The Bureau of Land Management
Northwest Colorado District
White River Field Office
Oil Shale PEIS Wilderness Characteristics Inventory

Issue:

The Bureau of Land Management (BLM) White River Field Office (WRFO) was requested to inventory lands with potential wilderness characteristics within the proposed oil shale lease area to determine if wilderness characteristics exist or not.

Background:

On April 14, 2011, the BLM published, in the *Federal Register,* a Notice of Intent to Prepare a Programmatic Environmental Impact Statement (PEIS) and Possible Land Use Plan Amendments for Allocation of Oil Shale and Tar Sands Resources on Lands Administered by the Bureau of Land Management in Colorado, Utah, and Wyoming. As there are no economically viable ways yet known to extract and process oil shale for commercial purposes, and tar sands is not at present a proven commercially-viable energy source, the BLM, through its planning process, is taking a hard look at whether it is appropriate for approximately 2,000,000 acres to remain available for potential development of oil shale, and approximately 431,000 acres of public land to remain available for potential development of tar sands. On January 16, 2009, a lawsuit was filed by several organizations challenging the 2008 Oil Shale and Tar Sands Programmatic Environmental Impact Statement (PEIS) Record of Decision (ROD). As a condition of settlement of this lawsuit, the BLM has agreed to engage in a new planning initiative that takes a fresh look at the allocation decisions made in the 2008 ROD. This new planning initiative will provide the BLM an opportunity to consider the 2008 allocation decisions in light of the still nascent character of the technology necessary to economically develop oil shale resources, as well as certain information not available in 2008.

Under the settlement agreement filed with the District Court in Colorado, the BLM has agreed to analyze the environmental effects of an alternative in a National Environmental Policy Act (NEPA) analysis that would exclude from oil shale or tar sands leasing:

a. All areas that the BLM has identified, or may identify as a result of inventories conducted during this planning process, as lands containing wilderness characteristics;
b. The whole of Adobe Town "Very Rare or Uncommon" area, as designated by the Wyoming Environmental Quality Council on April 10, 2008;
c. Core or priority sage grouse habitat, as defined by such guidance as the BLM may issue;
d. All areas of critical environmental concern (ACEC) located within the areas analyzed in the September 2008 Oil Shale and Tar Sands (OSTS) Resources Leasing Final PEIS; and
e. All areas identified as excluded from commercial oil shale and tar sands leasing in Alternative C of the September 2008 OSTS PEIS.

In accordance with Section 201 of the Federal Land Policy and Management Act (FLPMA), the Government shall prepare and maintain an inventory of the public lands and their resources and other values on a regular basis. Most of the oil shale and tar sands planning areas in Colorado, Utah, and Wyoming have not recently been inventoried to determine whether there are lands with wilderness characteristics present. The appropriate Field Offices within these three States were requested to conduct inventories and prepare a report with their findings.

Methods:

In June funding and personnel were made available to conduct the inventory requested within the area proposed for oil shale lease allocation. Following Washington Office (WO) implementation guidelines, the WRFO identified five polygons (see attachment Map WRFO Oil Shale LWC) of sufficient size with minimal roads present within the proposed oil shale lease area (see Table 1).

Polygon #	Acres (oil Shale)	Acres (total)	Routes (miles)	Inventory Walked (miles)
5	2272	5172	5.03	13.8
8	2017	6200	6.59	19.51
9	7825	8384	5.95	18.22
11	8883	10271	6.94	27.53
12	1294	11941	5.8	28.85

Table 1: Polygons Inventoried

The following assumptions were made in conducting the inventory:

- A representative sample of the lands would be analyzed (approximately 50% of each polygon) utilizing GPS, photographic and written documentation
- Inventory of roads and on-sight observations would be conducted for each polygon
- If a portion of a polygon is located within the Oil Shale Lease Area, the entire polygon will be inventoried.

Beginning June 27, 2011 the WRFO began inventorying these five polygons with potential wilderness characteristics.

