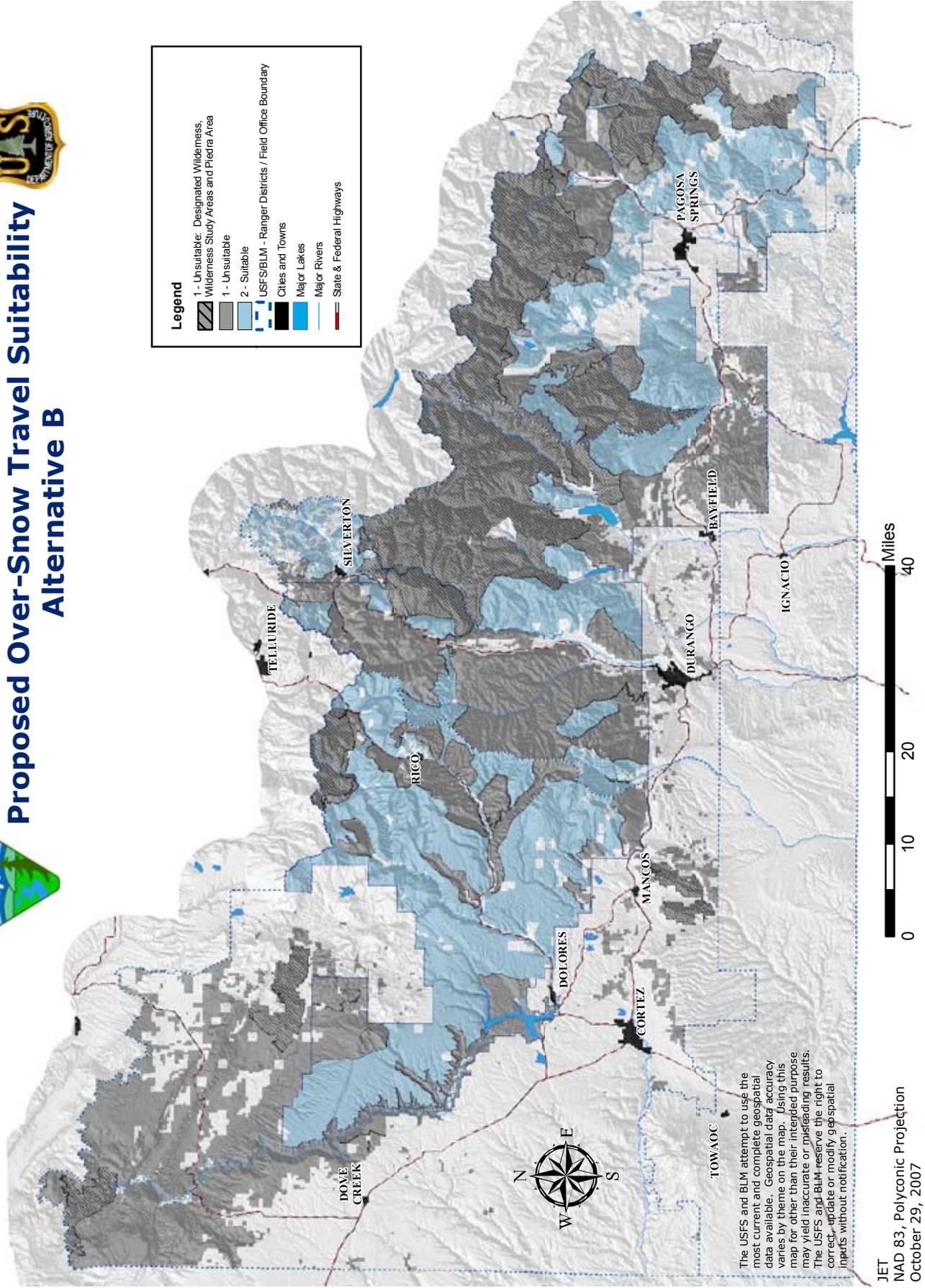
Legend	
[Dark Grey Box]	1 - Unsuitable
[Light Green Box]	1 - Unsuitable: Designated Wilderness, Wilderness Study Areas and Piedra Area
[Medium Green Box]	2A - Suitable: Designated, Authorized or System Roads and Trails
[Light Green Box]	2B - Suitable: Opportunity Areas
[Blue Dashed Line]	USFS/BLM - Ranger Districts / Field Office Boundary
[Black Box]	Cities and Towns
[Blue Box]	Major Lakes
[Blue Line]	Major Rivers
[Red Line]	State & Federal Highways

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Figure 2.8 – Over Snow Motorized Suitability - Alternative B

San Juan Public Lands
Proposed Over-Snow Travel Suitability
Alternative B



within MA 5s. In general, MA 5s would have an existing road and/or motorized trail system, as well as the potential to improve and increase motorized opportunities by connecting existing roads or trails in order to create loop opportunities using existing unauthorized roads or trails, or by adding road or trail segments.

The NW BLM lands on the Dolores District/Field Office identified as “suitable opportunity areas” under Alternative A would be identified as “suitable” under Alternatives B, C, and D in order to keep travel on existing routes and reduce the road density in these areas that have erosive and sensitive soils. Canyons on the Dolores District/Field Office that are identified as “suitable opportunity” areas under Alternative A, would be identified as “suitable” in this Alternative, thereby retaining and limiting access to the existing motorized roads and trails. The Hermosa area under Alternative B would mostly be identified as “unsuitable” to motorized travel, with the exception of the Hermosa trail and existing motorized routes on the east side. Motorized routes on the west side would not be compatible with Alternative B, and would be closed, pending future NEPA analysis. In Alternative B, Stoner Mesa and the Ryman area on the Dolores District/Field Office would tighten the boundary of suitable area to areas with existing motorized road/routes, and would identify areas currently without motorized roads/routes as unsuitable. Taylor Mesa, which is “suitable” under Alternative A, would change to a “suitable opportunity area” under Alternative B.

Under Alternative B, approximately 847,174 acres would be identified as suitable for motorized over-snow travel. Approximately 440,000 acres identified as suitable for winter motorized travel under Alternative A would be identified as unsuitable under Alternative B. The change would primarily affect the lands in the northwest portion of the planning area, where unpredictable snowfall and big-game winter range needs limit over-snow motorized travel opportunities. Additionally, the west side of Red Mountain Pass would be unsuitable for over-snow motorized travel under this alternative. The east side of Red Mountain Pass would remain suitable. Compared with Alternative A, there would be fewer acres suitable for motorized travel around Molas Pass and Wolf Creek Pass under Alternative B.

Under Alternative B, existing BLM Structured Recreation Management Areas (SRMAs) would continue to be managed as SRMAs. In addition to the four existing BLM SRMAs, this alternative would add the BLM Cortez SRMA.

- **Issue Three: Management of Special Designations and Unique Landscapes:** This alternative would recommend a portion (50,895 acres) of the west side of the Hermosa IRA for inclusion in the National Wilderness Preservation System. Additionally, portions of the Lizard Head IRA, portions of the Weminuche Adjacent IRA (specifically, Elk Park and Monk Rock), and portions of the Turkey Creek IRA would be recommended for inclusion in the National Wilderness Preservation System. Nearly all other IRAs would be managed as either MA 1s, 2s, or 3s under this alternative, in order to retain their undeveloped character. Twelve river segments, totaling approximately 356 miles would be considered suitable for addition to the National Wild and Scenic Rivers System under this alternative.

Under this alternative, one new ACEC, the Big Gypsum, would be designated. Under this alternative, the Mud Springs ACEC (a remnant area that was not included in the proclamation that designated The Canyons of the Ancients National Monument) would no longer be managed as an ACEC. While the archeological values would still be recognized, Alternative B emphasizes the recreation use of the area and identifies it as a BLM Structured Recreation Management Area (SRMA). In addition to the 2 existing RNAs, 8 new RNAs totaling 56,318 acres, would be designated under this alternative. Two new Botanical Areas, the Chatanooga Iron Fen, and the Burro Bridge Iron Fen would be designated, in addition to the existing O'Neal Hill Frosty Bladder Pod Area.

Under Alternative B, the Dolores River Canyon boundary would be expanded, when compared with Alternative A, in order to include Norma Jean Canyon and Dolores River Canyon at Disappointment (areas with unique plant communities). The Silverton MA 2 boundary would be expanded, when compared with the BLM lands under Alternative A, to include adjacent NFS lands with similar characteristics, uses, and management challenges. This alternative would allocate the largest acreage to the Rico MA 2 to emphasize a cooperative working relationship between the Town and the USFS and to manage these lands in ways that complement Town and agency goals. Under this alternative, the HD Mountains area, consisting of 44,115 acres, would be identified as a MA 2, with a management prescription that would address the protection of unique features in an area planned for coalbed methane development. It would provide for the areas' reclamation after the coalbed methane project is completed.

2.7.3 ALTERNATIVE C

Alternative C would provide for a mix of multiple-use activities, with a primary emphasis on the undeveloped character of the planning area. Production of goods from vegetation management would continue, but might be secondary to other non-commodity objectives. Under Alternative C, production of goods and services would be slightly more constrained than that proposed under Alternatives A, B, and D. And, in some cases and in some areas, uses would be excluded in order to protect sensitive resources. Alternative C identifies more resources and areas as Management Area 2 - Special Areas and Unique Landscapes than the other alternatives. Management provisions under this alternative would emphasize the undeveloped character of large blocks of contiguous land and non-motorized recreational activities to a greater degree than would any of the other alternatives.

Alternative C - MA Land Allocations

Figure 2.3 - Management Areas Alternative C illustrates where management areas would occur. The table below shows the distribution of management areas for Alternative C.

Table 2.4 - Alternative C Management Area Allocations

MANAGEMENT AREA	Alternative C (acres)	Percentage (%) of Geographic Area (USFS and BLM Lands only)
MA 1 Natural Processes Dominate	1,080,606	45.6%
MA 2 Special Areas and Unique Landscapes	198,512	8.4%
MA 3 Natural Landscapes with Limited Management	472,022	19.9%
MA 4 High-Use Recreation Emphasis	54,765	2.3%
MA 5 Active Management (commodity production in order to meet multiple-use goals)	487,299	20.6%
MA 7 Public and Private Lands Intermix	71,929	3.0%
MA 8 Highly Developed Areas	3,952	0.2%
TOTAL	2,369,085	100.00%

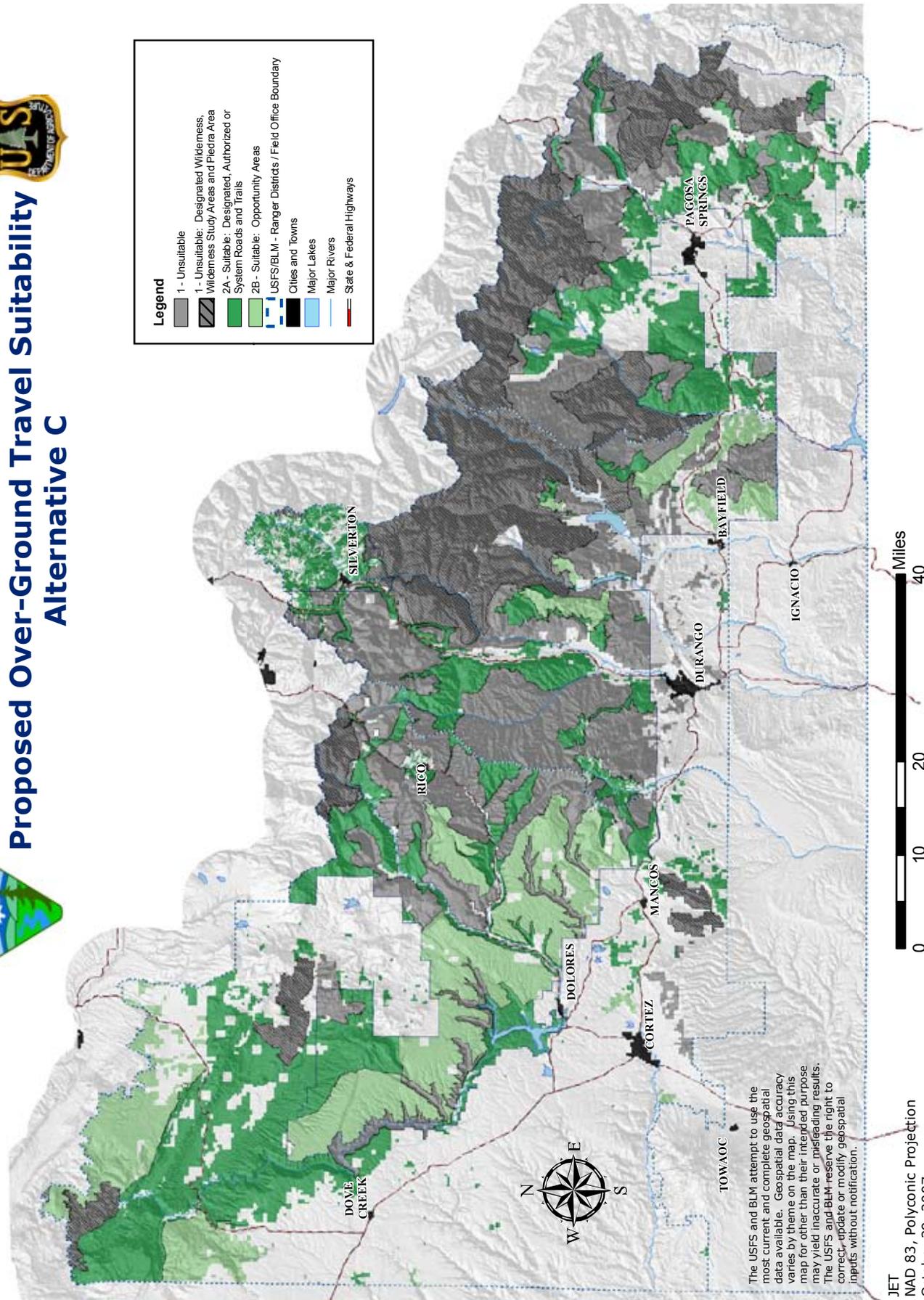
Figure 2.9 – Over Ground Motorized Suitability - Alternative C

**San Juan Public Lands
Proposed Over-Ground Travel Suitability
Alternative C**



Legend

- 1 - Unsuitable
- 1- Unsuitable: Designated Wilderness, Wilderness Study Areas and Piedra Area
- 2A - Suitable: Designated, Authorized or System Roads and Trails
- 2B - Suitable: Opportunity Areas
- USFS/BLM - Ranger Districts / Field Office Boundary
- Cities and Towns
- Major Lakes
- Major Rivers
- State & Federal Highways



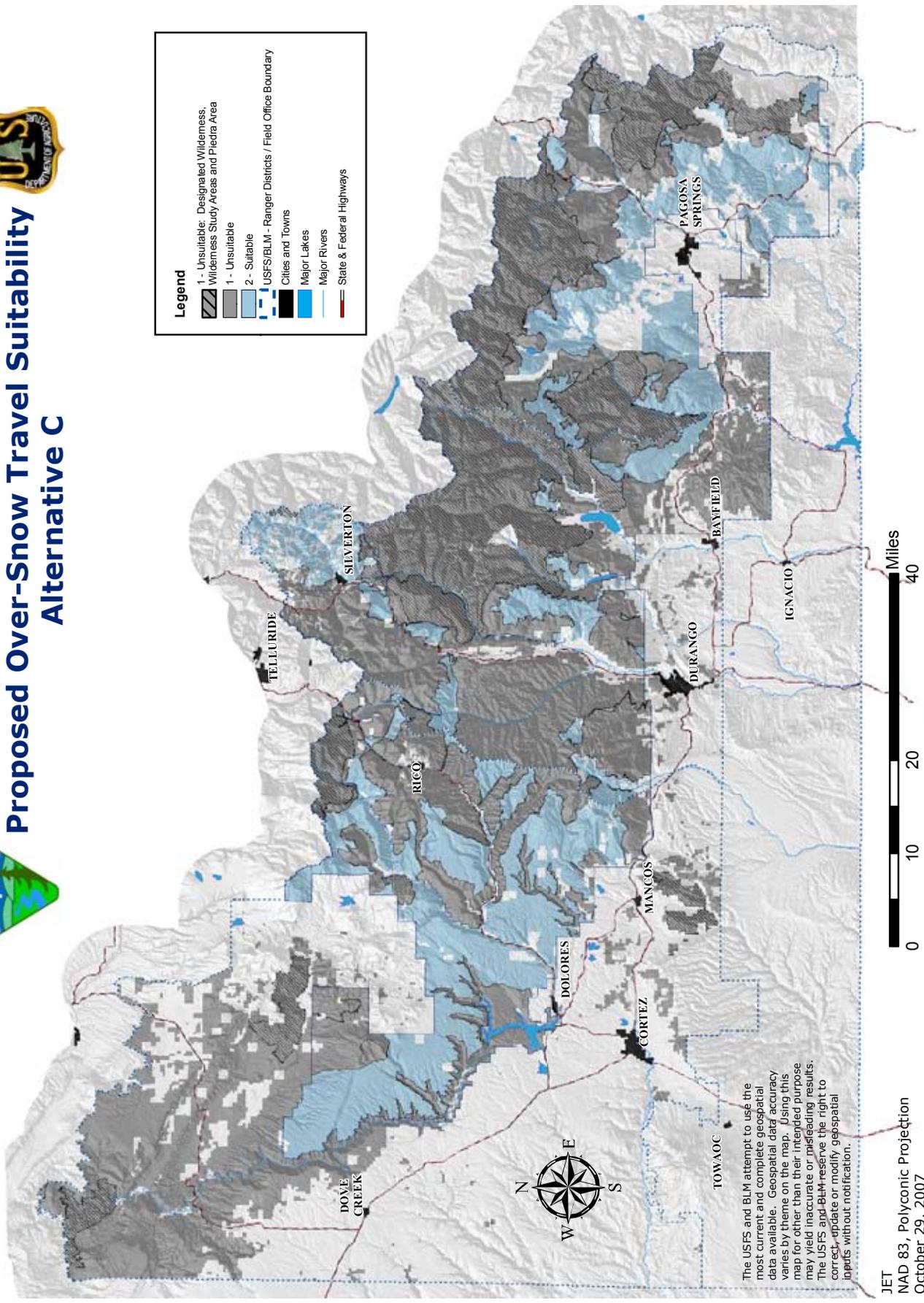
The USFS and BLM attempt to use the most current and complete geospatial data available. Geospatial data accuracy varies by theme on the map. Using this map for other than their intended purpose may yield inaccurate or misleading results. The USFS and BLM reserve the right to correct, update or modify geospatial inputs without notification.

