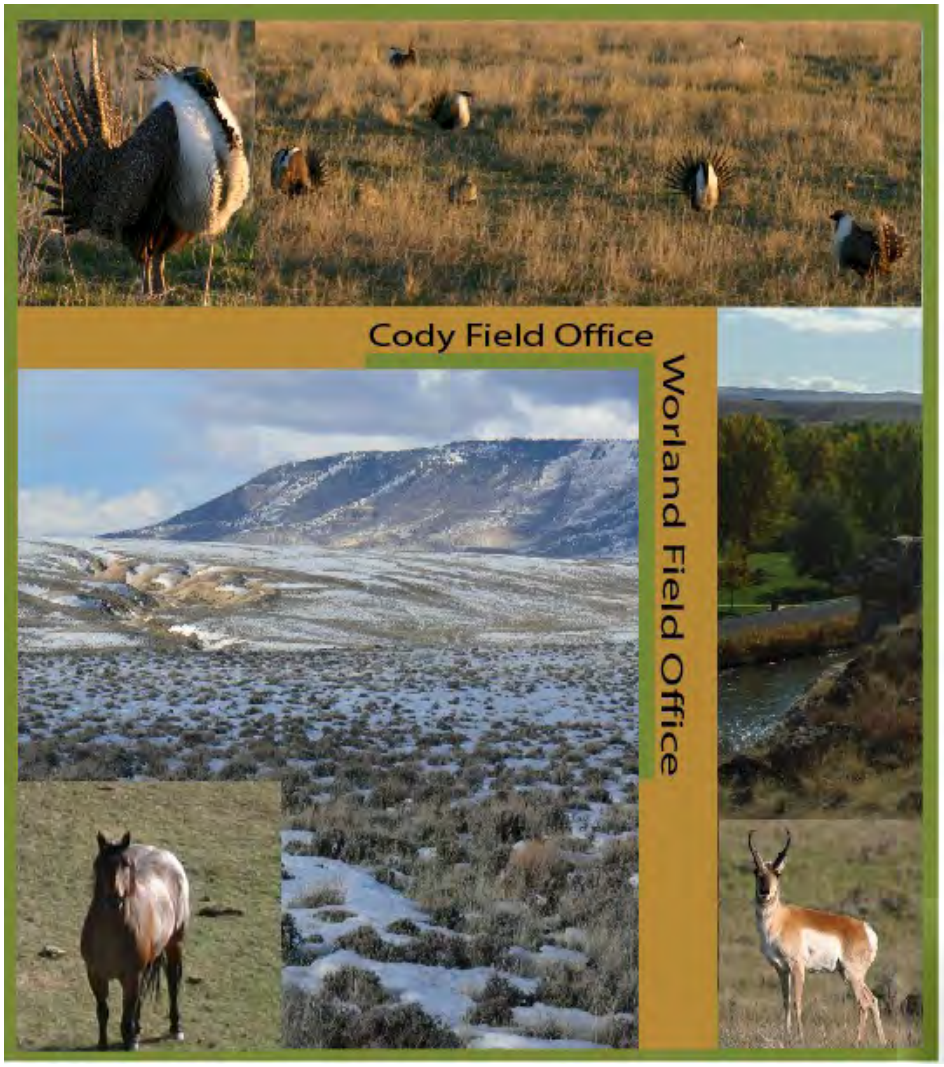
Areas of Critical Environmental Concern Evaluation Report

Bighorn Basin Resource Management Plan Revision Project



BLM

Wyoming State Office

June 2010

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AREAS OF CRITICAL ENVIRONMENTAL CONCERN EVALUATION REPORT

BIGHORN BASIN
RESOURCE MANAGEMENT PLAN REVISION PROJECT

United States Department of the Interior
Bureau of Land Management
Cody Field Office, Wyoming
Worland Field Office, Wyoming

June 30, 2010

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ACRONYMS AND ABBREVIATIONS

ACEC	Areas of Critical Environmental Concern
BLM	Bureau of Land Management
CFR	Code of Federal Regulations
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FLPMA	Federal Land Policy and Management Act
FCRPA	Federal Cave Resources Protection Act
RMP	Resource Management Plan
ROD	Record of Decision
USFS	U.S. Forest Service
WGFD	Wyoming Game and Fish Department
WSA	Wilderness Study Area

ACEC EVALUATION REPORT

This report includes a brief description of the Area of Critical Environmental Concern (ACEC) evaluation process and summary of the preliminary results, as well as the original completed ACEC Evaluation Forms used by the BLM. A detailed map of the existing or proposed ACEC appears following each evaluation form for the proposed ACECs recommended in the Draft Resource Management Plan and Environmental Impact Statement (Draft RMP and EIS). The maps contain a list of the important values that justified the area's recommendation and show (where geographic data is available) the extent of these values.

ACEC NOMINATION PROCESS

Part of the planning process for the Bighorn Basin RMP Revision Project included a review of Bureau of Land Management (BLM)-administered lands to determine whether they met the criteria for designation as ACECs. The ACEC designation is an administrative designation used by the BLM that is accomplished through the land use planning process. It is unique to the BLM in that no other agency uses this form of designation. The Federal Land Policy and Management Act (FLPMA) states that the BLM will give priority to the designation and protection of ACECs in the development and revision of land use plans.

ACECs are composed of only BLM-administered lands; private lands and lands administered by other agencies are not included in the boundaries of ACECs. Unlike other special designations, such as Wilderness Study Areas (WSAs), the designation of an area as an ACEC does not by itself automatically prohibit or restrict other uses in the area (with the exception that a mining plan of operation is required for any proposed mining activity within a designated ACEC). However, to be considered for designation, special management beyond the standard provisions established by the RMP must be required to protect relevant and important qualities (described below).

Several steps are required to identify and evaluate ACECs. These steps include (1) the nomination of areas by the public during scoping or by BLM resource specialists, (2) evaluation of the nominated areas to determine if they meet the importance and relevance criteria described below, and (3) consideration of the potential ACECs as management scenarios analyzed in the Draft RMP and EIS. As part of this evaluation, the BLM also considers whether the existing ACEC designations should be modified or terminated. The Draft RMP and EIS contains recommendations proposing potential ACECs for designation; public comment is requested. Public comments are reviewed and considered, and adjustments are made as necessary before the proposed RMP and Final EIS is released. Designation of ACECs is then incorporated in the Record of Decision (ROD) approving the RMP.

Regulations at 43 Code of Federal Regulations (CFR) part § 1610.7-2 state that during the resource management planning process inventory data should be analyzed to determine whether there are areas within the Planning Area containing resources, values, systems or processes or hazards eligible for further consideration for designation as ACECs. In order to be eligible for designation as an ACEC, an area must meet at least one of both the relevance and importance criteria described below.

Relevance

An area meets the relevance criteria if it contains one or more of the following:

1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).

2. A fish and wildlife resource (including but not limited to habitat for threatened, endangered, or sensitive species, or habitat essential for maintaining species diversity).
3. A natural process or system (including but not limited to threatened, endangered, or sensitive plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).
4. Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the RMP process that it has become part of a natural process.

Importance

The values, resources, system, processes, and/or hazards that allowed the area to meet the relevance criteria must have qualities that are in need of protection or special attention in order for the area to meet the importance criteria. The area meets the importance criteria if its relevance qualities can be characterized by one or more of the following:

A. Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.
B. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.
C. Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.
D. Has qualities that warrant highlighting in order to satisfy public or management concerns about safety and public welfare.
E. Poses a substantial threat to human life and safety or to property.

Based on comments received during scoping and internal recommendations from BLM specialists, 9 existing ACECs were nominated for continued designation and 5 expansion areas associated with these existing ACECs were proposed, as were 12 new ACEC nominations. These 26 nominated areas were evaluated using the relevance and importance criteria described in this report. Twenty-two of the nominations met both the relevance and importance criteria and will be analyzed in the Bighorn Basin Draft RMP and EIS.

Table 1 lists the 26 nominations that were considered. This table lists the acreage of the proposed areas, the values of concern that warranted the nominations, the relevance and importance criteria that each area meets (numbers and letters correspond to the lists above), and whether the area was recommended for analysis in the Bighorn Basin Draft RMP and EIS. Additional information relevant to these nominations is provided in the 'Comments' column; further information on the characteristics of these areas can be found in the Bighorn Basin Draft RMP and EIS and the individual ACEC evaluation forms in the following section of this report.

Table 1. Summary Results of the ACEC Evaluation Process

Area	Map	Acres	Value(s) of Concern	Relevance Criteria[1]	Importance Criteria[1]	Recommended	Comments
Existing ACECs (no expansion proposed)							
Big Cedar Ridge	1	264	Paleontological	1	A,B	Yes	The area contains abundant paleontological resources, in particular, fossilized plants. Sites with such in situ preservation of entire plant communities are extremely rare, both regionally and nationally.
Red Gulch Dinosaur Tracksite	2	1,798	Paleontological	1,3	A,B	Yes	The area contains the largest tracksite in Wyoming, and one of only a few worldwide from the Middle Jurassic Period.
Sheep Mountain Anticline	3	11,528	Geologic; Caves; Cultural; Scenic	1,3	A,B	Yes	This area is composed of a classic Laramide anticline featured in textbooks and studied by geology classes from all over the world. The area also contains several caves that are significant under the Federal Cave Resources Protection Act (FCRPA), which provide recreational, educational, and research opportunities.
Spanish Point Karst	4	6,627	Caves; Recreational; Sinking Stream Segments; Water Quality	1,3	A,B	Yes	The cave/karst system in the area is an important recharge area for the Madison aquifer. The area also contains recreational qualities due to good public access, scenic values, and varied potential recreation activities (primarily hiking, rock climbing, and caving).
Existing ACECs with Proposed Expansions							
Brown/Howe Dinosaur Area (existing)	5	5,516	Paleontological	1,3	A,B	Yes	This area contains paleontological values in the form of dinosaur fossils (primarily of Jurassic age), most notably from the suborder Theropoda and Sauropoda.
Brown/Howe Dinosaur Area (proposed expansion)	5	15,246	Paleontological	1,3	A,B	Yes	The values of the expansion area are similar to the existing, but also includes vertebrate fossils and scientifically important paleobotanical, palynological (pollen), mammalian fossil, and dinosaur eggshell site resources.
Carter Mountain (existing)	6	10,867	Vegetation; Wildlife	1,2,3	B	Yes	This area contains alpine tundra and rare plants, and also includes big game habitat (crucial winter range).

Table 1. Summary Results of the ACEC Evaluation Process

Area	Map	Acres	Value(s) of Concern	Relevance Criteria[1]	Importance Criteria[1]	Recommended	Comments
Carter Mountain (proposed expansion)	7	5,706	Cultural; Recreational; Special Status Species; Vegetation; Watershed; Wildlife; Soils	1,2,3,4	A,B,C	Yes	The values of the expansion area are similar to the existing, but also include habitat for wildlife transition, parturition, and summer ranges. The area also includes special status species, fragile and unstable soils, and intense weather conditions that can cause hazards to visitors.
Five Springs Falls (existing)	8	163	Recreational; Scenic; Special Status Species	1,3	A,B	Yes	Five Springs Falls area provides unique habitat for four plant species that are known to occur only in Wyoming and one other state. This unique habitat is composed of vertical cliff walls that are kept moist by spray from the waterfall. The Five Springs Falls Campground and waterfalls in the area are of recreational and scenic value.
Five Springs Falls (proposed expansion)	9	1,646	Geologic; Scenic; Public Safety	1,3,4	A,B	Yes	Geologic strata situated in the proposed ACEC expansion have been severely uplifted, folded, and faulted, resulting in an area of exceptional scenic and geologic interest and value; the steep topography is unstable and downslope movements of soil and rock presents a public safety risk.
Little Mountain (existing)	10	21,475	Caves; Cultural; Paleontological; Scenic	1,3	A,B,E	Yes	The karst topography has resulted in the capture and preservation of animal fossils, and the area contains sites from prehistoric occupation. The mine shafts and tailings from uranium mining are a safety hazard.
Little Mountain expansion area (proposed expansion)	11	47,635	Wildlife; Special Status Species; Recreational; Vegetation; Scenic	1,2,3	A,B,C	Yes	This area contains big game seasonal and migration corridors, and known or potentially occurring BLM Sensitive Species and rare plant species habitat; these habitats are under threat from invasive species, human development, and livestock to wildlife disease transfer. The area includes numerous cultural sites (e.g., rock shelters and vision quest sites) and is an important area for hunting, fishing, wildlife viewing, and scenic geologic features.

Table 1. Summary Results of the ACEC Evaluation Process

Area	Map	Acres	Value(s) of Concern	Relevance Criteria[1]	Importance Criteria[1]	Recommended	Comments
Upper Owl Creek Area (existing)	12	13,057	Cultural; Fish; Recreational; Scenic; Soils; Special Status Species; Vegetation; Wildlife	1,2,3	A,B	Yes	The ACEC contains wildlife resources and special status species (including neotropical migrant birds, wolves, grizzly bears, moose, and wolverines), cultural resources, and primitive recreational opportunities (e.g., hiking, camping, fishing, and horseback riding). Vegetation communities include endemic plant species growing in "moonscapes" where rocky, sparsely-vegetated soils support low-growing, cushion plant communities, as well as forested areas that include old-growth tree stands.
Upper Owl Creek Area/Absaroka Front (proposed expansion)	12	19,720	Cultural; Fish; Recreational; Scenic; Soils; Special Status Species; Vegetation; Wildlife	1,2,3	A,B	Yes	The values of the expansion area are similar to the existing.
Proposed ACECs							
Black-tailed Prairie Dog Complex	-	182	Wildlife; Special Status Species	2,3	-	No	The area met the relevance criteria for fish and wildlife resources (black-tailed prairie dog, a species that has been petitioned for listing under the ESA) and natural process (potential habitat for black-footed ferret, an endangered species). It did not meet the importance criteria because management concerns are present for other threatened and endangered species habitat and the area is not particularly fragile or sensitive to change.
Chapman Bench	13	23,976	Special Status Species; Vegetation; Wildlife	2,3	A,B,C	Yes	The area contains curlew nesting habitat and sagebrush habitat used by other sensitive bird species and wildlife.
Clarks Fork Basin/Polecat Bench West Paleontological Area	14	23,895	Paleontological; Scenic	1,3	A,B	Yes	The area contains a stratigraphic contact zone and the paleontological and geochemical values associated with these rock layers that are exposed in only a few areas worldwide.

Table 1. Summary Results of the ACEC Evaluation Process

Area	Map	Acres	Value(s) of Concern	Relevance Criteria[1]	Importance Criteria[1]	Recommended	Comments
Clarks Fork Canyon	15	12,259	Geologic; Open Space; Recreational; Special Status Species; Wildlife	2,3	A,B	Yes	The area contains geologic, crucial winter range for big game, one of only two ranges for mountain goats in the state and one of the largest bighorn sheep ranges in the country, special status species habitat (including plant, sagebrush obligate wildlife, and Yellowstone cutthroat trout), open space, and recreational resources and uses including along the Clarks Fork of the Yellowstone River.
Fifteen Mile and Manderson White-tailed Prairie Dog Complex	-	7,917	Wildlife; Special Status Species	2	-	No	The area met the relevance criteria for fish and wildlife resources (white-tailed prairie dog, a BLM Sensitive Species). It did not meet the importance criteria due to the size of the Manderson complex and because management concerns for the white-tailed prairie dog are similar to those for other special status species.
Foster Gulch Paleontological Area	16	27,302	Paleontological; Scenic	1,3	A,B	Yes	The area contains a stratigraphic contact zone and the paleontological and geochemical values associated with these rock layers that are exposed in only a few areas worldwide.
McCullough Peaks South Paleontological Area	17	6,994	Paleontological; Scenic	1,3	A,B	Yes	The area contains a stratigraphic contact zone and the paleontological and geochemical values associated with these rock layers that are exposed in only a few areas worldwide.
McCullough Peaks/YU Bench	-	298,402	Scenic; Historic; Cultural; Wildlife; Recreational; Geologic	1,2,3,4	-	No	The area met the relevance criteria for significant historic, cultural, or scenic value; fish and wildlife resources; natural process or system (for sage-grouse and wild horse habitat and geology); and natural hazards. It did not meet the importance criteria as management concerns are similar to other locations and can be addressed through other means (e.g., Herd Management Areas).
Rainbow Canyon	18	1,433	Paleontological; Geologic; Scenic	1,3	A,B	Yes	The area contains scenic and geologic resources, as well as paleontological resources that include dinosaurian and paleobotanical fossils.
Rattlesnake Mountain	19	19,119	Special Status Species; Vegetation; Wildlife	2,3	A,B,C	Yes	The area contains wildlife habitat (big game seasonal habitat and migration corridors), vegetation communities associated with the volcanic and limestone soils, and special status wildlife and plant species habitat.

Table 1. Summary Results of the ACEC Evaluation Process

Area	Map	Acres	Value(s) of Concern	Relevance Criteria[1]	Importance Criteria[1]	Recommended	Comments
Sheep Mountain	20	25,153	Vegetation; Wildlife; Special Status Species	1,2,3	A,B,C	Yes	The area contains wildlife habitat (big game seasonal habitat and migration corridors) and vegetation communities associated with the volcanic and limestone soils.
Shoshone River Parcels	-	424	Wildlife	1,2,3,4	-	No	The area contains riparian and river related values. Met the relevance criteria for significant historic, cultural, or scenic value; fish and wildlife resources; natural process or system; and natural hazards. It did not meet the importance criteria as management and other concerns are similar to other riparian areas in the Planning Area.

[1]Values in these columns correspond to the numbers or letters in the lists in the preceding section of this report.

ACEC Area of Critical Environmental Concern
BLM Bureau of Land Management
ESA Endangered Species Act
- Not applicable

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Evaluation Forms:

Existing ACECs (No Proposed Expansion)

ACEC Proposal Evaluation Form – Big Cedar Ridge

Area Considered	Big Cedar Ridge ACEC (Existing)
General Location	Half-way between Worland and Tensleep (Map 1).
General Description	This area has abundant paleontological resources, in particular, fossilized plants. Sites with such in situ preservation of entire plant communities are extremely rare.
Acreage	264 acres of BLM-administered surface
Values Considered	Paleontological resources

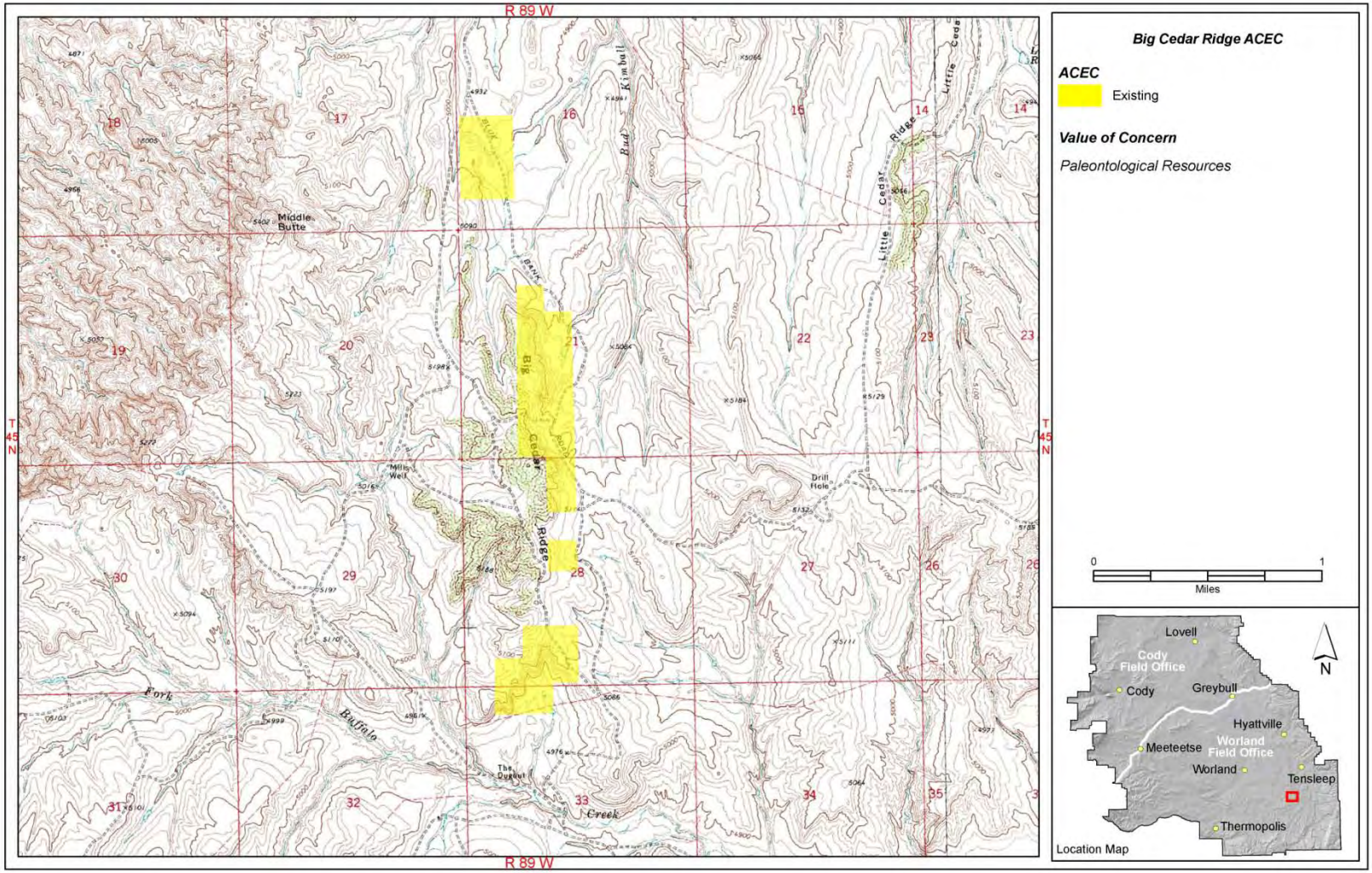
IDENTIFICATION CRITERIA
To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	This area has abundant paleontological resources, in particular, fossilized plants. Sites with such in situ preservation of entire plant communities are extremely rare, both regionally and nationally.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).	No	Similar fish and wildlife resources and values can be found in other areas of Wyoming and the West.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	No	This area has abundant paleontological resources, in particular, fossilized plants. Sites with such in situ preservation of entire plant communities are extremely rare.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs. A hazard caused by human action may meet the relevance criteria if it is determined through the resource	No	No substantial natural hazards are known to occur in the Big Cedar Ridge ACEC.

