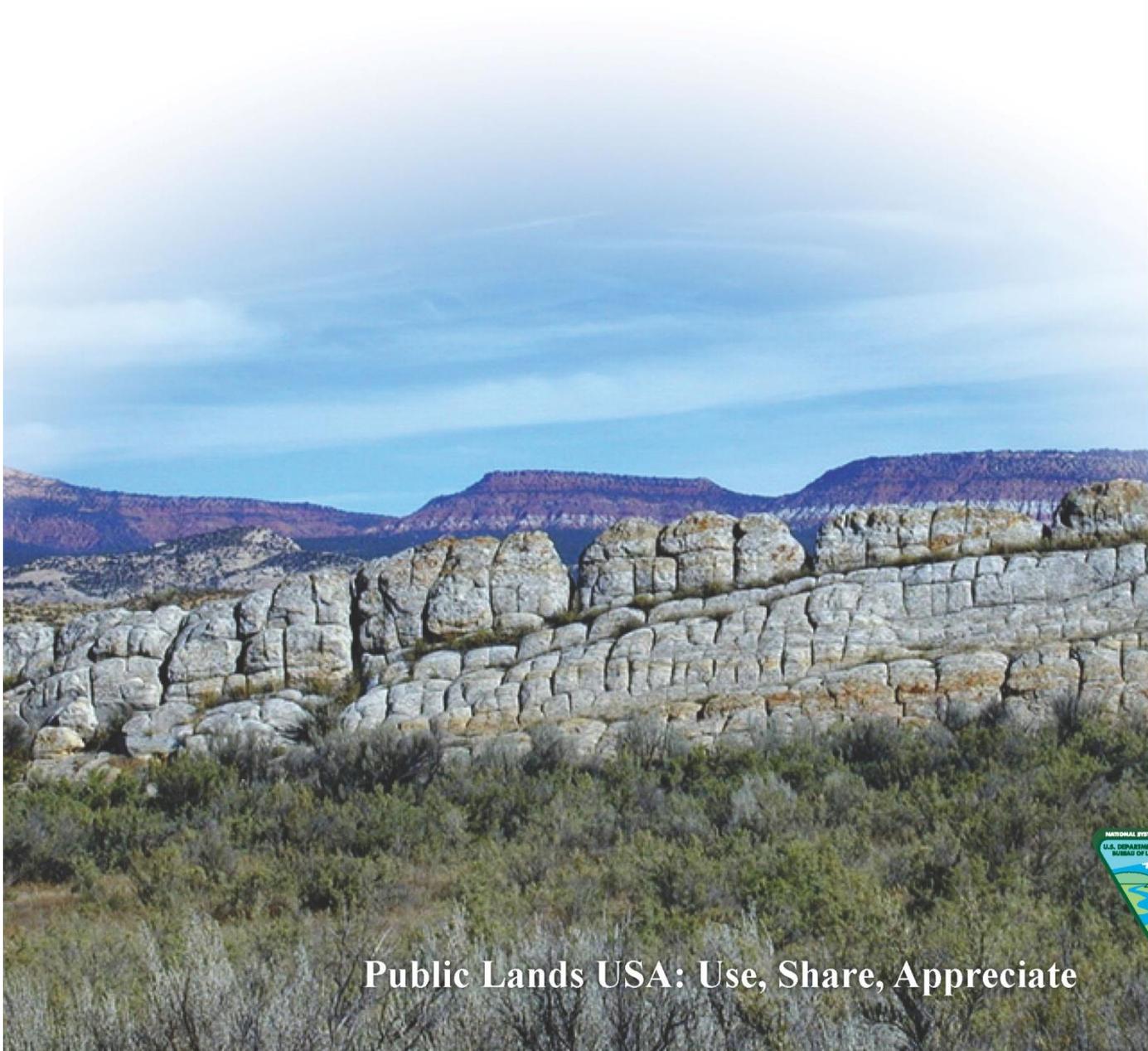


Appendix I

Master Leasing Plans



Public Lands USA: Use, Share, Appreciate

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1.0 Introduction

The Master Leasing Plan (MLP) concept, introduced in May 2010 via the Washington Office’s Oil and Gas Leasing Reform Instruction Memorandum (IM) 2010-117, promotes a proactive approach to planning for oil and gas development. Generally, the BLM uses RMPs to make oil and gas planning decisions, such as areas closed to leasing, open to leasing, or open to leasing with major or moderate constraints (lease stipulations) based on known resource values and reasonably foreseeable oil and gas development scenarios. However, this policy acknowledged that additional planning and analysis may be necessary in some areas prior to new oil and gas leasing because of changing circumstances, updated policies, and new information. To determine whether or not circumstances warrant additional planning and analysis, WO-IM-2010-117 lists numerous criteria to be considered. Specifically, the BLM must prepare an MLP when all four of the following criteria are met:

- A substantial portion of the area to be analyzed in the MLP is not currently leased;
- There is a majority Federal mineral interest;
- The oil and gas industry has expressed a specific interest in leasing, and there is a moderate or high potential for oil and gas confirmed by the discovery of oil and gas in the general area.
- Additional analysis or information is needed to address likely resource or cumulative impacts if oil and gas development were to occur where there are:
 - Multiple-use or natural/cultural resource conflicts;
 - Impacts to air quality;
 - Impacts on the resources or values of any unit of the National Park System, national wildlife refuge, or National Forest wilderness areas, as determined after consultation or coordination with the NPS, the FWS, or the FS; or
 - Impacts on other specially designated areas.