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Figure 2.10 – Over Snow Motorized Suitability - Alternative C



San Juan Public Lands Proposed Over-Snow Travel Suitability Alternative C



Alternative C - Issues and Concerns

Alternative C was analyzed in relation to the four primary issues raised during the scoping process and the oil and gas leasing availability decisions described in Section 2.8.

- **Issue One - Balancing Management between the Ideas of Maintaining “Working Forest and Rangelands” and of Retaining “Core Undeveloped Lands”:** Under this alternative, the lands suitable for timber production and projected harvesting levels would be slightly less than under Alternative B (due to a smaller emphasis on commodity production under this alternative and to fewer lands allocated as MA 5). Under this alternative, timber harvesting conducted in order to meet resource objectives other than timber production would be approximately 40% less than under the other alternatives (because more land is allocated as MA 1).

Given the overall theme of this alternative, livestock grazing objectives would be secondary in order to provide for other biodiversity and species objectives. In addition to the allotment management changes proposed under Alternative B, Alternative C would propose to close all vacant USFS and BLM sheep allotments, as well as all active sheep allotments in the Silverton area, in order to avoid potential conflicts with bighorn sheep. Allotments within the proposed HD unique landscape area, Sagehen, the Spring Creek Wild Horse Management Area, old growth unique landscape areas, MA 1s and 3s within the Hesperus landscape, and along the Highway 160 corridor between Bayfield and the La Plata County line would also be closed under this alternative. The goal of this management action would be to improve cultural-resource preservation, improve big-game winter range, and increase the rate of soil and water improvement. Stocking rates on other livestock grazing allotments would be reduced to light or moderate rates (i.e., greater than 7 acre/AUM) in order to improve watershed, fisheries, and big-game winter range habitat, as well as in order to reduce recreation conflicts. Overall, Alternative C would be the most conservative alternative, in terms of addressing livestock management and stocking.

Alternative C would allocate currently permitted ski resorts, Silverton Mountain and the Durango Mountain Resort, as MA 8s. The land allocation for Durango Mountain Resort would be confined to the currently developed areas, thereby eliminating the potential expansion to the north identified under all of the other alternatives.

The expansion of the Wolf Creek Ski Area onto public lands in the planning area would be allocated within MA 1; therefore, it would not meet the desired conditions for this alternative. The potential East Fork and Wolf Creek Valley Ski Areas would be managed as MA 1 and 3; therefore, ski area development would not meet the desired conditions for this alternative.

Under this alternative most of the IRAs would be managed as either a MA 1s or as MA 3s in order to preserve their undeveloped natural character. Compared with Alternative B, this alternative would identify more of the IRAs as MA 1s. With the exception of providing access to valid inholdings, no new permanent or temporary road construction would occur in IRAs identified as MA 1 under Alternative C.

- **Issue Two - Providing Recreation and Travel Management within a Sustainable Ecological Framework:** This alternative would emphasize non-motorized recreation and quiet-use areas. Most of the areas identified as MA 1 would be unsuitable for over-ground and over-snow motorized travel. Areas suitable for motorized travel generally have an existing developed road and/or motorized trail system. In general, this alternative would identify suitable opportunity areas only within MA 5s, where there are existing road and/or motorized trail systems, as well as the potential to improve and increase motorized opportunities by connecting existing roads or trails to create loop opportunities using existing unauthorized roads or trails, or by adding road or trail segments.

Under this alternative, the NW BLM lands on the Dolores District/Field Office would be identified as “suitable” but would not be a “suitable opportunity” area (as they are under Alternative A) in order to keep travel on existing routes and reduce the road density in these areas that have erosive and sensitive soils. Many of the canyons on the Dolores District/Field Office would be identified as unsuitable in Alternative C. New and existing motorized routes in these areas would not be compatible with this alternative; therefore, they would be closed, pending future NEPA analysis. This alternative would identify the most acres as unsuitable for motorized travel in the Hermosa area, including the Hermosa trail, which would be closed pending future NEPA analysis. Compared with the other alternatives, this alternative would identify the most unsuitable motorized acreage around Stoner Mesa and the Ryman area.

This alternative would allocate the least amount of acres for over-snow motorized travel. Under this alternative, both sides of Red Mountain Pass would be identified as unsuitable for over-snow motorized travel. The east side of Lizard Head Pass would be identified as unsuitable. Molas Pass would have fewer acres on the east side identified as suitable for over-snow motorized travel, than would the other alternatives. As in Alternative B, approximately 440,000 acres previously found suitable for winter motorized travel under Alternative A would be changed to unsuitable in the northwest BLM lands. The change would primarily affect the lands in the northwest portion of the planning area, where unpredictable snowfall and big-game winter range needs limit over-snow motorized travel opportunities.

Under Alternative C, existing BLM Structured Recreation Management Areas (SRMAs) would continue to be managed as SRMAs. In addition to the three existing SRMAS, this alternative would add the Cortez SRMA.

- **Issue Three: Management of Special Designations and Unique Landscapes:** Under Alternative C, all IRAs that meet the available and capable requirements for Wilderness would be recommended for inclusion in the National Wilderness Preservation System (approximately 532,446 acres). Nearly all other IRAs would be managed as either MA 1s, 2s, or 3s, in order to retain their undeveloped character. Under this alternative, 24 river segments, totaling approximately 534 miles, would be considered suitable for addition to the National Wild and Scenic Rivers System. This is the total amount of segments considered eligible due to their Outstandingly Remarkable Values (ORVs) and free-flowing character.

This alternative would recommend three new ACECs: Silveys Pocket, Grassy Hills, and Big Gypsum Valley (all of which were identified as Potential Conservation Areas by the Colorado Natural Heritage Program due to their significant biodiversity). The Big Gypsum ACEC would be larger under this alternative than it would be under Alternative B. The culturally significant Mud Springs ACEC (a remnant area that was not included in the proclamation that designated The Canyons of the Ancients National Monument) would continue to be managed as an ACEC under this alternative. In addition to the two existing RNAs, this alternative would recommend the most new areas for RNA designation. Under this alternative, 9 new RNAs would be recommended, totaling 69,141 acres.

The Rico and Silverton MA 2s would be smaller under this alternative (with more of the areas surrounding these towns as MA 1s). The HD Mountains MA 2 would be the largest under this alternative, extending the management direction to the adjacent Sauls Creek area (an area that has cultural resources, mixed private and public lands, and multiple-use activities including coalbed methane development). Also, under this alternative, the Dolores River Canyon MA 2 would be the largest, because it would include some side canyons on adjacent USFS-administered lands.

2.7.4 ALTERNATIVE D

Alternative D would provide for a mix of multiple-use activities, with a primary emphasis on the “working forest and rangelands” concept in order to produce the highest amounts of commodity goods and services when compared with all of the other alternatives. This alternative would allow the greatest extent of resource use within the planning area while, at the same time, maintaining ecosystem management principles in order to protect and sustain resources. Under this alternative, potential impacts to sensitive resource values would be mitigated on a case-by-case basis.

Alternative D - MA Land Allocations

The table below shows the distribution of management areas for Alternative D. The Management Areas-Alternative D Map illustrates where management areas would occur.

Table 2.5 - Alternative D Management Area Allocations

MANAGEMENT AREA	Alternative D (acres)	Percentage (%) of Geographic Area (USFS and BLM Lands only)
MA 1 Natural Processes Dominate	553,786	23.4%
MA 2 Special Areas and Unique Landscapes	151,040	6.4%
MA 3 Natural Landscapes with Limited Management	788,289	33.3%
MA 4 High-Use Recreation Emphasis	86,236	3.6%
MA 5 Active Management (commodity production in order to meet multiple-use goals)	682,632	28.8%
MA 7 Public and Private Lands Intermix	89,116	3.8%
MA 8 Highly Developed Areas	17,986	0.8%
TOTAL	2,369,085	100.0%

Alternative D - Issues and Concerns

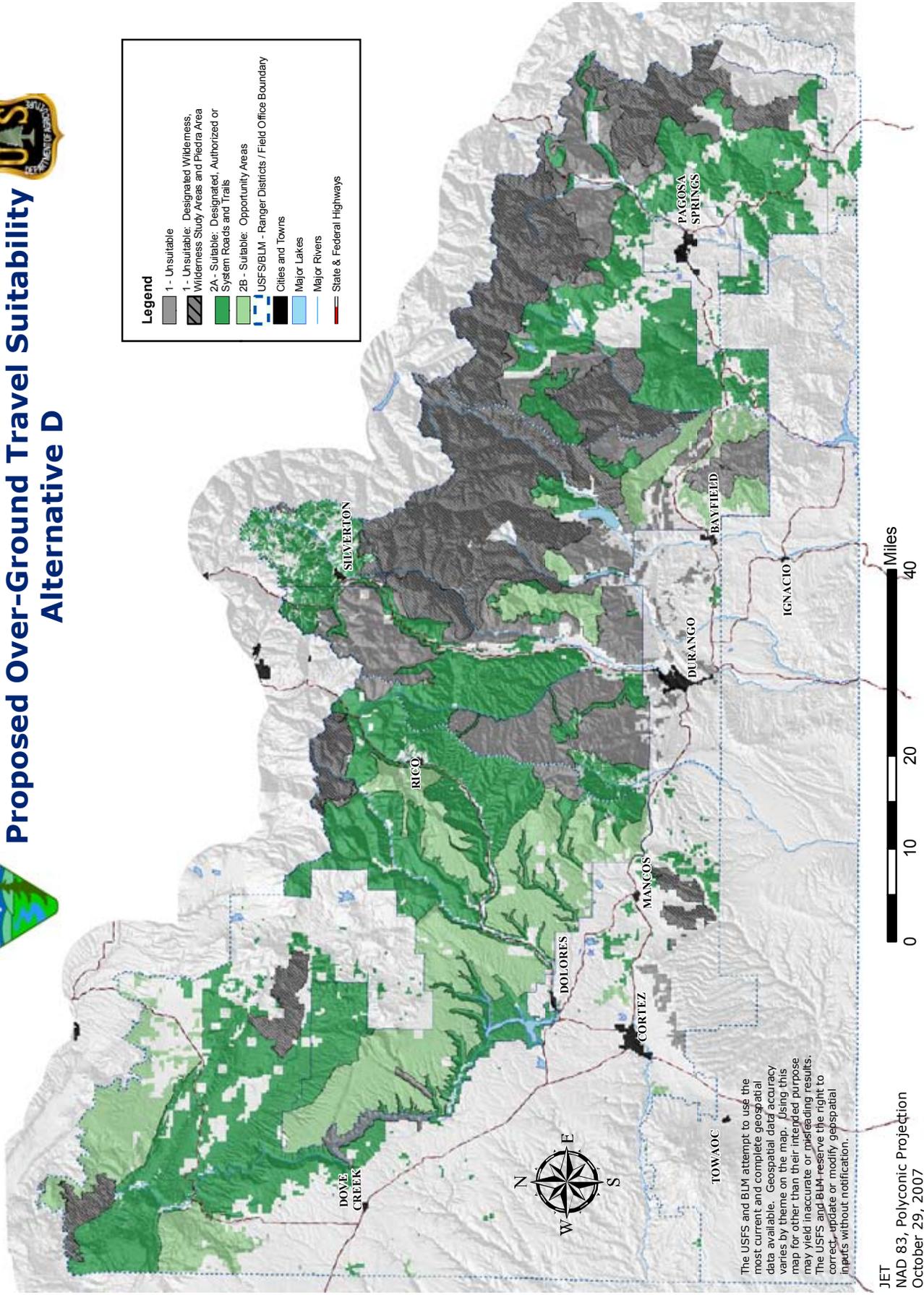
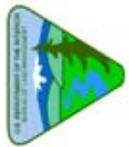
Alternative D was analyzed in relation to the four primary issues raised during the scoping process and the oil and gas leasing availability decisions described in Section 2.8.

- Issue One - Balancing Management between the Ideas of Maintaining “Working Forests and Rangelands” and of Retaining “Core Undeveloped Lands”:** Out of all of the alternatives, Alternative D would have the greatest number of acres allocated as MA 5s, and the greatest amount of “lands suitable for timber production.” Increase in the “lands suitable for timber production” would be achieved by entering portions of 4 IRAs, totaling approximately 45,000 acres, where road construction, timber harvesting, and oil and gas development could occur (unless limited by the 2001 Roadless Protection Rule or other restrictions).

Figure 2.11– Over Ground Motorized Suitability - Alternative D



San Juan Public Lands Proposed Over-Ground Travel Suitability Alternative D

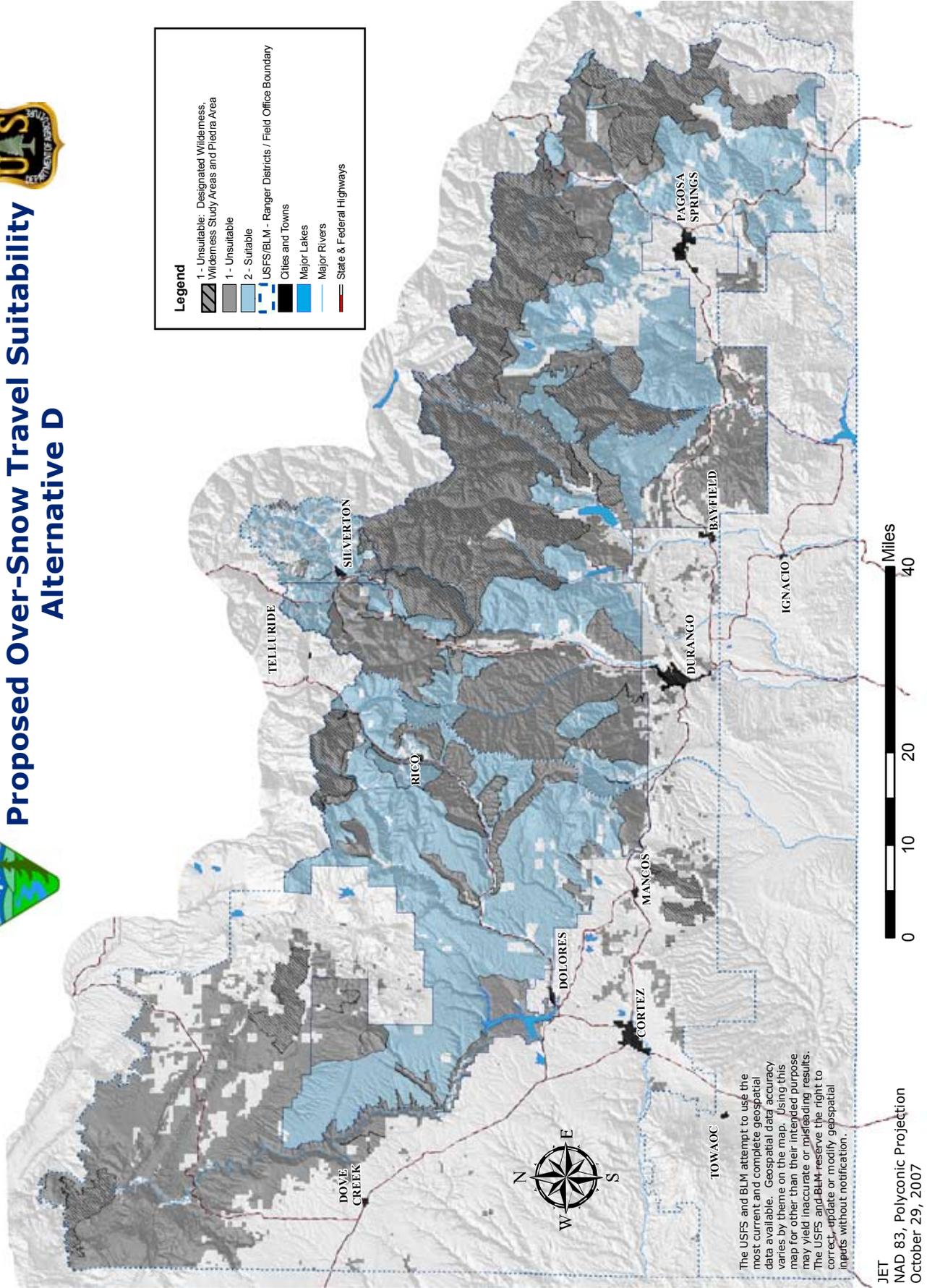


The USFS and BLM attempt to use the most current and complete geospatial data available. Geospatial data accuracy varies by theme on the map. Using this map for other than their intended purpose may yield inaccurate or misleading results. The USFS and BLM reserve the right to correct, update or modify geospatial inputs without notification.

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Figure 2.12 – Over Snow Motorized Suitability - Alternative D

 **San Juan Public Lands**
Proposed Over-Snow Travel Suitability
Alternative D



Alternative D would allow more permitted livestock grazing than would any of the other alternatives. Under this alternative, all vacant sheep allotments could be stocked. Stocking rates within suitable and capable lands would be increased to at least 6 acres/AUM, within those allotments, due to planned restoration activities. All currently vacant BLM allotments would be offered for livestock grazing permits, per existing IM policy, and four USFS allotments would be offered for livestock grazing permits, via the grant process.

This alternative would have the greatest amount of potential ski area development. This alternative would allocate currently permitted ski resorts, Silverton Mountain and the Durango Mountain Resort, as MA 8s. The land allocation for the Durango Mountain Resort would remain the same as under current management, allowing potential expansion mostly to the north.

An expansion of approximately 3,600 acres of the Wolf Creek Ski Area onto public lands in the planning area would meet the desired conditions for this alternative. This potential expansion would include lift-served ski terrain and facilities, including parking lots and a ticket office. More detailed site-specific analysis would be required before any development plans would be authorized.

Development of the potential East Fork Ski Area would meet the desired conditions for this alternative. The potential Wolf Creek Valley Ski Area that was identified in the 1982 Forest Plan would change to MA 3 and would not be compatible for ski development. Ski area development would not be considered feasible under this alternative due to the fact that the adjacent private land that might have served as a base for the ski area was placed under a conservation easement.

Compared with Alternatives B and C, this alternative would identify more of the IRAs as MA 3s, in order to retain management options addressing forest health problems on more acres across the planning area. This alternative would provide slightly more opportunity for fuels treatment and for timber harvesting than would Alternatives B and C, thereby potentially reducing the threat of catastrophic fires and suppression costs.

- ***Issue Two - Providing Recreation and Travel Management within a Sustainable Ecological Framework:***

This alternative would have more emphasis on motorized recreation opportunities. Most of the areas of particular interest on the Dolores District would be identified as suitable or suitable opportunity areas, with very few areas identified as unsuitable.