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
management planning process that it has become part of a natural process).		

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	The Big Cedar Ridge ACEC has abundant paleontological resources, in particular, fossilized plants. Sites with such in situ preservation of entire plant communities are extremely rare.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	This area has abundant paleontological resources, in particular, fossilized plants. Sites with such in situ preservation of entire plant communities are extremely rare.
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	No	No national priority concerns are known in the ACEC.
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	No	No safety or public welfare concerns are known in the ACEC.
Poses a substantial threat to human life and safety or to property.	No	No substantial threats are known to occur in the ACEC.

Map 1. Big Cedar Ridge ACEC (Existing)



ACEC Proposal Evaluation Form – Red Gulch Dinosaur Tracksite

Area Considered	Red Gulch Dinosaur Tracksite ACEC (Existing)
General Location	The tracksite is located on U.S. Highway 14, approximately 10 miles east of Greybull, Wyoming (or four miles west of Shell) to the Red Gulch/Alkali National Back Country Byway turnoff. Head south on the byway approximately five miles (Map 2).
General Description	The Red Gulch Dinosaur Tracksite is the largest tracksite in Wyoming, and one of only a few worldwide from the Middle Jurassic Period. The area also contains the Red Gulch Dinosaur Tracksite recreation area, a small portion of the Red Gulch/Alkali National Back Country Byway, and abundant paleontological resources. This discovery is particularly important because it could alter current views about the Sundance Formation and the paleoenvironment of the Middle Jurassic Period, which existed 165 million years ago. No dinosaur remains have been found in the Sundance Formation and there are only a few known tracks. In this part of Wyoming, the Sundance Formation was known mainly for its fossil shells, left from an ancient sea. However, these dinosaur tracks were made along a shoreline, not in deep ocean water. This has caused researchers to conclude there must have been large areas of dry land to support these dinosaurs, as well as other animals and plant life. Some scientists believe that the majority of the footprints were made by theropods—meat-eating dinosaurs that walked on their hind legs.
Acreage	1,798 acres of BLM-administered surface
Values Considered	Paleontological resources

IDENTIFICATION CRITERIA
To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

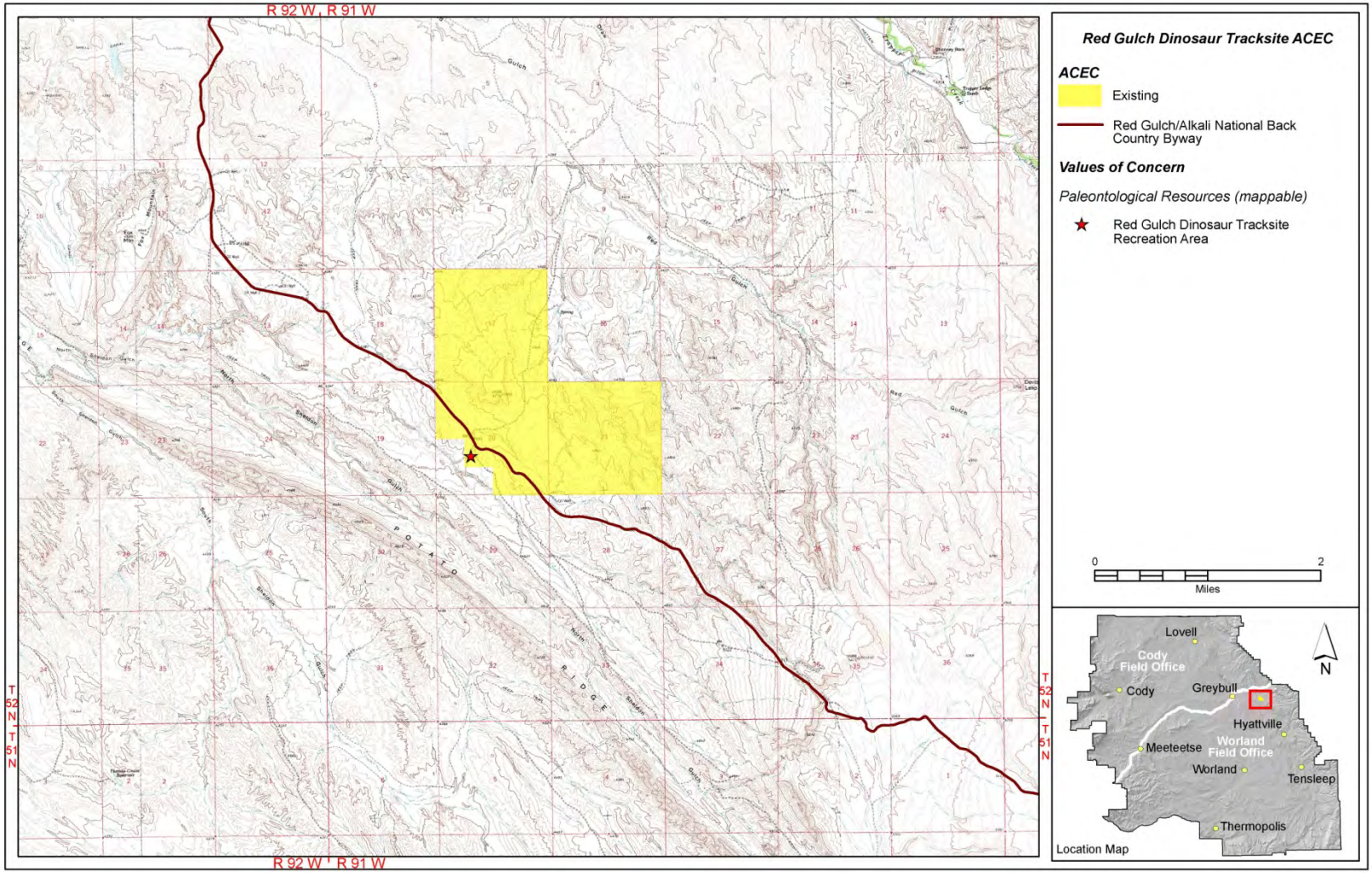
Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	The Red Gulch Dinosaur Tracksite is the largest tracksite in Wyoming, and one of only a few worldwide from the Middle Jurassic Period. The area consists of the Red Gulch Dinosaur Tracksite recreation area, a small portion of the Red Gulch/Alkali National Back Country Byway, and abundant paleontological resources. The tracksite suggests a large and diverse population of dinosaurs. Scientists want to know what kinds of animals made these tracks. Middle Jurassic dinosaur skeletons are extremely rare in North America, and there are only a few areas with tracks of this age. With few fossils for comparison, the identity of the Red Gulch track-makers remains something of a mystery. At first glance, scientists think there may have been two kinds of dinosaurs present. Most of the footprints appear to have been made by theropods: meat-eating dinosaurs that walked on their

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
		hind legs. The tracksite is interesting because it is so extensive and unusual in its Middle Jurassic age and geographic occurrence, in what was originally thought to be a sea. The geologic history of the area, once considered to be well understood, needs to be rewritten because of the tracks' discovery.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).	No	Similar fish and wildlife resources and values can be found in other areas of Wyoming and the West.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	Yes	Elsewhere in the Bighorn Basin, the Sundance Formation has yielded the bones of marine reptiles at several locations, while the Morrison Formation (which lies in contact with the Sundance Formation) is probably the most prolific and scientifically significant formation in all of North America for dinosaur discoveries. Most notably, in 1991 the fully-articulated skeleton of a juvenile *Allosaurus*, commonly known as "Big Al," was unearthed from the Morrison Formation 14 miles north of the tracksite. The *Allosaurus* discovery was adjacent to the Howe Quarry. That quarry, developed on private land in the 1930s, produced an immense array of both theropod and sauropod dinosaur fossils from the Morrison Formation. The Cloverly Formation is also well known for yielding dinosaur remains such as the sickle-clawed *Deinonychus* and primitive mammals. Abundant invertebrate fossils can be found in the Sundance Formation. The most common fossils are belemnites, *Gryphaea*, and crinoid stems. *Pentacrinus*, a crinoid having a star- shaped stem, serves as an excellent index fossil near the base of the formation.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs. A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process).	No	No substantial natural hazards are known to occur in the area.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	The Red Gulch Dinosaur Tracksite is the largest tracksite in Wyoming, and one of only a few worldwide from the Middle Jurassic Period.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	At least some of the dinosaur tracks have been exposed to surface weathering for a few hundred years. This is evident because lichen, an extremely slow-growing plant in desert environments, covers some of the tracks. But despite the lichen growth and long exposure, these tracks are in good condition. Other tracks have been exposed for a shorter period, especially where the tracks were discovered at the base of a broad gully. At that location, storm runoff along the tilted track layer is eroding the southwestern bank of the gully, exposing a few tracks each year. A temporary sign placed by BLM in this area warns against marking or standing directly on the tracks. Since March 1998, a few of the tracks have been damaged by the application of foreign substances. These substances have included chalk, plaster for making casts, and soft drinks poured into a few tracks. Plaster appears to cause the most damage because a small layer of the track is often removed with the cast, ruining the track for scientific research. In addition, wet plaster spilled during cast-making can weaken the limestone surface of nearby tracks. So far, there appears to be little, if any, damage from people stepping on tracks. Unnecessary stepping on tracks can be avoided, even where the tracks are concentrated. There is no evidence of livestock trampling the tracks. Wastes from visitors' pets are sometimes evident and may be more of a hazard to the tracks. There is always a possibility that tracks might be removed by people or randomly destroyed. Removal of individual tracks would be difficult because the limestone is brittle and more likely to break in small pieces than to remain in a slab.
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	No	No national priority concerns are known in the area.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	No	No safety or public welfare concerns are known in the area.
Poses a substantial threat to human life and safety or to property.	No	No substantial threats are known to occur in the area.

Map 2. Red Gulch Dinosaur Tracksite ACEC (Existing)



ACEC Proposal Evaluation Form – Sheep Mountain Anticline

Area Considered	Sheep Mountain Anticline ACEC (Existing)
General Location	North of Greybull, Wyoming (Map 3).
General Description	The Sheep Mountain Anticline area geologic structure is scientifically significant and relevant because it represents 300 million years of the history of the earth's crust. The area contains an unusual exposure of a topographically expressed anticline where both the constructive and destructive forces that shape the earth can be observed. Sheep Mountain Anticline is one of the best exposures of its kind. It is used as an example in many geologic textbooks to explain and illustrate elementary geologic principles concerning structural geology and stratigraphy. **Caves** Significant caves, under FCRPA, within the Sheep Mountain Anticline ACEC include Spence, Canoe, Holy Sheep, and Thorny. These caves have formed in the Mississippian Madison Limestone. Spence Cave is the most frequently visited cave within the ACEC, and needs a specific management plan. A population of bats that are sensitive species use this cave during winter months for hibernation and need to be considered in conjunction with public use of the cave for recreational purposes. Holy Sheep Cave contains levels of radon gas that are too dangerous to allow public access to the cave. **Scenic** The Sheep Mountain Anticline ACEC is composed of a classic Laramide anticline featured in textbooks and studied by geology classes from all over the world.
Acreage	11,528 acres of BLM-administered surface
Values Considered	Cave, cultural, scenic, and geologic resources

IDENTIFICATION CRITERIA

To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:

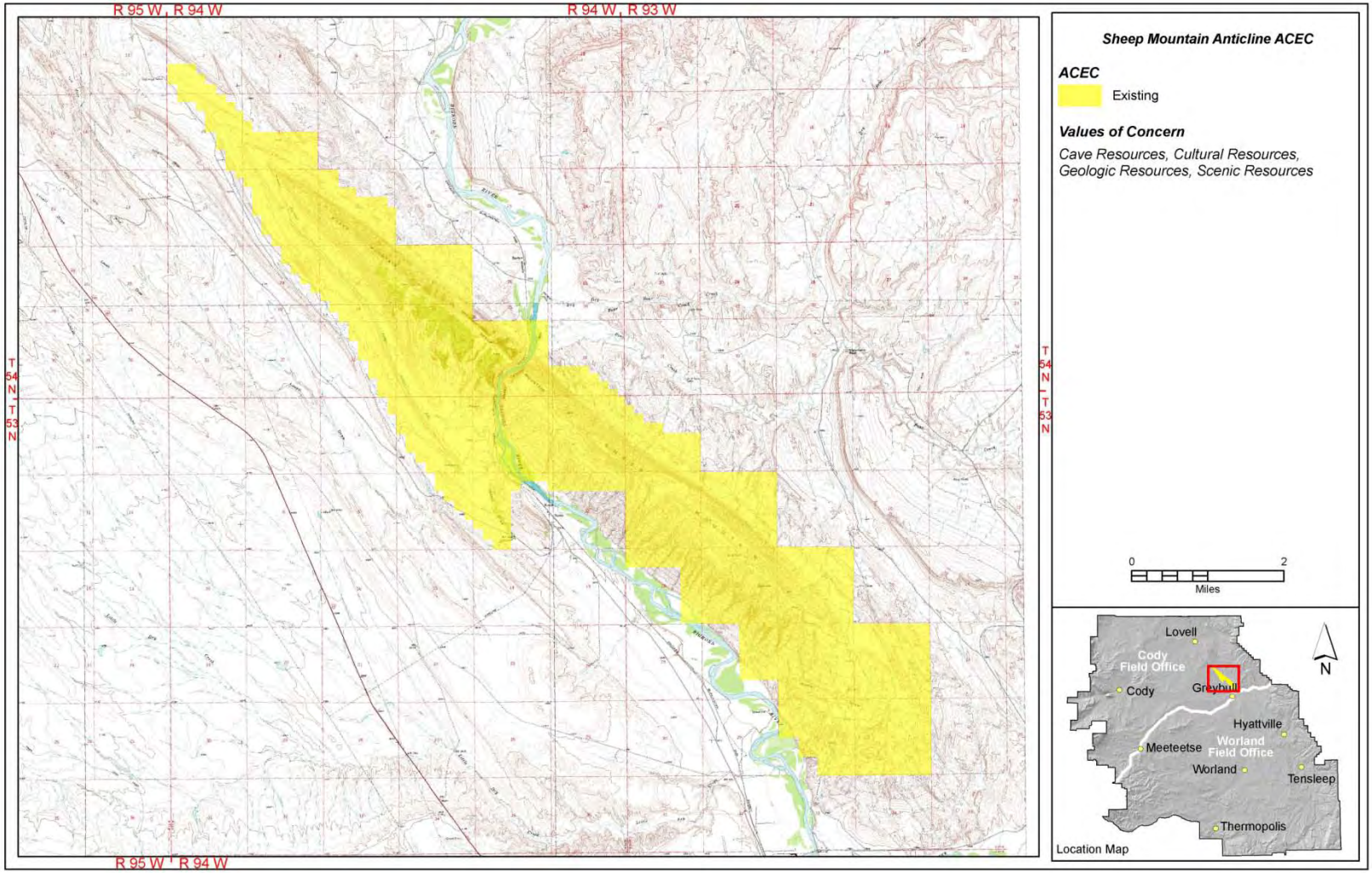
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	The Sheep Mountain Anticline ACEC is composed of a classic Laramide anticline featured in textbooks and studied by geology classes from all over the world. This ACEC also contains several caves which provide recreational, educational, and research opportunities, including several significant caves under the FCRPA.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species	No	Similar fish and wildlife resources and values can be found in other areas of Wyoming and the West.

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
diversity).		
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	Yes	The Sheep Mountain Anticline ACEC is composed of a classic Laramide anticline featured in textbooks and studied by geology classes from all over the world.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs. A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process).	No	No substantial natural hazards are known to occur in the area.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	The Sheep Mountain Anticline ACEC is composed of a classic Laramide anticline featured in textbooks and studied by geology classes from all over the world. This ACEC also contains several caves which provide recreational, educational, and research opportunities, including several significant caves under the FCRPA.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	The Sheep Mountain Anticline ACEC is composed of a classic Laramide anticline featured in textbooks and studied by geology classes from all over the world. This ACEC also contains several caves which provide recreational, educational, and research opportunities, including several significant caves under the FCRPA.
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	No	No national priority concerns are known in the area.
Has qualities which warrant highlighting in order to satisfy	No	No safety or public welfare concerns are known in the area.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
public or management concerns about safety and public welfare.		
Poses a substantial threat to human life and safety or to property.	No	No substantial threats are known to occur in the area.

Map 3. Sheep Mountain Anticline ACEC (Existing)



ACEC Proposal Evaluation Form – Spanish Point Karst ACEC

Area Considered	Spanish Point Karst ACEC (Existing)
General Location	The west slope of the Big Horn Mountains (Map 4).
General Description	This area consists of deeply incised and dramatic canyons; rugged mountainous terrain; the Medicine Lodge and Trapper Creek WSAs; the Trapper Creek, Medicine Lodge Creek, and Dry Medicine Lodge Creek. **Cave Resources** Four significant cave and karst systems exist in the Spanish Point Karst ACEC including: Great Expectations, La Caverna de los Tres Charros, Bad Medicine, and P Bar. **Water Resources** Within the ACEC boundaries are 45,000 feet of explored cave passages and 100,000 feet of subkarstic waterways. The Spanish Point Karst ACEC includes public land stream channels and canyon rims of Trapper, Dry Medicine Lodge and Medicine Lodge Creeks. The Madison aquifer is the source of municipal water for the communities of Worland, Ten Sleep, and Hyattville, and most recently Basin, Greybull, Manderson, and Kirby. The water provides irrigation water for thousands of acres within the Bighorn Basin. **Recreation** The Spanish Point Karst ACEC provides for recreational opportunities due to excellent public access, varied recreational settings, high scenic values and exceptional caving opportunities.
Acreage	6,627 acres of BLM-administered surface
Values Considered	Cave resources, sinking stream segments, groundwater quantity and quality, recreational opportunities

IDENTIFICATION CRITERIA

To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:

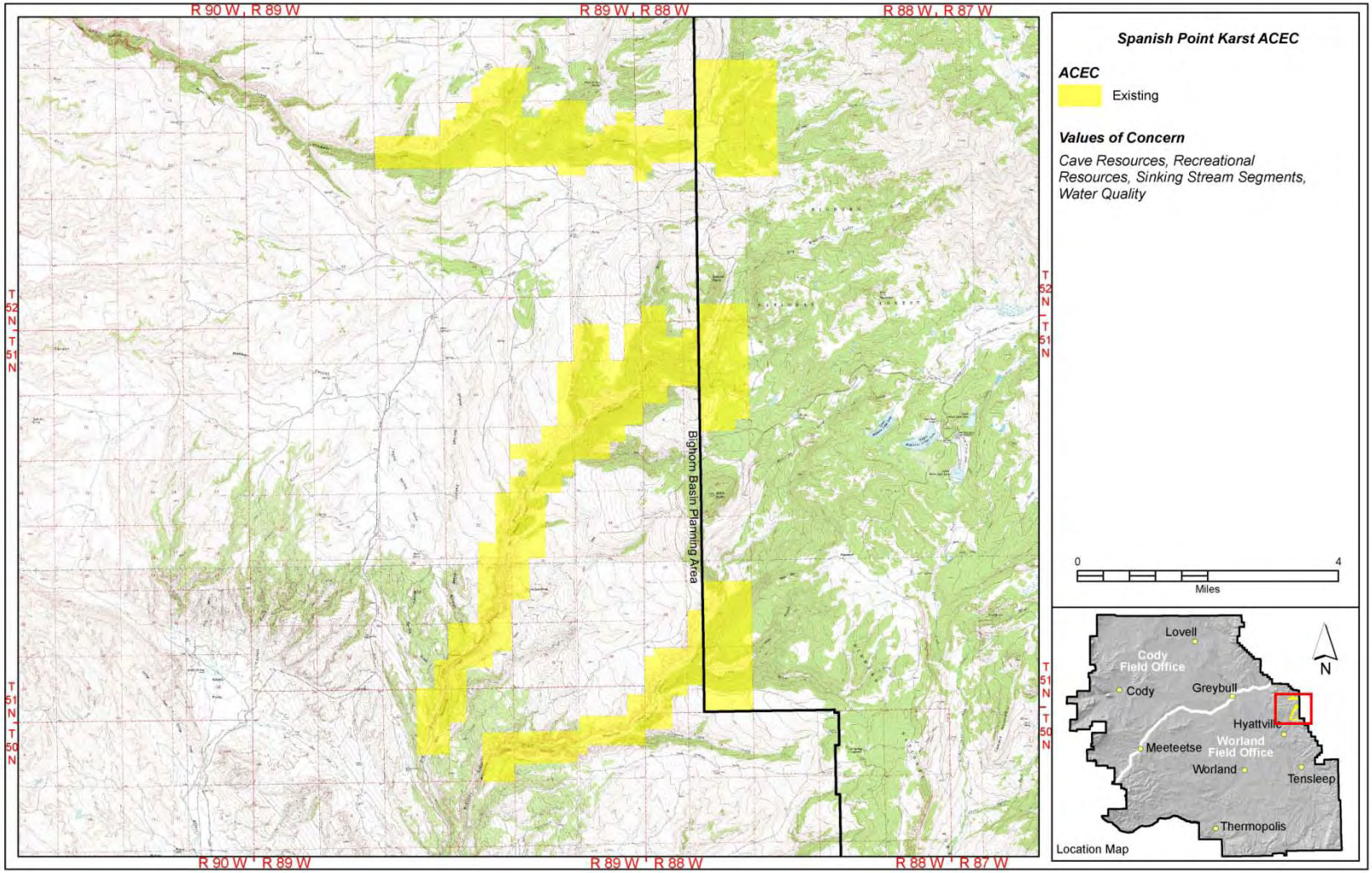
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	The Spanish Point Karst ACEC provides for recreational opportunities due to excellent public access, varied recreational settings, high scenic values, and unique and exceptional caving opportunities.
A fish and wildlife resource (including but not limited to	No	Similar fish and wildlife resources and values can be found in other areas of Wyoming and the West.