The BLM has the discretion to complete an MLP for areas that do not meet the MLP criteria. For example, even though a substantial portion of an area is already leased or an area lacks a majority Federal mineral interest, additional analysis of measures to resolve potential resource conflicts may benefit future leasing decisions.

The MLP process entails analyzing likely development scenarios and varying levels of protective design features and/or mitigation measures in a defined area with greater detail than a traditional RMP allocation analysis but at a less site-specific level than a development plan that has been fully defined by an operator.

The following are examples of the kinds of decisions that may be made as a result of preparation of an MLP:

- Stipulations (No Surface Occupancy, Timing Limitation, and Controlled Surface Use);
- Phased leasing;
- Planned or required unitization of Federal lands;
- Phased development;

- Caps or limits on new surface disturbance (pending acceptable interim and final reclamation);
- Use of existing infrastructure;
- Multiple wells per pad;
- Requirements to reduce or capture emissions;
- Liquids gathering systems to centralized offsite production facilities;
- Placement of all linear disturbances (e.g., pipelines and power lines) in corridors;
- Extensive interim reclamation of roadway disturbance up to or including the road surface and reclamation of pads to the well head; and
- Final reclamation fully restoring the landform and re-establishing the native plant community.

Because the WRFO began this planning process in 2006 and had prepared the majority of the document prior to the adoption of WO-IM-2010-117, the phrase “Master Leasing Plan” is generally absent from the Draft RMPA/EIS. However, since the focus of this amendment is oil and gas development, the alternatives analyzed capture, in detail, the requirements of an MLP for the entire resource area.

Chapter 2 discusses the following four alternatives:

- Alternative A is the No Action Alternative which retains present management goals, objectives, and direction however it would update the 20-year development projection from the 1997 White River ROD/RMP and consider development of up to 550 well pads.
- Alternative B incorporates a managed development approach that offers operators incentives for concentrated development and emphasizes conservation and protection of other resources concurrently with oil and gas production associated with up to 1,100 well pads.
- Alternative C is similar to Alternative B in that it incorporates a managed development approach but with higher disturbance thresholds and more exceptions to lease stipulations to accommodate the development of up to 1,800 well pads.
- Alternative D emphasizes the production of oil and gas resources (up to 2,550 well pads) under environmental protection afforded by applicable laws, regulations, and BLM policy.

Chapter 3 provides an overview of the current conditions of the resources and resource uses managed by the WRFO. The characterization of the resource/resource use includes the indicators that assess the resource condition, trends that express the direction of change between the present and some point in the past, and forecasts that predict changes in the condition of resources given current management.

Chapter 4 evaluates how each alternative will impact the environment and the various resources/resource uses managed by the WRFO.

2.0 Master Leasing Plans Submitted by Citizen Groups

In August 2010, the Wilderness Society, the Southern Utah Wilderness Alliance, the Center for Native Ecosystems, and the Colorado Environmental Coalition submitted recommendations that the BLM prepare an Eastern Book Cliffs/Piceance Basin MLP and a Dinosaur Lowlands MLP. The Eastern Book Cliffs/Piceance Basin MLP proposal encompasses 847,500 acres within areas managed by the WRFO and the Vernal Field Office (VFO). The Dinosaur Lowlands MLP proposal encompasses 999,400 acres within areas managed by the WRFO, the VFO, and the Little Snake Field Office (LSFO). The following discussion concerns only those areas that are managed by the WRFO (see Map I-1). For the remaining acreage, any interested parties should contact the VFO or the LSFO.

2.1 MLP Nominated Areas Criteria Analysis

Criterion #1: A substantial portion of the area to be analyzed in the MLP is not currently leased.

Neither the Eastern Book Cliffs/Piceance Basin MLP nor the Dinosaur Lowlands MLP meets this criterion. Within the Federal mineral estate acreage of the Eastern Book Cliffs/Piceance Basin MLP, 421,030 acres are leasable minerals and 18,250 acres are closed to leasing. Of those leasable acres, 328,320 acres (78 percent) are currently leased for oil and gas development.

Of the Federal mineral estate acreage included in the Dinosaur Lowlands MLP, 526,270 acres are leasable minerals (not including federal minerals associated with surface managed by the National Park Service) and 38,950 acres are closed to leasing. Of those leasable acres, 314,890 acres (60 percent) are currently leased.

Criterion #2: There is a majority Federal mineral interest.

Both the Eastern Book Cliffs/Piceance Basin MLP and the Dinosaur Lowlands MLP meet this criterion. The WRFO has jurisdiction over 459,960 acres in the Eastern Book Cliffs/Piceance Basin MLP and manages 439,280 acres (96 percent) of Federal mineral estate. Within the Dinosaur Lowlands MLP, the WRFO has jurisdiction over 666,250 acres, including 565,220 acres (85 percent) of Federal mineral estate.

Criterion #3: The oil and gas industry has expressed a specific interest in leasing, and there is a moderate or high potential for oil and gas confirmed by the discovery of oil and gas in the general area.