The NW BLM lands on the Dolores District/Field Office identified as “suitable opportunity areas” under Alternative A would be identified as “suitable” under Alternatives D in order to keep travel on existing routes and reduce the road density in these areas that have erosive and sensitive soils. In Alternative D the canyons on the Dolores District/Field Office would be identified as “suitable,” retaining and limiting access to the existing motorized roads and trails. Nearly all of the lands in the Taylor Mesa, Stoner Mesa, and Ryman areas of the Dolores District/Field Office would be identified as either suitable or suitable opportunity areas, in this alternative. The Hermosa Trail and other existing motorized trails on the east side of the Hermosa area of the Columbine District/Field Office would be continue to be suitable to motorized recreation in this alternative.

This alternative would identify more acres for over-snow travel than would Alternative B or C. The greatest change from Alternative A would be the identification of approximately 440,000 acres previously found suitable for winter motorized travel in the northwest portion of the planning area as unsuitable (due to unpredictable snowfall and big game winter range needs limiting over-snow motorized travel opportunities). With regard to the over-snow motorized opportunities on the passes, this alternative would keep both sides of Lizard Head Pass suitable for motorized use, both sides of Red Mountain Pass suitable for motorized use, and slightly less acres on the east side of Wolf Creek Pass suitable than would Alternative A. Molas Pass over-snow motorized acres would be the same as under Alternative A.

Under Alternative D, existing BLM Structured Recreation Management Areas (SRMAs) would continue to be managed as SRMAs. In addition to the three existing SRMAs, this alternative would add the Cortez SRMA.

- **Issue Three: Special Designations and Unique Landscapes:** Under this alternative, no new areas or river segments would be recommended for inclusion in the National Wilderness Preservation System or in the Wild and Scenic Rivers System. Under this alternative, no new ACECs would be designated. Mud Springs (a remnant area that was not included in the proclamation that designated The Canyons of the Ancients National Monument) would no longer be designated as an ACEC. It would be managed with a recreation emphasis. Under Alternative D, 4 new RNAs would be recommended, in addition to the 2 existing RNA's, totaling 28,016 acres.

The Dolores River Canyon MA 2 boundary would be the smallest under this alternative. It would be slightly less than the current management boundary (due to the alignment of the boundary with the canyon rim). The Silverton and HD Mountains MA 2s would be the same as under Alternative B. This alternative would allocate the least amount of acreage to the Rico MA 2.

This section describes in detail the oil and gas leasing availability by alternative for NFS and BLM lands. Public scoping comments identified concerns and debate about where energy development should take place, and how it should be done on SJPL. The range of alternatives described in this section reflects public scoping comments and compliments Alternatives A, B, C, and D described earlier in Section 2.7 - Description of the Alternatives Considered in Detail.

In compliance with 36 CFR 228.102(c)(2)&(3) the Forest Service lands available for leasing, withdrawn, recommended for withdrawal, administratively not available, and stipulated acres for all lands available that are not legally or administratively available are identified and described. Additionally, regulations for management of oil and gas leasing and operations on NFS lands require the Forest Service, when considering oil and gas leasing, to analyze an alternative of not leasing [36 CFR 228.102(c)(2)&(3)]. This means that the Forest Service must analyze lands being considered for leasing as administratively not available for leasing over the life of the Plan. In compliance with this regulation and for comparison purposes, this section includes a “No Lease Alternative” description. As this is a joint USFS and BLM plan, this section will provide descriptions for both NFS and BLM Lands, where appropriate.

For all alternatives, lands already under lease as of the date of the revised LMP will be managed under the terms of those oil and gas leases. Most existing leases are in the San Juan Basin portion of the SJPL; some existing leases are in the Paradox Basin portion of the SJPL. Neither the Revised LMP nor the USFS oil and gas leasing availability decision will change or limit the terms of the valid existing rights of those leases. The revised LMP and USFS oil and gas leasing availability decision will, however, provide for where and how oil and gas development may occur on future leases by identifying lands available for leasing and identifying where certain lease stipulation (restrictions) will apply to future leases on SJPL.

The planning area contains locations of known moderate to high potential energy reserves, some of which have been developed. Oil and gas production is a significant sector of local economies and affects most local residents through its favorable impact on local property taxes, as well as through its fiscal contribution to county tax bases and to local school systems. People are concerned about how to best balance the extraction of oil and gas with the protection of other resources and values.

The most likely areas for new fluid mineral leasing would be in currently unleased lands with moderate or high potential in the Paradox Basin and San Juan Sag. An evaluation of reasonably foreseeable development scenarios and production has been developed for the planning area and these lands. The areas most likely for new fluid mineral leasing are the same for all alternatives; however, due to the different composition of land allocations (i.e., MAs and lands recommended for Wilderness designation) and related constraints from the land allocations, the acres available for leasing vary by alternative and the number of wells projected to be developed varies slightly by alternative.

Within the planning area, lands are considered available for leasing, unless they are withdrawn, proposed for withdrawal, or administratively not available.

- **Withdrawn:** This legal classification refers to land designations made by the Department of Interior and/or Congress that preclude the appropriation and disposal of Federally-owned mineral resources under the Mineral Leasing Act of 1920, subject to valid existing rights. Minerals held under valid existing rights may still be extracted. For all alternatives and the No Lease Alternative, the lands withdrawn from mineral leasing include the designated Wilderness areas – Lizard Head Wilderness, Weminuche Wilderness, South San Juan Wilderness – and the Piedra Area. Combined they total 475,950 acres on Forest Service lands and are within Management Area 1.
- **Proposed for Withdrawal:** This classification refers to areas that the U.S. Forest Service desires to have legally precluded from appropriation under the Mineral Leasing Act of 1920. The Forest Service must submit a request to the Department of Interior via the Bureau of Land Management, as only Congress and the Department of Interior can legally withdraw Federally owned minerals from appropriation. Until the land is legally designated as withdrawn, the Forest Service can still, through its administrative authority, preclude new mineral material sales and mineral leases, but can not prevent new mining claims or deny the extraction of locatable minerals. Within the SJPL, areas recommended for Wilderness designation, and wild segments of rivers recommended for Wild and Scenic River designation are identified as “areas proposed for withdrawal” and occur within Management Area 1. The areas proposed for withdrawal vary by alternative because the acres recommended for Wilderness and Wild and Scenic River designations vary by alternative.
- **Administratively Not Available:** this classification applies to lands that the authorized officer has determined should not be leased for oil and gas based on potential for oil and gas occurrence and development, environmental factors, and/or other uses disclosed in this DEIS. This designation would apply only to lands not withdrawn from leasable mineral appropriation. Within the SJPL, four resource areas have been identified as administratively not available for oil and gas leasing because it would be detrimental to other resource values, and would not be able to be mitigated, including the following.
 - BLM WSAs are administratively not available in all alternatives for the purpose of ensuring that the Wilderness characteristics are protected until Congress acts to designate them for Wilderness or release them from their WSA status.
 - Chimney Rock, Anasazi, and Falls Creek Archeological Districts are administratively not available in all alternatives for the purpose of protecting the outstanding archeological values and landscape features that are integral to the sites’ integrity of setting and feeling.
 - Lands within the outcrop of the Fruitland Formation are administratively not available for the purpose of preventing or minimizing future methane seepage and water depletion impacts.
 - Lands identified as occupied Gunnison sage-grouse habitat are administratively not available for the purpose of protecting lek sites and nesting habitat for Gunnison sage grouse.
- **Available for Leasing:** This classification applies to lands that the authorized officer has determined can be leased for oil and gas based on potential for oil and gas occurrence and development, environmental factors, and/or other uses disclosed in this DEIS.

For lands available for leasing, stipulations are applied to describe how leasing would occur. In general, stipulations are applied to minimize adverse impacts specific to air, water, land, visual, cultural, and biological resources, and other land uses. The stipulation definitions below describe how leasing would occur:

- **No Surface Occupancy (NSO):** Use or occupancy of the land surface for fluid mineral (oil and gas) exploration or development is prohibited to protect identified resource values. However, oil and gas under lands affected by NSO stipulation are legally available for extraction if extraction can be accomplished without occupying the surface (such as through directional drilling or draining the deposit from adjacent lands). Technological limitations and higher costs will affect the recovery of these resources, but they are available. Within Alternatives B, C, and D, the NSO stipulation has been applied for specific resource conditions, as well as to Management Areas 1, 4, and 8.
- **Controlled Surface Use (CSU):** Use or occupancy of the land surface for fluid mineral (oil and gas) exploration or development is allowed (unless restricted by a Timing Limitation (TL) stipulation), but identified resource values require special operational constraints that may modify lease rights. A CSU stipulation allows the SJPL to require that a proposed facility or activity be relocated by more than 200 meters from the proposed location, if necessary to achieve the desired level of protection. CSU provides operating guidance but does not substitute for NSO or TL stipulations. CSU allows year-round occupancy and accessibility to leased lands while providing mitigation of effects on other resources.
- **Timing Limitations (TL):** Use or occupancy of the land surface for fluid mineral (oil and gas) exploration or development is prohibited during a specified period of the year. The scope of the TL stipulation goes beyond ground-disturbing activities to encompass any source of protracted or high-intensity disturbance that could interfere with normal wildlife behavior and adversely affect habitat use. The limitation is applied annually for a specified period lasting more than 60 days. The TL stipulation provides for partial accessibility for a portion of the year and maintains the potential for extraction of oil and gas, but may increase costs due to timing constraints (such as a short operating season).
- **Standard Lease Terms:** All SJPL oil and gas leases are subject to standard lease terms. These are the least restrictive terms under which an oil and gas lessee may operate. They require operators of oil and gas leases to minimize adverse impacts to air, water, land, visual, cultural, and biological resources and other land uses and users, and to comply with all applicable laws, regulations and formal orders of the agency managing the leased lands.

Alternative A continues current management direction for oil and gas leasing, i.e., lands available for leasing and stipulations would continue under the current leasing direction. For Alternatives B, C, and D (the action alternatives) the oil and gas leasing availability and stipulations have been revised. The resource values for which stipulations have been developed are consistently applied across Alternatives B, C, and D. For example, the NSO stipulation for steep slopes or riparian areas is applied consistently in Alternatives B, C, and D where those resource values are present. Areas where stipulations would apply have been mapped by alternative, and/or are described in Appendix H - Oil and Gas Leasing Stipulations. Standards and guidelines (found in Volume 2-DLMP) would also provide additional resource protection during ground-disturbing activities, including those related to oil and gas exploration and development.

While resource stipulations generally do not vary by alternative, differences in special area designations, management area composition, and unique landscapes do vary by alternative and, as a result, cause differences in lands available for leasing and acres stipulated by alternative.

The differences in areas recommended for Wilderness cause the greatest variance in acres available for leasing between Alternatives B, C, & D. For example, IRAs recommended for Wilderness are classified as “recommended for withdrawal,” thus removing those acres from the total acres available for leasing. Whereas, IRAs contained within MAs 1, 2 and 3 and not recommended Wilderness remain available for leasing and are stipulated with an NSO. The areas recommended for Wilderness vary by alternative, and thus, the lands available for leasing vary by alternative.

In Alternatives B, C, and D, Management Areas 1, 4, and 8 would be stipulated with “No Surface Occupancy” (NSO) to compliment the desired conditions for these MAs. For example, MA 1, where natural processes dominate, would not allow for road construction or surface disturbing activities. The recreation experience desired conditions for MA 4s (High-Use Recreation Emphasis) and MA 8s (Highly Developed Areas) would also be stipulated with NSO in order to mitigate impacts to the facilities, investment, and experiences these areas provide. In general MA 4 and MA 8 lands are recreation-based stipulations and include developed ski areas, national recreation and scenic trails, Scenic Byways, campgrounds, marinas and developed recreation sites, etc. Desired conditions related to scenery integrity objectives and recreation experiences are more restrictive to oil and gas development in these MAs. The amount of lands allocated to MA 1, 4 and 8s varies by alternative, and accordingly, the amount of NSO resulting from these MA designations varies by alternative.

Oil and gas development in MA 2s, 3s, 5s, and 7s could generally occur, and would be stipulated by resources (water, soils, habitat, etc.) rather than by management areas. However, MA 2s & 3s often have limitations on road construction, as well as other constraints that may limit or preclude development within them.

Stipulations have been developed for most of the special area designations and unique landscapes, such as Wild and Scenic Rivers, Areas of Critical Environmental Concern, RNAs, archaeological landscapes, botanical areas, etc., and in most cases are stipulated with NSO. Special areas and unique landscapes vary by alternative, and accordingly, vary the acres stipulated by alternative.

Table 2.6 - Oil and Gas Leasing Availability by Alternative on USFS and BLM Lands

OIL AND GAS LEASING AVAILABILITY ON SAN JUAN PUBLIC LANDS	Alternative A (No Action)	Alternative B (Preferred)	Alternative C	Alternative D	No Lease Alternative
<i>San Juan National Forest Fluid-Minerals - Oil and Gas (acres)</i>					
Acres Withdrawn From Leasing	480,953	480,953	480,953	480,953	480,953
Acres Proposed for Withdrawal	0	67,726	532,957	0	0
Acres Administratively Not Available for leasing	0	20,371	20,371	20,371	1,392,474
Acres Available for Leasing	1,392,474	1,304,377	839,146	1,372,103	0
No Surface Occupancy (NSO)	1,705	741,524	278,232	810,994	0
Controlled Surface Use (CSU)	169,485	248,636	265,420	235,850	0
CSU and Timing Limitations (TL)	559	77,176	73,089	69,843	0
Timing Limitations	1,390	69,935	67,826	71,693	0
Standard Lease Terms	1,219,355	167,106	154,579	183,723	0
<i>BLM Fluid-Minerals - Oil and Gas (acres)</i> <i>(figures are based on total mineral estate, including private surface)</i>					
Acres Withdrawn From Leasing	0	0	0	0	0
Acres Proposed for Withdrawal	0	0	0	0	0
Acres Administratively Not Available for Leasing	63,851	72,867	98,450	72,867	768,625
Acres Available for Leasing	704,804	695,758	670,175	695,758	0
No Surface Occupancy (NSO)	39,036	238,578	239,413	233,005	0
Controlled Surface Use (CSU)	201,022	55,286	55,153	56,947	0
CSU and Timing Limitations (TL)	57,641	12,762	12,521	15,831	0
Timing Limitations	113,915	264,019	238,095	264,782	0
Standard Lease Terms	293,160	125,113	124,993	125,194	0

2.8.1 ALTERNATIVE A - OIL AND GAS LEASING AVAILABILITY ON SJPL

Under Alternative A, approximately 2,642,000 acres of the planning area would be available (open) to leasing, excluding lands withdrawn, proposed for withdrawal, or administratively not available. Designated Wilderness areas and the Piedra Area are withdrawn by law from leasing. Alternative A continues current management and, therefore, no additional lands would be recommended for Wilderness or Wild and Scenic River designation and, therefore, there are no new areas recommended for withdrawal. Under current management, approximately 63,851 acres are administratively not available, consisting primarily of BLM WSAs.

Approximately 72% (1,512,545 acres) of the lands available for lease are stipulated with standard lease terms. Under Alternative A, most of the USFS IRAs would potentially be available for leasing, subject to restrictions required of the 2001 Roadless Area Conservation Rule, or to any new rule that might modify it. As with all alternatives, the most likely areas for new leases would be in currently unleased lands with moderate or high potential in the Paradox Basin and in the San Juan Sag. Approximately 167 wells are projected for development on future leases under Alternative A. Compared with all alternatives, Alternative A projects the greatest projection of wells considering the RFD and stipulations.

Table 2.7 discloses the leasing availability and stipulations for Forest Service and BLM lands within Alternative A.

Table 2.7 – Oil and Gas Leasing Availability on San Juan Public Lands for Alternative A
(figures are based on total mineral estate, including private surface)

OIL AND GAS AVAILABILITY	Forest Service	BLM	Total
Federal Mineral Acres	1,873,427	768,625	2,642,052
Acres Withdrawn from Leasing	480,953	0	480,953
Acres Proposed for Withdrawal	0	0	0
Acres Administratively Not Available for Leasing	0	63,851	63,851
Acres Available for Leasing	1,392,474	704,804	2,097,278
No Surface Occupancy	1,705	39,036	40,741
Controlled Surface Use	169,485	201,022	370,507
Controlled Surface Use/Timing Limitations	559	57,641	58,200
Timing Limitation	1,390	113,915	115,305
Standard Lease Terms	1,219,355	293,190	1,512,545
PROJECTED Wells on Unleased Lands	167	0	167
PROJECTED Road Miles for Projected Wells	56	0	56
PROJECTED Acres Disturbed for Projected Wells	550	0	550

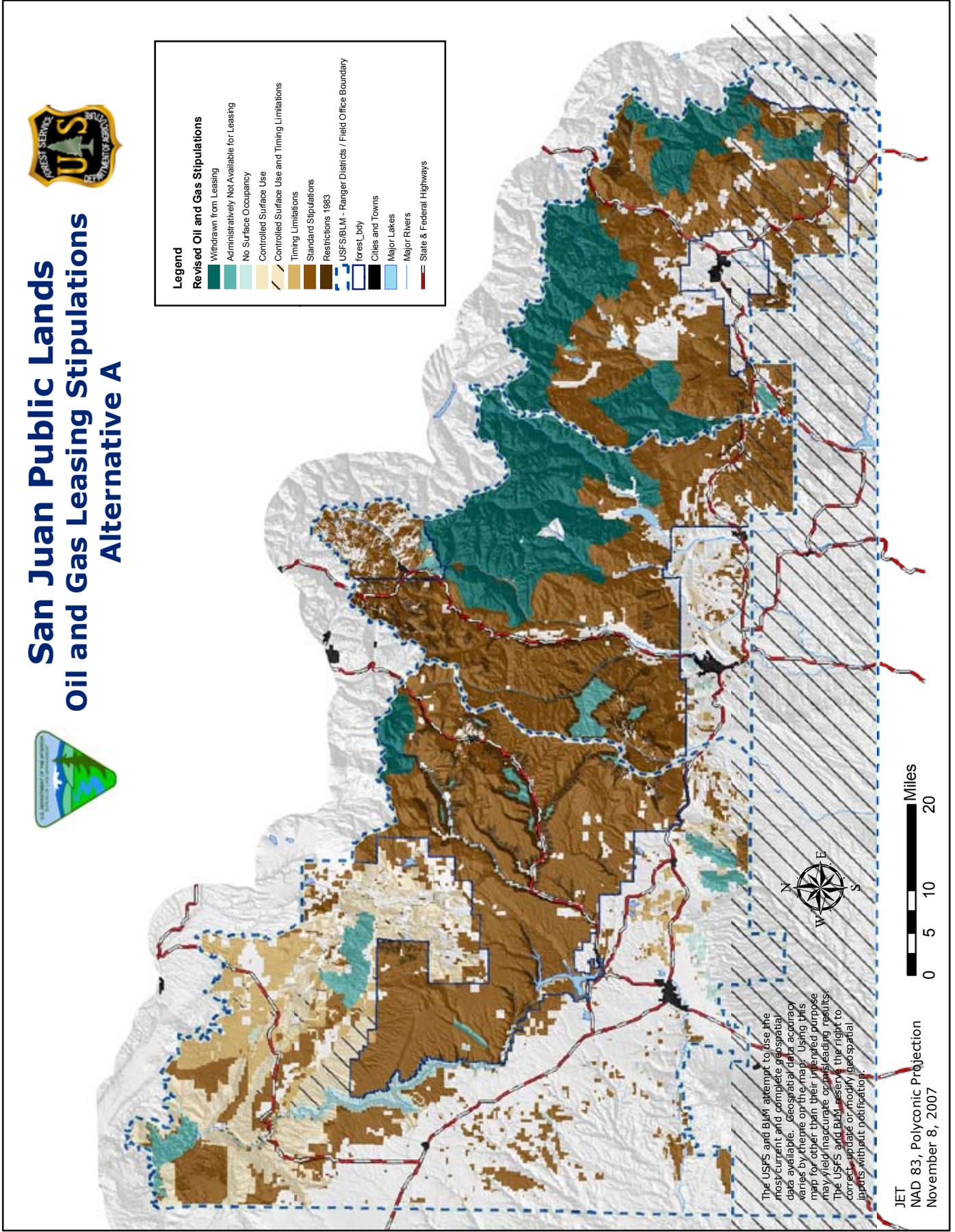
Summary of Leasing Availability on Forest Service Lands Under Alternative A

Alternative A continues current oil and gas leasing availability and stipulations on NFS lands. Accordingly, no additional lands would be recommended for Wilderness or Wild and Scenic River designation and, therefore, no lands are recommended for withdrawal. There are no NFS lands identified as administratively not available in Alternative A. Compared to the other alternatives, Alternative A has the most NFS lands available for leasing; approximately 1,392,474 acres, 88% of which have standard lease terms. Overall, on NFS lands, Alternative A is the least restrictive alternative, with NSO applied to 1,705 acres. Approximately 171,400 acres would be stipulated with CSU and TL stipulations, and approximately 1,219,300 acres with standard lease terms in Alternative A.

