

MOAB MASTER LEASING PLAN

INTRODUCTION

In accordance with Bureau of Land Management (BLM) Washington Office Instruction Memorandum No. 2010-117, the BLM Canyon Country District Office is initiating a planning effort to prepare the Moab Master Leasing Plan (MLP), possible amendments to the Moab and Monticello Resource Management Plans (RMPs), and a single environmental impact statement (EIS). The scope of the MLP is limited to new oil, gas, and potash leasing within the MLP area. The MLP process will provide additional planning and analysis prior to new leasing of oil, gas, and potash within the planning area (783,000 acres of public lands).



The planning area has high potential for the development of oil, gas, and potash. In addition, the planning area is adjacent to Canyonlands and Arches National Parks and contains lands identified by the BLM as having outstanding visual resources, high value recreation areas, lands with wilderness characteristics, and high quality air resources.

The outcome of the MLP process may result in new mineral leasing stipulations and development constraints accomplished through amendments to the land use plans (Moab and Monticello RMPs). The EIS will analyze likely development scenarios and land use plan alternatives with varying mitigation levels for mineral leasing.



Scenic Dome Plateau



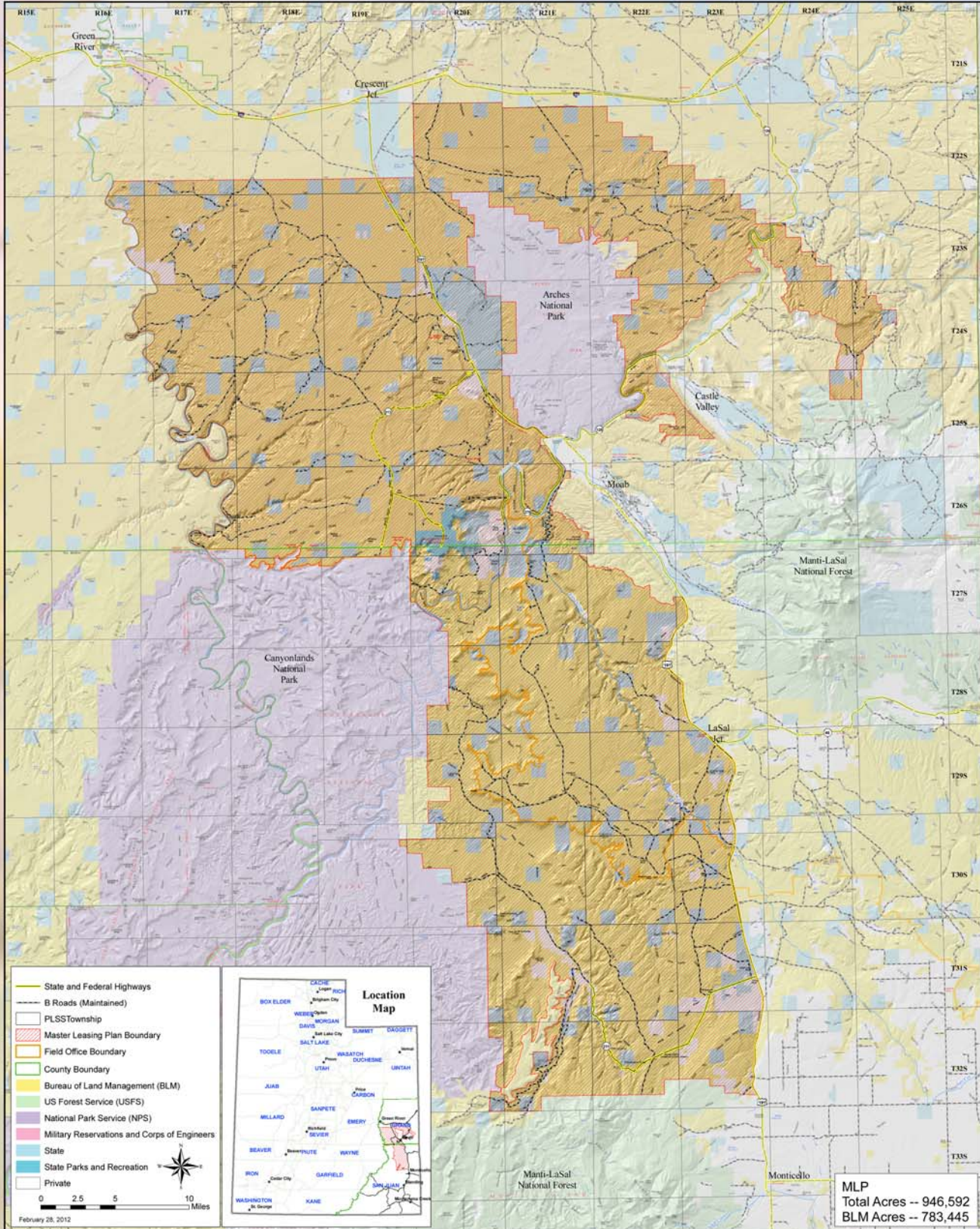
Potash Evaporation Ponds



Oil and Gas Well in the Big Flat Area

MOAB MASTER LEASING PLAN

THE MASTER LEASING PLAN AREA



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PRELIMINARY PLANNING ISSUES

Planning issues are topics of interest or concern about the potential effects resulting from leasing and development of oil, gas, and potash resources within the planning area. The following preliminary issues have been identified by the BLM through an interdisciplinary process:

- **Air quality** and global climate change
- **Cultural resources**, including historic trails and traditional cultural properties of importance to Native American tribes
- **Paleontological resources** of scientific importance
- **Wildlife and fisheries habitat**, including special status species and migration corridors
- **Visual resources**, including visual resource inventory and management classes