Both the Eastern Book Cliffs/Piceance Basin MLP and the Dinosaur Lowlands MLP meet this criterion. As stated above, substantial portions of both areas have already been leased for oil and gas development. All of the Eastern Book Cliffs/Piceance Basin MLP and a considerable amount of the Dinosaur Lowlands MLP (71 percent) are considered to have high potential for oil and gas. The RFD Scenario prepared for the 1997 White River RMP forecasted that 67 percent of development would occur in the Douglas Creek arch (which is in the Eastern Bookcliffs/Piceance Basin MLP) and 3 percent would occur in the Rangely Field (which is in the Dinosaur Lowlands MLP). There are several established oil and gas fields within these areas. There are over 900 producing wells within the Eastern Book Cliffs/Piceance Basin MLP (in the area South of Rangely). Within the Dinosaur Lowlands MLP, there are over 550 producing wells (mostly confined to the Coal Oil Basin area and the White River Dome area). Industry continues to express interest in leasing within the MLP areas and has nominated parcels for leasing as recently as the May 2011 lease sale.

Criterion #4: Additional analysis or information is needed to address likely resource or cumulative impacts if oil and gas development were to occur where there are multiple use or natural/cultural resource conflicts; impacts to air quality; impacts on the resources or values of any unit of the National Park System; or impacts on other specially designated areas.

Both the Eastern Book Cliffs/Piceance Basin MLP and the Dinosaur Lowlands MLP meet this criterion. The two external MLP proposals focused primarily on concerns regarding wildlife, cultural resources, special status plant species, and lands within Citizen Wilderness Proposals (CWP), ACECs, Colorado National Heritage Program (CNHP) Potential Conservation Areas, Colorado Natural Areas Program (CNAP) Natural Areas, and Colorado State Wildlife Areas (SWA). According to WO-IM-2010-117, other important national and local resource issues that should be considered when developing an MLP include air quality, Special Recreation Management Areas, paleontological resources, visual resources, watershed conditions (including steep slopes and fragile soils), municipal watersheds, public health and safety, and the ability to achieve interim and final reclamation standards.

2.2 Resource Concerns Addressed In the RMPA

The White River Oil and Gas Development Draft RMPA/EIS addresses resource concerns through extensive analysis and balances various levels of protection with energy development across the four alternatives. More detailed information and further discussion can be found in Chapter 4 of the Draft RMPA/EIS. It is important to note, however, that much of the analysis within Chapter 4 focuses on the MPA since 95 percent of future development is expected to occur there over the next 20 years. The majority of both the Eastern Book Cliffs/Piceance Basin MLP (95 percent) and Dinosaur Lowlands MLP (87 percent) are outside of the MPA and thus are expected to experience much lower levels of development. (For example, for the remaining acreage within the WRFO outside of the MPA, it is expected that there may be up to 28 well pads under Alternative A, up to 55 well pads under Alternative B, up to 90 well pads under Alternative C, and up to 128 well pads under Alternative D.) It should also be noted that revisions to decisions on the acreage of lands available for oil and gas leasing and the designation of new Wilderness, Wilderness Study Areas (WSA), ACECs, or other special designations were considered to be outside the scope of this planning effort. The following discussion summarizes some of the key elements of the comprehensive management actions being considered within the two proposed MLP areas. For an inclusive list of management actions being considered under each alternative, refer to Chapter 2 (Tables 2-1 through 2-22).

Tables I-1 and I-2 show, by alternative, the amount of acreage that is open to leasing with standard lease terms, open to leasing with CSU stipulations, open to leasing with TL stipulations, and open to leasing with NSO stipulations within both the Eastern Book Cliffs/Piceance Basin and the Dinosaur Lowlands MLPs. The acreage shown in this table is based on the hierarchy described in the Impact Analysis Overview (Chapter 4, Section 4.1.2) I-1 which basically represents the most restrictive condition of approval or lease stipulation for any given area (essentially that NSO trumps CSU and CSU trumps TL) and thus will not add up to the amount of acreage described for stipulations associated with individual resources as described in Chapter 2 or Appendix A.

Table I-1. Acres Managed with Conditions of Approval and Lease Stipulations for Alternatives A through D within the Eastern Book Cliffs/Piceance Basin MLP

Alternative	Total Leasable Acres	No Surface Occupancy	Controlled Surface Use	Timing Limitation	Open
A	421,030	19,100	184,130	106,430	111,370
B	421,030	158,810	116,770	145,450	0
C	421,030	79,830	135,520	205,680	0
D	421,030	50,530	156,960	104,380	109,160

Table I-2. Acres Managed with Conditions of Approval and Lease Stipulations for Alternatives A through D within the Dinosaur Lowlands MLP

Alternative	Total Leasable Acres	No Surface Occupancy	Controlled Surface Use	Timing Limitation	Open
A	526,270	52,930	204,740	134,600	134,000
B	526,270	267,930	81,900	176,440	0
C	526,270	111,710	144,700	269,860	0
D	526,270	66,730	175,000	151,420	133,120

2.2.1 Air Quality

Management actions related to air quality can be found in Chapter 2, Table 2-1. There are several management actions under consideration that would minimize impacts to air quality including the following requirements:

- achievement at least 50 percent fugitive dust control effectiveness on all roads and treatment of locations so that no dust plume is visible during construction or drilling activities;
- use of green completion technology for all well completions and recompletions;
- emissions controls for glycol dehydrators (90 percent reduction) and condensate and produced water tanks (95 percent reduction);
- all new and existing drill rig engines would meet EPA Tier 4 standards;
- new engines at field compression stations would meet CDPHE AQCC Regulation No. 7 emission standards; and
- between 40 and 90 percent of all well pads would use three-phase gathering systems.