An Inter-disciplinary (ID) Team was appointed the task of conducting the inventory. The ID Team was composed of 5 resource specialists from across the State and represented a range of subject area expertise. The members are listed below:

James Michels: Supervisory Natural Resource Specialist, White River Field Office, Team Leader
Kenneth Dittlinger: Outdoor Recreation Planner, Little Snake Field Office
Julie McGrew: Natural Resource Specialist, Colorado River Valley Office
Bob Hartman: Petroleum Engineer, Grand Junction Field Office

Christina O'Connell: GIS Specialist, Colorado River Valley Field Office

The ID Team conducted the inventory following some general guidelines. The lands were primarily roadless, greater than 5,000 acres in size, apparent naturalness, and provided outstanding opportunities for solitude or primitive recreation. To determine if an area was roadless, the ID Team used the definition of a "road" in the Federal Land Policy and Management Act's (FLPMA) legislative history. The language below is from the House of Representatives Committee Report 94-1163, page 17, dated May 15, 1976, on what became FLPMA.

> "The word 'roadless' refers to the absence of roads which have been improved and maintained by mechanical means to insure relatively regular and continuous use. A way maintained solely by the passage of vehicles does not constitute a road."

This definition was used to determine whether a route was a road or a way and the ID Team walked each route while conducting the inventory for each polygon. Each team member was provided a set of maps that illustrated known routes, topography, and an aerial image of the areas to be inventoried. Due to the limited time in which to conduct the inventory and the limited personnel available, the Team decided to utilize vantage points along ridge tops as much as possible during the inventory process. The Team utilized a Global Positioning System (GPS) to map portions of known and newly discovered routes, as well as points where photos were taken. Upon daily return to the WRFO, the team completed the wilderness characteristics analysis for each of the five polygons. All data collected was corrected and compiled to create maps and all of the photos taken were inventoried to create comprehensive files for each polygon.

The Team finished the field work July 13, 2011.

Findings:

Polygon 5 - Wagonroad Gulch/Galloway Gulch Area: 5,172 acres,

This polygon is located within the following legal descriptions:

Township 2 South, Range 99 West, Sections, 25, 26, 34, and 35
Township 3 South, Range 99 West, Sections 2, 3, 4, 9, 10, 11, 14, 15, 16, 21, 22, and 28

The polygon is bordered by private lands on the north and south, by BLM road 1020 to the west, and Rio Blanco County Road (RBC) 144 to the east. The topography is bisected by long, flat mesa-like top ridges adjacent to deep drainages. The vegetation ranges from Big Basin sagebrush and grasses in the drainage bottoms with pinyon/juniper side slopes transitioning to mountain mahogany, service berry, mountain big sagebrush, native grasses, and wildflowers on the ridge tops. Motorized access is limited into the area by terrain and private lands. There are 5 routes

identified within the original boundary. Four routes into the area are two track routes coming from private lands with no evidence of construction or maintenance, and minimal evidence of utilization. The upper half of one route was currently being used by the Colorado Parks and Wildlife (CPAW) to conduct sage grouse studies. One route entering into the polygon from the east is a natural gas pipeline, where the lower half is completely overgrown with sagebrush and only a cow trail is being utilized, but the upper half is still being used, most likely by hunters for upland big game hunting. This route was removed from the polygon creating a cherry stem. The remaining routes are difficult to see until the observer is within 30 feet of the route. There is a barbed wire fence, some stock tanks, and stock ponds within the polygon. The overall human modifications to the landscape are substantially unnoticeable, giving the area an apparent naturalness to an average visitor. With the limited access, terrain, views, apparent naturalness, and lack of outside intrusions, the area presented an outstanding opportunity for solitude. The same factors present for solitude also provide for outstanding primitive recreational opportunities in the forms of hunting, hiking, horseback riding, wildlife viewing, and photography, especially of wildflowers. The Team finds this area possesses wilderness characteristics.