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).		
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	Yes	This area consists of deeply incised and dramatic canyons; rugged mountainous terrain; the Medicine Lodge and Trapper Creek WSAs; the Trapper Creek, Medicine Lodge Creek, and Dry Medicine Lodge Creek. The Spanish Point Karst ACEC also contains four significant cave and karst systems which are an integral part of natural systems in the area. Additional resources important to natural processes in the area include sinking stream segments and important groundwater resources. The karst formations are a manifestation of natural hydrogeologic processes and consist of areas of limestone and/or dolomite which are typified by sinking stream segments, cave and cavern formation, and rapid subterranean movement of water. The karst formations are important because they contain caves of national and statewide importance and also provide an important recharge area for the Madison aquifer. Caves within the ACEC boundaries that offer recreational opportunities include Great Expectations, La Caverna de lost Tres Charros, Bad Medicine, Dry Medicine Lodge and P Bar. Associated with the caves, within the ACEC boundaries, are 45,000 feet of explored cave passages and 100,000 feet of subkarstic waterways. The cave entrances, passages and waterways serve as a receptacle and circulation system for fresh water originating in the Precambrian highlands to the east on U.S. Forest Service (USFS) lands. A portion of the water that circulates through the karsitic system is entrapped in the carbonate rocks and recharges the widely used and economically important Madison aquifer of the interior Bighorn Basin.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs. A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process).	No	No substantial natural hazards are known to occur in the area.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	Karst systems or karstic recharge areas such as those found in the Spanish Point Karst area, specifically Trapper and Medicine Lodge creek watersheds, are highly vulnerable since potential contaminants can more quickly and easily reach the local water table and, hence, confined or unconfined groundwater systems. Karstic areas and aquifers have much higher permeability and porosity as a result of the presence of enlarged fractures, fissures, solution features, and other types of conduits or channels. Thus, aquifers that are recharged through water entering karstic recharge areas are more at risk from contamination. There is a general lack of effective filtering or buffering mechanisms that in other areas naturally treat or mitigate pollutants. In the Spanish Point Karst area the soil cover is generally thin or absent (bare karst). As a consequence, the breakdown of contaminants by microorganisms and by physical and chemical processes that normally occurs in the soil zone is very weak in these karst areas. Where surface streams enter karstic openings and sinkholes, flowing underground, the soil zone can be completely bypassed. Thus, the unsaturated zone loses its usual filtration function, in which it effectively delays the arrival of contaminants elsewhere and further attenuates them by physical and chemical processes. In the saturated zone, (of unconfined or confined aquifers), dilution and hydrodynamic dispersion of contaminants take place. The residence time for natural treatment of contaminated water that reaches springs and pumping wells by conduit type flow is generally far too short for pathogens (bacteria, or other organic contaminants) to die. Thus, recharge water entering karst systems can be contaminated by pathogens, or chemical constituents, if the recharge areas are not appropriately protected.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	The Trapper-Medicine Lodge area serves as a recharge area for aquifers interbedded within the Paleozoic and Mesozoic section. The sediments dip gently westward at about six degrees in the homocline that is being stripped of its younger sediment by erosion. The resulting configuration is one of broad dipslopes composed of successively older units as one proceeds upstream in various drainages in the area. The Madison aquifer is the source of municipal water for the communities of Worland, Ten Sleep, and Hyattville, and most recently Basin, Greybull, Manderson, and Kirby. The water provides irrigation water for thousands of acres within the Bighorn Basin. This aquifer is vulnerable to adverse change.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	No	No national priority concerns are known in the area.
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	No	No safety or public welfare concerns are known in the area.
Poses a substantial threat to human life and safety or to property.	No	No substantial threats are known to occur in the area.

Map 4. Spanish Point Karst ACEC (Existing)



Evaluation Forms:

Existing ACECs with Proposed Expansions

ACEC Proposal Evaluation Form – Brown/Howe Dinosaur Area

Area Considered	Brown/Howe Dinosaur Area ACEC (Existing)
General Location	North of Shell, Wyoming (Map 5).
General Description	The Brown/Howe Dinosaur Area ACEC is adjacent to the western flank of the Big Horn Mountains. These mountains are in the general form of a huge anticline which is asymmetrical and structurally deformed on its east and west flanks. The ACEC is on the north-central part of the mountain range, characterized by rock layers rising abruptly from the relatively level floor of the Bighorn Basin. Other typical features are thrust faults, normal and reverse faults, and steeply dipping to overturned rock layers. These features extend from the Wyoming-Montana state line southward to Shell Canyon. With the exception of the Cloverly and Morrison formations, all of the Paleozoic and Mesozoic rocks were deposited under marine conditions. The Cloverly and Morrison formations were deposited on land. In the ACEC, the Cloverly and Morrison formations have the greatest potential for important vertebrate fossils. The Chugwater Formation was intertidal and sometimes may contain vertebrate fossils of terrestrial animals. The Brown/Howe Dinosaur Area ACEC contains fossil bearing sediment with high potential for dinosaur specimens. From the Howe Quarry, the Morrison Formation has produced a scientifically significant and diverse array of vertebrate fossils, most notably from the suborder Theropoda and Sauropoda. This quarry was developed in the 1930s, a short distance south of the Siber/Big Al discoveries. Vertebrate fossils in the Cloverly Formation are relatively scarce and fragmentary.
Acreage	5,516 acres of BLM-administered surface
Values Considered	Paleontological resources

IDENTIFICATION CRITERIA

To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:

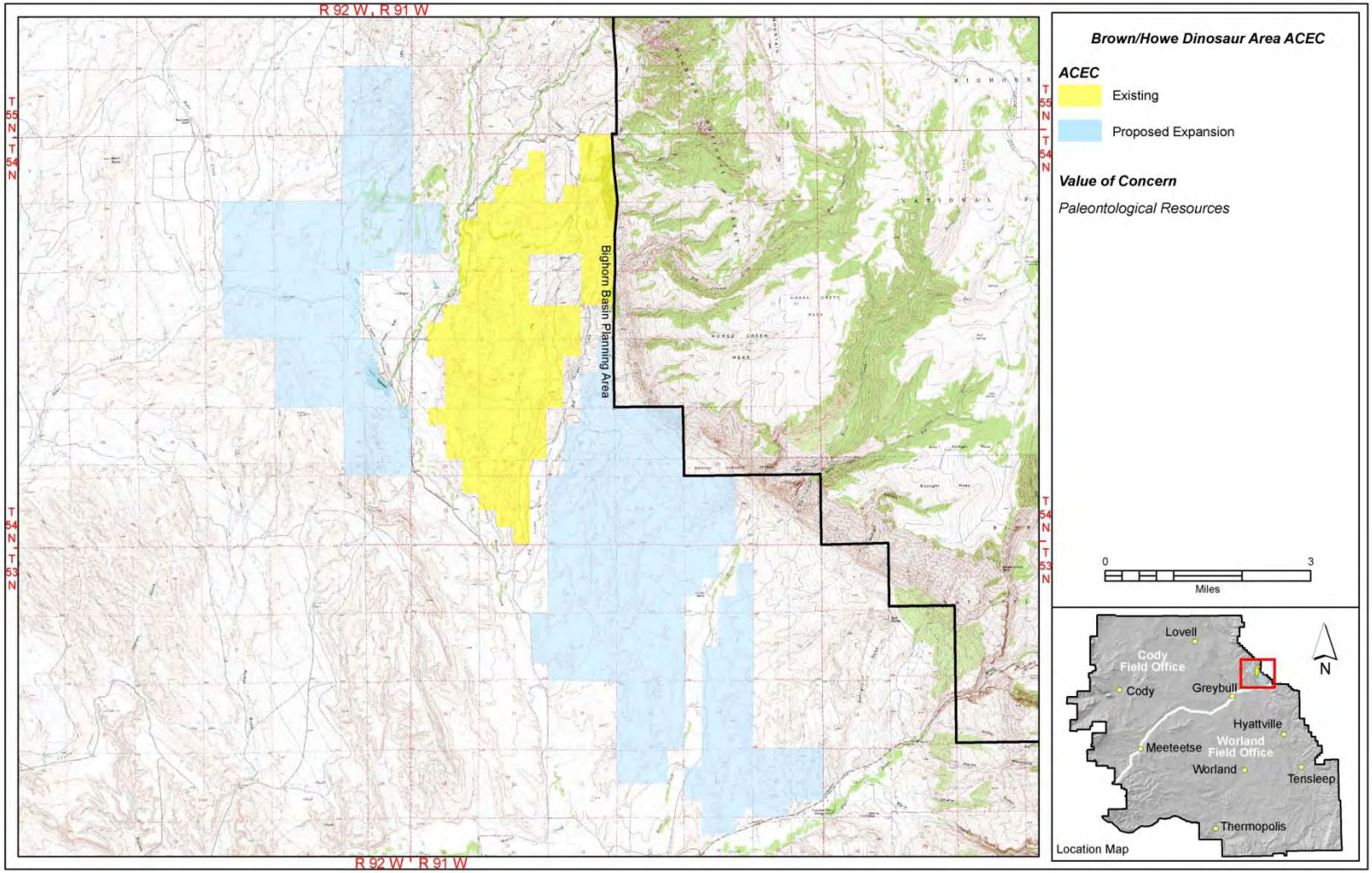
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	The *Allosaurus fragilis* skeleton was discovered in the Jurassic age Morrison Formation. It is the most complete, well preserved, and articulated subadult specimen discovered to date. The Brown/Howe Dinosaur Area ACEC has the potential to contain dinosaur fossils including: various sauropods, pterausaurs, and nonsauropod plant-eaters. Fossil remains also include footprints of flesh-eating dinosaurs associated with the fossils of plant-eating dinosaurs and soft tissue fossils. These types of fossils are rare.

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).	No	Similar fish and wildlife resources and values can be found in other areas of Wyoming and the West.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	Yes	Dinosaur fossils were discovered in 1992 from the Cretaceous age Cloverly Formation, immediately above the Morrison Formation. The Sundance Formation occurs in part of the ACEC and has some potential for additional discoveries of fossil reptiles.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous it is determined through the resource management planning process that it has become part of a natural process).	No	No substantial natural hazards are known in the area.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	This ACEC attracts domestic and international researchers. The Brown/Howe Quarries on nearby private land have produced hundreds of dinosaur bones, beginning in the 1930s. The fossil bearing sediments probably continue, in part, onto neighboring BLM-administered land.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	The deposits of the Jurassic age consist of the fossil remains of many forms of plant and flesh-eating dinosaurs as well as plant remains. These are extremely important and rare. Fossil remains also include foot prints, some as large as 20 inches, of flesh-eating dinosaurs within the plant-eating dinosaurs fossil deposits, which has not been previously identified in the Morrison Formation. Also included in the deposits are the impressions of saurian skin (an extremely rare occurrence) and soft tissue fossils (i.e., fossilized tendons).
Has been recognized as warranting	No	No national priority concerns are known in the area.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.		
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	No	No safety or public welfare concerns are known in the area.
Poses a substantial threat to human life and safety or to property.	No	No substantial natural hazards are known to occur in the area.

Map 5. Brown/Howe Dinosaur Area ACEC (Existing and Proposed Expansion)



ACEC Proposal Evaluation Form – Brown/Howe Dinosaur Area (Expansion Area)

Area Considered	Brown/Howe Dinosaur Area (Expansion Area)
General Location	Expansion of the Brown/Howe Dinosaur Area ACEC. (Map 5)
General Description	Important vertebrate and scientifically important paleontological resources including: dinosaurian, paleobotanical, palynological (pollen) and mammalian fossils, as well as dinosaur eggshell sites. These important scientific resources are found throughout the Late Jurassic Sundance and Morrison formations, and Early Cretaceous Cloverly Formation, which crop out over large portions of the proposed ACEC expansion. In addition, the colorful landforms/badlands that result from erosion of these formations provide important scenic values that, coupled with the paleontological and scientific values, should be considered as "rare geologic features."
Acreage	15,246 acres of BLM-administered surface
Values Considered	Paleontological resources

IDENTIFICATION CRITERIA
To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	The area has historic significance relative to past fossil-hunting expeditions conducted by numerous paleontological researchers such as Barnum Brown in the early part of the 20th century and the American Museum of Natural History from 1910-1913. The proposed ACEC has been known to contain important dinosaur remains ever since Barnum Brown learned of the presence of large bones on the ranch of Barker Howe in 1932. The Howe Quarry was one of the most concentrated deposits of dinosaur bones ever found. The geologic strata situated in this area weather into colorful and unique badland topographies that typify portions of the American West and provide extremely scenic values.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).	No	Similar fish and wildlife resources and values can be found in other areas of Wyoming and the West.
A natural process or system (including but not limited to endangered, sensitive, or	Yes	Important natural systems that are preserved in the fossil record that occur in the area include the Morrison Formation, which is known for its rich dinosaurian fauna and the Sundance

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).		Formation, which is important for its marine reptiles, trace fossils, and important invertebrate faunas.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs. A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process).	No	No substantial natural hazards are known to occur in the proposed ACEC expansion.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	The area has international significance in the field of paleontology, primarily fossil specimens of dinosaurian and marine reptiles. One of the most complete *Allosaurus* skeletons (Big Al) ever excavated was found in the area on BLM-administered land.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	The area has soil instability, erosion potential and fossil occurrence that make it fragile, sensitive, rare, irreplaceable, exemplary, unique and vulnerable to adverse change in the form of continued surface disturbance and potential irreversible loss of resources.
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	No	No national priority concerns are known in the proposed ACEC expansion.
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	No	No safety or public welfare concerns are known in the ACEC expansion.
Poses a substantial threat to human life and safety or to property.	No	No substantial threats are known to occur in the ACEC expansion.

ACEC Proposal Evaluation Form – Carter Mountain (Existing)

Area Considered	Carter Mountain ACEC (Existing)
General Location	The ACEC is located on the east slope of the Absaroka Mountains, west of Meeteetse (Map 6).
General Description	The area consists of unique alpine tundra and fragile soils, providing crucial winter range for elk and mule deer, as well as opportunities for hunting for local, state, and national visitors.
Acreage	10,867 acres of BLM-administered surface
Values Considered	Scenic, wildlife, vegetation

IDENTIFICATION CRITERIA

To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:

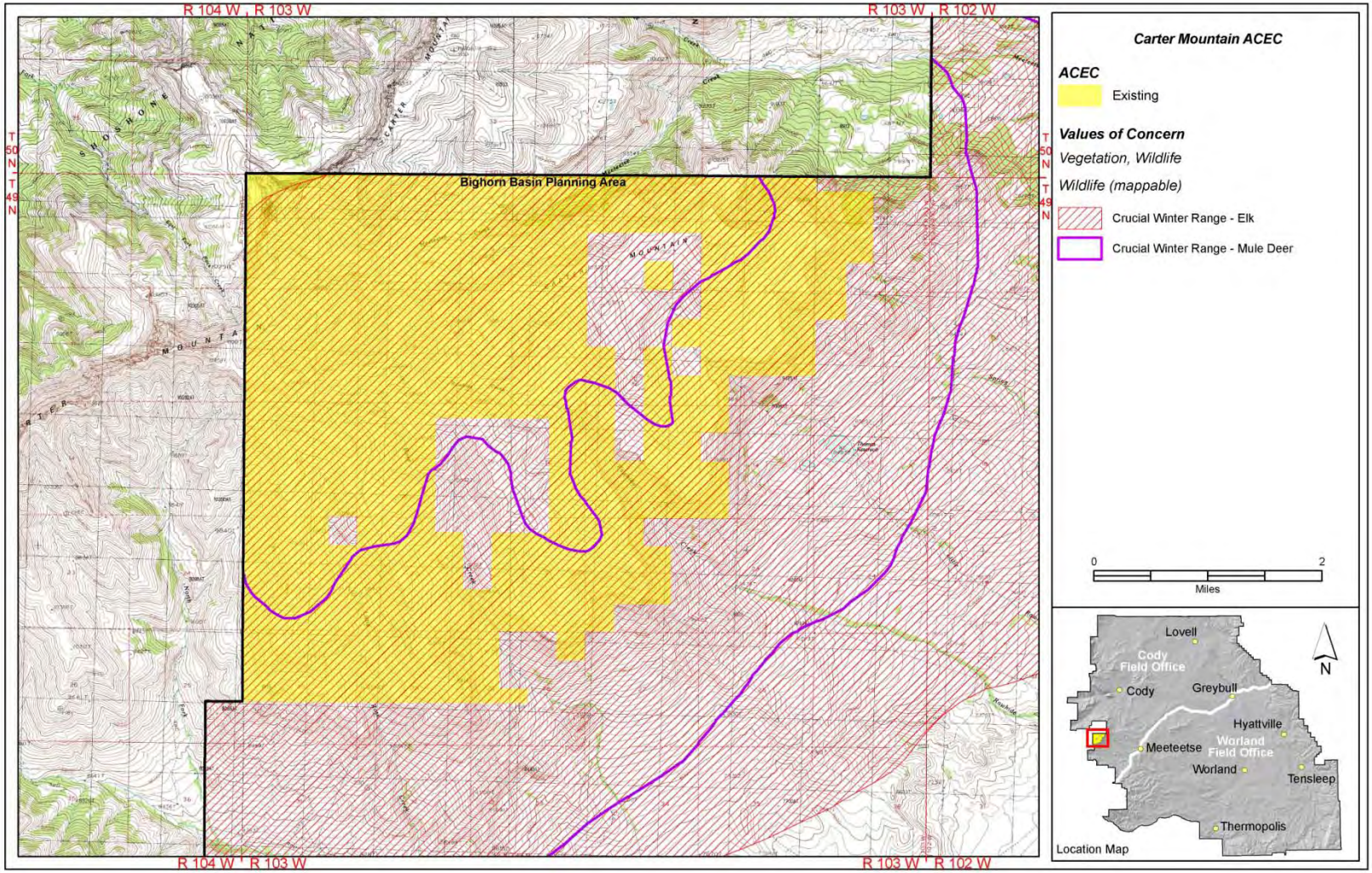
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	This ACEC is located on the east slope of the Absaroka Mountains, west of Meeteetse, providing scenic qualities. The Carter Mountain alpine tundra area contains five elements found in alpine habitats: cliffs and ledges, talus and scree, fell-field and felsenmeer, meadow and turf, and standing and running water. The area is unusual for its absence of normally occurring adjacent forest belt and timberline. This condition has allowed a number of lowland species to occur in association with more typical alpine associates, including *Pyrrocoma* uniflora plantain goldenweed), *Artemisia* campestris (field sagewart), and *Antelocapra* americana (pronghorn antelope).
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).	Yes	The ACEC contains crucial winter range for elk and mule deer and the southeast face of Carter Mountain contains the highest concentration of elk use in the Absaroka Front. As stated by Hurley (1996), the Cody elk herd equals or exceeds migratory distances documented for elk, and protection and maintenance of this crucial winter range on Carter Mountain is imperative to the long term survival of these elk.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	Yes	The ACEC consists of unique alpine tundra and fragile soils. Only limited scientific information is available regarding the ecological relationships of alpine soils, vegetation, and wildlife in the Absaroka Range and throughout alpine ranges in Wyoming. The Carter Mountain area is unique in that much of it remains in essentially pristine condition, although some disturbance has occurred in the past. This juxtaposition of disturbed and undisturbed alpine tundra allows a unique opportunity to study the effects of disturbance on alpine soils, vegetation, and

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
		wildlife. The rare plant taxa known to be present are one rare endemic (Cymopteris sp) and four peripheral taxa (Campanula uniflora, Helictrotrichon hookeri, Papaver kluanese, and Thalictrum alpinum).
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs. A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process).	No	No substantial natural hazards are known to occur in the area.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	No	Similar sites and values can be found in other areas of Wyoming and the West.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	The Carter Mountain area is unique in that much of it remains in essentially pristine condition, although some disturbance has occurred in the past. Short growing seasons, severe winters, and shallow highly erosive soils make the ecology of Carter Mountain fragile. This juxtaposition of disturbed and undisturbed alpine tundra allows a unique opportunity to study the effects of disturbance on alpine soils, vegetation, and wildlife. The rare plant taxa known to be present are one rare endemic (Cymopteris sp) and four peripheral taxa (Campanula uniflora, Helictrotrichon hookeri, Papaver kluanese, and Thalictrum alpinum).
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	No	No national priority concerns are known in the area.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	No	No safety or public welfare concerns are known in the area.
Poses a substantial threat to human life and safety or to property.	No	No substantial threats are known to occur in the area.