2.2.2 Soil and Water Resources

Management actions related to soil and water resources can be found in Chapter 2, Table 2-2. Fragile soils; landslide or unstable soils, saline soils; areas within identified 100 year flood plains; areas within 500 feet of perennial waters, springs, or wetlands; areas within 100 feet of ephemeral channels; landslide areas; and slopes greater than 35 percent would all be protected through the use of either a CSU or NSO stipulation (except for saline soils within the Coal Oil Basin exemption area). Additionally, development in designated surface and groundwater source water protection zones for public water supplies would require a plan that addresses drinking water sources and

alternatives for methods for disposing of produced water from oil and gas development are considered.

2.2.3 Remnant Vegetation Associations, Old Growth Pinyon-Juniper Stands, and Special Status Plant Species

Management actions related to vegetation and special status plant species can be found in Chapter 2, Tables 2-3 and 2-10. Identified ponderosa pine stands and unique or ecologically intact sagebrush communities would be managed as remnant vegetation associations with an NSO stipulation. New pipelines in mature pinyon-juniper woodland communities and old growth stands would be required to be located in previously authorized areas of disturbance (Alternatives B and C). Additionally, old growth stands and areas with high potential for old growth would be managed with either NSO or CSU stipulations (Alternatives B and C) and as either exclusion or avoidance areas for land use authorizations.

Management of special status plant species varies depending on whether the plants are federally listed or are BLM sensitive species. At a minimum, occupied habitat for listed plant species are protected by an NSO stipulation. Occupied habitat for BLM sensitive plants is also protected through the use of NSO or CSU stipulations. In addition, under Alternatives B, C, and D, these protections for special status plant habitat include buffers of 329 feet (for BLM sensitive species) or 656 feet (for listed species) from the edge of habitat. Habitat for listed plant species would be exclusion areas for new ROW authorizations.

2.2.4 Big Game

Management actions related to big game can be found in Chapter 2, Table 2-4. Both the Eastern Book Cliffs/Piceance Basin and Dinosaur Lowlands MLP provide diverse seasonal ranges for big game including summer range, winter range, and severe winter range. Under Alternatives B and C, the BLM would provide habitat of sufficient utility and suitability to sustain at least 90 and 70 percent, respectively, of the CDOW's long-term big game population objectives. In order to achieve these goals, while allowing for oil and gas development, the RMPA includes various management actions designed to minimize long-term habitat loss while also minimizing indirect impacts associated with displacement or physiological stress to animals due to human activity within an area.

In regards to habitat loss, reductions in essential winter forage bases would be minimized by limiting cumulative treatment of suitable sagebrush forage types on deer winter ranges and pronghorn overall ranges. In addition to standard reclamation measures, special reclamation components or techniques may be required in order to restore or provide supplemental forage species (e.g., deciduous browse). Additionally, a mitigation fund would be established with industry contributions in order to fund wildlife specific mitigation projects.

To address impacts associated with human activity during critical times of the year, all seasonal ranges within the WRFO would be subject to timing limitations that could extend up to 120 days. However, in an effort to encourage clustered development (and thus a reduction in both habitat loss and the extent of the area impacted by activity), exceptions to timing limitations would be offered contingent on development remaining within defined thresholds. In addition to protective measures applied to seasonal ranges (e.g., winter range, summer range), the BLM would also impose modified siting of surface facilities and up to a 60-day deferment of activities within wildlife movement corridors that animals use to travel between and within seasonal ranges. Utility corridors would be designed to reduce the need for regular vehicular access for inspection and the ROW

holder would be required to effectively preclude all subsequent vehicle travel along the ROW throughout the term of the grant or lease. In areas of concentrated development, vehicle use on BLM road networks would be temporarily limited to that associated directly with oil and gas development, production, and maintenance. These use limitations (in concert with road abandonment) would be used to limit effective road densities to 1.5 miles per square mile in higher value big game habitat and 3 miles per square mile on other big game ranges.

2.2.5 Raptors

Management actions related to raptors can be found in Chapter 2, Tables 2-4 and 2-9. Raptor nests and bald eagle roost sites are protected by both NSO and TL stipulations. To minimize other sources of mortality, the BLM requires power lines be designed to prevent raptor electrocution and that physical barriers (e.g., nets) are used to prevent contact with stored fluids in pits. Relocations of facilities and design modifications would be used to reduce the long-term reduction in the extent and continuity nest and foraging habitat within aspen, spruce-fir, Douglas-fir, and mature pinyon-juniper woodland communities.

2.2.6 Greater Sage-Grouse

Management actions related to greater sage-grouse can be found in Chapter 2, Table 2-6. The Colorado Greater Sage-Grouse Conservation Plan (Colorado Greater Sage-Grouse Steering Committee 2008) identified “core refuge areas”. The only “core refuge area” within the WRFO is associated with the Northwest Colorado population on Blue Mountain. The “core refuge area” from the statewide conservation plan identified approximately 66,830 acres (of federal mineral estate) within the Dinosaur Lowlands MLP. Under Alternatives B and C, the BLM would defer oil and gas leasing decisions on about 96,100 acres of sage-grouse habitat on Blue Mountain until the effects of oil and gas development on sage-grouse behavior and habitat utility are sufficiently understood so as to allow for management of energy development in a manner that would maintain viable populations of sage-grouse.