- **Fragile soils** and steep slopes
- **Water resources**, including aquifers
- **Vegetation**, including rare plants and riparian resources, and the ability to achieve interim and final reclamation standards (Gold Book, Chapter 6)
- **Recreation use**, including Special Recreation Management Areas and Recreation Focus Areas
- **Socioeconomics**
- **Special Designations**, which include ACECs and suitable Wild and Scenic Rivers
- **Wilderness characteristics** lands identified by BLM
- **National Parks and State lands** adjacent to and within the planning area

Federal, state, and local agencies; the public; and other stakeholders have the opportunity to identify additional issues to be addressed in the MLP process. You may wish to consider the preliminary issues identified when submitting comments but you do not need to limit your comments to these issues.



SOCIOECONOMICS

“Socioeconomics” addresses the effects of social and economic conditions and trends on BLM public land resources and the positive and negative impacts of BLM’s management decisions on those conditions and trends at the local level and beyond.

Socioeconomics is not a BLM management decision; rather, it is a contextual element for planning.

Socioeconomic analysis for the MLP will include:

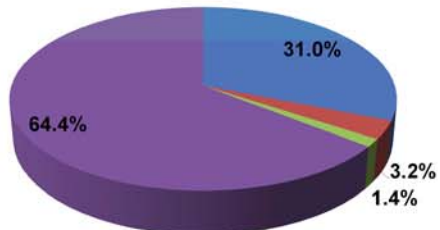
- Development of a Socioeconomic Baseline Report – a review of current social/cultural and economic conditions and trends in the region.
- Socioeconomic Impact Analysis – quantitative and qualitative assessments of the social/cultural and economic impacts of the management alternatives.

Examples of Economic Indicators

2009 Employment, Grand County

- Travel & Tourism Related 1,725
- Mining 179
- Agriculture 77
- All Other Sectors 3,576

Total Employment 5,557

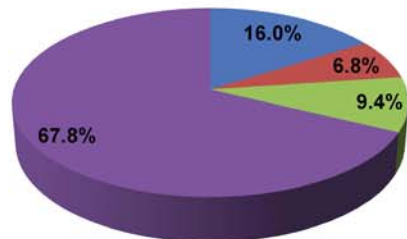


■ Travel & Tourism Related ■ Mining
■ Agriculture ■ All Other Sectors

2009 Employment, San Juan County

- Travel & Tourism Related 797
- Mining 340
- Agriculture 467
- All Other Sectors 3,377

Total Employment 4,981

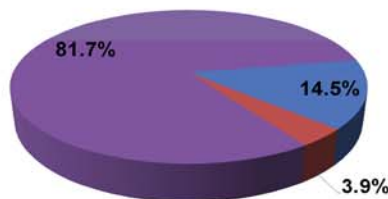


■ Travel & Tourism Related ■ Mining
■ Agriculture ■ All Other Sectors

2010 Local Government Revenues, Grand County

- Tourism-Related \$6,575,691
- Natural Resources-Related \$1,757,993
- All Other Sources \$37,116,255