Map 6. Carter Mountain ACEC (Existing)



ACEC Proposal Evaluation Form – Carter Mountain (Expansion Area)

Area Considered	Carter Mountain (Expansion Area)
General Location	18 miles west of Meeteetse and 18 miles south of Cody, Wyoming (Map 7).
General Description	**Wildlife** The Carter Mountain Area contains crucial winter range habitat for mule deer, elk and bighorn sheep. On a year with normal or above snow fall/pack over 3,000 head of elk have been counted on the flanks of Carter Mountain. The area also contains important habitat for transition, parturition and summer range for mule deer, elk, bighorn sheep and antelope. On any given year over 700 head of elk and numerous deer and antelope as well as bighorn sheep spend summer months utilizing forage on the alpine tundra and riparian areas on Carter Mountain. This area is the winter destination for elk, deer and bighorn sheep as they migrate from Yellowstone National Park and the upper reaches of the Shoshone National Forest to their winter ranges on Carter Mountain. Elk may travel as far as 50 miles to reach this winter habitat. **Riparian** There are seven perennial and/or intermittent streams, as well as numerous springs and seeps that support riparian/wetland/aquatic habitat. Three perennial streams support riparian habitat and a pure strain of Yellowstone River Cutthroat Trout (a BLM sensitive species and special concern species for the Wyoming Game and Fish Department [WGFD]); other streams may also have suitable habitat. **Sensitive Species** Peregrine falcon nesting area, bald and golden eagle nesting and winter range. Supports habitat for BLM sensitive animal species (sage-grouse, sage thrasher, Brewer's sparrow, Baird's sparrow, logger head shrike). Sage-grouse use the area for early and late brood rearing habitat. The area supports suitable habitat for and is occupied by grizzly bears and grey wolves and has potential Canada lynx habitat. All three species are current or former Threatened and Endangered listed species. This area supports rare plants and at least 3 sensitive plants (Everts waterparsnip, Wyoming tansy mustard, Absaroka beardtongue). **Vegetation** Carter Mountain is unusual in that alpine tundra abuts the sagebrush/grasslands of the surrounding lowlands along much of the southeastern side, without an intervening conifer forest. **Soils** Elevations are high, varying from 8,000 to 11,500 feet, and contain fragile soils, alpine tundra, and sensitive plant species, with a short growing season (less than 30 day growing season at higher elevations). **Ecosystem** This is an intact ecosystem and any additional fragmentation will result in the loss of

Area Considered	Carter Mountain (Expansion Area)
	key ecosystem components.
Acreage	5,706 acres of BLM-administered surface
Values Considered	Watershed, wildlife, soils, forestry, cultural, Threatened and Endangered vegetation/wildlife, recreation

IDENTIFICATION CRITERIA
To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

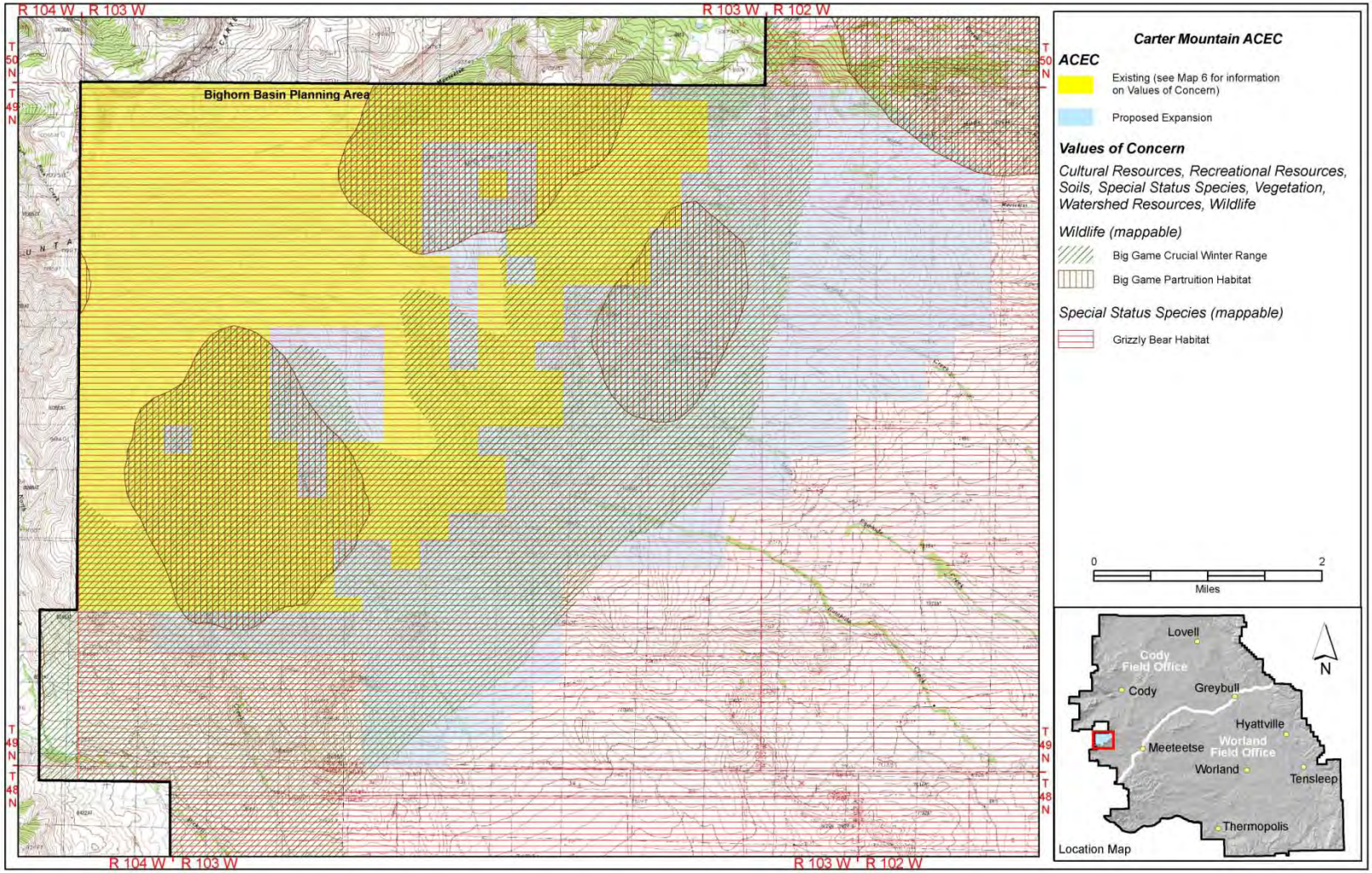
Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	The Carter Mountain expansion would enhance the existing ACEC and is unique in character and setting when viewed within the Yellowstone Ecosystem. The area is a very harsh environment with a shallow snowpack and harsh winds keeping the treeline lower than what would be expected. In fact, the subalpine forest zone is essentially skipped and transitions to alpine tundra dramatically. This vast, mostly treeless area trending from the east rises from the basin in an uninterrupted slope deceivingly high in elevation. This impressive un-fragmented and unspoiled volcanic landform is visible from many parts of the Bighorn Basin signaling the entrance of a vast mountain range. From the top of Carter Mountain at just over 11,000 feet, you can see the Southfork valley, Bighorn Basin, and the Greybull River drainage. These views are not possible from other locations in the forest. What makes this area even more unique is that you can drive through this whole transition and view the towering peaks from below and the vast openness from above.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).	Yes	This Carter Mountain Area is part of the Yellowstone Ecosystem and provides habitat for grizzly bear, gray wolf, and has potential habitat for the Canada lynx. The area supports crucial brood-rearing habitat for greater sage-grouse with vegetative green-up starting at the lower elevations in April and moving upslope, supplying green vegetation as late as August. The area consists of a mix of elk, mule deer, bighorn sheep and antelope winter, transition, and parturition ranges with some of the longest intact migration corridors in the lower 48 states (Hurley 1996). Although these values occur mostly on federal lands, they are critically dependent on the absolute retention of open space values on federal lands as well as adjacent non-federal lands. The expansion area, due to high winds and southern exposure, remains relatively snow free, creating valuable big game winter range.

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
		On Carter Mountain, six perennial streams head water on BLM-administered lands, all supporting cold water fisheries habitat for a pure strain of Yellowstone Cutthroat Trout (BLM sensitive species and special concern species for WGFD). Cliffs in the proposed area contain nesting habitat for peregrine falcons and golden eagles. Sagebrush habitat along the lower reaches of Carter Mountain provides one of many extremely important areas of intact habitat for several sensitive sagebrush obligate bird species including greater sage-grouse.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	Yes	At least three sensitive (i.e., Everts water parsnip, Wyoming tansy mustard, and Absaroka beard tongue) and fifteen rare plants, including alpine poppy, King's campion, snow paintbrush, white bark pine, and limber pine, exist on Carter Mountain.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs. A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process).	Yes	The southeast exposure of this area has vertical cliffs running from the south to north for approximately 8 miles at an elevation of 10,000 feet. In many locations there are two or three layers of cliffs that are impassable to humans. In addition, the soils are loose, fragile and unstable, and in combination with extremely high winds and/or intense thunder/lightening storms can create hazardous conditions to hikers and other users.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	Winter range is invaluable for many big game species and sensitive species including listed Endangered Species Act species. Extensive big game migration corridors on Carter Mountain connect elk and mule deer habitat in Yellowstone Park and Shoshone National Forest. This area is known internationally for the solitude, hunting, wildlife viewing, all-terrain vehicle use and hiking, skiing, ice climbing and scenic values.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique,	Yes	The proposed ACEC is a crucial link in the life cycle/history of big game species and other animals. Fragmentation of the habitat on Carter Mountain poses serious threats to the viability of big

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
endangered, threatened, or vulnerable to adverse change.		game species as the area is a critical step in species' life cycle. There are also important foraging areas for grizzly bears and potential lynx habitat on Carter Mountain.
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	Yes	The expansion area is where the majority of this huge elk herd winters every year (Hurley 1996). There is a closure on the Pitchfork and Carter Mountain roads which maintains seclusion and leaves these animals undisturbed. One can view these herds from Phelps Mountain Road and it is an impressive sight to see thousands of elk scattered across the expansion area. Without measures to protect these lands from further development, these animals would be stressed, their health diminished, and there may not be another winter range alternative for their wintering needs. The expanded ACEC would further enhance the protections put in place by existing road closures in the area. If these habitats are not managed for the persistence of wildlife, then the outdoor, hunting, and wildlife viewing experiences which are very important to public enjoyment and the local economy may be lost. A treasure like this area can be ruined by inadequate management. If these parcels are exchanged to private ownership and subdivided, or subject to unconstrained oil and gas development, then the local community and nation may lose these outstanding resources.
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	No	No safety or public welfare concerns are known in the proposed ACEC.
Poses a substantial threat to human life and safety or to property.	No	No substantial threats.

Map 7. Carter Mountain (Proposed Expansion)



ACEC Proposal Evaluation Form – Five Springs Falls (Existing)

Area Considered	Five Springs Falls ACEC (Existing)
General Location	West slope of the Big Horn Mountains (Map 8).
General Description	The Five Springs Falls area provides unique habitat for four plant species that are known to occur only in Wyoming and one other state. This unique habitat is composed of vertical cliff walls that are kept moist by spray from the waterfall. **Sensitive Species** Four near-endemic, rare and sensitive plant species occur in the Five Springs Falls area including: Erigeron allocotus, Penstemon caryi (Cary beardtongue), Stanleya tomentosa (Princes plume var. tomentosa), Sullivantia hepemanii (Sullivantia). **Recreation** The Five Springs Falls ACEC contains the Five Springs Falls Campground, which attracts local visitors and those en-route to Yellowstone National Park. **Scenic** The Five Springs Falls ACEC is located on the west slope of the Big Horn Mountains and offers outstanding scenic vistas.
Acreage	163 acres of BLM-administered surface
Values Considered	Scenic, sensitive plants, recreation

IDENTIFICATION CRITERIA

To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:

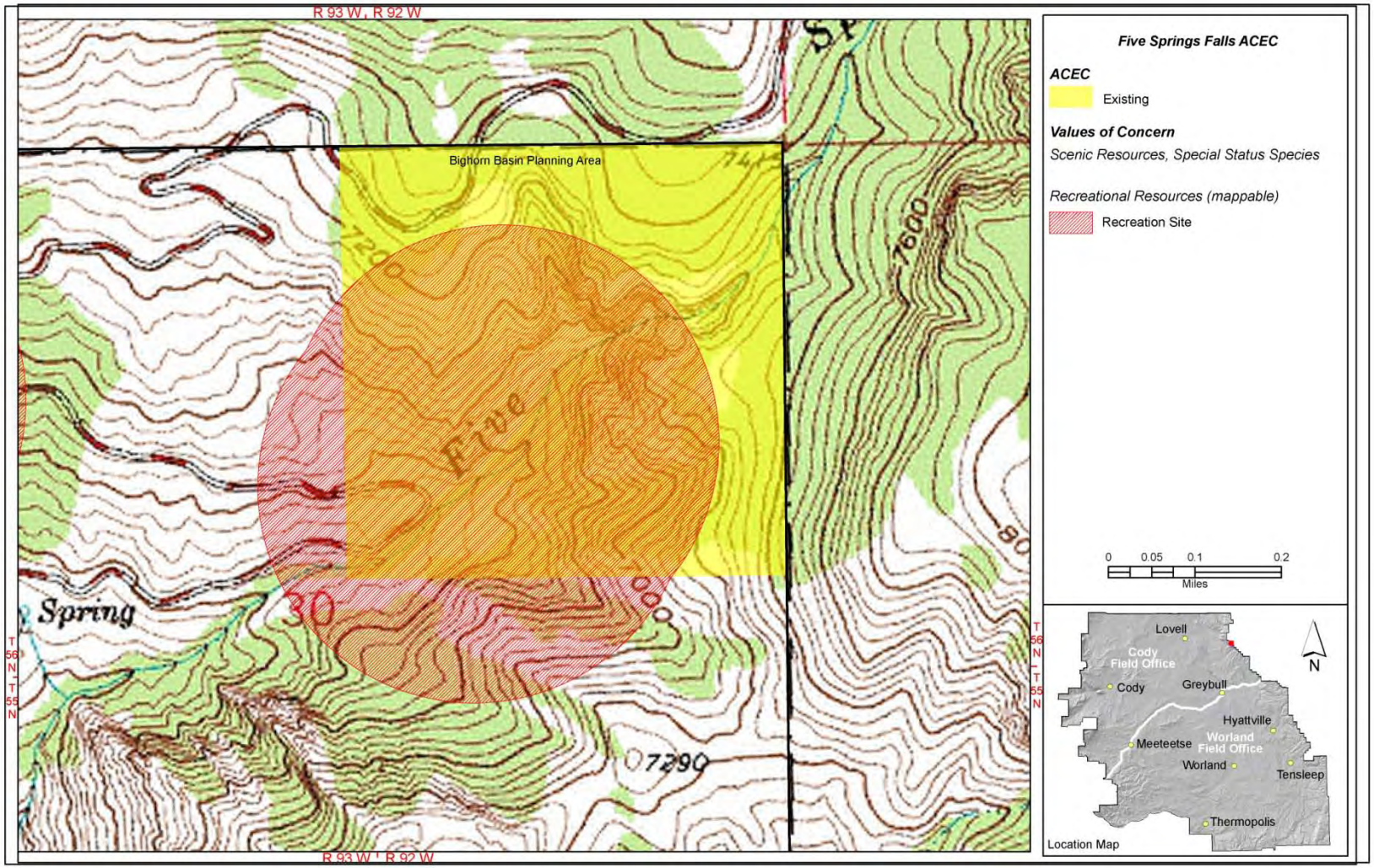
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	This ACEC is located on the west slope of the Big Horn Mountains, providing scenic vistas and outstanding scenic qualities due to the presence of spectacular geologic characteristics that dominate the area, primarily the Five Springs Thrust Fault. The area is dominated by outcrops of highly folded, faulted, and forested limestone and dolomites of Paleozoic age. The Five Springs Thrust Fault is a famous geologic fault that has been studied by numerous universities and graduate students each year. The Five Springs Falls ACEC also contains the Five Springs Falls Campground, which attracts local visitors and those en-route to Yellowstone National Park.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species	No	Similar sites and values can be found in other areas of Wyoming and the West.

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
diversity).		
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	Yes	The ACEC consists of populations of four near-endemic, rare and sensitive plant species including: Erigeron allocotus, Penstemon caryi (Cary beardtongue), Stanleya tomentosa (Princes plume var. tomentosa), and Sullivantia hepemanii (Sullivantia). These plant species occur throughout the ACEC and are inherent components of the natural systems located in the area.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs. A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process).	No	No substantial natural hazards are known to occur in the area.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	The ACEC consists of populations of four near-endemic rare and sensitive plant species. A developed recreation site and trails exist near and within the proposed ACEC boundary. One major and one minor waterfall in a steep rocky canyon are popular public recreational and visual attractions both locally and regionally.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	The ACEC consists of populations of four near-endemic, rare and sensitive plant species. The plant species being protected are known to occur only in Wyoming and one other state.
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	No	No national priority concerns are known in the area.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	No	No safety or public welfare concerns are known in the area.
Poses a substantial threat to human life and safety or to property.	No	No substantial threats are known to occur in the area.