Seasonal timing limitations would apply for both winter concentration areas and nesting/early brood habitat unless operators qualified for an exception by working within the disturbance threshold criteria. Sage-grouse thresholds would be considered separately but would also be integral with the more expansive big game summer range thresholds. Alternative management actions for lek sites include continued use of the 0.25 mile NSO, a 0.6 mile NSO, locating facilities beyond line-of-sight, and/or use of either a seasonal or daily timing limitation.

2.2.7 Migratory Birds

Management actions related to migratory birds can be found in Chapter 2, Table 2-7. To reduce long-term habitat loss, facility and ROW siting would either avoid or minimize the involvement (i.e., surface occupancy and vegetation clearing) of habitat associations identified as either having higher value for nesting migratory birds (e.g., mature arboreal oak brush, riparian, spruce-fir, aspen, mature pinyon-juniper, Wyoming and mountain big sagebrush communities) or localized parcels that support BLM sensitive species or FWS Birds of Conservation Concern (e.g., mat/Gardner saltbush or Utah juniper/black sagebrush). To minimize disruption of migratory bird nesting activities, vegetation clearing, facility construction, and concentrated operation activities would avoid the core nesting season.

As mentioned above under raptors, physical barriers would be used to prevent contact with stored fluids in pits.

2.2.8 Fish

Management actions related to fish can be found in Chapter 2, Tables 2-8 and 2-9. The Dinosaur Lowlands MLP contains designated critical habitat for the Colorado pikeminnow (i.e., the 100-year floodplain of the White River below Rio Blanco Lake) which would be managed with an NSO stipulation. For other sensitive fish species, the BLM would consider a variety of management actions to minimize impacts to habitat including: recognizing stream restoration on private lands in the context of habitat banking; specialized reclamation techniques; pursuing agreements to increase in-stream flows; and applying restorative measures to existing oil and gas facilities that have the potential to reduce the extent or quality of habitat available. In addition, as noted above under Soil and Water Resources, areas within identified 100 year flood plains or within 500 feet of perennial waters, springs, or wetlands would all be protected through the use of either a CSU or NSO stipulation.

2.2.9 Black-footed Ferrets and White-tailed Prairie Dogs

Management actions related to black-footed ferrets and white-tailed prairie dogs can be found in Chapter 2, Table 2-9. Both the Wolf Creek and Coyote Basin black-footed ferret management areas are located within the Dinosaur Lowlands MLP. Under Alternatives B and C, approximately 6,000 acres along Snake John Reef would be identified as part of WRFO's ferret management areas. Within these areas, CSU stipulations would be applied under Alternatives A, C, and D (except Snake John Reef).

Since black-footed ferrets are dependent upon prairie dogs as a prey base, management actions that benefit prairie dogs also benefit ferrets. Under Alternative B, areas within 0.5 mile of prairie dog colonies would be subject to an NSO stipulation (except for the Coal Oil Basin Exemption Area). Timing limitations would be used to limit disturbance to prairie dogs during the breeding and young-rearing period. There would also be times of the year when seismic activity would be avoided on prairie dog colonies.

2.2.10 Cultural Resources

Management actions related to cultural resources can be found in Chapter 2, Table 2-12. The Canyon Pintado National Historic District (CPNHD; 16,040 acres) is located within the Eastern Bookcliffs/Piceance Basin MLP. It would continue to be managed as an avoidance area for major new rights-of-ways and mineral material sales would not be allowed. The Texas-Missouri-Evacuation Creek areas are also located within the Eastern Bookcliffs/Piceance Basin MLP. These areas would be open to oil and gas leasing with a CSU stipulation and would also be avoidance areas for ROWs. Throughout the resource area, under Alternatives B, C, and D, development would be severely restricted within 500 to 1,000 feet of rock art or standing architecture to protect those sites from damage associated with vibrations.

In addition, cultural resource project plans (CRPP) will be developed for both the CPNHD and the Dragon Trail/Douglas Arch area south of Rangely (generally along Rio Blanco County Road 23; within the Eastern Bookcliffs/Piceance Basin MLP). The CRPPs will be the basis for review and alteration of management decisions in a future RMP revision or amendment. For CPNHD, the CRPP will analyze the compatibility of an NSO designation; the impacts of livestock grazing and recreation on National Register of Historic Places (NRHP)-eligible sites and sites contributing to CPNHD; and existing impacts on visual resources within CPNHD. The CRPP will also identify a management boundary to wholly contain CPNHD's National Register boundary and will establish a site monitoring plan. The CRPP for the Dragon Trail/Douglas arch area will consider the feasibility

of additional special management areas (e.g., ACECs or historic districts); identify boundaries for NRHP-eligible sites; and establish a monitoring plan for the area.