Under Alternative A, as with the other alternatives, the most likely areas for new leases would be in currently unleased lands with moderate or high potential on NFS lands in the Paradox Basin and in the San Juan Sag, both of which have expression of interest for oil and gas leasing. Development of approximately 167 wells is projected on future leases under Alternative A.

Figure 2.13 is a map that shows what lands would be open to leasing, what lands are withdrawn from leasing, what lands are administratively not available for leasing, and where the different categories of stipulations would apply on lands open to leasing under Alternative A.

Figure 2.13 - Oil and Gas Leasing Availability and Stipulations for Alternative A



2.8.2 ALTERNATIVE B - OIL AND GAS LEASING AVAILABILITY ON SJPL

Under Alternative B, approximately 2 million acres of the planning area would be available (open) to leasing, excluding lands withdrawn, proposed for withdrawal, or administratively not available. Designated Wilderness areas and the Piedra Area are withdrawn from leasing by law. Approximately 67,726 acres recommended for Wilderness or Wild and Scenic river designation (wild segments) would be proposed for withdrawal under Alternative B. Areas that are administratively not available total 93,238 acres. Based on the reasonably foreseeable development scenario (RFD), lands administratively not available have the following oil and gas resource potential:

- WSAs (BLM): approximately 55,400 acres are primarily located within moderate potential areas (62%) and high potential areas (29%);
- Chimney Rock, Anasazi and Chimney Rock archaeological sites, which occur predominately on NFS lands are primarily located within low potential areas (87%);
- The occupied Gunnison sage grouse areas are primarily located within moderate potential areas (70%) and high potential areas (30%); and
- The Fruitland Formation at the outcrop primarily occurs within high coalbed methane potential areas (71%).

In Alternative B, lands that have surface occupancy prohibited through application of No Surface Occupancy stipulation total approximately 987,000 acres, or 49% of the lands available for leasing. Approximately 46% of the NSO stipulations would be applied to IRAs and MA 1 areas, of which 63% occur within no to low potential areas. Soil-related stipulations comprise an additional 17% of NSO-stipulated lands in Alternative B, of which 43% occur in no to low potential areas and 34% occur in moderate potential areas. Recreation-related stipulations comprise approximately 11% of the NSO-stipulated land, of which 58% occur in no to low potential areas and 23% in moderate areas. The remaining stipulated NSO areas include protections for water, wildlife, scenery, archeological areas, ACECs and RNAs. Approximately 727,800 acres would be stipulated with CSU and TL stipulations, and approximately 219,200 acres with standard lease terms in Alternative B.

Under Alternative B, as with the other alternatives, the most likely areas for new leases would be in currently unleased lands with moderate or high potential on NFS lands in the Paradox Basin and in the San Juan Sag, both of which have expression of interest for oil and gas leasing. Development of approximately 158 wells is projected on future leases under Alternative B.

Table 2.8 discloses the leasing availability and stipulations for Forest Service and BLM lands within Alternative B.

Table 2.8 – Oil and Gas Leasing Availability on San Juan Public Lands for Alternative B
 (figures are based on total mineral estate, including private surface)

OIL AND GAS AVAILABILITY	Forest Service	BLM	Total
Federal Mineral Acres	1,873,427	768,625	2,642,052
Acres Withdrawn from Leasing	480,953	0	480,953
Acres Proposed for Withdrawal	67,726	0	67,726
Acres Administratively Not Available for Leasing	20,371	72,867	93,238
• Wilderness Study Areas	0	55,428	55,428
• Fruitland Formation	7130	2057	9187
• Archaeological Areas	13,241	200	13,441
• Gunnison Sage Grouse	0	15,182	15,182
Acres Available for Leasing	1,304,377	695,758	2,000,135
No Surface Occupancy	739,588	247,946	987,533
• IRAs	454,074	0	454,074
• Soils and Steep Slopes	91,858	80,217	172,075
• Recreation	64,045	42,618	106,663
• Scenery	44,128	1,979	46,107
• Other No Surface Occupancy Lands	87,419	113,764	201,183
Controlled Surface Use	248,636	55,286	303,922
Controlled Surface Use/Timing Limitations	77,176	12,762	89,938
Timing Limitation	69,935	264,019	333,954
Standard Lease Terms	167,106	125,113	292,219
PROJECTED Wells on Unleased Lands	158	0	158
PROJECTED Road Miles for Projected Wells	53	0	53
PROJECTED Acres Disturbed for Projected Wells	533	0	533

Summary of Leasing Availability on Forest Service Lands Under Alternative B

A total of 1,304,377 acres of NFS lands are available for leasing under Alternative B. Areas that are proposed for Wilderness and Wild and Scenic River designations (wild segments only) total approximately 67,726 NFS lands in Alternative B. Of the 93,238 acres administratively not available across the SJPL, 20,371 of those acres are on NFS lands within the Fruitland Formation and in archaeological areas. No Surface Occupancy stipulations on NFS lands constitute approximately 76% of the overall NSO-stipulated acres in Alternative B. Approximately xx% of the NSO stipulations would be applied to IRAs and MA 1 areas on NFS lands, of which 62% occur within no to low potential areas and 16% occur in moderate potential areas. Soil-related stipulations comprise an additional 12% of NSO stipulated NFS lands in Alternative B, of which 52% occur in no to low potential areas and 32% occur in moderate potential areas.

The remaining stipulated NSO areas include protections for water, wildlife, scenery, archeological areas, and RNAs. Approximately 395,700 acres would be stipulated with CSU and TL stipulations and approximately 167,000 acres with standard lease terms in Alternative B.

Under alternative B, the most likely areas for new leases would be in currently unleased lands with moderate or high potential on NFS lands in the Paradox Basin and in the San Juan Sag where there is an expression of interest for oil and gas leasing. Approximately 158 wells are projected on future leases under Alternative B, using existing roads for most of the access.

Figure 2.14 is a map that shows what lands would be open to leasing, what lands are withdrawn from leasing, what lands are administratively not available for leasing, and where the different categories of stipulations would apply on lands open to leasing under Alternative B.

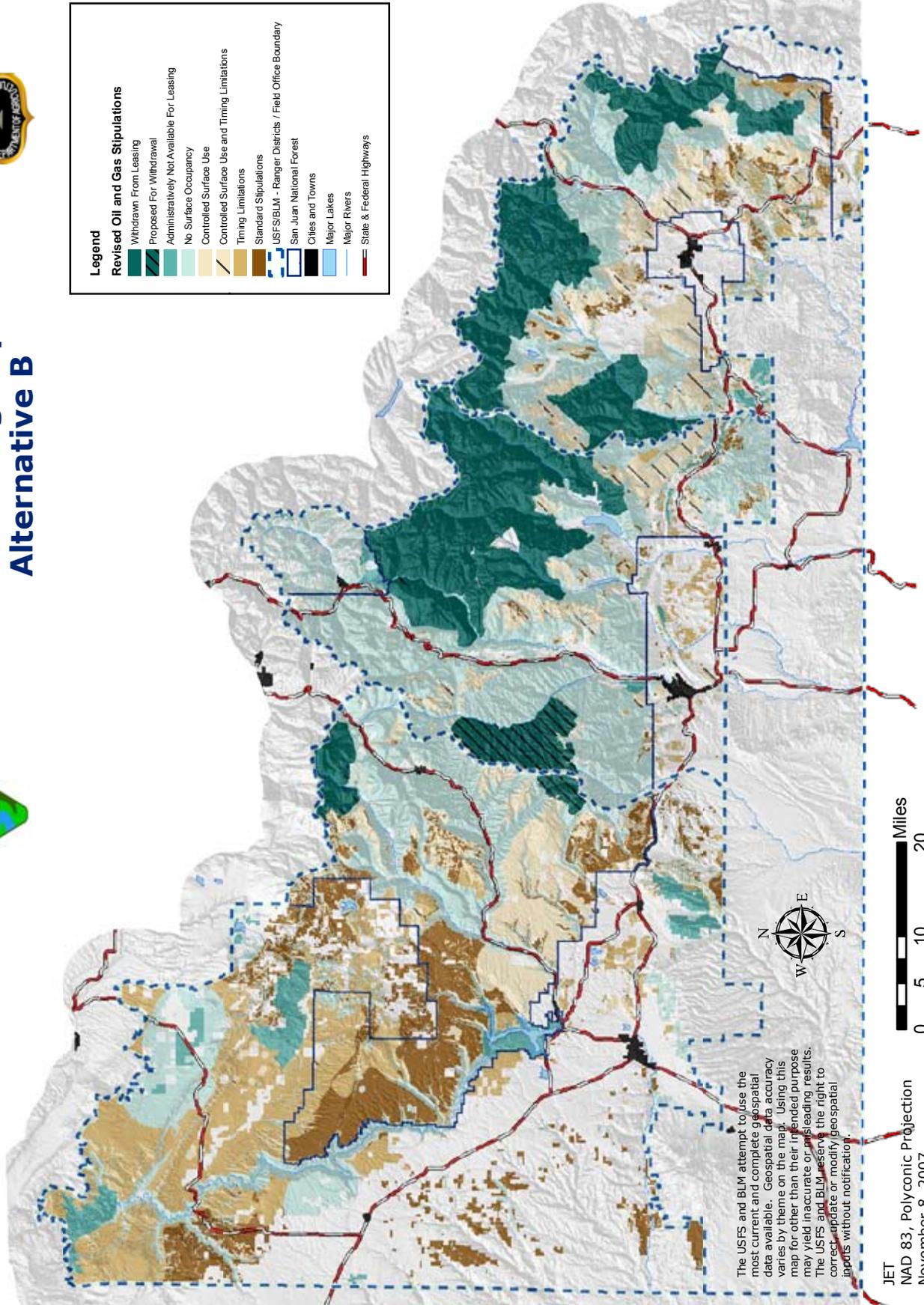
Figure 2.14 - Oil and Gas Leasing Availability and Stipulations for Alternative B

San Juan Public Lands Oil and Gas Leasing Stipulations Alternative B



Legend

- Withdrawn From Leasing
- Proposed For Withdrawal
- Administratively Not Available For Leasing
- No Surface Occupancy
- Controlled Surface Use
- Controlled Surface Use and Timing Limitations
- Timing Limitations
- Standard Stipulations
- USFS/BLM - Ranger Districts / Field Office Boundary
- San Juan National Forest
- Cities and Towns
- Major Lakes
- Major Rivers
- State & Federal Highways



The USFS and BLM attempt to use the most current and complete geospatial data available. Geospatial data accuracy varies by theme on the map. Using this map for other than their intended purpose may yield inaccurate or misleading results. The USFS and BLM reserve the right to correct, update or modify geospatial inputs without notification.

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2.8.3 ALTERNATIVE C - OIL AND GAS LEASING AVAILABILITY ON SJPL

Under Alternative C, approximately 1.5 million acres of the planning area would be available (open) to leasing, excluding lands withdrawn, proposed for withdrawal, or administratively not available. Designated Wilderness areas and the Piedra Area are withdrawn from leasing by law. The approximately 533,000 acres that are recommended for Wilderness or Wild and Scenic river designation (wild river segments) would be proposed for withdrawal under Alternative C, thereby removing 20% of the lands from availability. Seventy-one percent of these areas occur in no or low potential areas. Areas that are administratively not available total approximately 138,500 acres. Based on the Reasonably Foreseeable Development Scenario (RFD), lands administratively not available have the following oil and gas resource potential:

- WSAs (BLM): approximately 55,400 acres are primarily located within moderate potential areas (62%) and high potential areas (29%);
- Chimney Rock, Anasazi and Chimney Rock archaeological areas, which occur predominately on NFS lands, are primarily located within low potential areas (87%);
- The occupied Gunnison sage grouse areas are primarily located within high potential areas (62%) and moderate potential areas (38%). Lands administratively not available under Alternative C for occupied Gunnison sage grouse include the Federal mineral estate under the Coalbed Canyon, Dry Creek Basin, and Dan Noble State Wildlife areas.
- The Fruitland Formation at the outcrop primarily occurs within high coalbed methane potential areas (71%).

Lands that have surface occupancy prohibited through application of No Surface Occupancy stipulation in Alternative C total approximately 517,645 acres, or 34% of the lands available for leasing. Soil-related stipulations comprise the greatest amount (31%) of the NSO stipulated lands in Alternative C, of which 45% occur in no to low potential areas and 34% occur in moderate potential areas. Whereas, in Alternatives B and D the greatest NSO resource allocation would be for IRAs; Alternative C recommends more IRAs for Wilderness and, thus, they would be proposed for withdrawal rather than stipulated with an NSO. The remaining IRAs and MA 1s in Alternative C are stipulated with an NSO. No Surface Occupancy stipulations related to recreation and scenery desired conditions, including MA 4s and 8s, comprise an additional 30% of NSO-stipulated acres in Alternative C, of which approximately 60% occur in no to low potential areas. The remaining NSO-stipulated areas include protections for water, wildlife, scenery, archeological areas, ACECs and RNAs. Approximately 712,000 acres would be stipulated with CSU and TL stipulations and approximately 279,600 acres with standard lease terms in Alternative C.

Under Alternative C, as with the other alternatives, the most likely areas for new leases would be in currently unleased lands with moderate or high potential on NFS lands in the Paradox Basin and in the San Juan Sag, both of which have expression of interest for oil and gas leasing. Development of approximately 148 wells is projected on future leases under Alternative C.

Table 2.11 discloses the leasing availability and stipulations for Forest Service and BLM lands within Alternative C.

Table 2.9 – Oil and Gas Leasing Availability on San Juan Public Lands for Alternative C

(figures are based on total mineral estate, including private surface)

OIL AND GAS AVAILABILITY	Forest Service	BLM	Total
Federal Mineral Acres	1,873,427	768,625	2,642,052
Acres Withdrawn from leasing	480,953	0	480,953
Acres Proposed for Withdrawal	532,957	0	532,957
Acres Administratively Not Available for Leasing	20,371	98,450	118,821
• Wilderness Study Areas	0	55,428	55,428
• Fruitland Formation	7130	1772	8902
• Archaeological Areas	13,241	259	13,500
• Gunnison Sage Grouse	0	40,991	40,991
Acres Available for Leasing	839,146	670,175	1,509,321
No Surface Occupancy	278,232	239,413	517,645
• IRAs	25,534	0	25,534
• Soils and Steep Slopes	83,920	78,929	162,850
• Recreation	46,722	31,954	78,676
• Scenery	75,878	2,393	78,271
• Other No Surface Occupancy Lands	46,178	126,137	172,314
Controlled Surface Use	265,420	55,153	320,573
Controlled Surface Use/Timing Limitations	73,089	12,521	85,610
Timing Limitation	67,826	238,095	305,921
Standard Lease Terms	154,579	124,993	279,572
PROJECTED Wells on Unleased Lands	148	0	148
PROJECTED Road Miles for Projected Wells	50	0	50
PROJECTED Acres Disturbed for Projected Wells	487	0	487

Summary of Leasing Availability on Forest Service Lands Under Alternative C

In Alternative C, approximately 839,000 NFS lands are available for leasing. Aside from the No Lease Alternative, Alternative C has the least amount of acres available of all alternatives. Alternative C recommends the most Wilderness and Wild and Scenic river designations (wild segments), resulting in approximately 533,000 acres that would be proposed for withdrawal and removed from availability. Of the approximately 118,800 acres administratively not available across the SJPL, only 20,371 of those acres are on NFS lands and include Fruitland Formation and archaeological areas. In Alternative C, approximately 278,000 acres would be stipulated with NSO stipulations on NFS lands. Soil-related stipulations comprise 29% of NSO stipulated NFS lands in Alternative C, of which 54% occur in no to low potential areas and 32% occur in moderate potential areas. Recreation-related stipulations comprise 16% of the NSO stipulated NFS lands Alternative C, 79% of which occur in no to low potential areas. The remaining stipulated NSO areas include protections for water, wildlife, scenery, archaeological areas, and RNAs. Approximately 406,300 acres would be stipulated with CSU and TL stipulations, and approximately 154,500 acres with standard lease terms in Alternative C.