Total Local Govt Revenues \$45,449,939

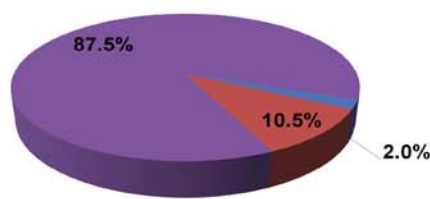


■ Tourism-Related
■ Natural Resources-Related
■ All Other Sources

2010 Local Government Revenues, San Juan County

- Tourism-Related \$1,600,705
- Natural Resources-Related \$8,385,043
- All Other Sources \$69,738,593

Total Local Govt Revenues \$79,724,341



■ Tourism-Related
■ Natural Resources-Related
■ All Other Sources

Source: Impact Analysis for Planning (IMPLAN) baseline data from the Bureau of Economic Analysis, Bureau of Labor Statistics, and U.S. Census Bureau.

Source: Utah State Auditor’s Office, Local Government Audited Financial Statements; Utah Tax Commission, Annual Report 2010, Property Tax Division Annual Statistical Report 2010, and Calendar Year Taxable Sales.



SOCIOECONOMICS

Economic Impacts

Uses of BLM resources have economic impacts on local communities. The “multiplier effect” refers to the way that direct use of resources has additional effects in the economy, as shown below.

To the extent that indirect and induced purchases are local, money recirculates in the local economy additional times; for example, when a transportation company buys fuel from a local fuel supplier. We will carefully quantify the direct effects of each MLP management alternative, then put that data into a computer model of the local economy to estimate the total impacts.

Other Impacts

In addition to addressing monetary flows as described above, we will address:

- Nonmarket values – For instance, while expenditures of hikers, bikers, and rafters on motels and restaurants are captured via the approach above, the value of the enjoyment they derive is not. For the most part recreation on BLM-managed lands comes free or at a nominal charge, but this does not mean it does not have value.
- Social impacts – People have cultural as well as economic linkages to public lands. Ranching, mineral prospecting, recreation, and many other activities have important social and cultural significance that may be affected by land use changes.

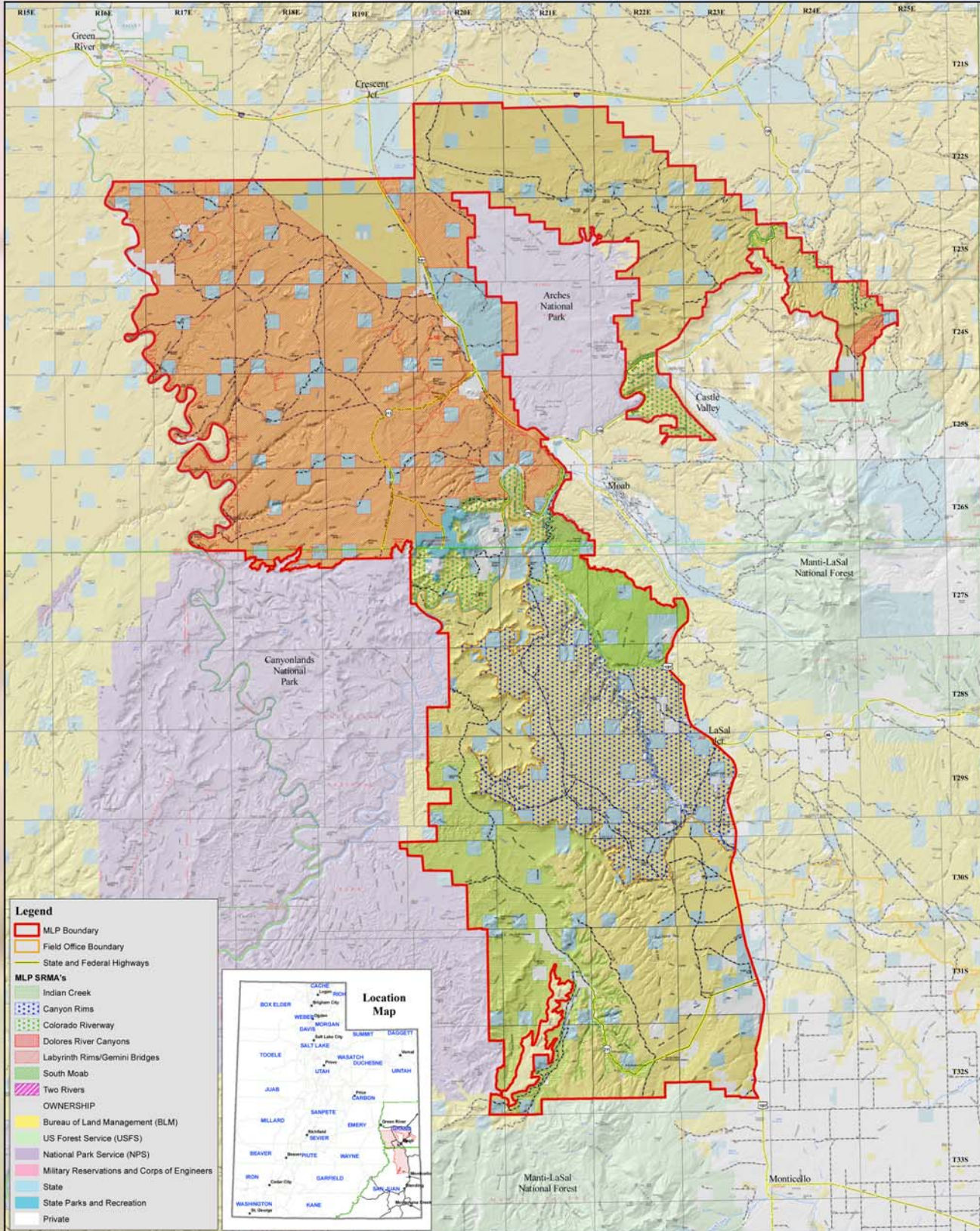
Some questions for your consideration/comments:

- What social and economic conditions and trends are most important for BLM to consider?
- How do you think oil, gas, and potash development in the planning area will affect social and economic conditions and trends?
- What are the economic and social/cultural tradeoffs between different uses of BLM public lands in the planning area (for example, mineral development and recreation)? How should BLM balance those trade-offs or mitigate socioeconomic impacts?
- Are there areas within the two counties with low-income or minority populations that could be impacted by BLM’s planning area management decisions? If so, what areas, populations, and potential impacts are of concern?



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SPECIAL RECREATION MANAGEMENT AREAS

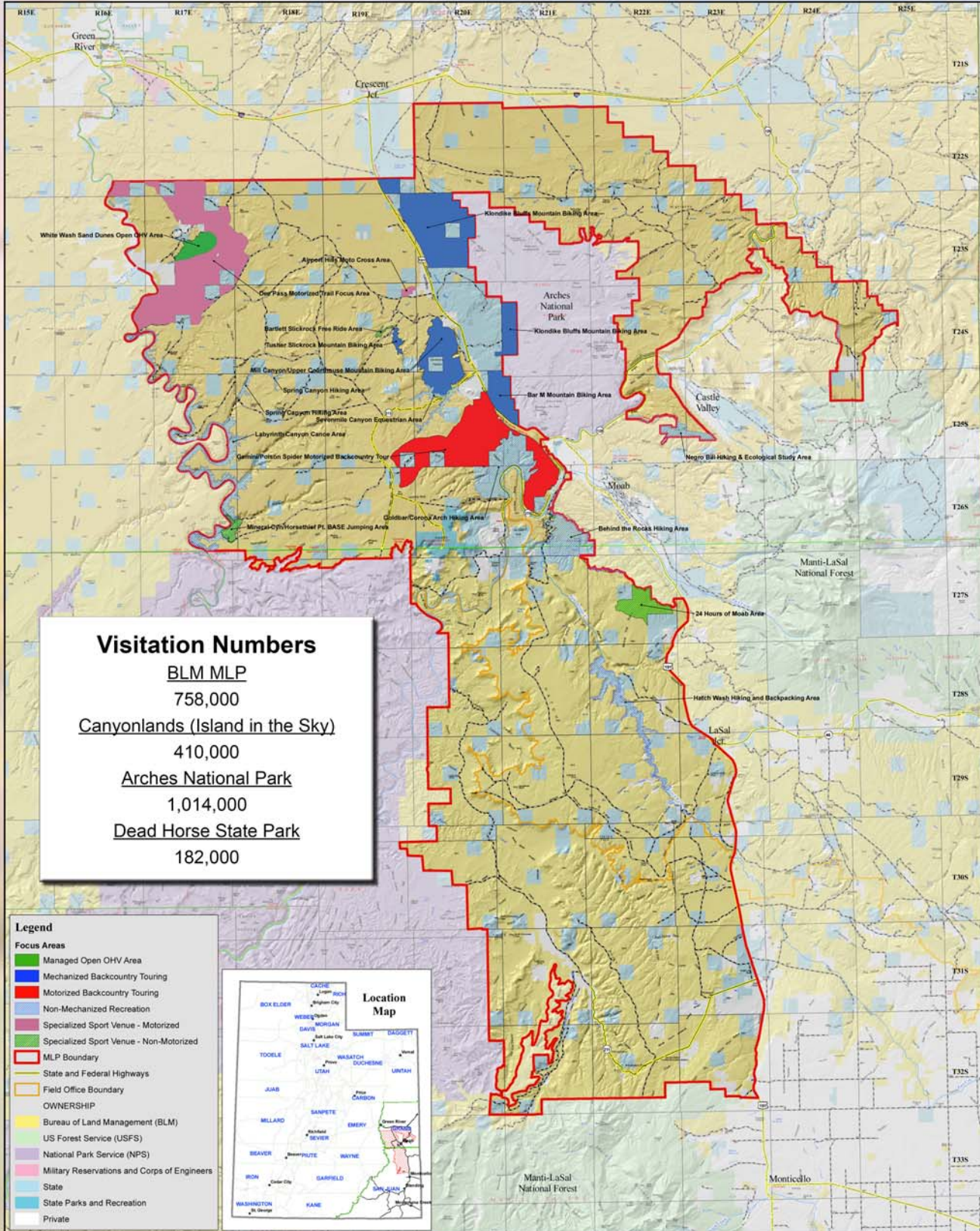


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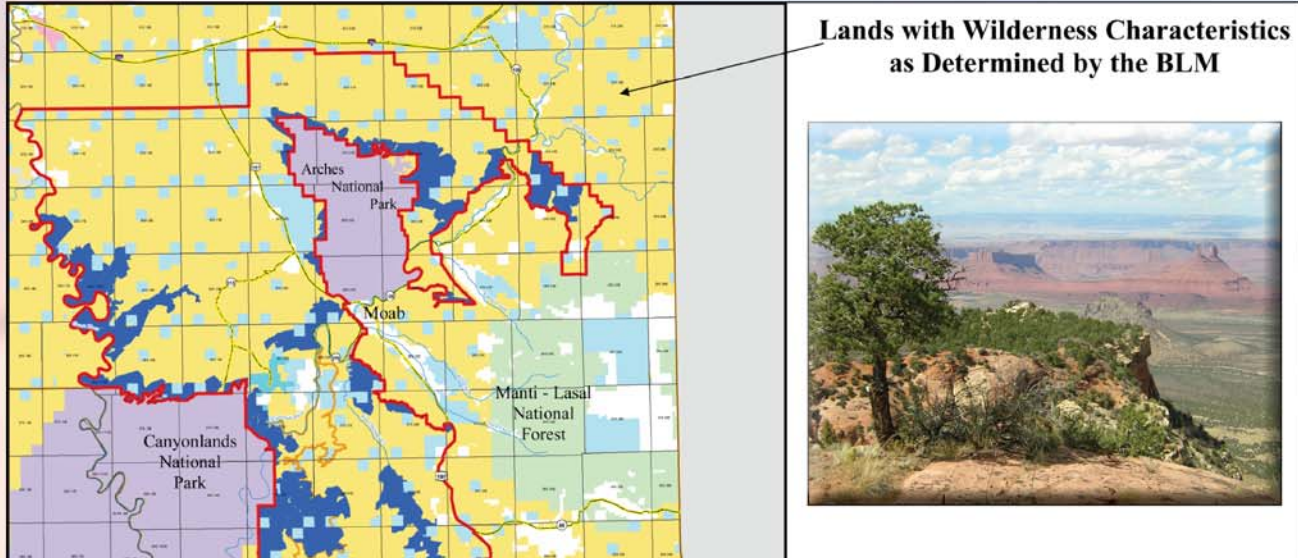
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RECREATION FOCUS AREAS