2.2.11 Paleontological Resources

Management actions related to soil and water resources can be found in Chapter 2, Table 2-13. Paleontological resources are managed on a project-level basis. Within PFYC Class 4 and 5 formations, an on-the-ground survey is required prior to approval of surface disturbing activities. For projects that require excavation into the underlying rock formation, a BLM-approved paleontological monitor is often required to be present during construction. If paleontological resources are discovered, then work immediately ceases until the BLM evaluates the discovery and then takes action to either protect or remove the resource.

2.2.12 Visual Resources

Management actions related to visual resources can be found in Chapter 2, Table 2-14. The WRFO is currently in the process of conducting a visual resources inventory for the entire resource area and this updated information will be used to help inform decision making and the evaluation of appropriate project-specific mitigation measures. Areas of primary concern include VRM Class I and II areas, Canyon Pintado NHD, National and State Scenic Byways, and areas surrounding communities.

2.2.13 Special Designations & Other Areas

Management actions related to special designations can be found in Chapter 2, Table 2-21. When developing an MLP, WO-IM-2010-117 directs that the effects of oil and gas leasing and development should be considered in areas such as ACECs, WSAs, lands with wilderness characteristics, and any nearby state, tribal, or other Federal agency lands. Table I-3 shows the amount of acreage associated with these emphasis areas within the Eastern Book Cliffs/Piceance Basin and Dinosaur Lowlands MLPs. Since many of these emphasis areas overlap and may already be protected by BLM as either WSAs or ACECs, only acreages outside of those areas are shown.

Table I-3. Areas Emphasized in the Eastern Book Cliffs/Piceance Basin and Dinosaur Lowlands MLP Recommendations

Emphasis Area	Eastern Book Cliffs / Piceance Basin	Dinosaur Lowlands
Wilderness Study Areas	18,250	38,950
Areas of Critical Environmental Concern	67,520	21,030
Citizen Wilderness Proposals ⁽¹⁾	41,582	18,846
State Wildlife Areas ⁽²⁾	5,225	0
CNHP Potential Conservation Areas ⁽³⁾	18,863	77,147
CNAP Natural Areas ⁽⁴⁾	0	0

NOTES:

⁽¹⁾ Acreage includes only areas outside of WSAs and within federal mineral estate.

⁽²⁾ Acreage includes only federal mineral estate.

⁽³⁾ Acreage includes only areas outside of ACECs and within federal mineral estate.

⁽⁴⁾ Acreage includes only areas outside of ACECs; the CNAP Natural Areas within the two MLP areas are wholly within ACECs.

Wilderness Study Areas

The Bull Canyon, Willow Creek, Skull Creek, and Oil Spring Mountain WSAs would remain closed to oil and gas leasing.

Areas of Critical Environmental Concern

The Yanks Gulch/Upper Greasewood Creek, Lower Greasewood Creek, Raven Ridge, South Cathedral Bluffs, Coal Draw, and Moosehead Mountain ACECs (20,200 acres) would be open to oil and gas leasing with an NSO stipulation. The White River Riparian, Coal Oil Rim, Oil Spring Mountain, and East Douglas Creek ACECs (68,350 acres) would be open to leasing with a CSU stipulation.

Lands with Wilderness Characteristics

The Big Ridge, Bitter Creek, Dragon Canyon, Oil Spring Mountain, and Prairie Canyon citizen wilderness proposal (CWP) areas are within the Eastern Bookcliffs/Piceance Basin MLP. The final wilderness inventory for the Oil Spring Mountain area was completed in 1980 and portions of the area were subsequently designated as a WSA. The BLM does not consider the remaining Oil Spring Mountain CWP area to meet the criteria for further consideration.

As described in Chapter 3 (Section 3.9), the WRFO began the process of identifying potential lands with wilderness characteristics that needed to be inventoried. Areas evaluated for wilderness character consisted of roadless areas greater than 5,000 acres as well as roadless areas under 5,000 acres that were contiguous with either lands determined to have wilderness or lands managed for the protection of wilderness characteristics or were of sufficient size to make practicable their preservation and use in an unimpaired condition. These areas were then given an initial evaluation for the presence of naturalness and outstanding opportunities for solitude and primitive and unconfined types of recreation. This process resulted in the identification of 30 polygons that need an intensive, on the ground field inventory. Most (85%) of these areas occur within the MLP areas, including approximately 135,300 acres within the Dinosaur Lowlands MLP and 79,500 acres within the Eastern Bookcliffs/Piceance Basin MLP. The Big Ridge CWP and portions of the Prairie Canyon, Bitter Creek, and Dragon Canyon CWPs occur within these areas identified for further inventory.

The Bull Canyon, Skull Creek, and Pinyon Ridge CWPs are located within the Dinosaur Lowlands MLP. Portions of Bull Canyon and Skull Creek were subsequently designated as the Bull Canyon, Willow Creek, and Skull Creek WSAs. The BLM does not consider the remaining areas to meet the criteria for further consideration.

Management actions related to non-WSA lands with wilderness characteristics can be found in Chapter 2, Table 2-22. Alternative management strategies being considered for these areas range from managing these areas to retain their resource value (if the parcels are greater than 5,000 acres in size and less than 20 percent of the area is encumbered by leases) to managing these areas to give priority to other uses. As such, specific management actions range from applying an NSO to these areas to applying a LN containing measures and limitations intended to maintain naturalness and outstanding opportunities for solitude and primitive and unconfined recreation. For new ROW authorizations, management actions vary from exclusion areas to open areas with applied mitigation that would minimize impacts to wilderness character.