Under Alternative C, the most likely areas for new leases would be in currently unleased lands with moderate or high potential on NFS lands in the Paradox Basin and in the San Juan Sag, where there is an expression of interest for oil and gas leasing. Approximately 148 wells are projected on future leases under Alternative C, using existing roads for most of the access.

Figure 2.15 is a map that shows what lands would be open to leasing, what lands are withdrawn from leasing, what lands are administratively not available for leasing, and where the different categories of stipulations would apply on lands open to leasing under Alternative C.

Figure 2.15 - Oil and Gas Leasing Availability and Stipulations for Alternative C



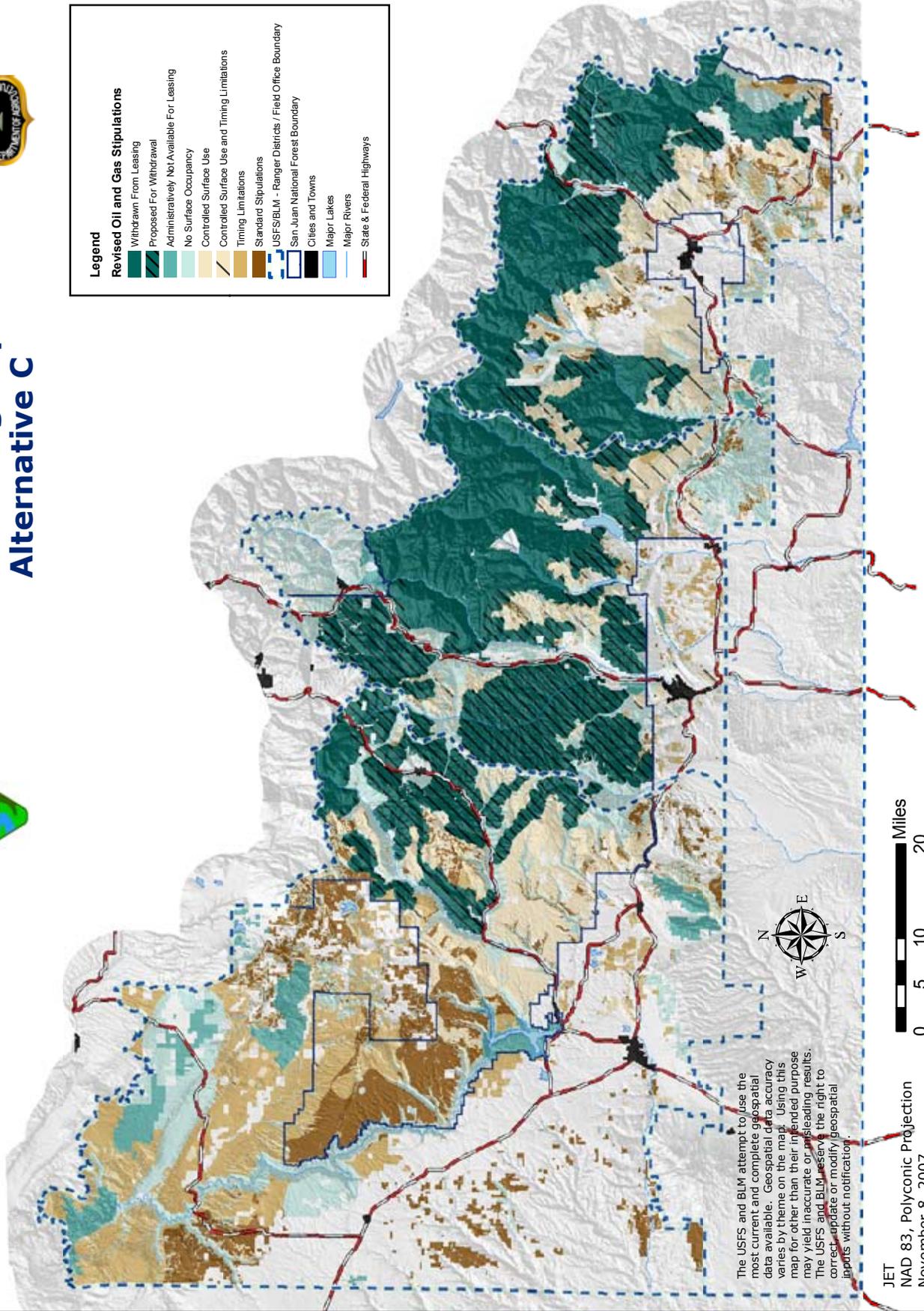
San Juan Public Lands Oil and Gas Leasing Stipulations Alternative C



Legend

Revised Oil and Gas Stipulations

- Withdrawn From Leasing
- Proposed For Withdrawal
- Administratively Not Available For Leasing
- No Surface Occupancy
- Controlled Surface Use
- Controlled Surface Use and Timing Limitations
- Timing Limitations
- Standard Stipulations
- USFS/BLM - Ranger Districts / Field Office Boundary
- San Juan National Forest Boundary
- Cities and Towns
- Major Lakes
- Major Rivers
- State & Federal Highways



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2.8.4 ALTERNATIVE D - OIL AND GAS LEASING AVAILABILITY ON SJPL

Under Alternative D, approximately 2,067,000 acres of the planning area would be available (open) to leasing, excluding lands withdrawn, proposed for withdrawal, or administratively not available. Designated Wilderness areas and the Piedra Area are withdrawn from leasing by law. In Alternative D, no lands are recommended for Wilderness or Wild and Scenic River designation and, therefore, no lands are recommended for withdrawal. Areas that are administratively not available total approximately 93,200 acres. Based on the Reasonably Foreseeable Development Scenario (RFD) lands administratively not available have the following oil and gas resource potential:

- WSAs (BLM): approximately 55,400 acres are primarily located within moderate potential areas (62%) and high potential areas (29%);
- Chimney Rock, Anasazi and Chimney Rock archaeological areas are primarily located within low potential areas (87%);
- The occupied Gunnison sage grouse areas are primarily located within moderate potential areas (70%) and high potential areas (30%); and
- The Fruitland Formation at the outcrop primarily occurs within high coalbed methane potential areas (71%).

Many lands classified as administratively not available under Alternatives B and C (due to Wilderness recommendation) would be stipulated for NSOs under Alternative D. In Alternative D lands that have surface occupancy prohibited through application of No Surface Occupancy stipulation total approximately 1,044,000 acres, or 50% of the lands available for leasing. Approximately 48% of the NSO-stipulated areas would be applied to IRAs and MA 1 lands, of which 65% occur within no to low potential areas. Soil-related stipulations comprise an additional 16% of the total NSO lands in Alternative D, of which 44% occur in no to low potential areas and 34% occur in moderate potential areas. Recreation-related stipulations, including MA 4 and 8 lands comprise 10% of the NSO-stipulated lands in Alternative D, of which 59% occur in no to low potential areas and 23% in moderate potential areas. The remaining stipulated NSO areas include protections for water, wildlife, scenery, archaeological areas, vegetation and RNAs. Approximately 715,000 acres would be stipulated with CSU and TL stipulations and approximately 309,000 acres with standard lease terms in Alternative D. This alternative has approximately the same acres where standard lease terms would apply as Alternative B, significantly less standard lease acres than Alternative A, and more standard lease acres than Alternative C.

Under Alternative D, as with the other alternatives, the most likely areas for new leases would be in currently unleased lands with moderate or high potential on NFS lands in the Paradox Basin and in the San Juan Sag, both of which have expression of interest for oil and gas leasing. Development of approximately 165 wells is projected on future leases under Alternative B.

Table 2.12 discloses the leasing availability and stipulations for Forest Service and BLM lands within Alternative D.

Table 2.10 – Oil and Gas Leasing Availability on San Juan Public Lands for Alternative D

(figures are based on total mineral estate, including private surface)

OIL AND GAS AVAILABILITY	Forest Service	BLM	Total
Federal Mineral Acres	1,873,427	768,625	2,642,052
Acres Withdrawn from leasing	480,953	0	480,953
Acres Proposed for Withdrawal	0	0	0
Acres Administratively Not Available for Leasing	20,371	72,867	93,238
• Wilderness Study Areas	0	55,428	55,428
• Fruitland Formation	7130	2057	9187
• Archaeological Areas	13,241	200	13,441
• Gunnison Sage Grouse	0	15,182	15,182
Acres Available for Leasing	1,372,103	695,758	2,067,861
No Surface Occupancy	810,994	233,005	1,043,999
• IRAs	504,021	0	504,021
• Soils and Steep Slopes	84,697	80,229	164,926
• Recreation	64,350	42,626	106,977
• Scenery	68,885	2,458	71,343
• Other No Surface Occupancy Lands	89,041	107,692	196,733
Controlled Surface Use	235,850	56,947	292,797
Controlled Surface Use/Timing Limitations	69,843	15,831	85,674
Timing Limitation	71,693	264,782	336,475
Standard Lease Terms	183,723	125,194	308,917
PROJECTED Wells on Unleased Lands	165	0	165
PROJECTED Road Miles for Projected Wells	55	0	55
PROJECTED Acres Disturbed for Projected Wells	545	0	545

Summary of Leasing Availability on Forest Service Lands under Alternative D

In Alternative D, approximately 1,372,100 acres on NFS lands are available for leasing, just slightly fewer acres than Alternative A. Alternative D does not propose any lands for withdrawal. Of the 93,238 acres administratively not available across the SJPL, only 20,371 of those acres are on NFS lands, and include the Fruitland Formation and archaeological areas. In Alternative D, approximately 811,000 acres would be stipulated with NSO stipulations on NFS lands. Approximately 62% of the NSO stipulations would be applied to IRAs and MA 1 lands, of which approximately 65% occur within no to low potential areas. Soil-related stipulations comprise an additional 10% of NSO stipulated NFS lands in Alternative D, of which 54% occur in no to low potential areas and 34% occur in moderate potential areas. Recreation-related stipulations comprise 8% of the NFS lands in alternative D, 33% of which occur in no to low potential areas. The remaining stipulated NSO areas include protections for water, wildlife, scenery, archeological areas, vegetation and RNAs. Approximately 377,400 acres would be stipulated with CSU and TL stipulations and approximately 183,700 acres with standard lease terms in Alternative D.

Under Alternative D, the most likely areas for new leases would be in currently unleased lands with moderate or high potential on NFS lands in the Paradox Basin and in the San Juan Sag, where there is an expression of interest for oil and gas leasing. Approximately 165 wells are projected on future leases under Alternative D, using existing roads for most of the access.

Figure 2.16 is a map that shows what lands would be open to leasing, what lands are withdrawn from leasing, what lands are administratively not available for leasing, and where the different categories of stipulations would apply on lands open to leasing under Alternative D.

Figure 2.16 - Oil and Gas Leasing Availability and Stipulations for Alternative D

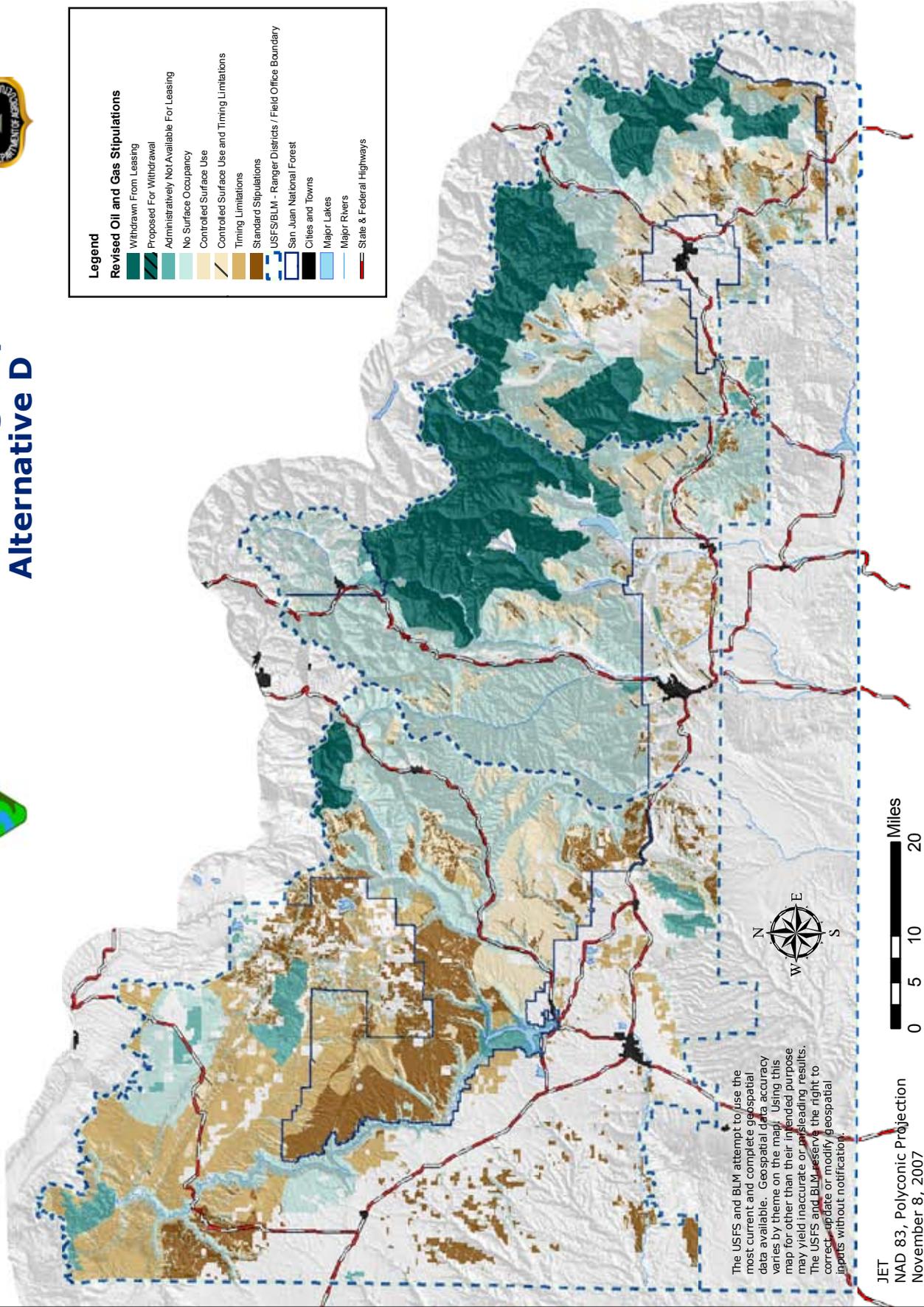


San Juan Public Lands Oil and Gas Leasing Stipulations Alternative D



Legend

- Withdrawn From Leasing
- Proposed For Withdrawal
- Administratively Not Available For Leasing
- No Surface Occupancy
- Controlled Surface Use
- Timing Limitations
- Standard Stipulations
- USFS/BLM - Ranger Districts / Field Office Boundary
- San Juan National Forest
- Cities and Towns
- Major Lakes
- Major Rivers
- State & Federal Highways



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2.8.5 NO LEASE ALTERNATIVE

The no-leasing alternative is analyzed in compliance with 36 CFR 228.102(c)(2)&(3) which requires the Forest Service, when considering oil and gas leasing, to analyze an alternative of not leasing. Under this alternative acres withdrawn from leasing would be 480,953 acres. The remaining NFS lands (1,392,474 acres) and BLM lands (768,625 acres) would be administratively not available for leasing. Under this alternative, only existing leases would continue to be developed. Any new leases would be deferred, pending a new analysis and decision.

Under this alternative, no lands would be available for lease; either currently unleased lands or leased lands when existing leases expire. As a result, part of the Reasonably Foreseeable Development scenario would not be implemented. Of the 1,185 wells projected in the RFD, 170 wells would be affected and not drilled because leases would not be issued in unleased areas of projected development. All other development projected in the RFD would occur on existing leases unaffected by this leasing analysis. Only when the existing leases expire would the leasing decision made in the LMP revisions apply. A new decision, supported by the appropriate analysis, could change such a decision and make the lands available for leasing.