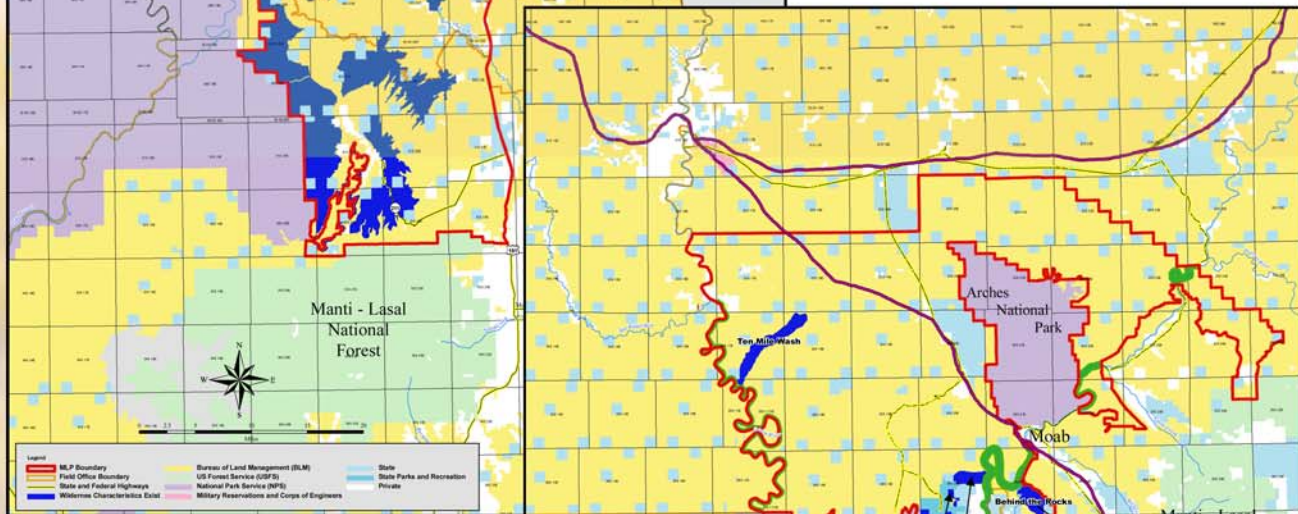


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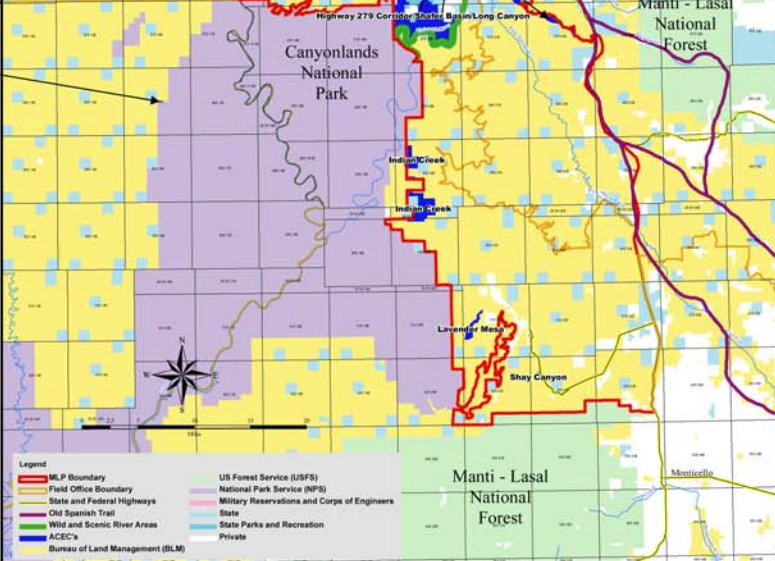
SPECIAL DESIGNATIONS AND LANDS WITH WILDERNESS CHARACTERISTICS