State Wildlife Areas

The Square S Summer Range Unit of the Piceance State Wildlife Area is located within the Eastern Bookcliffs/Piceance Basin MLP. Under Alternatives B and C, this area would be open for oil and gas development with an NSO stipulation.

CNHP Potential Conservation Areas

The Colorado Natural Heritage Program identifies potential conservation areas (PCAs) as the estimated area required to support the long-term (100+ years) survival of targeted species or natural communities. Portions of Raven Ridge, Calamity Gulch, School Gulch, Lower Greasewood Gulch, Cathedral Bluffs, Soldier Creek, Lake Creek, and East Douglas Creek PCA are included within ACECs. The targeted species within most of the PCAs are rare plants, including those specifically managed for by the BLM as either BLM sensitive species or federally listed species. The target species for Skinner Ridge PCA is sage-grouse. Brief descriptions of management actions for ACECs, special status plants, and sage-grouse are provided above. The East Douglas Creek, Lake Creek, and Soldier Creek PCAs target montane riparian woodland communities. As described above under Soil and Water Resources, floodplains and areas adjacent to perennial waters, springs, and wetlands are all protected through the use of either a CSU or NSO.

CNAP Natural Areas

The Natural Areas Act established a statewide Colorado Natural Areas Program to provide a means by which specific examples of Colorado's natural features and ecological phenomena can be identified, evaluated, and protected through a statewide system of designated natural areas. The Raven Ridge, Yanks Gulch/Upper Greasewood Creek, Lower Greasewood Creek, and South Cathedral Bluffs Natural Areas all occur wholly within the boundaries of BLM's ACECs of the same names within the two MLP areas. Under all alternatives, these areas are open for leasing with an NSO stipulation and occupied habitat for federally listed plant species would be managed as an exclusion area for rights-of-way; which is consistent with the management agreements made between the BLM and the CNAP.

2.2.14 Reclamation

The BLM understands that successful reclamation is a critical component of managing oil and gas development within the context of its multiple use mission. The Oil and Gas Development RMPA/EIS includes the WRFO Surface Reclamation Plan as Appendix D. The reclamation protocol gives detailed guidance and specific timeframes and criteria that must be met in order for reclamation to be considered successful. Additional management actions related to reclamation, including weed management, acceptable desired plant communities, the use of native species, and the use of sterile hybrids or cereal grasses can be found in Table 2-3 (Vegetation). The importance of successful reclamation is underscored by both the big game and sage-grouse development thresholds.

3.0 The RMPA/EIS and Analysis of Master Leasing Plans

The WRFO has reviewed the RMPA/EIS and considered whether it is consistent with the intent of the MLP concept. The WRFO has determined that the RMPA/EIS does address the issues present in this new policy. The RMPA/EIS is a detailed look at oil and gas development within the WRFO over the next 20 years and considers a range of protective measures designed to minimize resource conflicts. Indeed, the RMPA/EIS incorporates almost all of the examples given in WO-IM-2010-117 of the types of decisions that may be made during preparation of an MLP.

3.1 Stipulations

As identified in the Table I-1, there are no areas open to leasing with standard terms and conditions under either Alternatives B or C. Even under Alternative D, which allows the highest level of development (i.e., most well pads), there are still 705,000 acres (74 percent) across both MLP areas that are only open to development under NSO stipulation, CSU stipulation, or TL stipulation.

3.2 Phased Leasing

Phased leasing is typically considered as a means to protect resource values when the mineral development potential is unknown. The WRFO has used phased leasing in a slightly different context to protect resource values when the mineral development potential is known but a full understanding of how to protect a resource value is unknown. The WRFO may defer leasing on core sage-grouse habitat until the effects of development are understood so as to manage development in a manner that would, with a reasonable level of certainty, maintain viable populations of sage-grouse in the long-term.

3.3 Threshold Concept

The threshold concept being applied to big game seasonal ranges incorporates several of the decisions that may be made in an MLP including: phased development, limits on new surface disturbance, use of existing infrastructure, placement of linear disturbances in corridors, and reclamation. While operators are not required to abide by the thresholds, the BLM hopes that the incentive of year-round drilling will entice them to remain at or under the thresholds by clustering their development activities so as to take advantage of existing/common infrastructure. As such it is anticipated that linear disturbances will be placed in corridors in order to take advantage of a combined buffered area (rather than each individual project being buffered). Successful reclamation will be a key component in allowing an operator to drill from new well pads as other wells go into production. The use of liquids gathering systems to centralized offsite production facilities not only helps reduce truck traffic, it also aids in meeting thresholds since a greater extent of individual well pads can be reclaimed since the need for tank batteries is either reduced or eliminated (i.e., not every well pad location would require a tank battery).

3.4 Reduction of Emissions and Three-Phase Gathering

There are several management actions described above under Air Quality that are designed to reduce emissions so that full field development will not contribute to eventual nonattainment of air quality standards. In addition, the use of three-phase gathering systems (liquid gathering systems to centralized offsite production facilities) are currently being used within the Piceance Basin and over the next 20 years it is expected that between 40-90 percent of all well pads will be piping natural gas, condensate, and produced water to consolidated facilities.