Table 2.11 – Oil and Gas Leasing Availability on San Juan Public Lands for the No-Leasing Alternative

(figures are based on total mineral estate, including private surface)

OIL AND GAS AVAILABILITY	Forest Service	BLM	Total
Federal Mineral Acres	1,873,427	768,625	2,642,052
Acres Withdrawn From Leasing	480,953	0	480,953
Acres Proposed for Withdrawal	0	0	0
Acres Administratively Not Available for Leasing	1,392,474	768,625	2,161,099
Acres Available for Leasing	0	0	0
PROJECTED Wells on Unleased Lands	0	0	0
PROJECTED Road Miles for Projected Wells	0	0	0
PROJECTED Acres Disturbed for Projected Wells	0	0	0

Figure 2.17 - Oil and Gas Leasing Availability and Stipulations for the No Lease Alternative



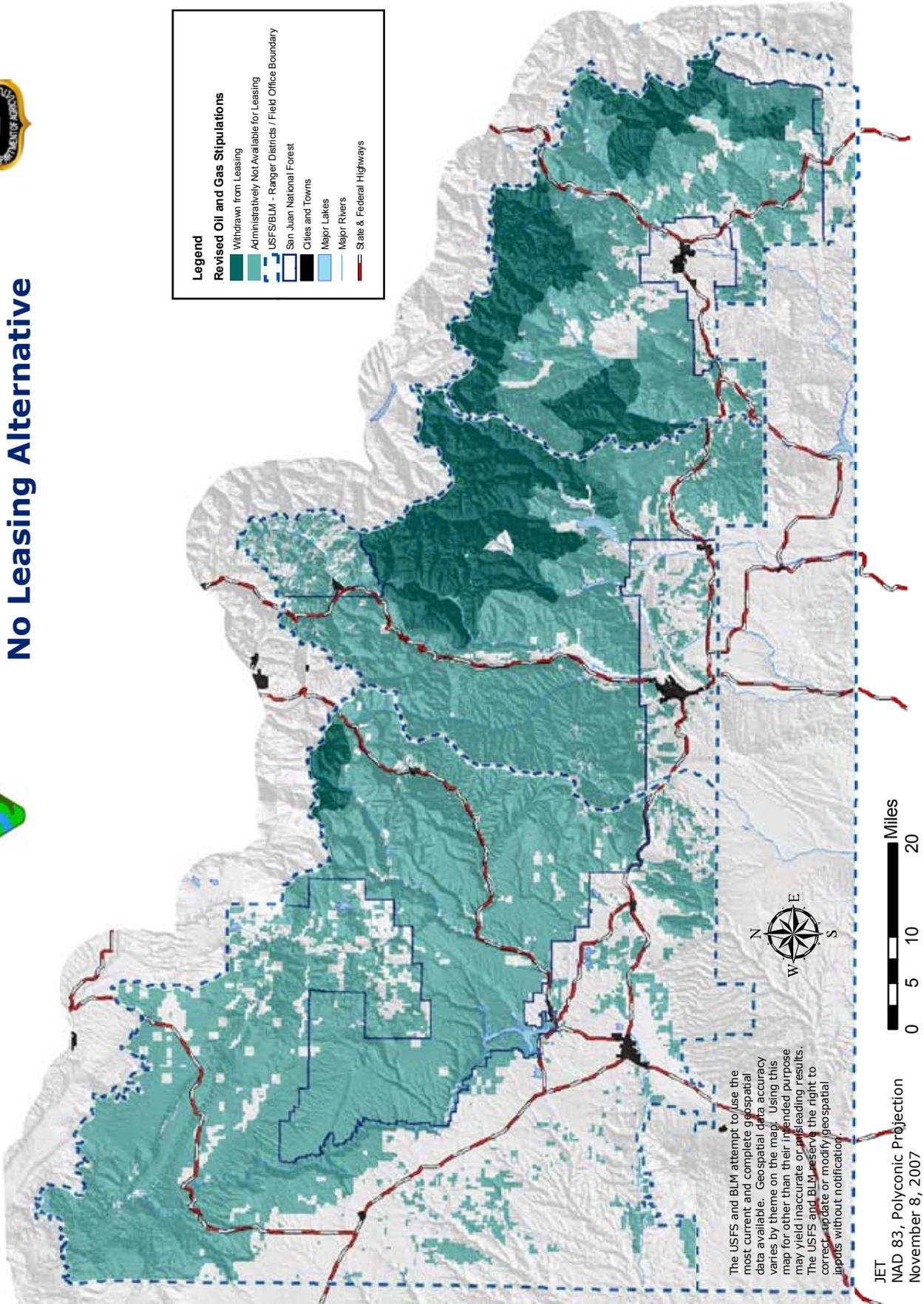
San Juan Public Lands Oil and Gas Leasing Stipulations No Leasing Alternative



Legend

Revised Oil and Gas Stipulations

- Withdrawn from Leasing
- Administratively Not Available for Leasing
- USFS/BLM - Ranger Districts / Field Office Boundary
- San Juan National Forest
- Cities and Towns
- Major Lakes
- Major Rivers
- State & Federal Highways



The USFS and BLM attempt to use the most current and complete geospatial data available. Geospatial data accuracy varies by theme on the map. Using this map for other than their intended purpose may yield inaccurate or misleading results. The USFS and BLM reserve the right to correct, update or modify geospatial inputs without notification.

JET
NAD 83, Polyconic Projection
November 8, 2007

Table 2.9.1 (MA 1) - Management Area Allocations

MANAGEMENT AREA ALLOCATIONS	Alternative A (No Action)	Alternative B (Preferred)	Alternative C	Alternative D
<i>Management Area Allocation (acres)</i>				
<p>MA 1 - Natural Processes Dominate</p> <p>These relatively pristine lands are places where natural ecological processes operate free from human influences. Succession, fire, insects, disease, floods, and other natural processes and disturbance events shape the composition, structure, and landscape pattern of the vegetation. Roads and human structures are absent.</p> <p>All alternatives include: 420,522 areas currently in the National Wilderness Preservation System, the 60,341-acre Piedra Area that was established by the 1993 Colorado Wilderness Act (managed in order to maintain wilderness characteristics), and 55,428 acres of BLM Wilderness Study Areas (WSAs).</p> <p>The BLM Wilderness Study Areas would continue to be managed as Management Area (MA 1), even if they are released from WSA status by legislation.</p> <p>A primary difference in MA 1 allocation among the alternatives relates to the portion of Inventoried Roadless Areas to be managed as MA 1.</p>	<p>Alternative A would focus on maintaining management flexibility, and on resolving issues on a case-by-case basis. It would place the least amount of emphasis on maintaining core undeveloped areas, when compared with any other alternative. In addition to the wilderness, WSA and Piedra Area, the only other area managed as MA 1 would be the segment of the Piedra River, outside of the Weminuche and Piedra Area that was found suitable for inclusion in the National Wild and Scenic Rivers (WSR) System.</p>	<p>Alternative B would provide a balance between maintaining most of the large, contiguous blocks of undeveloped lands and maintaining working forests and rangelands. Under Alternative B, some Inventoried Roadless Areas (IRAs) would be managed as MA 1.</p>	<p>Alternative C would provide a primary emphasis on maintaining most of the large, contiguous blocks of undeveloped lands. Under Alternative C, most of the IRAs would be managed as MA 1. Much of the area that would be managed as MA 3 under the other alternatives would be managed as MA 1 under Alternative C.</p>	<p>Alternative D would place the greatest emphasis on commodity production and utilization. Under Alternative D, most of the IRAs would be managed as MA 3 and a few as MA 5, rather than as MA 1.</p>
	Total = 538,658	Total = 652,307	Total = 1,080,621	Total = 553,786

Table 2.9.1 (MA 2) - Management Area Allocations

MANAGEMENT AREA ALLOCATIONS	Alternative A (No Action)	Alternative B (Preferred)	Alternative C	Alternative D
<i>Management Area Allocation (acres)</i>				
<p>MA 2 - Special Areas and Unique Landscape Areas</p> <p>These areas possess one or more special features or characteristics that make them and their management unique from other areas of the San Juan Public Lands.</p>	Alternative A would continue current special area designations. No new special area designations would occur.	Alternative B would provide additional opportunities for special designations while, at the same time, emphasizing a balanced approach to multiple-use.	Alternative C would place the greatest emphasis on opportunities for special designations.	Alternative D would provide for a limited number of opportunities for special designations while, at the same time, emphasizing resource utilization and multiple-use.
	Total = 100,755	Total = 193,497	Total = 198,506	Total = 151,035

Table 2.9.1 (MA 3) - Management Area Allocations

MANAGEMENT AREA ALLOCATIONS	Alternative A (No Action)	Alternative B (Preferred)	Alternative C	Alternative D
<i>Management Area Allocation (acres)</i>				
<p>MA 3 - Natural Landscape, with Limited Management</p> <p>Management activities are allowed but limited on MA 3 lands, reserved primarily for restoration purposes brought about by natural disturbance events or past management actions. Management activities could include restoration of ecological conditions or habitat components, prescribed fire, wildland fire use, salvage logging, hazardous fuels reduction, invasive species reduction, elimination of man-made structures, or livestock grazing improvements.</p> <p>A primary difference in MA 3 allocation among the alternatives relates to the portion of Inventoried Roadless Areas to be managed as MA 3. Alternative A, based on current plans, would provide a wider range of management activities and uses under MA 3 allocations.</p>	Alternative A, based on current plans, would provide a wider range of management activities and uses under MA 3 allocations.	Alternative B would manage more of the USFS IRAs as MA 3 (allowing more options for fuels reduction and for forest health management), than would Alternative C.	Alternative C would manage most of the USFS IRAs as MA 1, when compared to all of the other alternatives.	Alternative D would manage most of the USFS IRAs as MA 3 (allowing more options for fuels reduction and for forest health management). About 45,000 acres in 4 inventoried IRAs would be managed as MA 5, rather than as MA 1 or as MA 3.
	Total = 891,718	Total = 822,143	Total = 472,010	Total = 788,289

Table 2.9.1 (MA 4) - Management Area Allocations

MANAGEMENT AREA ALLOCATIONS	Alternative A (No Action)	Alternative B (Preferred)	Alternative C	Alternative D
<i>Management Area Allocation (acres)</i>				
<p>MA 4 - High-Use Recreation Emphasis</p> <p>Note: In terms of allocated acreage, the significant difference under Alternative A from the other alternatives is, in part, due to a different approach toward recreation management and mapping.</p> <p>Under Alternatives B, C, and D, MA 4 allocations would be applied to popular recreation destinations (e.g., lakes, campgrounds, day-use areas, etc.) and to popular driving and scenic routes (e.g., the San Juan Skyway, Alpine Loop, Piedra Road, etc.).</p>	Alternative A would continue current management, in terms of recreation emphasis.	Alternative B would manage popular recreation destinations and scenic routes as MA 4, such as lakes, campgrounds, day-use areas, the San Juan Skyway, Alpine Loop, Piedra Road, etc.).	Alternative B would have fewer areas and routes identified as MA 4, and would have fewer areas managed for developed and directed recreation experiences (allowing more undeveloped and unmanaged recreation opportunities).	Alternative D would manage popular recreation destinations and scenic routes as MA 4, similar to the areas and to the emphasis of Alternative B, with the addition of McPhee reservoir.
	Total = 148,465	Total = 79,603	Total = 54,768	Total = 86,241

Table 2.9.1 (MA 5) - Management Area Allocations

MANAGEMENT AREA ALLOCATIONS	Alternative A (No Action)	Alternative B (Preferred)	Alternative C	Alternative D
<i>Management Area Allocation (acres)</i>				
<p>MA 5 - Active Management (commodity production in order to meet multiple-use goals)</p> <p>In general these multiple-use areas are easily accessible, occurring mostly on roaded landscapes with gentle terrain. These are lands where timber production, oil and gas activities, and intensive livestock grazing occur and influence the composition, structure, and landscape pattern of the vegetation. Natural ecological processes and disturbance agents including succession and fire are often influenced by humans on many of these lands. A mosaic of vegetation conditions is often present, some showing the effects of past management activities, others appearing predominantly natural.</p>	Alternative A would manage 119,107 acres of USFS IRAs as MA 5, which would be the highest amount of any of the alternatives. Current management direction within these areas would continue for multiple-use and resource utilization.	Alternative B would provide a balance between maintaining most of the large, contiguous blocks of undeveloped lands and maintaining working forests and rangelands. Under Alternative B, road construction and commercial timber sales would be concentrated in the currently roaded areas. No Inventoried Roadless Areas would be contained within MA 5 under Alternative B.	Under Alternative C, production of goods from vegetation management would continue, but might be secondary to other non-commodity objectives. No Inventoried Roadless Areas would be contained within MA5 under Alternative C.	Alternative D would provide a mix of multiple-use activities with a primary emphasis on the working forest and rangelands, in order to produce the highest amounts of commodity, goods, and services. Alternative D would have the highest amount of lands managed as MA 5, including approximately 45,000 of Inventoried Roadless Acres.
	Total = 675,014	Total = 529,413	Total = 487,299	Total = 682,632

Table 2.9.1 (MA 7) - Management Area Allocations

MANAGEMENT AREA ALLOCATIONS	Alternative A (No Action)	Alternative B (Preferred)	Alternative C	Alternative D
<i>Management Area Allocation (acres)</i>				
<p>MA 7 - Public and Private Lands Intermix</p> <p>These areas are places where the SJPL are in close proximity to private lands, communities and local governments and the houses, structures, people, and values associated with them. The close proximity of these areas to private lands makes them a priority for fuels and vegetation treatments to reduce wildfire hazards. The backyard or rural recreation setting provided by many of these lands is an amenity to the active lifestyles and quality of life for local residents. Winter range for deer and elk is a common component as are seasonal closures to reduce animal disturbance.</p>	<p>The pressures from urban development on the boundaries of the public lands were not addressed in previous land use plans; therefore, under Alternative A (which would continue current management), the emphasis on this type of management would be limited.</p>	<p>Alternative B would provide for resource management and increased coordination with adjacent lands. MA 7 areas most commonly occur along the public land boundaries that are commonly intermixed with private and other public lands.</p>	<p>Alternative C would manage as MA 7 most of the same lands as that proposed under Alternatives B; however, a few areas would be managed as MA 3 and thereby not as intensely managed as MA 7.</p>	<p>Alternative D would manage slightly more areas as MA 7 than Alternative B.</p>
	Total = 0	Total = 81,756	Total = 71,929	Total = 89,116

Table 2.9.1 (MA 8) - Management Area Allocations

MANAGEMENT AREA ALLOCATIONS	Alternative A (No Action)	Alternative B (Preferred)	Alternative C	Alternative D
<i>Management Area Allocation (acres)</i>				
<p>MA 8 - Highly Developed Areas (e.g., downhill ski areas and dams)</p>	<p>Alternative A would continue with current management, and would include the two currently permitted downhill ski areas, as well as the three potential ski areas identified in the current land use plans.</p>	<p>Alternative B would drop the three potential ski areas, two of which are defunct. Alternative B would maintain the two currently permitted areas.</p>	<p>Alternative C would limit downhill ski areas to those currently permitted (within the boundaries of current development).</p>	<p>Alternative D would retain one of the potential ski areas and drop the two potential areas that are now defunct. It would also provide for an expansion of the Wolf Creek Ski Area. Alternative D would maintain the two currently permitted areas.</p>
	Total = 14,475	Total = 7,395	Total = 3,952	Total = 17,986
TOTAL MA ACRES	2,369,085	2,369,085	2,369,085	2,369,085

Table 2.9.2 - Resource and Program Management Activities

Resource and Program Management Activities ¹	Alternative A (No Action)	Alternative B (Preferred)	Alternative C	Alternative D
Timber: Long-Term Sustained-Yield Capacity (LTSYC) <i>million cubic feet/million board feet (MMCF/MMBF) (average annual value for first decade)</i>				
Timber production compatible with desired conditions and objectives	11.25 / 46	8.6 / 35.8	8.0 / 33.3	9.67 / 40.3
Other lands (timber harvesting in order to meet resource and area desired conditions and objectives, but not for production purposes)	2 / 7.7	2 / 7.7	.93 / .75	2 / 7.7
Timber Sale Program Quantity (TSPQ) <i>MMCF/MMBF (average annual value for first decade)</i>				
Timber production compatible with desired conditions and objectives	2.2 / 11*	2.2 / 11.0	2.0 / 10	2.8 / 14
Other lands (timber harvesting in order to meet resource and area desired conditions and objectives, but not for production purposes)	2 / 1	.2 / 1	.08 / .4	.2 / 1
Timber: Allowable Sale Quantity (ASQ) <i>MMCF/MMBF (average annual value for first decade)</i>				
Allowable sale quantity	4.8 / 24	4.0 / 20	3.8 / 19	4.6 / 23
Livestock Grazing: Permitted Animal Unit Months (AUMs)				
Sheep: Permitted AUMs (USFS)	8,754	8,754	6,456	21,783
Sheep: Permitted AUMs (BLM)	2,204	2,204	0	2,241
<i>Total Sheep AUMs</i>	10,958	10,958	6,456	24,024
Cattle: Permitted AUMs (USFS)	115,312	115,312	112,554	117,791
Cattle: Permitted AUMs (BLM)	22,101	22,100	16,530	22,290
<i>Total Cattle AUMs</i>	137,413	137,412	129,084	140,081
Oil and Gas Wells Anticipated to be Drilled over the Next 15 Years by Major Geologic Areas ² on Currently Unleased Lands				
San Juan Basin	0	0	0	0
Paradox Basin	136	133	127	138
San Juan Sag	30	30	30	30
<i>Total Anticipated Wells</i>	167	158	148	165
Road Construction and Reconstruction (miles)				
Road construction - timber	3	0	0	3
Road construction - oil and gas (within currently unleased areas)	70	70	70	70
<i>Total Road Construction Miles</i>	73	70	70	73
Road reconstruction - timber	7.2	7.6	5.6	8.2
Road reconstruction - oil and gas	0	0	0	0
<i>Total Road Reconstruction Miles</i>	7.2	7.6	5.6	8.2

¹ Note: These output levels are projections; they are not planning decisions.

² Identified in the Reasonable Foreseeable Development (RFD) scenario for oil and gas.

Table 2.9.3 - Suitable Lands by Alternative

SUITABLE LANDS BY ALTERNATIVE	Alternative A (No Action)	Alternative B (Preferred)	Alternative C	Alternative D
Timber Lands - USFS (acres)				
Tentatively Suitable	800,154	800,154	800,154	800,154
Not suitable for timber production or harvest	1,479,644	1,564,210	1,577,581	1,519,707
Suitable for Timber Production	395,337	313,812	300,460	357,336
Other tentatively suitable lands where timber harvest may occur	402,351	395,979	146,405	411,883
<i>Total Acres where Timber Harvesting May Occur</i>	797,688	701,950	446,865	769,219
Livestock Grazing, Suitable and Available (acres)				
Sheep: Suitable areas on active allotments (USFS)	87,858	87,858	87,858	239,280
Sheep: Available areas on active allotments (BLM)	8,619	8,619	1,130	9,031
<i>Total Acres</i>	96,477	96,477	88,988	248,311
Cattle: Suitable areas on active allotments (USFS)	654,837	654,837	655,038	694,321
Cattle: Available areas on active allotments (BLM)	279,236	275,908	255,122	281,401
<i>Total Acres</i>	934,073	930,745	910,160	975,722
Motorized Travel over Ground – Summer (acres)				
Not suitable areas (closed)	549,562	1,002,389	1,220,387	912,881
Suitable areas (limited) ¹	971,127	955,403	751,344	1,009,048
Suitable opportunity areas (limited) ²	848,396	411,293	397,354	447,156
Open Motorized Areas ³	866,705	0	0	0
Motorized Travel over Snow – Winter (acres)				
Not suitable areas	1,039,919	1,521,905	1,728,372	1,479,140
Suitable areas	1,329,159	847,174	640,707	889,939

¹ Areas with existing routes for motorized travel.

² Areas with existing routes for motorized travel and where opportunities exist for expanding motorized recreation routes.

³ Open Motorized Areas: In Alternative A, 866,705 acres are open to motorized travel off of existing roads and trails. In compliance with the USFS 2005 Travel Rule and the BLM H-1601-1Land Use Planning handbook, all motorized travel will be restricted to designated routes in Alternatives B, C, and D.