Lands with Wilderness Characteristics as Determined by the BLM

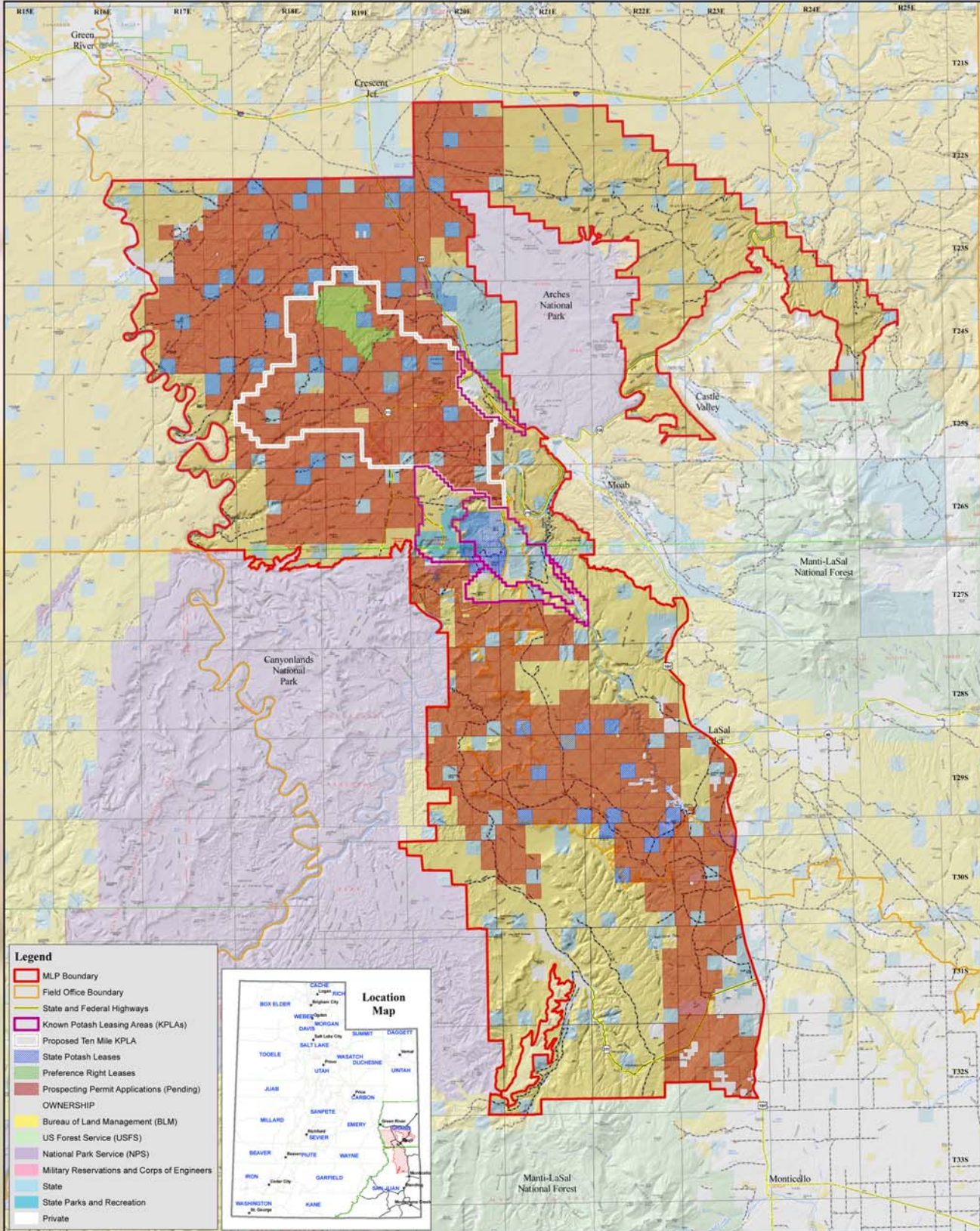


Special Designations



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POTASH



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POTASH

Potash refers to a group of potassium salts soluble in water. The most common potassium salt is sylvite (potassium chloride – KCl).

- About 95% of the potash produced is used as fertilizer for food production.
- The U.S. imports over 85% of its potash, mainly from Canada.
- Price in 2000 – \$100/ton; price in 2011 – \$386/ton; projected price in 2012 – \$490/ton.

Potential Methods of Potash Extraction and Processing within the Master Leasing Plan Area

Underground Solution Mining — Crystallization Processing

Well Field—hot water injection and extraction wells

1-2 well pads per square mile

Potash Processing

- Mechanical crystallizers for cooling brines, and/or production cooling ponds, up to 180 acre footprint
- Drying, compacting, sizing, and shipment storage facilities
- Plant site; varies from 100 to 500 acre footprint, depending on production
- Water usage, recirculation; 4-12 times less than solar evaporation
- Uses electricity and gas for heating and cooling
- Surge pond and tailings pond may be required



Underground Solution Mining — Solar Evaporation Processing

Well Field—hot water injection and extraction wells

1-2 well pads per square mile

Potash Processing

- Evaporation ponds (400 acres/100,000 tons potash/year); includes milling and flotation systems
- Drying, compacting, sizing, and shipment storage facilities
- Plant site; up to 400 acre footprint
- Water usage about 5,000 gal/ton; most water lost to evaporation
- Utilizes solar energy; lower electrical and gas consumption
- Tailings pond may be required