Map 8. Five Springs Falls ACEC (Existing)



ACEC Proposal Evaluation Form – Five Springs Falls (Expansion Area)

Area Considered	Five Springs Falls (Expansion Area)
General Location	The proposed expansion surrounds the existing Five Springs Falls ACEC (Map 9).
General Description	The Five Springs ACEC expansion is dominated by outcrops of highly folded, faulted and forested limestones and dolomites of Paleozoic age.
Acreage	1,646 acres of BLM-administered surface
Values Considered	Geologic features, scenic

IDENTIFICATION CRITERIA

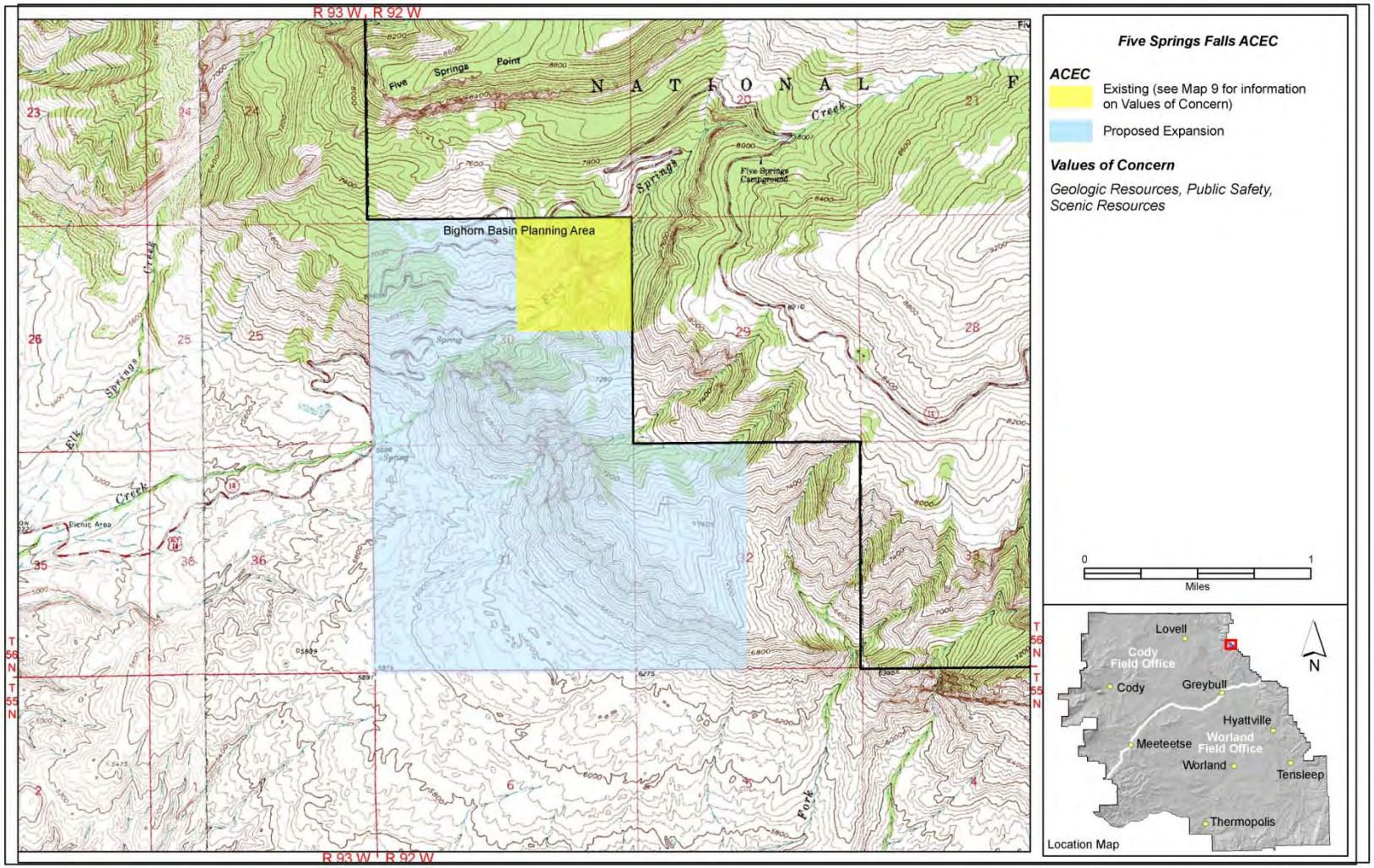
To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:

Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	The geologic strata situated in the proposed ACEC expansion have been severely uplifted, folded, and faulted, resulting in an area of exceptional scenic and geologic interest and value along the western Big Horn Mountain front.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).	No	Similar fish and wildlife resources and values can be found in other areas of Wyoming and the West.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	Yes	The geologic strata situated in this area have been severely uplifted, folded, and faulted, resulting in an area of exceptional scenic and geologic interest and value along the western Big Horn Mountain front.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous it is determined through the resource management planning process that it has become part of a natural process).	Yes	The proposed ACEC expansion is unstable due to steep topography. Downslope movements of soil and rock are common. Landslide deposits and rock-fall, slump have been documented in the area of the proposed ACEC expansion, and can present a public safety risk.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	The combination of scenic, geologic, and scientific values associated with the proposed ACEC expansion are a unique resource both on a regional and national scale. The geologic strata in this area have been severely uplifted, folded and faulted, resulting in exceptional scenic and geologic interest and value along the western Bighorn Mountain front. The Five Springs Thrust Fault is a famous fault that is studied annually by numerous universities and graduate students, and can be considered a "rare geologic feature". The area is quite unstable due to steep topography, and landslide deposits, rock-fall and slump, all of which can present a public safety risk, are fairly common in the area of the proposed ACEC expansion.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	The area has soil instability, erosion potential and fossil occurrence that make it fragile, sensitive, rare, irreplaceable, exemplary, unique and vulnerable to adverse change resulting from continued surface disturbance and potential irreversible loss of resources.
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	No	No national priority concerns are known in the proposed ACEC expansion.
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	No	Although hazards are present, they do not pose a substantial threat to safety or public welfare.
Poses a substantial threat to human life and safety or to property.	No	Although hazards are present, they do not pose a substantial threat to human life, safety or property.

Map 9. Five Springs Falls (Proposed Expansion)



ACEC Proposal Evaluation Form – Little Mountain (Existing)

Area Considered	Little Mountain ACEC (Existing)
General Location	West slope of the Big Horn Mountains northeast of Lovell, Wyoming (Map 10).
General Description	The Little Mountain ACEC contains karst topography, paleontological resources, and cultural resources. It also contains a potential hazard from previous uranium mining activities. The resources are all interrelated within the ACEC, and all enhance the overall importance of the area. The karst topography has given researchers and recreational cavers vast subterranean areas to study and explore. Openings to these caves trapped animals, leading to preservation of a fossil record of previous inhabitants. Sediments that washed into the caverns contained uranium, which was sought after by miners in the early 1950's. The hazardous tailings and open mine shafts remain from this exploration. Aboriginals occupied the area for approximately 11,000 years, leaving a vast storehouse of information regarding prehistoric and protohistoric adaptive strategies. The remoteness of Little Mountain area has helped to protect its resources. Few people venture into the area; however, some people go there to do research on cultural or paleontological resources and some recreational use of the caves does occur.
Acreage	21,475 acres of BLM-administered surface
Values Considered	Cave, cultural, scenic, and paleontological resources

IDENTIFICATION CRITERIA
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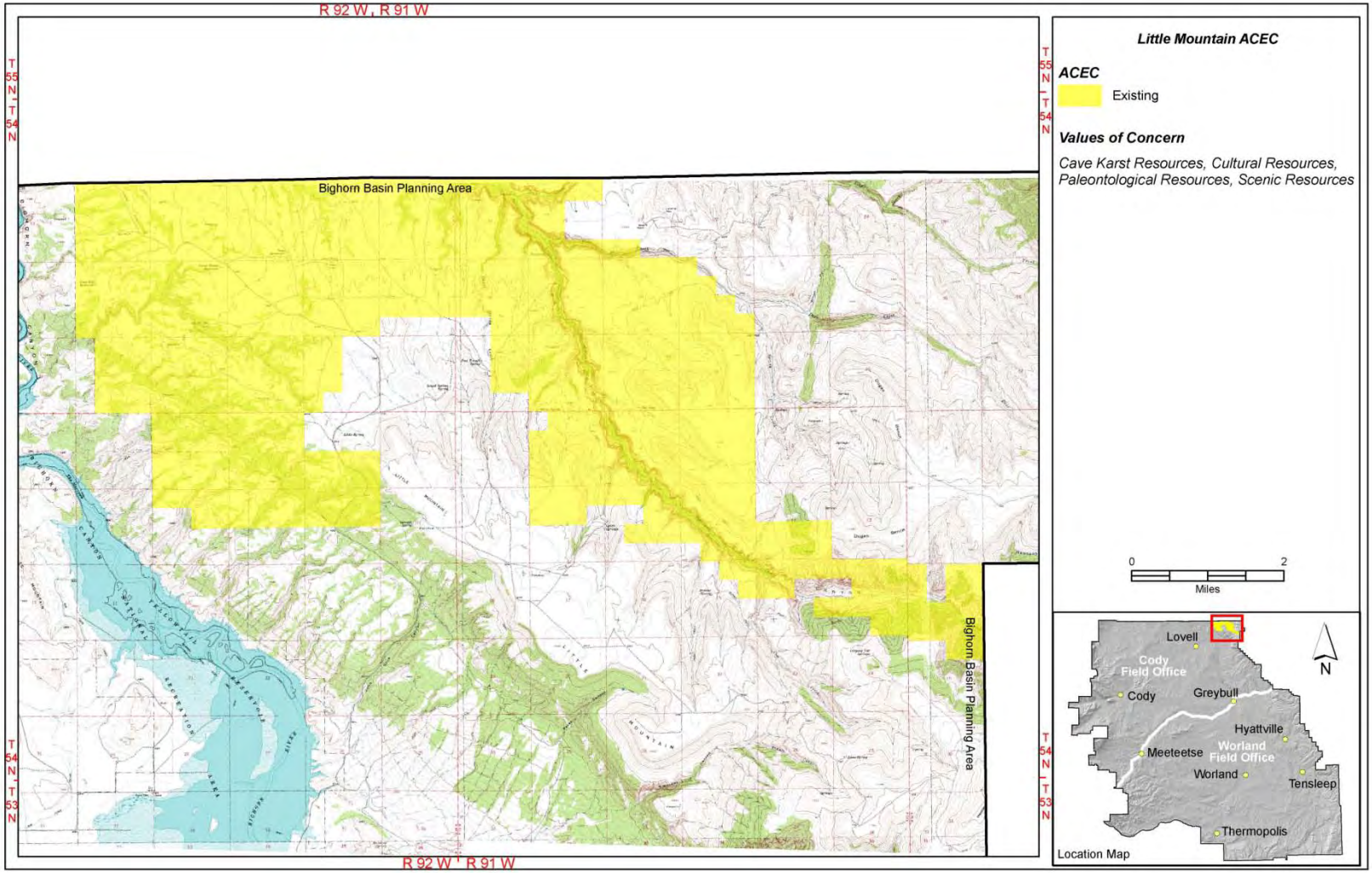
Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	The karst topography has given researchers and recreational cavers vast subterranean areas to study and explore. Openings to these caves trapped animals, leading to preservation of a fossil record of previous inhabitants. Sediments that washed into the caverns contained uranium, which was sought after by miners in the early 1950s. The hazardous tailings and open mine shafts remain from this exploration. Aboriginals occupied the area for approximately 11,000 years, leaving a vast storehouse of information regarding prehistoric and protohistoric adaptive strategies.
A fish and wildlife resource	No	Similar fish and wildlife resources and values can be found in

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
(including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).		other areas of Wyoming and the West.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	Yes	Openings to these caves trapped animals, leading to preservation of a fossil record of previous inhabitants. Sediments that washed into the caverns contained uranium.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs. A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process).	No	No substantial natural hazards are known to occur in the area.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	The karst topography has given researchers and recreational cavers vast subterranean areas to study and explore. Openings to these caves trapped animals, leading to preservation of a fossil record of previous inhabitants. Sediments that washed into the caverns contained uranium, which was sought after by miners in the early 1950's. The hazardous tailings and open mine shafts remain from this exploration. Aboriginals occupied the area for approximately 11,000 years, leaving a vast storehouse of information regarding prehistoric and protohistoric adaptive strategies. The caves in the areas are nationally important as are the diverse cultural resources. Those resources could be affected by surface-disturbing activities. Any action that would alter the existing karst topography could detract substantially from the recreational and scientific values of the cave and could result in

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
		loss of cultural resources.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	Aboriginals occupied the area for approximately 11,000 years, leaving a vast storehouse of information regarding prehistoric and protohistoric adaptive strategies.
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	No	No national priority concerns are known in the area.
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	No	No safety or public welfare concerns are known in the area.
Poses a substantial threat to human life and safety or to property.	Yes	The mine shafts and tailings from uranium mining are a safety hazard.

Map 10. Little Mountain ACEC (Existing)



ACEC Proposal Evaluation Form – Little Mountain (Expansion Area)

Area Considered	Little Mountain (Expansion Area)
General Location	Northeast of Lovell and immediately west of Bighorn National Recreation Area. Between Highway 14A and the Montana State Line (Map 11).
General Description	**Wildlife** Important wildlife occurring in the proposed ACEC include bighorn sheep population, big game winter, transition, parturition ranges and migration corridors; potential Canada lynx habitats; and sage-grouse brood rearing, nesting and winter range. **Vegetation** Vegetation communities occurring in the proposed ACEC include Douglas fir forests, limber pine stands, mixed conifer and aspen stands, riparian willow and shrub communities, sagebrush steppe, and a substantial portion of the only curl-leaf mountain mahogany population in Wyoming. **Scenic** The proposed ACEC is set in a scenic area with deep canyons and high plateaus with paleontological resources, an extensive cave network, and Pleistocene mammal remains. Devil's Canyon and Cottonwood Canyon are two notable dramatic scenery features. **Sensitive Species** BLM sensitive species known or potentially occurring in the proposed ACEC include: bats, sage-grouse, Brewer's sparrow, song sparrow, and sage thrasher. There are four plant species in the Five Springs Campground area and throughout the area that are regional endemics, two of which are considered Sensitive by the USFS Region 2. These species include Erigeron allocotus (Big Horn Fleabane), Penstemon caryi (Cary's Beardtongue), Stanleya tomentosa var. tomentosa (Hairy Prince's Plume) and Sullivantia hapemanii var. hapemanii (Hapeman's Coolwort). All of these species are considered species of potential concern by the Wyoming Natural Diversity Database. **Recreation** Recreation use is heavy due to the abundance of recreation resources. Devil's Canyon has been determined to be eligible for Wild and Scenic River Designation. A travel management plan has been authorized for the Little Mountain and Mexican Hills area; which is also an important area for hunting, fishing and wildlife viewing. The area is also near the medicine wheel, a world renowned archeological site which attracts recreational users. There are also two campgrounds occurring in the proposed ACEC which are managed by the BLM.
Acreage	47,635 acres BLM-administered surface
Values Considered	Wildlife, sensitive species, recreation, vegetation, scenic

IDENTIFICATION CRITERIA
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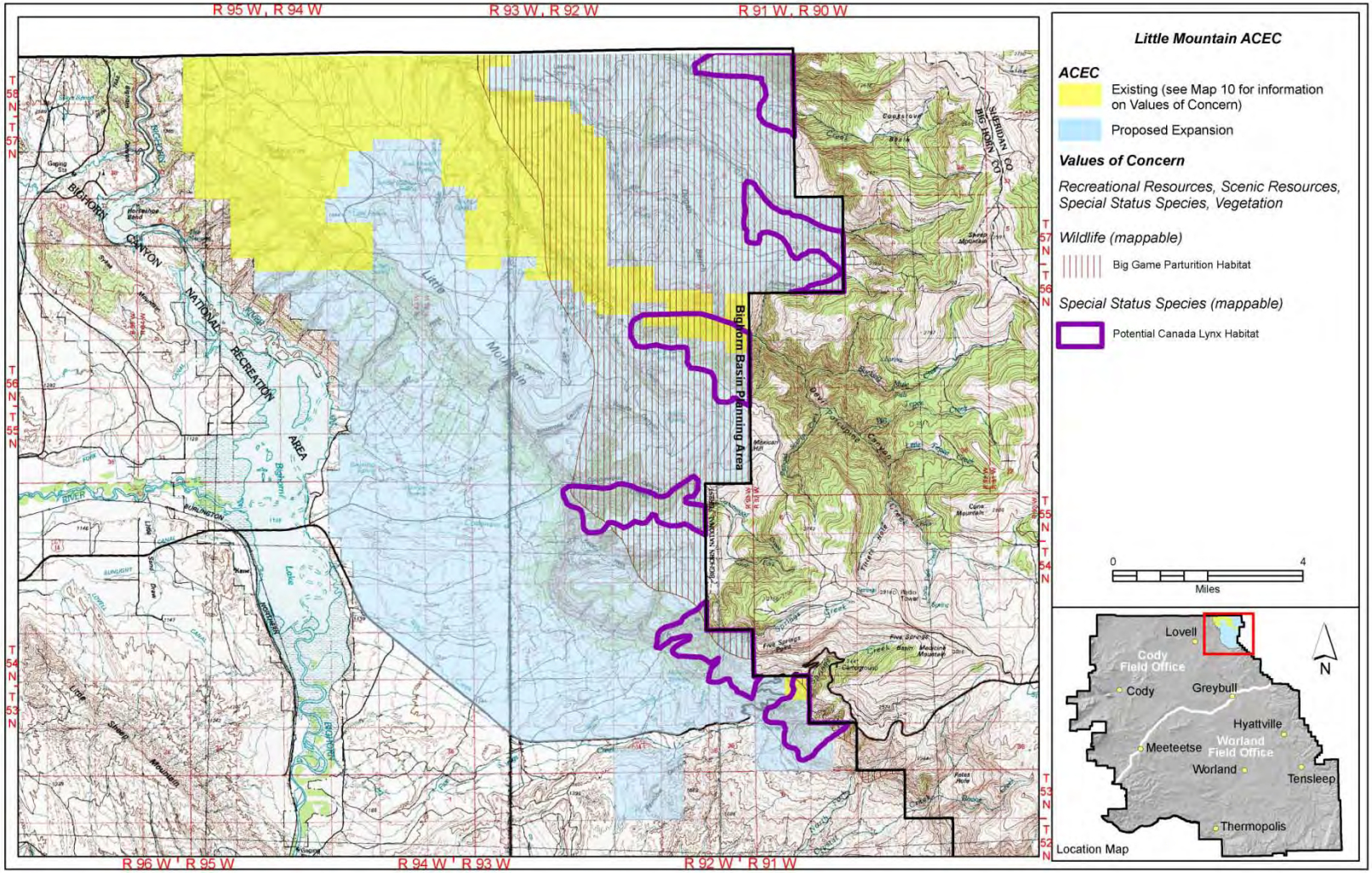
Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	Cultural sites including rock shelters, vision quest sites, and a buffalo jump are present in the area. Devil's Canyon has been determined to be eligible for Wild and Scenic River Designation. It is an important area for hunting, fishing and wildlife viewing.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).	Yes	The reason why the Little Mountain expansion area, habitat for bighorn sheep, sage grouse, elk and mule deer, needs to be protected is related to its unique landform and how it relates to industry and private land developments or land uses. The West Slope of the Big Horn Mountains is impressively steep and the transition zones for wildlife are less productive and located near much private land and industry development. The Little Mountain ACEC proposal has a gradual transition range and large basins which are more secluded from development. There is much less discretion found in much of the West Slope for management decisions (e.g., locatable minerals and rights-of-way) and these populations of wildlife are vulnerable. If wildlife "refugia" or "core areas" are protected, the wildlife populations of the Big Horn Mountains as a whole will be more viable. Development in this area needs to be managed in a unique way because of these values and others like extensive big game migratory routes and parturition habitat. The complexity and importance of wildlife use in this area is very difficult to manage for and this is why more attention needs to be paid to this area when compared to habitats with less overlap of important habitat among species. The area supports the majority of greater sage-grouse for the West Slope in the Cody Field Office, has the most viable bighorn sheep population in the Big Horn Mountains, and is used extensively for elk and deer winter range. All of these are important values to manage for and where there is limited discretion in other areas, this area can be conserved with special management actions specific to this ACEC to ensure wildlife population viability in the long term. This argument is true for wildlife not mentioned here specifically. This area is very important for sensitive bat species, which occupy the abundant caves in the area.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	Yes	The proposed ACEC contains areas of known or potentially occurring BLM Sensitive Species and Rare Plant Species.

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs. A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process).	No	No substantial natural hazards are known in the area.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	The unique geology and visual qualities of the ACEC mixed with Sensitive and Threatened animal species and Rare Endemic Plant Species make a very diverse and unique ecosystem, which if disturbed could cause a loss of species diversity and reduction in connectivity for migrating animals. Locations within the proposed ACEC are also the only place for wildlife to winter between Highway 14A and the Montana State Line. This area is a priority area for bighorn sheep herd establishment, and there have been many efforts to augment this population to return bighorn sheep to the Bighorn Mountain Range. This is a very productive area for sage-grouse and contributes to the viability of the species. Protection of the endemic flora and fauna in the proposed ACEC is essential for maintaining biodiversity in the central Rocky Mountain region.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	This area is under threat from cheatgrass expansion and conversion, conifer encroachment into sagebrush areas, possible uranium mining, and limestone quarry mining, off-road vehicle use, riparian weed infestation, domestic sheep and goat transfer of Pasteurella to wild bighorn sheep. The habitats within the ACEC are representative of many western habitats that have been damaged or destroyed. These relatively healthy areas provide a source of healthy and functioning habitat for sensitive species as well as for potential research purposes.
Has been recognized as warranting protection in order to satisfy national priority concerns or to	Yes	Because of the federal funding and receipt of the land into public ownership, special management prescriptions would be applied in order to not only accommodate hunting, camping,

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
carry out the mandates of FLPMA.		and scenic overlook activities but to also protect and retain important habitat for all species on Little Mountain; thereby, managing the resources that were an investment by the public for their own enjoyment. The existing ACEC does not offer protection to lands recently acquired. The unique and outstanding values within the Little Mountain expansion ACEC, which are vulnerable to degradation, were used as part of the justification for consolidating public land at a national level. Having these important values recognized nationally by congress indicates support and relevance for conserving these values and following through with appropriately managing the public's financial investment. The many BLM Sensitive Species in the Little Mountain expansion area that fall under BLM Manual 6840 for Special Status Species and are priority species makes this area a high national priority for special management. If there were not many Sensitive Species in the area, then current management may be enough because the complexity of managing many Sensitive Species takes careful planning and project development. Further new threats do arise, like white nose syndrome, which is spreading and killing bats and may become a real threat in this area. These unexpected stochastic events can threaten already depressed populations. There needs to be the ability to plan and react to new threats like this as they arise.
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	No	No safety or public welfare concerns are known in the proposed ACEC.
Poses a substantial threat to human life and safety or to property.	No	No substantial threats.