Table 2.9.4 - Special Areas and Unique Landscapes by Alternative

SPECIAL AREAS AND UNIQUE LANDSCAPES	Alternative A (No Action)	Alternative B (Preferred)	Alternative C	Alternative D
Wilderness acres Congressionally designated (USFS)	420,522	420,522	420,522	420,522
Piedra Area (USFS)	60,341	60,341	60,341	60,341
Wilderness Study Areas (BLM)	55,428	55,428	55,428	55,428
Recommended Wilderness (USFS) (acres)				
Fish Creek	0	0	13,537	0
Storm Peak	0	0	57,623	0
Ryman	0	0	8,665	0
Lizard Head, adjacent	0	2,632	5,558	0
Blackhawk Mountain	0	0	17,545	0
Hermosa	0	50,895	148,139	0
San Miguel	0	0	60,311	0
West Needle	0	0	4,497	0
East Animas	0	0	16,894	0
Baldy	0	0	20,032	0
Florida River	0	0	5,726	0
Runlett Park	0	0	5,600	0
HD Mountains	0	0	0	0
Piedra Area, adjacent	0	0	39,307	0
Graham Park	0	0	17,325	0
Weminuche, adjacent	0	1,428	22,683	0
Turkey Creek		578	25,314	0
Treasure Mountain	0		22,512	
South San Juan, adjacent	0	0	34,793	0
Total Recommended Wilderness Acres (USFS)	0	55,533	526,344	0

Table 2.9.4 - Special Areas and Unique Landscapes by Alternative (continued)

SPECIAL AREAS AND UNIQUE LANDSCAPES	Alternative A (No Action)	Alternative B (Preferred)	Alternative C	Alternative D
Wild and Scenic Rivers (WSRs) Suitable by Alternative				
<i>Miles by Segment and Total Number of Segments (BLM and USFS)</i>				
Dolores, above McPhee	0	0	55.5	0
Dolores McPhee to Bedrock	109.0	109.0	109.0	
Rio Lado	0	0	2.83	0
West Dolores	33.7	0	33.7	0
Summit Canyon	0	12.1	12.1	0
Coyote Wash	0	7.6	7.6	0
McIntyre Canyon	0	0	5.8	0
Bull Canyon	0	0	6.4	0
Animas River, Bakers Bridge to Silverton				
Bakers Bridge to Sultan Creek	0	27.2	27.2	0
Sultan Creek to Silverton	0	0	3.6	0
Mineral Creek	0	8.7	8.7	0
Cement Creek	0	0	7.6	0
Cinnamon Creek	0	0	2.0	0
Maggie Gulch	0	0	4.6	0
South Fork Mineral Creek	0	7.4	7.4	0
West Fork Animas/California Gulch	0	0	3.2	0
Hermosa Creek and tributaries	0	62.3	62.3	0
Los Pinos and tributaries above Vallecito	54.2	54.2	54.2	0
Vallecito Creek	0	0	16.6	0
Piedra River				
North of Hwy 160 to Forks	21.9	21.9	22.0	0
South of Hwy 160 to Forest boundary (Chimney Rock area)	0	0	8.4	0
East Fork Piedra River				
North of Wilderness boundary	9.4	9.4	9.4	0
South of Wilderness boundary	6.6	0	6.6	0
Middle Fork Piedra River	18.8	18.8	18.8	0
West Fork San Juan River	0	17.3	17.3	0
Wolf Creek and Fall Creek	0	0	7.8	0
East Fork San Juan River	0	0	13.1	0
Total Suitable WSR Segment Miles	253.6	355.9	533.6	0
Total Suitable WSR River Segments	7	12	24	0

¹ Areas with existing routes for motorized travel.

² Areas with existing routes for motorized travel and where opportunities exist for expanding motorized recreation routes.

³ Open Motorized Areas: In Alternative A, 866,705 acres are open to motorized travel off of existing roads and trails. In compliance with the USFS 2005 Travel Rule and the BLM H-1601-1 Land Use Planning handbook, all motorized travel will be restricted to designated routes in Alternatives B, C, and D.

Table 2.9.4 - Special Areas and Unique Landscapes by Alternative (continued)

SPECIAL AREAS AND UNIQUE LANDSCAPES	Alternative A (No Action)	Alternative B (Preferred)	Alternative C	Alternative D
Research Natural Areas (RNAs) (USFS)				
Electra	0	2,450	2,450	2,450
Grizzly Peak	0	4,676	4,676	0
Hermosa	0	15,469	15,522	0
Martinez Creek	0	1,664	1,664	0
Hidden Mesas	0	3,761	3,761	3,761
Navajo River	0	7,168	7,168	7,168
Needles Mountain	0	0	12,823	0
Piedra	0	6,423	6,423	0
Porphyry Gulch	0	12,191	12,199	0
Narraguinnep	1,971	1,971	1,971	1,971
Williams Creek	486	486	486	486
Total RNA Acres	2,457	56,259	69,143	15,836
Total RNA Areas	2	10	11	5

SPECIAL AREAS AND UNIQUE LANDSCAPES	Alternative A (No Action)	Alternative B (Preferred)	Alternative C	Alternative D
Areas of Critical Environmental Concern (ACECs) (BLM)				
Mud Springs	1,160	0	1,160	0
Big Gypsum Valley	0	6,062	17,112	0
Silveys Pocket	0	0	707	0
Grassy Hills	0	0	420	0
Total ACEC Acres	1,160	6,062	19,399	0
Total ACEC Areas	1	1	4	0

Table 2.9.4 - Special Areas and Unique Landscapes by Alternative (continued)

SPECIAL AREAS AND UNIQUE LANDSCAPES	Alternative A (No Action)	Alternative B (Preferred)	Alternative C	Alternative D
Other Special Areas and Unique Landscapes (acres)				
Dolores River Canyon Unique Landscape (BLM and USFS)	33,908	33,504	35,241	33,490
HD Mountains Unique Landscape (USFS)	0	44,115	48,671	44,115
Rico Unique Landscape (USFS)	0	9,293	2,303	1,604
Silverton Unique Landscape (BLM and USFS)	39,486	39,703	39,583	39,703
McPhee Unique Landscape (USFS)	0	14,985	14,985	0
Falls Creek Archaeological Area (USFS)	1,453	1,453	1,453	1,453
Chimney Rock Archeological Area (USFS)	3,144	3,144	3,144	3,144
Mesa Verde Escarpment Archeological Area (BLM)	0	7,373	7,373	0
Spring Creek Wild Horse Herd Area	21,534	21,534	21,534	21,534
Perin's Peak Habitat Management Area (BLM)	3,787	2,274	2,274	2,274
Willow Creek Habitat Management Area (BLM)	0	876	876	876
O'Neal Hill Botanical Area (USFS)	328	328	328	328
Chatanooga Fen Botanical Area (USFS)	0	273	273	273
Burro Bridge Fen Botanical Area (USFS)	0	76	76	76
Old-growth restoration sites Unique Landscape (USFS): Boggy (2,534 acres); Smoothing Iron (2,314 acres)	0	0	4,848	0

Table 2.9.5 - Other Lands by Alternative

OTHER LAND IDENTIFICATIONS BY ALTERNATIVE	Alternative A (No Action)	Alternative B (Preferred)	Alternative C	Alternative D
Downhill Ski Areas (acres)				
Durango Mountain Resort (existing)	5,593	5,593	2,149	5,593
Silverton Ski Area (existing)	1,201	1,201	1,201	1,201
East Fork (potential)	5,009	0	0	5,009
Wolf Creek Ski Area expansion (potential)	0	0	0	4,719
Stoner (defunct)	276	0	0	0
Wolf Creek Valley (defunct)	2,412	0	0	0
Total Downhill Ski Acres	14,491	6,794	3,350	16,522
Structured Recreation Management Areas (SRMAs) (acres)				
Cortez SRMA (BLM)	0	4,777	4,777	4,777
Dolores River SRMA (BLM and USFS)	49,324	56,031	56,031	56,031
Durango SRMA (BLM and USFS)	5,461	9,949	9,949	9,949
Silverton SRMA (BLM and USFS)	44,889	72,399	72,399	72,399
Total SRMAs	99,674	143,156	143,156	143,156
Lands Available for Disposal (BLM) (acres)				
BLM acres available for disposal	10,850	8,773	8,773	8,773

Table 2.9.6 - Oil and Gas Availability by Alternative

Oil and Gas Leasing Availability by Alternative	Alternative A (No Action)	Alternative B (Preferred)	Alternative C	Alternative D	No Lease Alternative
San Juan Public Lands Fluid-Minerals - Oil and Gas (acres) <i>(figures are based on total mineral estate, including private surface)</i>					
Total San Juan Public Lands Oil and Gas	2,642,053	2,642,053	2,642,053	2,642,053	2,642,053
Withdrawn from Leasing	480,953	480,953	480,953	480,953	480,953
Proposed for Withdrawal	0	67,726	532,957	0	0
Administratively Not Available for Leasing	63,851	93,238	118,821	93,238	2,161,100
Available for Leasing	2,097,278	2,000,135	1,509,321	2,067,861	0
No Surface Occupancy (NSO)	40,741	980,102	517,645	1,043,999	0
Controlled Surface Use (CSU)	370,507	303,922	320,573	292,797	0
CSU and Timing Limitations (TL)	58,200	89,938	85,610	85,674	0
Timing Limitations (TL)	115,305	333,954	305,921	336,475	0
Standard Lease Terms	1,512,545	292,219	279,572	308,917	0

Table 2.9.6 - Oil and Gas Availability by Alternative (continued)

Oil and Gas Leasing Availability by Alternative	Alternative A (No Action)	Alternative B (Preferred)	Alternative C	Alternative D	No Lease Alternative
Currently Leased and Unleased Lands (acres) San Juan Public Lands Fluid-Minerals (Oil and Gas) <i>(figures are based on total mineral estate, including private surface)</i>					
Total San Juan Public Lands Oil and Gas	2,642,053	2,642,053	2,642,053	2,642,053	2,642,053
Total Lands Currently Leased	528,069	528,069	528,069	528,069	528,069
Total Unleased Lands	2,113,984	2,113,984	2,113,984	2,113,984	2,113,984
Currently Unleased Lands (acres) San Juan Public Lands Fluid-Minerals (Oil and Gas) <i>(figures are based on total mineral estate, including private surface)</i>					
Total Unleased Lands	2,113,984	2,113,984	2,113,984	2,113,984	2,113,984
Withdrawn from Leasing	480,953	480,953	480,953	480,953	480,953
Proposed for Withdrawal	0	67,726	532,957	0	0
Administratively Not Available for Leasing	63,851	93,238	118,821	93,238	1,633,031
Available for Leasing	1,569,180	1,472,067	981,253	1,539,793	0
No Surface Occupancy (NSO)	22,469	827,559	362,288	894,144	0
Controlled Surface Use (CSU)	60,276	259,114	277,520	248,221	0
CSU and Timing Limitations (TL)	15,017	78,937	75,176	72,150	0
Timing Limitations (TL)	46,019	122,151	112,463	129,078	0
Standard Lease Terms	1,425,399	184,306	153,806	196,200	0

Table 2.9.6 - Oil and Gas Availability by Alternative (continued)

Oil and Gas Leasing Availability by Alternative	Alternative A (No Action)	Alternative B (Preferred)	Alternative C	Alternative D	No Lease Alternative
San Juan Public Lands Fluid-Minerals (Oil and Gas) within Major Geologic Basins⁴ (acres)					
Total San Juan Public Lands in Paradox Basin	649,263	649,263	649,263	649,263	649,262
Withdrawn from Leasing	0	0	0	0	0
Proposed for Withdrawal	0	0	182	0	0
Administratively Not Available for Leasing	38,690	61,203	80,908	61,203	649,262
Available for Leasing	610,573	588,060	568,173	588,060	0
No Surface Occupancy (NSO)	9,862	146,705	147,163	142,703	0
Controlled Surface Use (CSU)	161,031	54,827	54,545	53,649	0
CSU and Timing Limitations (TL)	44,009	8,700	8,179	11,178	0
Timing Limitations (TL)	92,268	243,632	227,825	246,250	0
Standard Lease Terms	303,403	134,196	130,461	134,280	0
Paradox Basin – Currently Unleased Lands (acres)					
Total Unleased Lands in Paradox Basin	272,724	272,724	272,724	272,724	272,724
Withdrawn from Leasing	0	0	0	0	0
Proposed for Withdrawal	0	0	182	0	0
Administratively Not Available for Leasing	35,512	59,431	79,091	59,431	272,724
Available for Leasing	237,212	213,293	193,451	213,293	0
No Surface Occupancy (NSO)	2,162	52,771	42,960	53,670	0
Controlled Surface Use (CSU)	31,828	23,283	24,888	22,414	0
CSU and Timing Limitations (TL)	4,064	3,997	3,610	3,439	0
Timing Limitations (TL)	26,226	57,269	49,411	57,784	0
Standard Lease Terms	172,932	75,973	72,582	75,986	0
San Juan Sag (acres)					
Total San Juan Public Lands in San Juan Sag	205,804	205,804	205,804	205,804	205,804
Withdrawn from Leasing	13,884	13,884	13,884	13,884	13,884
Proposed for Withdrawal	0	0	74,419	0	0
Administratively Not Available for Leasing	87	1,005	1,005	1,005	191,920
Available for Leasing	191,833	190,915	116,496	190,915	0
No Surface Occupancy (NSO)	0	104,042	38,614	113,472	0
Controlled Surface Use (CSU)	961	38,315	34,381	33,959	0
CSU and Timing Limitations (TL)	1,748	17,859	12,811	12,785	0
Timing Limitations (TL)	5,048	14,690	14,685	14,690	0
Standard Lease Terms	184,076	16,009	16,005	16,009	0

⁴ Identified in the Reasonable Foreseeable Development (RFD) scenario for oil and gas.

Table 2.9.6 - Oil and Gas Availability by Alternative (continued)

Oil and Gas Leasing Availability by Alternative	Alternative A (No Action)	Alternative B (Preferred)	Alternative C	Alternative D	No Lease Alternative
San Juan Sag – Currently Unleased Lands (acres)					
<i>Total Unleased Lands in San Juan Sag</i>	194,780	194,780	194,780	194,780	194,780
Withdrawn from Leasing	13,884	13,884	13,884	13,884	13,884
Proposed for Withdrawal	0	0	74,181	0	0
Administratively Not Available for Leasing	81	1,005	1,005	1,005	180,896
Available for Leasing	180,815	179,891	105,710	179,891	0
No Surface Occupancy (NSO)	0	101,284	35,513	110,134	0
Controlled Surface Use (CSU)	784	34,279	30,413	29,991	0
CSU and Timing Limitations (TL)	457	16,589	12,054	12,028	0
Timing Limitations (TL)	4,300	13,167	13,162	13,167	0
Standard Lease Terms	175,274	14,572	14,568	14,571	0
San Juan Basin (acres)					
<i>Total San Juan Public Lands in San Juan Basin</i>	73,622	73,622	73,622	73,622	73,622
Withdrawn From Leasing	0	0	0	0	0
Proposed for Withdrawal	0	0	0	0	0
Administratively Not Available for Leasing	0	3,273	3,273	3,273	73,622
Available for Leasing	73,622	70,349	70,349	70,349	0
No Surface Occupancy (NSO)	79	40,972	40,906	40,972	0
Controlled Surface Use (CSU)	7,924	7,754	7,744	7,754	0
CSU and Timing Limitations (TL)	2,268	3,407	3,452	3,407	0
Timing Limitations (TL)	619	13,781	13,746	13,781	0
Standard Lease Terms	62,732	4,435	4,501	4,435	0
San Juan Basin – Currently Unleased Lands (acres)					
<i>Total Unleased Lands in San Juan Basin</i>	17,522	17,522	17,522	17,522	17,522
Withdrawn from Leasing	0	0	0	0	0
Proposed for Withdrawal	0	0	0	0	0
Administratively Not Available for Leasing	0	1,264	1,264	1,264	17,522
Available for Leasing	17,522	16,258	16,258	16,258	0
No Surface Occupancy (NSO)	39	8,272	8,205	8,272	0
Controlled Surface Use (CSU)	1,505	3,443	3,443	3,443	0
CSU and Timing Limitations (TL)	942	607	607	607	0
Timing Limitations (TL)	0	1,744	1,744	1,744	0
Standard Lease Terms	15,036	2,192	2,259	2,192	0

This section provides a narrative comparative summary of the effects of the alternatives on each resource and resource program area. This summary is organized into three parts—Sustaining Ecological Systems, Sustaining Social and Economic Systems, and Special Areas. Detailed environmental analysis information related to these resources and resource programs are provided in Chapter 3 of this DEIS.

AIR QUALITY

General effects to air quality can be the generation of air pollutants and greenhouse gases emissions from a variety of sources. Air pollutants of specific concern are sulfur dioxide, oxides of nitrogen, mercury, ozone, and particulate matter. Although many of the documented air quality impacts are associated with external sources (those outside public land boundaries and jurisdiction), some public land activities have the potential to impact air quality. These activities include prescribed fires, oil and gas development, solid minerals development, developed recreation and use of travel-ways. Several activities occur on the SJPL that may generate greenhouse gases emissions. Oil and gas development, large fires, and recreation using combustion engines, can potentially generate CO₂, methane, and water vapor. The potential impacts to air quality from these activities would be similar under all alternatives.

SOILS

General effects to soils, can include erosion, compaction, displacement, and severe burning. Management activities that can influence the degree of impact to soils include timber harvest, mechanical fuels treatment, fire management, livestock grazing, oil and gas development, solid minerals development, utility corridors and recreation. The projected output levels for mechanical fuels, fire management, solid minerals development, utility corridors, and recreation would not change under any of the alternatives thus the predicted level of impacts would be similar amongst the alternatives. For those activities where impacts potentially could vary by alternative, the following are relative impact rankings (from highest to lowest): timber harvest, oil and gas development – A, D, B, C; livestock grazing – D, A, B, C.

WATER

General effects to water resources can include water quality impacts due to pollution or sedimentation, and changes in water quantity or flows. Management activities that can influence positive or negative impacts to water resources include watershed improvements, roads, livestock grazing, timber harvest, mechanical fuels treatment, water developments, oil and gas development, solid minerals development, and mine reclamation. The predicted impact levels for watershed improvements, mechanical fuels treatment, water developments, oil and gas development, solid minerals development, and mine reclamation would not change under any of the alternatives. For those activities where impacts potentially could vary by alternative, the following are relative impact rankings (from highest to lowest): timber harvest and roads – A, D, B, C; livestock grazing – D, A and B, C. Alternatives C and D would result in the greatest benefits to water resources due to proposed road decommissioning, watershed improvement and restoration activities. The benefits in Alternative C are a result of fewer activities and fewer impacts to water resources, while the benefits that result from Alternative D occur because of increased activity with requirements for watershed improvements and reclamation activities.