Polygon 8 – Ernie Howard Gulch Area: 6,200 Acres

This is located within the following legal description:

Township 1 North, Range 96 West, Sections, 19, 20, 28, 29, 30, 31, and 32
Township 1 North, Range 97 West, Sections, 22, 23, 24, 25, 26, 35, and 36

The polygon is bordered by the CPAW lands on the north and south, to the east by BLM road 1154, to the west by Piceance Creek and private lands. The topography can be characterized by one large main ridge that has multiple spur ridges separated by deep narrow drainages that flow to a wide valley bottom. The vegetation is pinyon/juniper woodlands with intermixed mountain sage brush, mountain mahogany, and grasses on the ridges to big basin sagebrush and grasses in the drainage bottoms. There is evidence of large wildland fires where there is a presence of standing dead pinyon/juniper trees surrounded by grasses in the most recent scars to mixed brush in the older burn scars. Motorized access is available to the public from the north but terrain and vegetation restrict travel beyond existing routes in the area. All access is restricted by CPAW from the south into the polygon to authorized users only. Ten routes have been identified within the polygon. One route leads to a United States Geological Survey (USGS) water monitoring well, four routes go to range water improvement sites, and the remaining five routes are user created routes, primarily for access. Human improvements are limited primarily to areas near the perimeter of the polygon. Routes within the interior of the polygon are rarely used and are difficult to see, with the best evidence of use being primarily during upland big game hunting season. Evidence of human improvements is largely unnoticeable; the mosaic appearance of the vegetation with the burn scars and the topography in general would, to the average visitor, give the area an apparent naturalness. The layout of the topography, the height of the vegetation, and

the lack of outside intrusions, from the site of development or the sounds of civilization, provide for an outstanding opportunity for solitude. These same factors contribute to an outstanding opportunity for some primitive recreational opportunities like hunting, hiking, horseback riding, and photography. The Team finds this area possesses wilderness characteristics.

Polygon 9 – Barcus Creek Area: 8,384 Acres

This is located within the following legal description:

Township 1 North, Range 98 West, Sections, 7, 8, 17, 18, and 19
Township 1 North, Range 99 West, Sections, 11, 12, 13, 14, 15, 16, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 34, and 35
Township 1 North, Range 100 West, Section 24

The polygon is bordered by RBC 88 to the east, BLM road 1033 to the north, BLM road 1036 to the west and RBC 122 to the south. The topography can be characterized as two long gradually sloping ridges with wide drainages on either side. The vegetation along the ridge tops are mountain mahogany, mountain big sage, native grasses at the higher elevations and pinyon/juniper woodlands mixed with the mountain mahogany and grasses at lower elevations. The drainage bottoms are native grasses and big basin sagebrush. The eastern half of the polygon has mosaic patches of pinyon/juniper vegetative communities as a result of the large fire history in the area. The fire scars have standing and down dead pinyon/juniper with primarily grass as the dominant vegetation. There are two fence lines present just inside the southern boundary, and the other fence bisects the northern most ridge. There are stocks ponds present in each drainage. There is an oil and gas well pad with a dry hole marker that is minimally reclaimed but there is grass, brush and a few juniper trees growing on the site. There are 11 routes identified within the polygon. Only two of the routes showed regular and continuous use, primarily as access for hunting. Due to the large fires that have occurred in the polygon and the level of revegetation efforts, the native grasses have overgrown the routes, making them largely unseen from the perimeter. The public, therefore, has not been utilizing these routes. The routes and other human improvements are difficult to see until within 30 feet. This gives an apparent naturalness to the average visitor within the area. The topography, vegetation, and size of the polygon allow for outstanding opportunities for solitude. The same factors also provide for some outstanding primitive recreational opportunities like hunting, hiking, horseback riding, snowshoeing, cross country skiing, and wildlife viewing. The Team finds this area possesses wilderness characteristics.

Polygon 11 – Yellow/Barcus Creek Area: 10,271 Acres

This is located within the following legal description:

Township 1 North, Range 98 West, Sections, 1, 2, 3, 4, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 26, and 27

Township 2 North, Range 98 West, Sections, 26, 27, 33, 34, 35, and 36

The boundaries of this polygon are RBC 88 to the west and north, RBC 122 and a natural gas lease to the south, and BLM 1257 to the East. The topography can be characterized as a ridge parallel to Barcus Cr. with spur ridges breaking off towards the Yellow Creek and Barcus Creek drainages with deep drainages in-between. The vegetation is pinion/juniper woodland dominating the ridges with Big Basin sagebrush communities dominating the drainage bottoms. There are eight routes identified within the polygon. There are three stock ponds within the polygon, one old well pad and the presence of old seismic activity that the public has been using as routes for access into the area. The steep topography and pinyon/juniper vegetation within this area minimizes the creation of user beyond the routes that already exist. The minimal use of these routes is primarily concentrated during upland big game hunting season. The inability to see the routes coupled with the type and height of the vegetation and the basin/ridge type of topography allow for apparent naturalness to the average visitor within the area. The topography, vegetation, and size of the polygon allow for outstanding opportunities for solitude. The same factors also provide for some outstanding primitive recreational opportunities like hunting, hiking, horseback riding, snowshoeing, and wildlife viewing. The Team finds this area possesses wilderness characteristics.