Map 11. Little Mountain (Proposed Expansion)



ACEC Proposal Evaluation Form – Upper Owl Creek (Existing)

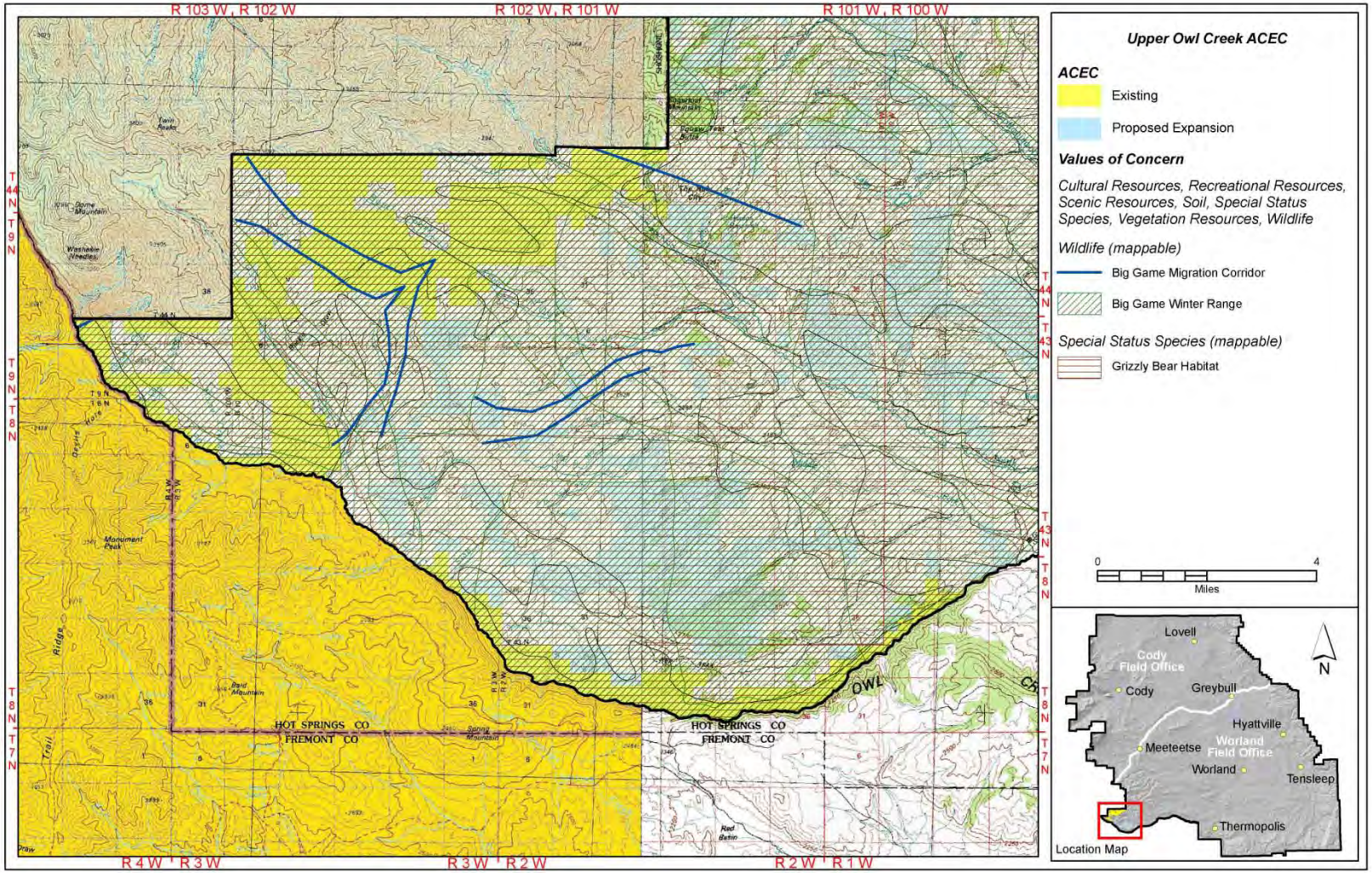
Area Considered	Upper Owl Creek ACEC (Existing)
General Location	Upper foothills of the Absaroka Mountains surrounding the Owl Creek, Rock Creek, Klicker Creek, Slab Creek, and Vass Creek drainages (Map 12).
General Description	**Wildlife** The combination of inaccessibility, topography, and vegetation has made the area home to many species of animals. The ridges provide migration routes and wintering areas for elk and mule deer, as well as potential habitat for many other animals dependent upon alpine and rocky outcrops such as bighorn sheep and grizzly bears. Moose are found in many of the stream bottoms with other riparian-dependant species like beaver, mink, black bear, and several kinds of neotropical migrant birds. The forested areas include some biologically diverse old-growth stands, providing thermal cover for wintering elk and moose, as well as habitat for pine marten and neotropical migrant birds. The area also contains important fisheries habitat. **Soils** The Upper Owl Creek ACEC consists of shallow soils which are especially susceptible to erosion and disturbance. The characteristics of these soils result in potential adverse impacts to and resulting from other resources and resource uses including cultural resources and recreation. **Vegetation** Endemic plants listed as species-at-risk grow in “moonscapes” where rocky, sparely-vegetated soils support low-growing, cushion plant communities. The species found in or adjacent to the ACEC include Evert’s waferparsnip, Wyoming tansymustard, Rocky Mountain twinpod, and shoshonea. **Cultural Resources** The area contains a diverse collection of cultural resources including Native American traditional values. **Recreation and Scenic** Recreation opportunities abound in this area for primitive activities like hiking, camping, fishing, and horseback riding. Relatively few people are encountered, enhancing the feeling of solitude. The highly scenic aspect of the areas and beautiful vistas and canyons complement the primitive setting. Other common recreational pursuits are wildlife viewing and hunting, although these opportunities are limited by poor access.
Acreage	13,057 acres of BLM-administered surface
Values Considered	Wildlife, fisheries, soils, vegetation and rare plants, cultural resources, recreation, scenic

IDENTIFICATION CRITERIA
To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	This ACEC has diverse cultural resources, Native American traditional values, and high scenic values. The area borders the Wind River Reservation to the south.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).	Yes	The combination of inaccessibility, topography, and vegetation has made the area home to many species of animals. The ridges provide migration routes and wintering areas for elk and mule deer, as well as potential habitat for many other animals dependent upon alpine and rocky outcrops such as bighorn sheep and grizzly bears. Moose are found in many of the stream bottoms with other riparian-dependant species like beaver, mink, black bear, and several kinds of neotropical migrant birds. The forested areas include some biologically diverse old-growth stands, providing thermal cover for wintering elk and moose, as well as habitat for pine marten and neotropical migrant birds. The area also contains important fisheries habitat.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	Yes	The Upper Owl Creek ACEC consists of shallow soils which are especially susceptible to erosion and disturbance. The characteristics of these soils result in potential adverse impacts to and resulting from other resources and resource uses including cultural resources and recreation. Endemic plants listed as species-at-risk grow in "moonscapes" where rocky, sparely-vegetated soils support low-growing cushion plant communities. The species found in or adjacent to the ACEC include Evert's waferparsnip, Wyoming tansymustard, Rocky Mountain twinpod, and shoshonea.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs. A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process).	No	No substantial natural hazards are known to occur in the area.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	The combination of inaccessibility, topography, and vegetation has made the area home to many species of animals. The ridges provide migration routes and wintering areas for elk and mule deer, as well as potential habitat for many other animals dependent upon alpine and rocky outcrops such as bighorn sheep and grizzly bears. Moose are found in many of the stream bottoms with other riparian-dependant species like beaver, mink, black bear, and several kinds of neotropical migrant birds. The forested areas include some biologically diverse old-growth stands, providing thermal cover for wintering elk and moose, as well as habitat for pine marten and neotropical migrant birds. The area also contains important fisheries habitat.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	The Upper Owl Creek ACEC consists of shallow soils which are especially susceptible to erosion and disturbance. The characteristics of these soils result in potential adverse impacts to and resulting from other resources and resource uses including cultural resources and recreation. Endemic plants listed as species-at-risk grow in "moonscapes" where rocky, sparely-vegetated soils support low-growing cushion plant communities. The species found in or adjacent to the ACEC include Evert's waferparsnip, Wyoming tansymustard, Rocky Mountain twinpod, and shoshonea.
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	No	No national priority concerns are known in the area.
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	No	No safety or public welfare concerns are known in the area.
Poses a substantial threat to human life and safety or to property.	No	No substantial threats are known to occur in the area.

Map 12. Upper Owl Creek ACEC (Existing and Proposed Expansion)



ACEC Proposal Evaluation Form – Upper Owl Creek/Absaroka Front Area (Expansion Area)

Area Considered	Upper Owl Creek/Absaroka Front Area (Expansion Area)
General Location	Upper foothills of the Absaroka Mountains surrounding the Owl Creek, Rock Creek, Klicker Creek, Slab Creek, and Vass Creek drainages (Map 12).
General Description	The management objectives are to protect overlapping and important big game habitats and migration corridors, fisheries habitat, shallow soils, alpine vegetation and rare plants, diverse cultural resources and Native American traditional values, primitive recreational opportunities, and high scenic quality. This ACEC also provides opportunities for hunting to local, state, and national visitors.
Acreage	19,720 acres
Values Considered	Outstanding scenic qualities Outstanding recreational opportunities Wilderness Characteristics Overlapping crucial wildlife habitat and migration corridors Big game Lynx habitat Crucial parturition areas Grizzly Bear habitat Wolf habitat Fisheries habitat Shallow soils, alpine vegetation, and rare plants Native American traditional values Cultural resources

IDENTIFICATION CRITERIA
To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	Cultural resources and Native American traditional values are maintained in the current Upper Owl Creek ACEC as well as the Owl Creek WSA. These resources and values are identified throughout the Upper Owl Creek/Absaroka Front area which is not currently maintained with special management prescriptions.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species	Yes	Lynx Analysis Units are identified in the Upper Owl Creek/Absaroka Front area, overlapping crucial wintering ranges, elk parturition areas, crucial moose habitat, and grizzly bear and wolf habitat is identified within this area.

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
diversity).		
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	Yes	Wilderness characteristics have been inventoried in the Upper Owl Creek ACEC and the Owl Creek WSA, as well as identified in the Upper Owl Creek/Absaroka Front area. The entire area and the surrounding areas all contain special ecological, geological, educational, historical, scientific and scenic qualities. The most notable geological and scientific quality identified in the area is the moth feed. The aspect and talus of the slopes in the area provide for exceptional habitats where millions of moths congregate. Moths provide for much needed protein for grizzly bear diet, which this annual congregation attracts grizzly bears. This phenomenon attracts visitors to the area to observe this feeding habit as well as to experience the thrill of observing grizzly bears in their natural environment. The dramatic high alpine mountainous environment, vertical relief, and the variety of colors and textures provide for a high degree of natural contrasts which creates outstanding scenic qualities. The scenic values influence visitors to recreate in this area, as well as creating eco-tourism opportunities for business in the surrounding communities.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs. A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.	No	No substantial natural hazards are known.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	The Owl Creek Mountains, the Absaroka Range, and the Absaroka Foothills are held in high esteem from both local and non-local residents. The primitiveness and the wilderness characteristics of the entire area influences visitors to access this area, as well as promote and sustain local eco-tourism activities for the local and private businesses. Dramatic vertical and near vertical relief from the incredible hills and cliffs, incised drainages, high degree of natural contrasts of colors, textures,

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
		dominant forms, and erratic lines creates outstanding viewsheds, back dropped by spires of the Absaroka Mountains, attracting visitors to the area to enjoy.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	The wildlife diversity in this area catapults public interest as well as resource management. Such diversity includes wolves, grizzly bear, big game, and lynx. Lynx analysis units have been established in areas within the Upper Owl Creek/Absaroka Front area encompassing suitable lynx habitat, which is rare within the Planning Area.
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	No	No national priority concerns are known.
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	No	No safety or public welfare concerns are known.
Poses a substantial threat to human life and safety or to property.	No	No substantial threats.

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Evaluation Forms:

New Proposed ACECs

ACEC Proposal Evaluation Form – Black-tailed Prairie Dog Complex

Area Considered	Black-tailed Prairie Dog Complex
General Location	Near Meeteetse, Wyoming.
General Description	Habitat for black-tailed prairie dog.
Acreage	182 acres
Values Considered	Wildlife, Black-tailed Prairie Dog Complex

IDENTIFICATION CRITERIA

To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:

Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	No	No significant historic, cultural or scenic values are known.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).	Yes	The area provides habitat for the black-tailed prairie dog, a species that has been petitioned for listing under the ESA.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	Yes	Black-footed ferrets are listed as Endangered and these prairie dog towns could provide habitat for the ferret.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous it is determined through the resource management planning process that it has become part of a natural process.	No	No natural hazards are known.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	No	While black-footed ferrets are listed as Endangered and these prairie dog towns could provide habitat for the ferret, and these are the only known black-tailed prairie dog towns in the Bighorn Basin, similar management concerns are present for Threatened and Endangered species habitat. Furthermore, much of the area is surrounded and fragmented by private land.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	No	The area is not particularly fragile or sensitive to change as compared to other sites in Wyoming and the West.
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	No	No national priority concerns are known.
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	No	No safety of public welfare concerns are known.
Poses a substantial threat to human life and safety or to property.	No	No substantial threats.

ACEC Proposal Evaluation Form – Chapman Bench

Area Considered	Chapman Bench
General Location	North of Heart Mountain (Map 13).
General Description	Chapman Bench is an old river terrace which is now covered in sagebrush, bunchgrasses and forbs. It is north of Heart Mountain and is predominantly BLM-administered land. Chapman Bench is in the upper ends of the 5-9 inch precipitation zone and highway 120 runs on the west side of this bench. It is travelled by many on their way to Yellowstone and views of the foothills of the Absaroka Mountains are incredible.
Acreage	23,976 acres BLM-administered land
Values Considered	The proposed Chapman Bench ACEC is an important bird area designated by the Audubon Society and contains a diverse, abundant and unique bird population. Sage-grouse, long-billed curlew, and mountain plover are highlight species in this sagebrush steppe. This area provides nesting habitat for the highest concentration of these species together in the Bighorn Basin. They are all three BLM Sensitive Species and the mountain plover was once a "proposed" species for listing under the Endangered Species Act. This assemblage of shorebirds and upland sagebrush birds is unique in the western sage lands. The long-billed curlew and mountain plover make important migrations from the pacific to nest in our sagebrush lands. This does not happen everywhere and conserving this habitat is critical to their long-term success as species. The current state of a lack of development provides the BLM an opportunity to maintain this assemblage of species which are highly dependent upon this bench and the sagebrush habitat. The primary sagebrush obligate species being the sage-grouse and their breeding, nesting, brood rearing and wintering habitats. Also other obligate species like the sage thrasher, sage sparrow, Brewers' sparrow, and loggerhead shrike. This area also provides substantial acreages of antelope and mule deer crucial winter range as well.

IDENTIFICATION CRITERIA
To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

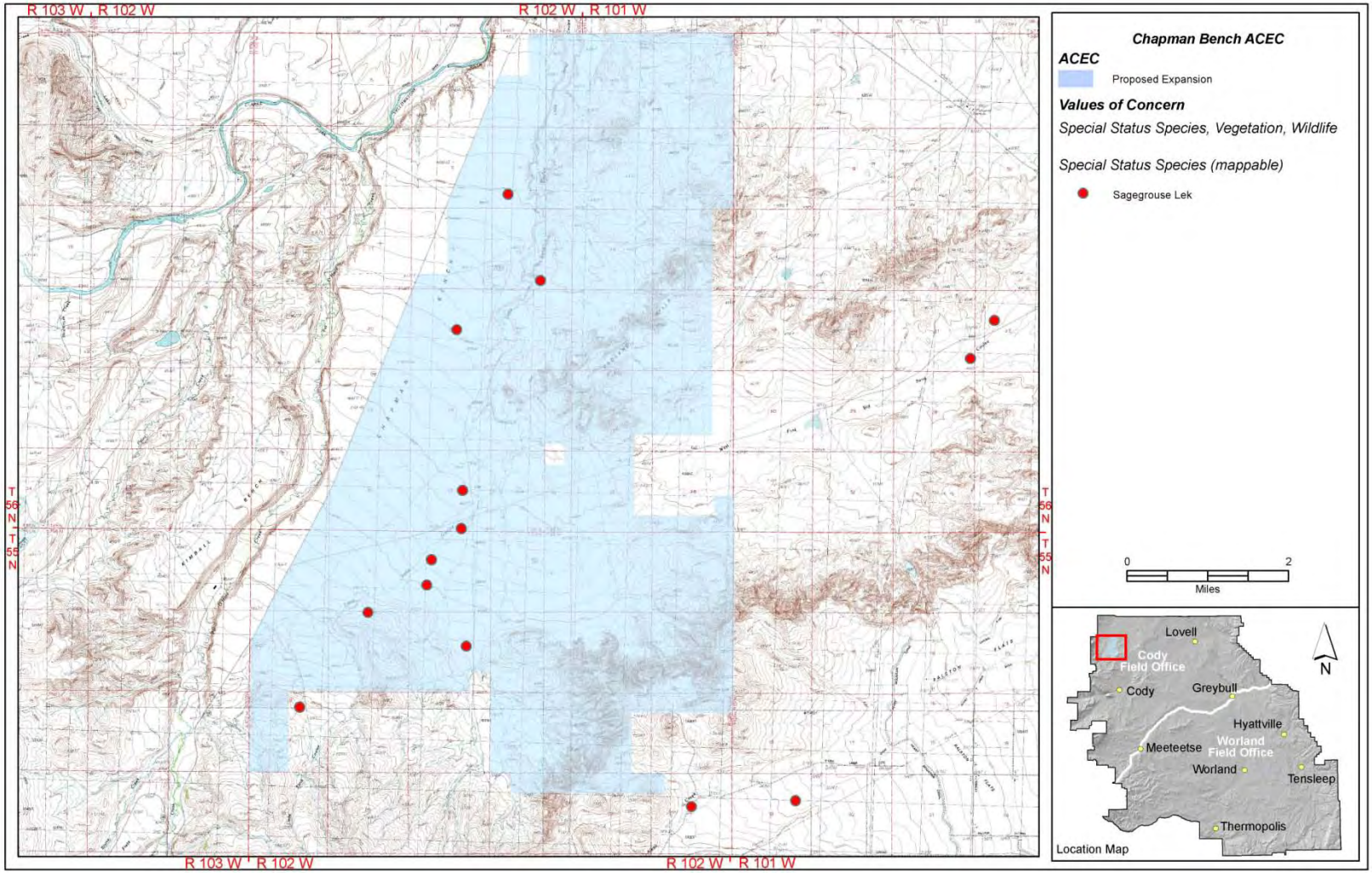
Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	No	No significant historic, cultural or scenic values are known.
A fish and wildlife resource (including but not limited to	Yes	The Chapman Bench proposed ACEC contains habitat for BLM Sensitive Species including: sage-grouse, Brewer's sparrow, sage

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).		thrasher, sage sparrow, loggerhead shrike, mountain plover, burrowing owl, white-tailed prairie dog, long-billed curlew, Baird's sparrow. Important Bird Areas designated by the Audubon Society are within the proposed ACEC. Very unique area of high density nesting for mountain plover, long-billed curlew and one of the most important sage-grouse leks in the Bighorn Basin with counts consistently above 100 males also occur within the area. The area also contains very important winter habitat for sage-grouse.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	Yes	The sagebrush steppe is one of the most threatened ecosystems in America (Stiver et al. 2006, Welch 2005, Schroeder et al. 2004, Connelly and Braun 1997). There are sagebrush obligate species which are fully dependent upon a healthy, intact sagebrush ecosystem. There are at least 12 sensitive species which would benefit from more intensive management of this ACEC. Management actions would support the BLM Special Status Species policy to manage habitat in a way that precludes the need for listing under the Endangered Species Act.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs. A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.	No	No substantial natural hazards are known.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	Chapman Bench is one of the few sagebrush areas which have not had relatively high levels of industrial development due to a recently expired reclamation withdrawal and low potential for oil and gas. It contains very rare populations of long-billed curlews and mountain plovers, which are not common in the state of Wyoming. This area is one of 5 areas in the state where long-billed curlew populations exist (Orabona 2009) and the bench provides the highest concentration and most consistent nesting of mountain plovers in the state (Plumb 2004) These birds come year after year to nest after long migrations from the west to nest and fledge chicks in time to migrate back to the

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
		coast. The long-billed curlew is the largest shorebird in North America and the mountain plover is one of the smallest. There is also a very large and important greater sage-grouse lek on Chapman Bench; it is the largest lek in the Cody Field Office. It is unique since the BLM owns much of the area and can help this greater sage-grouse population persist. Further, conservation of this habitat may be needed when the Bureau of Reclamation withdrawal is terminated and an Open Order is issued. When public land is opened to the normal regulations and management of public land, the habitat becomes available to mining in an area with a high potential for placer gold mining. The Audubon Society designated Important Bird Areas within this area and Executive Order 13186 requires the BLM to consider these Important Bird Areas in land use plans. An ACEC would be a land use planning mechanism to address the importance of this area. Chapman Bench has been proposed as an ACEC multiple times throughout the years and it is well established with BLM biologists as one of the most important habitats in the Cody Field Office.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	The area associated with Chapman Bench ACEC is located in the 5-9" precipitation zone. These arid sites are easily disturbed and recovery may take decades or centuries in places. Invasive cheatgrass is a major threat, which moves into disturbed areas, out-competes natives and shortens fire return intervals eliminating sagebrush. Fragmentation from power lines, mining, and oil and gas development carve the landscape into unsuitable condition with little connectivity.
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	Yes	By designating the Chapman Bench as an ACEC, there would be more opportunity to conserve these habitats, which would address declaration of policy and definition #8 of FLPMA.
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	No	No safety or public welfare concerns are known.
Poses a substantial threat to human life and safety or to property.	No	No substantial threats.