FISHERIES AND AQUATIC ECOSYSTEMS

General effects to fisheries and aquatic species can involve reduced or eliminated stream-flows, reduced streamside vegetation, reduced or eliminated fishery habitat, and degraded habitat due to erosion and sedimentation. Additional impacts can also include increased stream temperatures and reduced dissolved oxygen levels. Based on an assessment of current aquatic conditions, it appears the greatest risks to fish and aquatic species are from management activities with direct impacts on streams, riparian areas, and aquatic community composition. These activities include water use and development projects, livestock grazing and big game use, road construction and road management, oil and gas development, mining, mining reclamation, timber harvesting, and mechanical fuels reduction. A summary of alternative impacts by activity for fisheries and aquatic ecosystems would be similar to those described under water.

RIPARIAN AREAS AND WETLAND ECOSYSTEMS

General effects to riparian areas and wetland ecosystems can include reduced native hydrophytic species (most notably cottonwood and willows), increased invasive species, changed dominant life forms from trees and shrubs to herbs, reduced water flow, and lowered water tables. Management activities that can impact riparian and wetland areas include: timber harvest, livestock grazing, oil and gas development, fire and recreation. The riparian and wetland impact levels for fire and recreation would not change under any of the alternatives. For those activities where impacts potentially could vary by alternative, the following are relative effects rankings (from highest to lowest): livestock grazing – D, A and B, C; oil and gas development – A, D, B, and C.

TERRESTRIAL ECOSYSTEMS AND PLANT SPECIES

General effects to terrestrial ecosystems and plant species involve ground disturbance or vegetation removal that can alter major vegetation types and plant species. Management activities that can impact terrestrial ecosystems and plant species include: livestock grazing, timber harvest, oil and gas development, fire, mechanical fuels treatments, recreation, solid minerals development, and utility corridors. The projected output levels for mechanical fuels, fire, recreation, solid minerals development, utility corridors, would not change under any of the alternatives thus the predicted level of impacts would be similar amongst the alternatives. For those activities where impacts potentially could vary by alternative, the following are relative impact rankings (from highest to lowest): livestock grazing – D, A and B, C; oil and gas development and timber harvest – A, D, B, C. Alternatives A and D have the highest potential to positively affect vegetation types through vegetative restoration/improvement activities since these alternative would treat the greatest number of acres compared to Alternatives B and C.

SPECIAL BIOLOGICAL DIVERSITY FEATURES

General effects to special biological diversity features (i.e., old-growth forests, mountain grasslands, hanging gardens, critically imperiled species and communities, and unroaded lands) may be degradation, removal, or fragmentation of individual features or the systems that sustain them. Since project design and design criteria that avoid or minimize impacts to special biological diversity features will be implemented during projects, negative impacts would not occur, be minor, or would not affect these ecosystems. Impacts to special biodiversity features are similar for all alternatives. Alternative C proposes the most unroaded acres, thus would provide the most area of unaltered ecosystems. Alternative B proposes the next highest amount of unroaded lands, followed by Alternatives D and A.

FIRE AND FUELS

Management activities that can influence the degree of benefits derived from fire and fuels management programs include timber management, travel management, special area designations (Wilderness, WSA, RNA), livestock grazing, insects and disease and noxious weeds. For those actions where the benefits of fire and fuels management could vary by alternative, the following are relative benefit rankings (from highest to lowest): timber management (fuels reduction), insects and disease – A, D, B, C; travel management (miles of fire break roads) – D, A, B, C; Special area designations (WFU opportunities) – C, B, D, A. Livestock grazing and noxious weeds would have similar impacts to fire and fuels management under all alternatives.

INSECTS AND DISEASE

Management activities that can influence the occurrence of insects and disease include fire and fuels management, timber management, Wilderness management and recreation. The likelihood for increased insects and disease infestations would be greatest under Alternative C, since there would be fewer management options to address insects and disease issues, followed by Alternatives B, D, and A, respectively.

TERRESTRIAL WILDLIFE AND WILDLIFE SPECIES

Management actions that have the potential to impact wildlife habitat and species include timber management, fire and fuels, travel management, livestock grazing, oil and gas leases, solid minerals and wildlife program. Where projected management activity output levels vary, the potential for effects to wildlife generally vary. Timber management, livestock grazing, oil and gas leases have projected output levels that vary. Based on the output levels of these activities, the following is an overall effects ranking (from highest to lowest): D, A, B, and C. Projected output levels for fire and fuels, travel management, solid minerals and wildlife program would not vary appreciably by alternative, thus impacts to wildlife would be similar under all alternatives.

INVASIVE SPECIES

Noxious weeds and other invasive plant species establish as a result of ground disturbance and where a seed source is present. Weeds are introduced and spread in many ways including people, wildlife, vehicles, wind, water, and fire. Noxious weeds and other invasive species can affect water quality, wildlife habitat, fisheries, forage production, and soil productivity. Invasive species can also displace native species. Based on the potential area of ground disturbance the following is a relative impacts ranking (from highest to lowest) by alternative: A, D, B, and C.

TIMBER MANAGEMENT AND WOOD PRODUCTS

Activities which can impact timber management include: insects and disease, fuels treatments, wildland fire use, oil and gas development and recreation. Alternative C would result in the greatest potential impacts to timber due to the increased potential for insects and disease in MA 1 areas and some MA 3 areas, followed by Alternatives B, A, and D, respectively. Alternative D would result in the greatest benefits from fuels treatments, while the benefits of the remaining alternatives would be similar. Levels of WFU and oil and gas development that could impact timber management are similar in all alternatives thus effects would be similar. The impacts on timber management from recreation would be similar for Alternatives A, B, and D; and slightly reduced in Alternative C. Overall, Alternatives A and D have the highest potential for benefits, followed by Alternatives B and C, respectively.

SPECIAL FOREST PRODUCTS

The impacts of the personal use convertible products are negligible and dispersed over a wide area. The collection of convertible products generally benefits the public, and helps reduce stand density and incrementally hazardous fuels. Nonconvertible products or botanical products are usually not collected for large commercial purposes, therefore, little impact is expected. Overall, impacts are similar under all alternatives for both convertible and nonconvertible forest products.

LIVESTOCK GRAZING MANAGEMENT

Management activities that can impact forage availability, amount of suitable grazing, stocking levels and permittee operations include: fire and fuels, minerals, RNA designations, Wilderness, timber, wildlife and fisheries management, and travel management. For those activities where impacts could vary by alternative, the following are relative impacts rankings (from highest to lowest): RNA designations and travel management – C, B, D and A; Wilderness and timber – C, B, A, and D. Impacts to grazing would be similar under all alternatives for fire and fuels, minerals, and wildlife and fisheries management. Overall, Alternative D has the highest potential for benefits, followed by Alternatives A, B and C, respectively.

FLUID MINERALS

The primary management activities/conditions that can impact fluid minerals leasing and development include: the amount of area recommended for Wilderness, acres of Inventoried Roadless Areas, and resource constraints and opportunities for new leases. Lesser impacts on mineral leasing and development result from, soils management, watershed management, recreation management, vegetation management, and heritage resource management. A “no new leases” alternative was considered during the analysis. This alternative would have the greatest impact on the fluid minerals program compared to Alternatives A, B, C and D. Regarding Alternatives A through D, based on the level of impacts to the fluid mineral program, the alternatives would be ranked (highest to lowest impact) as follows: C, B, D, and A. The impacts of the alternatives on oil and gas well development as the result of Not Available and no surface occupancy stipulations (NSO) are as follows: wells eliminated: A – 3, B – 12, C – 22, D – 6; wells stipulated by NSO: A – 9, B – 50, C – 65, D – 53.

SOLID MINERALS

Management actions that can impact solid minerals include: Wilderness management, RNA designations, wild river designations and wildlife and fisheries management. In summary, based on the total acres of the various designations that could limit the development of solid minerals, Alternative C would have moderate to minor impact, followed by Alternatives B, D and A, all with minor to negligible impact.

GEOHERMAL ENERGY

Impacts to the geothermal energy program includes closure of areas to geothermal leasing through formal withdrawal or administrative closure, and increased operating costs through limitations on road and pipeline construction and use, facility placement, and operational constraints. Management actions/conditions that impact geothermal energy development are proposed Wilderness additions, Roadless areas and natural landscapes. Based on the varying levels proposed for these actions/conditions, Alternative C would have moderate to minor impact, followed by Alternatives B and A with minor impacts. Alternative D would have no impact.

ALTERNATIVE ENERGY SOURCES

The primary management activities that can impact alternative energy sources include wildlife and fisheries management, travel management, timber management, and fuels management. The impacts of these activities would be similar under all alternatives. Based on proposed levels of vegetative management (timber harvest/fuels reduction), Alternatives A and D would offer the largest supply of biomass material for generation, followed by Alternatives B and C.

ACCESS AND TRAVEL MANAGEMENT

Management actions that can impact access and travel management include: timber management, oil and gas development, recreation, and wildlife management. Alternative A would not alter the existing road system. Road construction associated with timber management under Alternatives A and D is projected to be 3 miles, with no construction projected for Alternatives B and C. Projected reconstructed road miles would vary from 5.6 miles for Alternative C to 8.2 miles for Alternative D. The projected road reconstruction would increase the existing road system by 0.25 percent in Alternative B, 0.18 percent in Alternative C, and 0.27 percent in Alternative D. Under Oil and gas development, 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. Access and travel management would be most impacted under Alternative C. Alternative C would result in a major reduction in motorized trail miles and a minor reduction in road miles, followed by Alternatives B and D. Wildlife management impacts would be similar under all alternatives, being primarily seasonal restrictions.

RECREATION

General impacts to recreation are influenced by the Recreation Opportunity Spectrum setting classes for both summer and winter and the number of acres suitable for motorized or non-motorized travel, both over ground and over snow. Management actions that can impact recreation include: oil and gas development, fire and fuels management, timber management, and minerals. These activities are expected to have minor and similar impacts to recreation under all alternatives. Overall, Alternative C would result in the greatest impacts on motorized recreation opportunities, followed by Alternatives B and D, and then Alternative A. In general, travel access and management allocations in Alternative C would result in the greatest benefits to non-motorized recreation by allocating the most land to those uses and reducing the potential for user conflict, followed by Alternative B and then Alternatives D and A.

HERITAGE AND CULTURAL RESOURCES

In all alternatives, the preferred management strategy for eligible sites is to avoid and protect these sites from direct, indirect, and cumulative effects. Impacts to cultural resources can result from both, natural events and human activities that can damage heritage resources or alter their settings. Other impacts are not always as obvious or immediate and involve effects that occur off-site from project areas. Such impacts may include accelerated erosion and inadvertent damage from increased visitation to sites not previously accessible. Management actions that have potential to impact cultural resources include: cultural resources management, recreation, travel management, fire and fuels management, oil and gas development, livestock grazing, minerals and timber management. For those activities where projected output levels and/or impacts vary by alternative, the following are relative rankings of potential for impacts cultural resources (from highest to lowest): travel management, livestock grazing and timber management – D, A, B, and C; oil and gas development – A, D, B, and C. Fire and fuels and minerals would have impacts similar for all alternatives. Cultural resource management under Alternatives B and C would result in the greatest benefits to heritage and cultural resources by establishing the greatest number of protective management areas, followed by Alternatives A and D.

SCENERY, VISUAL RESOURCES, AND THE BUILT ENVIRONMENT

Effects to scenery and visual resources involve alterations to scenic integrity and/or visual quality. Alterations can be from natural or human induced events. The primary management actions that can impact scenery include: fire and fuels management, timber management, utility corridors, roads and trails and oil and gas development. Under fire and fuels program Alternative D treats slightly more acres than the other alternatives and would have the greatest effect to scenery in terms of short-term degradation and long-term benefits. Under timber management short-term effects of treatments under all of the alternatives would generally be negative, while long-term impacts would generally be positive to scenic values. The effect of utility corridors on scenery is the same under all of the alternatives. Regarding roads and trails, the greatest impact to scenery would be Alternative D followed by Alternatives A, B, and C. For oil and gas development, Alternatives A and D have potential for more well development and consequently more impacts compared to Alternatives B and C. Alternative A provides far less scenic protection with standard stipulations than do Alternatives B, C, and D which have more protective oil and gas stipulations. The No Lease Alternative would have the least potential impact to scenery and visual resources.

LANDS AND SPECIAL USES

The primary management actions that can impact land and special uses include constraints related to wildlife, fish and heritage resources: Based on the ability to mitigate most concerns for heritage and wildlife and fisheries, impacts to lands and special uses would be moderate to minor under Alternative C, minor under Alternative B, and would be negligible under Alternatives A and D.

UTILITY CORRIDORS AND COMMUNICATION SITES

The Management Areas may affect the accessibility of lands for location of pipelines, transmission lines and communication sites. Given the minimal expected level of demand for major new utility transmission facilities and new communication site development during the life of the Land Management Plan, there are no measurable differences between alternatives.

ECONOMICS

Impacts to planning area jobs and income are generated by changes in recreational uses of the Public Lands, mineral extraction, the use of timber and forge resources, and agency expenditures (salaries, equipment, and contracts). Employment and income in the area is expected to increase, with most of the growth not directly attributable to management of the San Juan Public Lands. Slight changes are predicted associated with the alternatives. Alternative D would probably result in the largest growth, followed by Alternative A, Alternative B, and finally by Alternative C.

The difference by alternative is mainly due to changes in the minerals and timber programs. Most job growth and most of the variation would be attributable to planning area-based natural gas development. Although the impacts related to timber may be experienced primarily in Montezuma County, some of the secondary, and all of the tourism-based, impacts may be felt in all communities. Industries most impacted by employment changes may be Mining, Agriculture and Natural Resources, and Manufacturing. These sectors may be primarily impacted by changes in natural gas development and timber harvesting. Although growth in the service sectors attributable to San Juan Public Land management may be modest, they may exhibit some change by alternative (due to spending by employees in other sectors).

Between 2004 and 2015, overall growth in jobs, related to the SJPL LMP alternatives, may vary from a low of approximately 12% (under Alternative C), to a high of approximately 21% (under Alternative D). No growth in jobs would be expected under the No Leasing Alternative.

Net financial revenues are expected to be highest under Alternative D, followed by Alternatives B, A, C, and the No Leasing Alternative, respectively. Economic net benefits are expected to be highest for Alternative C, followed by Alternatives A, B, D, and the No Leasing Alternative, respectively.

DEMOGRAPHICS

For the counties most closely tied to the SJPL, the Colorado State Demographer's office projects a near doubling of the 2005 population by 2035, an 88% projected increase. Economic projections suggest that there are no known SJPL management actions or events that would cause an abrupt change in the current trajectory of area population trends. It is likely that area populations will increase over the next decade, primarily due to oil and gas activity. The small change that SJPL activities are projected to have suggests that the Public Lands will not be a major player in affecting population trends regardless of the alternative.

LOCAL GOVERNMENTS

Two aspects of county government revenues that could be directly or indirectly related to activities on SJPL are 1) Federal land payments and 2) receipts from assessed property and sales taxes. Alternative A is predicted to generate the most revenue to State and local governments (mostly based on natural gas royalties) followed by D, B, C, and the No leasing Alternative, respectively. Changes in sales tax revenues are likely to be imperceptible between alternatives. Since property taxes revenues are affected by levels of oil and gas development and production, county revenues are sensitive to trends in the industry. So long as production remains or increases, it will produce significant revenues for local government. The No Leasing Alternative, followed by Alternatives, C, B, D, and A, respectively, would have the most potential to result in (small) increases in property taxes.

RESEARCH NATURAL AREAS

Most management activities including timber harvest, wood gathering, mechanical fuels treatments, recreation and facilities development, road construction, solid mineral development, oil and gas development with surface occupancy, and summer motorized use are generally prohibited in the proposed RNAs. Since these management activities would not occur within RNAs under any of the alternatives, they would not impact RNAs. Alternative C proposes the most new RNAs, thus it contributes the most new sites and new vegetation types to the Regional and National RNA systems. Alternative B proposes the second most RNAs followed by Alternatives D and A.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN

ACEC values may be impacted by oil and gas development, locatable and saleable mineral development, unmanaged recreation use, unmanaged livestock grazing and invasive species. Designation of ACEC would include special management measures that address the effects of these activities on the identified values. Potential impacts on ACEC resource values would be greatest in Alternatives A and D. Alternative C would provide for the greatest focus on managing for ACEC values, followed by Alternative B.

PALEONTOLOGICAL RESOURCES

Management activities that have the potential to impact paleontological resources include: oil and gas development, vegetation, fire and fuels management, recreation, lands and realty management, travel management, special area designations. Based on projected activity levels, Alternative A has the highest potential for negative impacts to paleontological resources, followed by Alternatives D, B, and C, respectively. Alternative C would result in the greatest potential benefits to paleontological resources due to protective special area designations, followed by Alternative B.

SCENIC BYWAYS

Under all of the alternatives, the condition of the scenic byways viewshed on SJPL will be conserved for valued scenic and cultural elements. Differences exist between the alternatives regarding oil and gas stipulations. Alternative A provides far less scenic protection with standard stipulations than do Alternatives B, C, and D which have more protective oil and gas stipulations.

NATIONAL RECREATION AND SCENIC TRAILS

Impacts to National Recreation and Scenic Trails are determined by the amount of viewshed protection. Alternative A does not have the same viewshed protection for these trails that Alternatives B, C, and D offer. Alternative A offers a varying degree of protection depending on the Management Emphasis within which the route is located. Alternatives B, C, and D establish these trails as important viewer locations and incorporate guidelines and stipulations to protect the foreground viewsheds along these routes.

WILD AND SCENIC RIVERS

Management actions that have the potential to impact Wild and Scenic Rivers Outstandingly Remarkable Values (ORVs) include: minerals management, livestock and recreation. These activities are not expected to impact the Wild and Scenic Rivers ORVs. Based on miles of river found suitable, Alternative C would result in the greatest benefits to Wild and Scenic Rivers, followed by Alternatives B and A, respectively. Alternative D would result in no benefits.

WILDERNESS AND ROADLESS AREAS

Management actions that have the potential to impact Wilderness and Roadless areas include: livestock grazing, recreation management, timber management, travel management, special interest areas, fire and fuels and oil, gas and mineral development. For those activities where the potential for impacts varies by alternative, the following is an impacts ranking (highest to lowest potential impact): recreation, timber, travel, oil, gas and minerals – D, A, B, and C. The potential impacts of livestock grazing, fire and fuels management and special interest areas would be the same for all alternatives. Alternative C would have the greatest potential to provide benefits to Wilderness and Roadless areas since it recommends the most Roadless area for Wilderness, followed by Alternative B. Alternatives A and D do not recommend any Roadless areas for Wilderness.