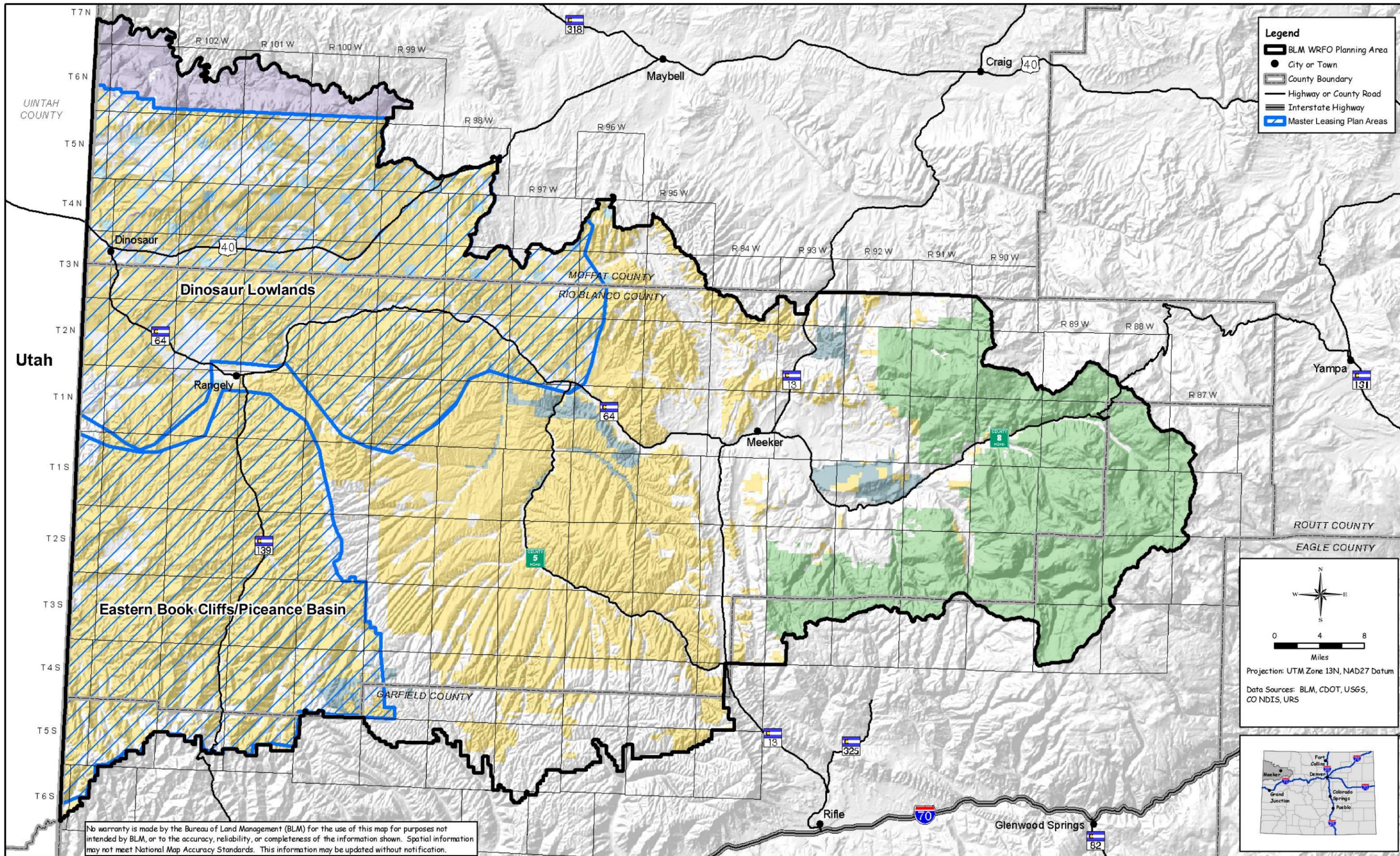
3.5 Multiple Wells Per Pad

The analysis in the RMPA/EIS is based on the RFD scenario. It is expected that 95 percent of the development over the next 20 years will be within the MPA and will be from multi-well pads. Both MLPs are largely outside of the MPA and are expected to have lower levels of development that will likely occur from single well pads. However, drilling of multiple wells from a single well pad is a technique that BLM WRFO specialists are well aware of and they will pursue the use of when it is technically feasible and will minimize resource conflicts.

4.0 Summary

In Colorado, the BLM received four proposals; the Dinosaur Lowlands MLP and the Eastern Bookcliffs/Piceance Basin MLP both occur within the WRFO. Neither of the MLP proposals meet all four of the criteria since in both areas a substantial portion of the federal mineral estate is leased. However, even if the proposals do not meet the criteria, the BLM may still choose to prepare MLPs or similar plans. The WRFO Oil and Gas Development RMPA/EIS is different than other types of amendments or plan revisions since the sole purpose of the planning effort is to examine management decisions related to oil and gas development. Thus, the BLM is able to conduct a much more detailed analysis of a range of development levels and management actions through the RMPA/EIS and it is the equivalent of preparing an MLP-level of analysis across the entire planning area. Since the RMPA/EIS considers protective measures designed to minimize resource conflicts both inside and outside of both the MPA and the MLPs, the WRFO does not intend to further develop either the Dinosaur Lowlands MLP or the Eastern Bookcliffs/Piceance Basin MLP.

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