Map 13. Chapman Bench



ACEC Proposal Evaluation Form – Clarks Fork Basin/Polecat Bench West Paleontological Area

Area Considered	Clarks Fork Basin/Polecat Bench West Paleontological Area
General Location	West of Powell, Wyoming (Map 14).
General Description	The Polecat Bench proposed ACEC contains rare mammalian and botanical paleontological resources (microfossils and macrofossils) as well as strata rich in geochemical and isotopic data/specimens/information relative to global warming and paleoclimate change. This stratigraphic boundary represents a transition from the Paleocene Epoch to the Eocene Epoch and is exposed in only a few areas worldwide. In addition, the colorful badlands and erosional forms representative of this zone provide scenic values and natural systems that, coupled with the paleontological and geochemical values, should be considered as "rare geologic features." The proposed Clarks Fork Basin/Polecat Bench West Paleontological Area is designed to provide special protection for this important stratigraphic contact zone and its incumbent paleontological and geochemical values.
Acreage	23,895 acres of BLM-administered surface
Values Considered	Paleontological resources, scenic

IDENTIFICATION CRITERIA
To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

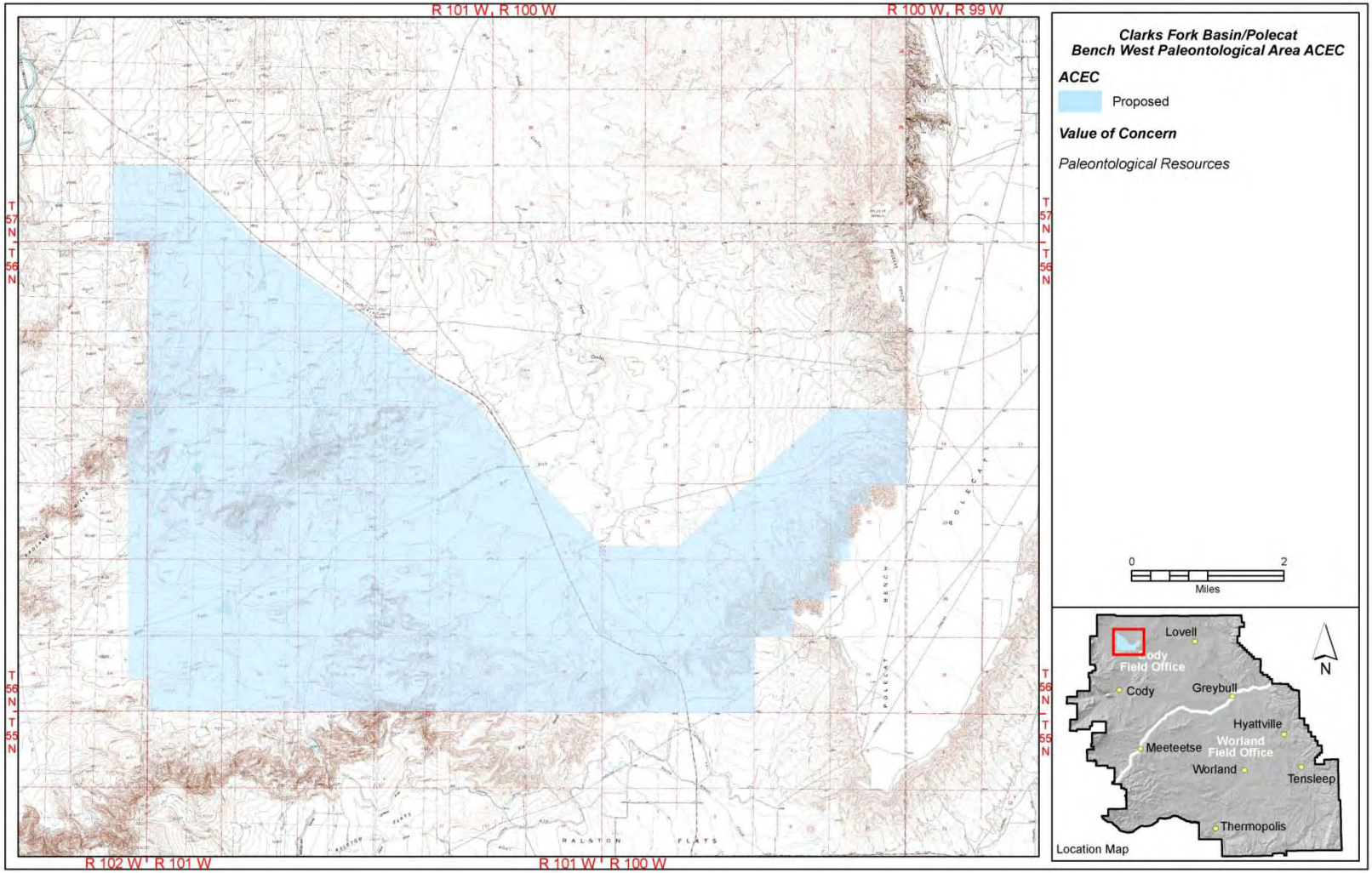
Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	The proposed ACEC has historic significance relative to past expeditions conducted by the American Museum of Natural History between 1910 and 1913. The geologic strata situated in this area weather into colorful and unique badland topographies that typify portions of the American West and provide extremely scenic values.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).	No	Similar fish and wildlife resources and values can be found in other areas of Wyoming and the West.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare	Yes	Rare geologic features in the Planning Area occur along and adjacent to the Paleocene-Eocene boundary (Fort Union/Willwood formations) in the Bighorn Basin. These areas are situated on geologic strata considered extremely important to the science of mammalian paleontology, mammal evolution, and paleoclimate/global warming. This stratigraphic boundary represents a transition from the Paleocene Epoch to the Eocene Epoch and is exposed in only a few areas worldwide. This

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
geological features).		particular interval produces fossils (microfossils and macrofossils) as well as geochemical data critical to study of a major Carbon Isotope Excursion (CIE) recorded during a period of global warming known as the Paleocene-Eocene Thermal Maximum (PETM). The beds in the lower Willwood Formation are known as "Wasatchian-zero" or Wa-0. This contact and adjacent area is considered internationally important to paleoclimatologists and paleontologists studying this time period.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs. A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process).	No	No substantial natural hazards are known to occur in the proposed Polecat Bench ACEC.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	The proposed ACEC has international significance in the fields of mammalian paleontology, geochemistry and paleoclimate change.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	The area has soil instability, erosion potential and fossil occurrence that make it fragile, sensitive, rare, irreplaceable, exemplary, unique and vulnerable to adverse change resulting from continued surface disturbance and potential irreversible loss of resources.
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	No	No national priority concerns are known in the proposed ACEC.
Has qualities which warrant highlighting in order to satisfy public or management concerns	No	No safety or public welfare concerns are known in the proposed ACEC.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
about safety and public welfare.		
Poses a substantial threat to human life and safety or to property.	No	No substantial threats are known to occur in the proposed ACEC.

Map 14. Clarks Fork Basin/Polecat Bench West Paleontological Area



ACEC Proposal Evaluation Form – Clarks Fork Canyon

Area Considered	Clarks Fork Canyon
General Location	The proposed Clarks Fork Canyon Geology area is located in the following sections (Map 15): **T. 56 N., R. 103 W.:** Sec. 3-11, 14 -22, 27-34 **T. 55 N., R. 103 W.:** Sec. 3
General Description	**Geology** The Clarks Fork area contains unique geological features including Clarks Fork Canyon, Canyon Mouth Anticline, and related structures and glacial features that are studied by universities all over the world. **Wildlife** The Clarks Fork area contains big game winter range for elk, deer, and pronghorn. Yellowstone cutthroat trout occur in the Clarks Fork River and tributaries. Cave resources within the area contain sensitive bat hibernacula and roost sites. The area contains peregrine falcon nesting area and bald and golden eagle nesting and winter range. **Recreation/Open Space** The Clarks Fork Area contains large unbroken tracts of public land that provide for recreation opportunities. **Sensitive Species** Sensitive species that occur in the Clarks Fork area include the sensitive plant species shoshonea and habitat for Ute ladies'-tresses (federally listed threatened plant species). The area also contains habitat for BLM sensitive animal species including sage grouse, mountain plover, long-billed curlew, sage thrasher, Brewer's sparrow, Baird's sparrow, logger head shrike. The area contains habitat for Ute ladies'-tresses.
Acreage	12,259 acres of BLM-administered surface
Values Considered	Geology, wildlife, open space/recreation, sensitive species

IDENTIFICATION CRITERIA
To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

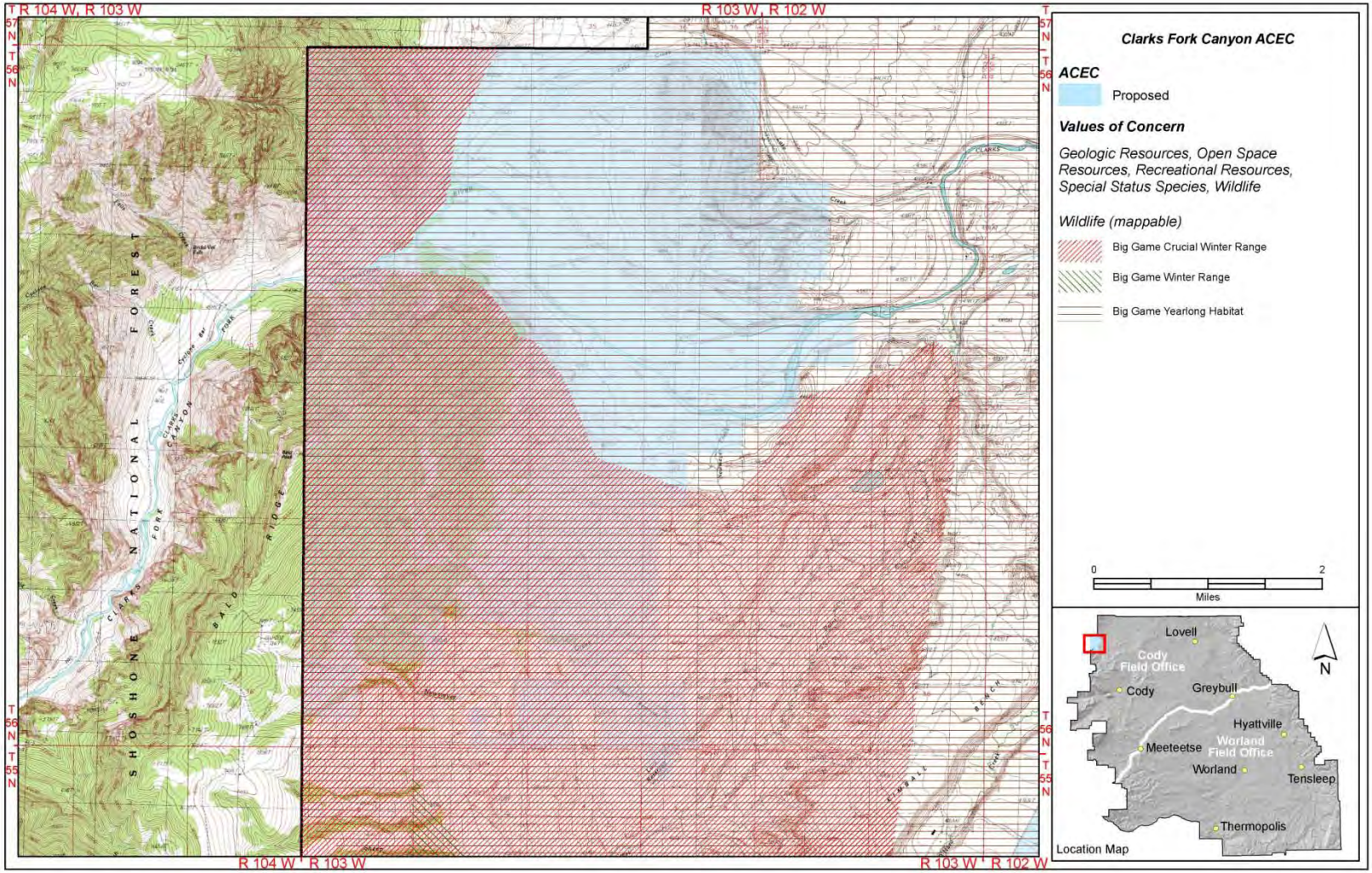
Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
A significant historic, cultural, or scenic value (including but not	No	Similar sites and values can be found in other areas of Wyoming and the West.

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).		
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).	Yes	Big game winter range, for elk, deer, and pronghorn; Bald Ridge Seasonal Closure Area. BLM land with a Yellowstone cutthroat, white fish occupied river. The area contains cave resources, Sensitive bat hibernacula and roost sites, peregrine falcon nesting area, bald and golden eagle nesting and winter range, sensitive plant (shoshonea), habitat for BLM Sensitive animal species (sage-grouse, mountain plover, long-billed curlew, sage thrasher, Brewer's sparrow, Baird's sparrow, logger head shrike). It is also a very important area for wintering eagles and predator species.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	Yes	Unique geological features include glacial features and great unconformity geological formation. The area contains Sensitive plant (shoshonea), habitat for BLM Sensitive animal species (sage-grouse, mountain plover, long-billed curlew, sage thrasher, Brewer's sparrow, Baird's sparrow, logger head shrike), one of only two mountain goat ranges in the state, and a part of one of the largest bighorn sheep ranges in the country. The section of river in this area is immediately downstream from the Wild and Scenic River Designation on USFS land. **Sensitive Species** The Clarks Fork area contains Ute ladies'-tresses habitat.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous it is determined through the resource management planning process that it has become part of a natural process).	No	No substantial natural hazards are known to occur in the proposed ACEC.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to	Yes	**Geology** The significance of the geology, both structurally and stratigraphically (information provided above), is well established in the literature, as well as both nationally and internationally. The Clarks Fork Canyon, Canyon Mouth

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
any similar resource.		Anticline, related structures and glacial features are studied by universities all over the world. **Open Space Recreation** It has relatively large, unbroken blocks of public land which abuts the Shoshone National Forest on much of its western boundary which adds substantial amounts of solid-block public land. **Wildlife** Area contains crucial winter range for mule deer, elk, bighorn sheep, mountain goats, and moose; parturition habitat for mountain goats; yearlong habitat for elk, mule deer, whitetail deer, and pronghorn antelope; habitat for several species of birds of prey including golden eagles, red-tailed hawks, kestrels, prairie falcons, and northern harriers.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	**Wildlife** Sensitive Species Habitat for: grizzly bears, bald eagles, mountain plovers, long-billed curlews, sage-grouse, Yellowstone River cutthroat trout, Northern leopard frogs, several neo-tropical migrant bird species, peregrine falcons, several bat species (long-eared myotis, spotted bat, and Townsend's big-eared bat). Potential habitat for Threatened and/or Endangered Species for: Gray wolves (experimental, non-essential population). **Sensitive Species** The Clarks Fork Area contains Ute ladies'-tresses habitat.
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	No	No national priority concerns are known in the proposed ACEC.
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	No	No safety or public welfare concerns are known in the proposed ACEC.
Poses a substantial threat to human life and safety or to property.	No	No substantial threats are known to occur in the proposed ACEC.

Map 15. Clarks Fork Canyon



ACEC Proposal Evaluation Form – Fifteen Mile and Manderson White-tailed Prairie Dog Complex

Area Considered	Fifteen Mile and Manderson White-tailed Prairie Dog Complex
General Location	The Fifteen Mile complex-- general location of the complex is described as follows: T49N, R98W; T47N, R97W; T49N, R97W; T48N, R96W; T48N, R98W; T48N, R97W; T47N, R98W The Manderson complex -- general location of the complex is described as follows: T49N, R91W; T47N, R91W; T48N, R91W; T47N, R90W; T48N, R90W
General Description	Fifteen Mile -- The area supports a variety of wildlife species. It provides both crucial winter yearlong and winter yearlong range for pronghorn antelope. It provides both crucial winter yearlong and yearlong habitat for mule deer. The northern portion of the complex also falls within the Fifteen Mile wild horse herd management area. Other species occurring in the area are mountain lions, coyotes, badgers, assorted raptors, and others. Manderson -- The area supports a variety of wildlife species. It provides crucial winter and winter/yearlong range for pronghorn antelope and mule deer. It also encompasses a small amount of yearlong habitat for white-tailed deer. Other species occurring in the area are coyotes, badgers, assorted raptors, and others.
Acreage	Fifteen Mile – 6,192 acres; Manderson – 1,725 acres
Values Considered	Wildlife resources

IDENTIFICATION CRITERIA
To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	No	No significant historic, cultural or scenic values are known.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).	Yes	The proposed ACECs provide habitat to the BLM Sensitive white-tailed prairie dog. Therefore, they meet the relevance criteria as a fish and wildlife resource because they provide habitat to a sensitive species.
A natural process or system (including but not limited to endangered, sensitive, or	No	No known natural process or system pertaining to the criteria are known.

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).		
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous it is determined through the resource management planning process that it has become part of a natural process.	No	No natural hazards are known.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	No	The Manderson complex does not meet the importance criteria because of its reduction in occupied habitat. It is not clear what may have caused the reduction, but the complex will continue to be monitored in order to determine if further reduction is occurring. The Fifteen Mile complex does not meet the importance criteria. The white-tailed prairie dog has been eliminated from as much as 90% of its former range. All remaining habitat areas are important for preservation of the species. Similar management concerns are present for other species experiencing declining populations, especially Special Status Species.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	No	The most current information, collected by the WFO, demonstrates that the Manderson complex has been reduced to approximately 698 hectares (1725 acres). Both the WGFD (WGFD 2005) and CNE suggest that complexes in excess of 2000 hectares (approximately 5,000 acres) are unique and deserve protection. Due to its current size, it is not considered to be more than locally significant or to have qualities that make it rare, exemplary, or unique (Grenier 2005).
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	No	This area does not warrant protection in order to satisfy the mandates of FLPMA because of the amount of habitat currently available to the white-tailed prairie dog in other areas.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	No	No safety of public welfare concerns are known.
Poses a substantial threat to human life and safety or to property.	No	No substantial threats.