Polygon 12 – Greasewood Creek Area: 11,941 Acres

This is located within the following legal description:

Township 1 North, Range 98 West, Sections, 4, 5, 6, 7, and 8

Township 1 North, Range 99 West, Sections, 1, 2, 3, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20 and 21

Township 2 North, Range 98 West, Sections, 15, 16, 17, 20, 21, 22, 26, 27, 28, 29, 30, 31, 32, 33, and 34

Township 2 North, Range 99 West, Sections, 35, and 36

The boundaries for this polygon are, RBC 89 and BLM 1137 to the north, RBC 88 and BLM 1033 to the east and south, and to the west BLM road 1036. The topography is one large ridge with deep drainages on either side moving from west to east which then fans out into smaller spur ridges and drainages that flow to meet with the confluences of Yellow Creek and Barcus Creek to the northeast and Yellow Creek and Greasewood Creek to the north. The vegetation on the ridge tops is mountain mahogany, service berry, mountain big sagebrush, native grasses and wildflowers at the higher elevations and pinyon/juniper woodlands in the lower elevations. The

drainage bottoms are dominated by Big Basin sagebrush plant communities. The polygon also has a history of large fires with the scars bisecting the area creating a vegetative mosaic. The fire scars are dominated by grasses. Due to the topography and lack of development, there are few routes within the polygon. The presence of past seismic activities created routes, but revegetation as a result of the fires has allowed the grasses to overgrow the majority of the routes. The only real presence of routes that are regularly used is where the seismic routes traverse the pinyon/juniper woodlands, in the northeast corner of the polygon. The condition of these routes indicates that they are primarily use during the upland big game hunting season. The routes are either in the southwest portion of the polygon or in the northeast portion of the polygon. The topography and vegetation restrict the ability for additional user routes to be created. This gives an apparent naturalness to the average visitor with in the area. The topography, vegetation, and size of the polygon allow for outstanding opportunities for solitude. The same factors also provide for some outstanding primitive recreational opportunities like hunting, hiking, horseback riding, snowshoeing, cross country skiing, and wildlife viewing. The Team finds this area possesses wilderness characteristics.

Summary:

Through the course of the project, the ID Team discovered that the opportunities for solitude and primitive recreation were abundant in every polygon inventoried. This combined with the apparent naturalness within the polygons, the ID Team considers all of the polygons to possess wilderness characteristics.

ID Team Leader:_____ **Date:** 7/29/2011

I have witnessed the field inventory process during field visits on two separate occasions, reviewed all of the findings, and agree with the ID Team's findings on the wilderness characteristics present.

Field Manager: Kent C. Walker **Date:** 07/29/11

Conclusion:

Consistent with FLPMA §201, the Utah vs. Norton settlement, the Oil Shale Settlement, Wilderness Act, and as summarized in expired WO-IM2003-274, the BLM Colorado will "continue to inventory public lands for resources or other values, including wilderness characteristics, as a part of managing the public lands and land use planning. Information

provided by the public about resources and other values will be considered along with all other resource information in the planning process. New information may be considered in the NEPA process as appropriate. The BLM will continue to manage public lands according to existing land use plans while new information (e.g., in the form of new resource assessments, wilderness inventory areas or "citizen's proposals") is being considered in a land use planning effort. During the planning process and concluding with the actions after the planning process, the BLM will not manage those lands under a congressionally designated non-impairment standard, nor manage them as if they are or may become congressionally designated wilderness areas, but through the planning process the BLM may manage them using special protections to protect wilderness characteristics."

Attachments:
Polygon Maps (5)