ACEC Proposal Evaluation Form – Foster Gulch Paleontological Area

Area Considered	Foster Gulch Paleontological Area
General Location	10 miles south of Lovell, Wyoming (Map 16).
General Description	The Foster Gulch Paleontological proposed ACEC contains rare mammalian and botanical paleontological resources (microfossils and macrofossils) as well as strata rich in geochemical and isotopic data/specimens/information relative to global warming and paleoclimate change. This stratigraphic boundary represents a transition from the Paleocene Epoch to the Eocene Epoch and is exposed in only a few areas worldwide. In addition, the colorful badlands and erosional forms representative of this zone provide scenic values and natural systems that, coupled with the paleontological and geochemical values, should be considered as "rare geologic features." The proposed Foster Gulch Paleontological Area is designed to provide special protection for this important stratigraphic contact zone and its incumbent paleontological and geochemical values.
Acreage	27,302 acres of BLM-administered surface
Values Considered	Paleontological resources, scenic

IDENTIFICATION CRITERIA
To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

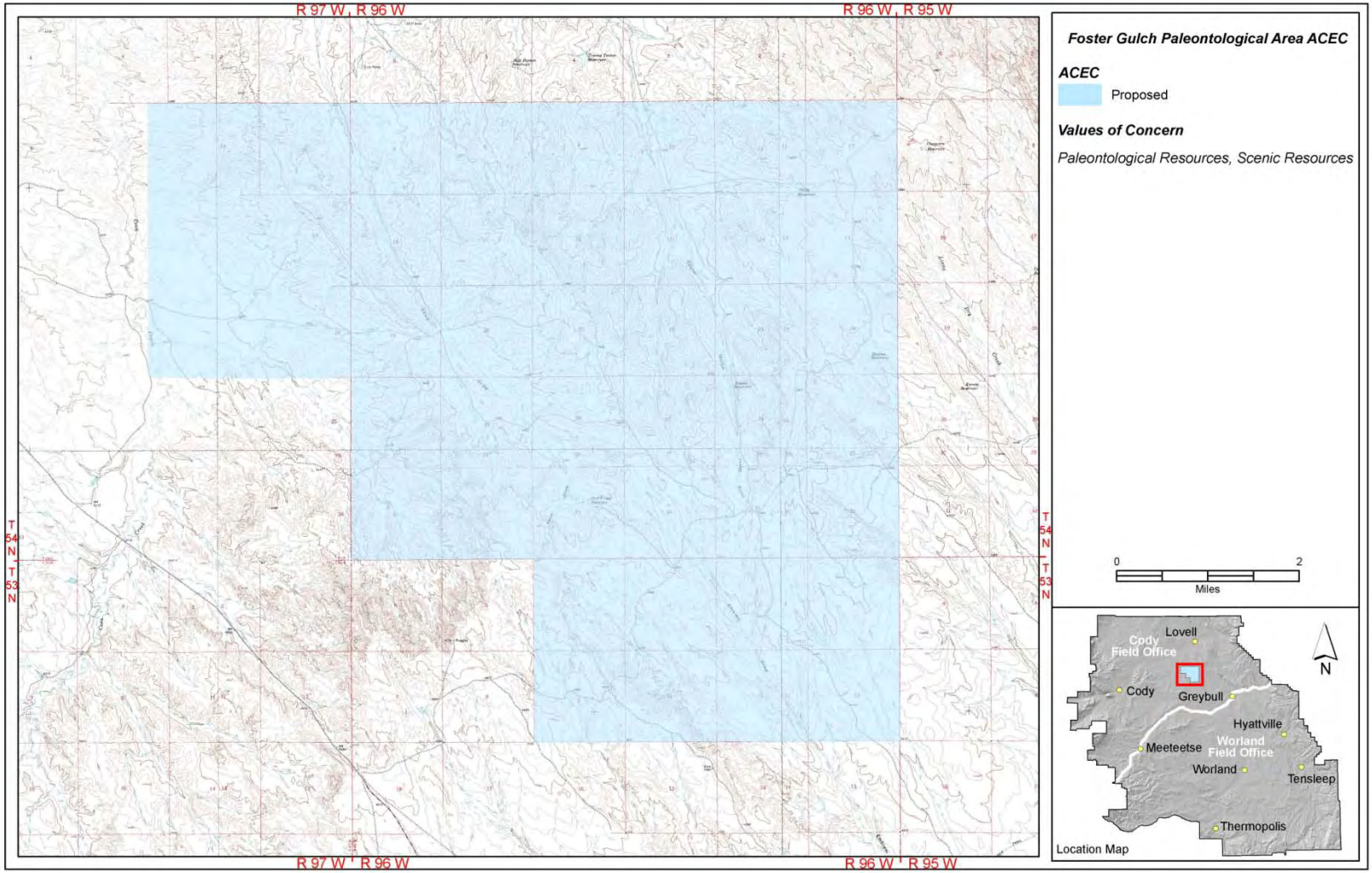
Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	The geologic strata situated in this area weather into colorful and unique badland topographies that typify portions of the American West and provide extremely scenic values.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).	No	Similar fish and wildlife resources and values can be found in other areas of Wyoming and the West.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	Yes	Rare geologic features in the Planning Area occur along and adjacent to the Paleocene-Eocene boundary (Fort Union/Willwood formations) in the Bighorn Basin. These areas are situated on geologic strata considered extremely important to the science of mammalian paleontology, evolution of mammals, and paleoclimate. This stratigraphic boundary represents a transition from the Paleocene Epoch to the Eocene Epoch and is exposed in only a few areas worldwide. This

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
		particular interval produces fossils (microfossils and macrofossils) as well as geochemical data critical to study of a major Carbon Isotope Excursion (CIE) recorded during a period of global warming known as the Paleocene-Eocene Thermal Maximum (PETM). The beds in the lower Willwood Formation are known as "Wasatchian-zero" or Wa-0. This contact and adjacent area is considered internationally important to paleoclimatologists and paleontologists studying this time period.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs. A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process).	No	No substantial natural hazards are known in the proposed ACEC.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	The proposed ACEC has international significance in the fields of mammalian paleontology, geochemistry and paleoclimate change.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	The area has soil instability, erosion potential and fossil occurrence that make it fragile, sensitive, rare, irreplaceable, exemplary, unique and vulnerable to adverse change in the form of continued surface disturbance and potential irreversible loss of resources.
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	No	No national priority concerns are known in the proposed ACEC.
Has qualities which warrant highlighting in order to satisfy public or management concerns	No	No safety or public welfare concerns are known in the proposed ACEC.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
about safety and public welfare.		
Poses a substantial threat to human life and safety or to property.	No	No substantial natural hazards are known to occur in the proposed ACEC.

Map 16. Foster Gulch Paleontological Area



ACEC Proposal Evaluation Form – McCullough Peaks South Paleontological Area

Area Considered	McCullough Peaks South Paleontological Area
General Location	Southwest of the McCullough Peaks WSA (Map 17).
General Description	The McCullough Peaks South Paleontological Area contains rare mammalian and botanical paleontological resources (microfossils and macrofossils) as well as strata rich in geochemical and isotopic data/specimens/information relative to global warming and paleoclimate change. This stratigraphic boundary represents a transition from the Paleocene Epoch to the Eocene Epoch and is exposed in only a few areas worldwide. In addition, the colorful badlands and erosional forms representative of this zone provide scenic values and natural systems that, coupled with the paleontological and geochemical values, are "rare geologic features." The proposed McCullough Peaks South Paleontological Area is designed to provide special protection for this important stratigraphic contact zone and its incumbent paleontological and geochemical values. Its northeastern boundary also coincides with the southwestern boundary of the McCullough Peaks WSA.
Acreage	6,994 acres of BLM-administered surface
Values Considered	Paleontological resources, scenic

IDENTIFICATION CRITERIA

To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:

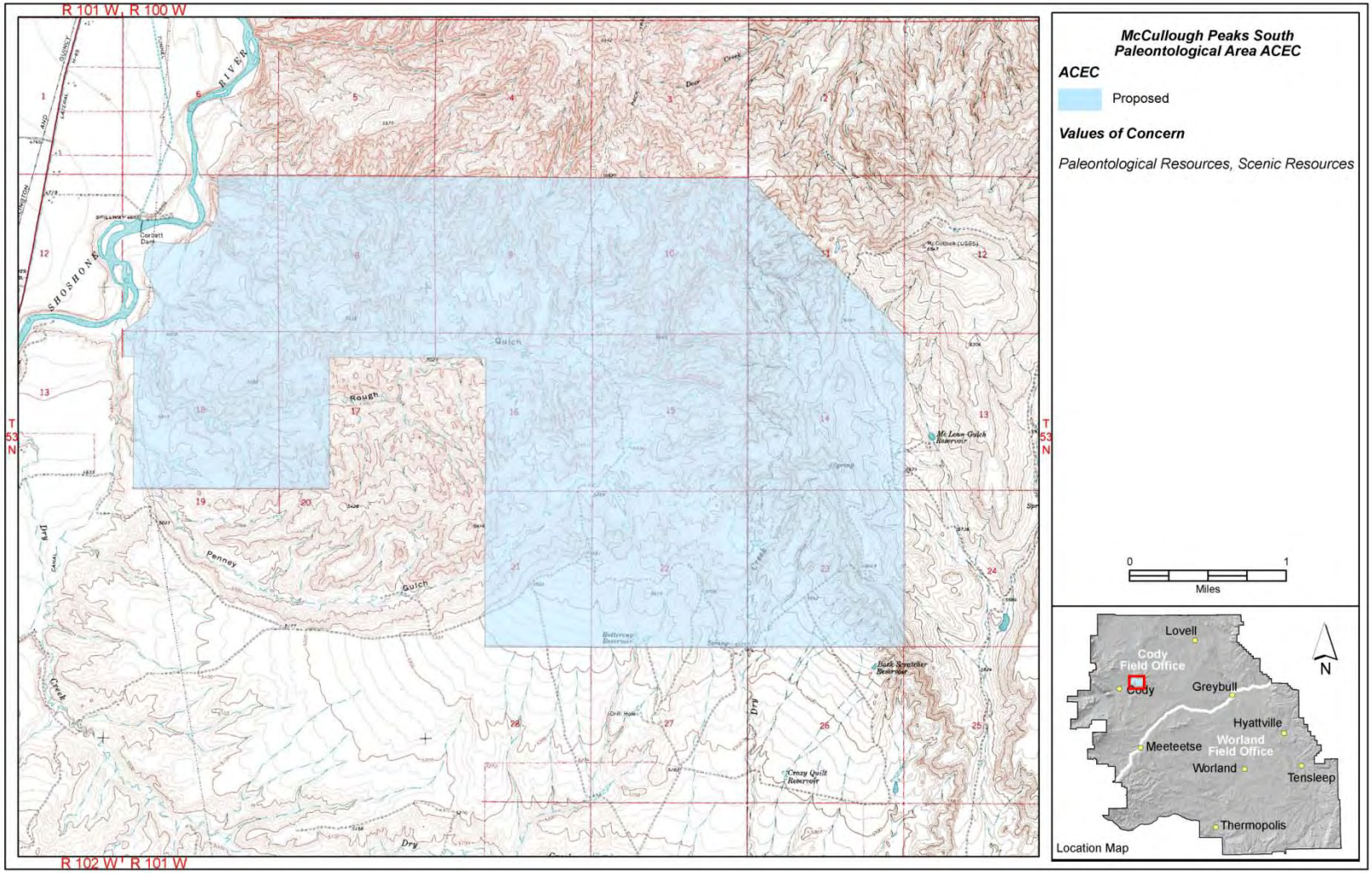
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	The geologic strata situated in the proposed ACEC weather into colorful and unique badland topographies that typify portions of the American West and provide extremely scenic values.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).	No	Similar fish and wildlife resources and values can be found in other areas of Wyoming and the West.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare	Yes	Rare geologic features in the proposed ACEC occur along and adjacent to the Paleocene-Eocene boundary (Fort Union/Willwood formations) in the Bighorn Basin. These areas are situated on geologic strata considered extremely important to the science of mammalian paleontology, evolution of mammals, and paleoclimate. This stratigraphic boundary represents a transition from the Paleocene Epoch to the Eocene

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
geological features).		Epoch and is exposed in only a few areas worldwide. This particular interval produces fossils (microfossils and macrofossils) as well as geochemical data critical to study of a major Carbon Isotope Excursion (CIE) recorded during a period of global warming known as the Paleocene-Eocene Thermal Maximum (PETM). The beds in the lower Willwood Formation are known as "Wasatchian-zero" or Wa-0. This contact and adjacent area is considered internationally important to paleoclimatologists and paleontologists studying this time period. This area includes the important geological contact zone mentioned.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs. A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process).	No	No substantial natural hazards are known to occur in the proposed McCullough Peaks South Paleontological Area ACEC.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	The proposed ACEC has international significance in the fields of mammalian paleontology, geochemistry and paleoclimate change.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	The area has soil instability, erosion potential and fossil occurrence that make the area fragile, sensitive, rare, irreplaceable, exemplary, unique and vulnerable to adverse change resulting from continued surface disturbance and potential irreversible loss of resources.
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	No	No national priority concerns are known in the proposed ACEC.
Has qualities which warrant	No	No safety or public welfare concerns are known in the proposed

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
highlighting in order to satisfy public or management concerns about safety and public welfare.		ACEC.
Poses a substantial threat to human life and safety or to property.	No	No substantial threats are known to occur in the ACEC.

Map 17. McCullough Peaks South Paleontological Area



ACEC Proposal Evaluation Form – McCullough Peaks/YU Bench

Area Considered	McCullough Peaks/YU Bench
General Location	East of Cody, north of highway 14-16-20
General Description	Scenic viewsheds and open space resources. Whistle Creek badlands should be managed to protect wilderness characteristics. North Rim of Oregon Basin sandstone outcrops provide great recreational resources. Areas of large contiguous habitat should be considered for open space and viewshed protection. Bridger Trail and Wild Horse State Historic Marker signs are located off of the U.S. Highway 14-16-20 (Greybull Highway). Lands within Visual Resource Management Classes I and II. The Bridger Trail is a National Register of Historic Places eligible overland historic trail which contains contributing elements of integrity of setting. Additionally, the viewshed surrounding certain site types (such as rock art, burials, stone alignments, etc.) has been identified as having value to Native American groups. This area also incorporates the additional acreage that has been proposed by citizen's for management to maintain wilderness qualities and characteristics. Encompasses 110,000 acres of the McCullough Peaks Herd Management Area. Includes 24,570-acres of the McCullough Peaks WSA.
Acreage	298,402 acres
Values Considered	Scenic, historic, cultural, wildlife, recreation, geology

IDENTIFICATION CRITERIA
To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	The Historic Bridger Trail, Red Point Signature Rock, Stone Barn, Oregon Basin Petroglyphs, Native American burial sites, Eagle Pass Interpretive Site, Wiley Canal are all cultural resources with viewshed considerations. Gateway to the East entrance to Yellowstone National Park. Wild horses in McCullough Peaks herd management area tie a link to the historic and pioneer spirit of the historic West and directly links to Cody, Wyoming and Buffalo Bill Cody. The visual resources present in the entire 298,402 acres relates directly to the most durable tourism market of our time, heritage tourism. The stretch of highway leading from Highway 32 to Cody and the East entrance of Yellowstone provides the traveler with an intact natural landscape with unspoiled views, including the contrast of the colorful banding of the badlands with the texture of the jagged rock mountain tops. Whether travelers venture off the paved Highway 14-16-20 to the north or to the south on the 300,000 acres of public lands, they may encounter wild horses,

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
		pronghorn, mule deer, sage-grouse, horny toads, golden eagles, cottontail rabbits, ravens, and maybe even a rattlesnake. The stretch of Highway 14-16-20 that bisects the proposed McCullough Peaks/YU Bench AEI and Unique area has potential to be designated as a National Scenic Byway. Anyone can nominate a state highway such as this one. This highway has outstanding resources and features that related the traveler to the road and the each other and can contribute the Buffalo Bill Byway concept that already exists in the local community.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).	Yes	The McCullough Peaks and YU Bench area contains habitat for wild horses, Great Plains spade foot toad, northern leopard frog, tiger salamander, sage-grouse, black-tailed prairie dogs, white-tailed prairie dogs, burrowing owls, pronghorn winter range, long-billed curlew, mountain plovers, ravens and magpies.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	Yes	Key breeding habitat for sage-grouse and wild horse habitat as well as geologic features.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous it is determined through the resource management planning process that it has become part of a natural process.	Yes	Natural large scale geologic landslides occur periodically in the McCullough Peaks area.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	No	Provides outstanding opportunity for public viewing of wild horses and natural undeveloped landscapes. It contains one of the largest relatively undisturbed and undeveloped ecosystems located on almost 300,000 acres within the Greater Yellowstone Ecosystem. Similar management concerns exist for undisturbed and

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
		undeveloped ecosystems.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	No	While the area contains fragile soils, unique color and topography and has open space, these qualities are found throughout the basin and can be managed through other measures.
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	No	While this area has been nominated by local public to be designated at a National Natural Landmark and wild horses are attracting national interest, the management of wild horses is done through within Herd Management Areas and thus the national priority concerns are carried out through the Wild Horse and Burro Management Act.
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	No	No safety of public welfare concerns are known.
Poses a substantial threat to human life and safety or to property.	No	No substantial threats.

ACEC Proposal Evaluation Form – Rainbow Canyon

Area Considered	Rainbow Canyon
General Location	The foot of the western Big Horn Mountains in Big Horn County (Map 18).
General Description	The area is dominated by outcrops of the colorful Cretaceous Cloverly Formation, which is beautifully exposed in the canyon and general area. The Cloverly Formation is also famous for its early Cretaceous dinosaur fossils.
Acreage	1,433 acres of BLM-administered surface
Values Considered	Paleontological resources, scenic

IDENTIFICATION CRITERIA

To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

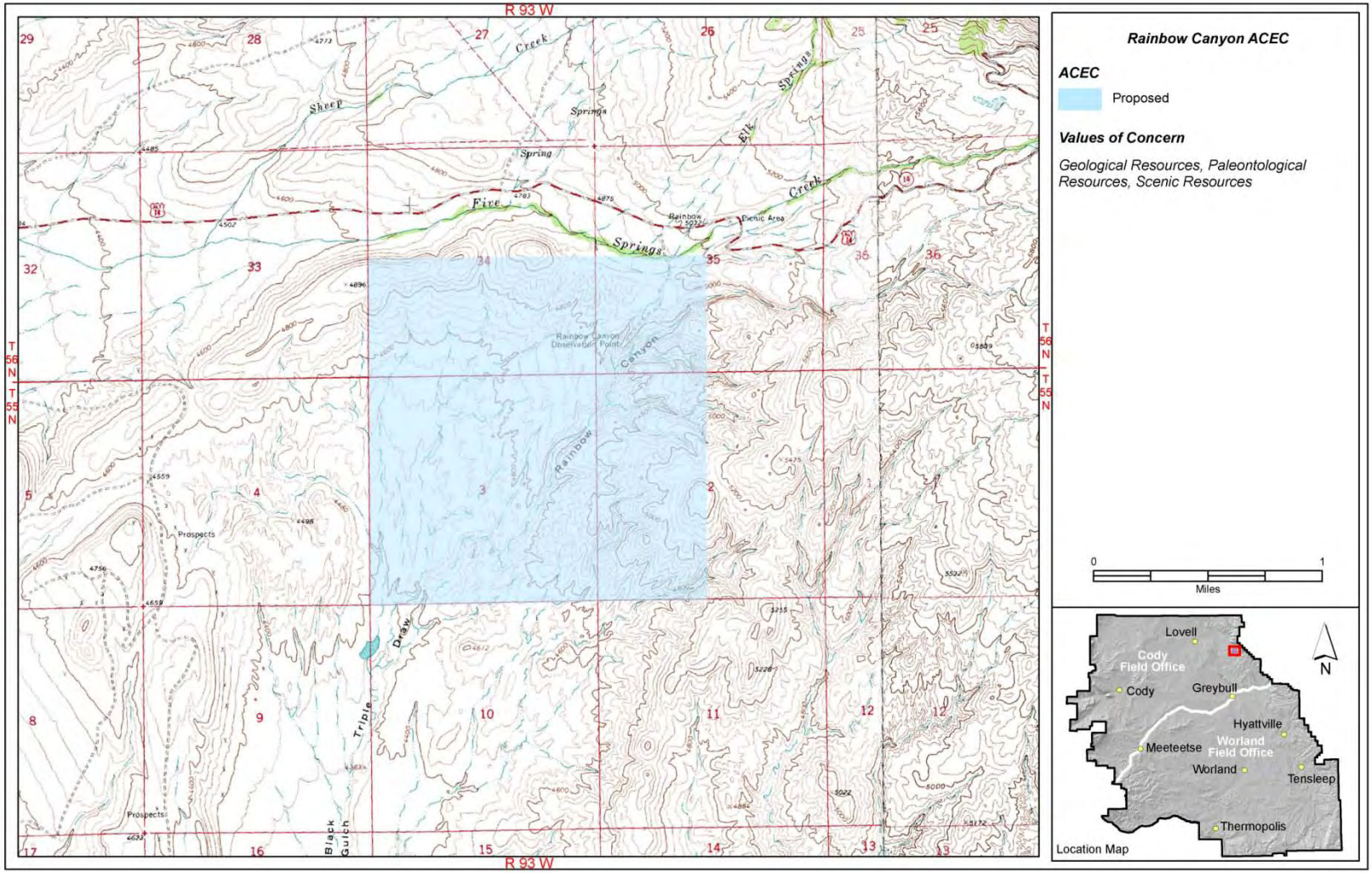
Relevance: An area meets the "relevance" criterion if it contains one or more of the following:

Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	The geologic strata situated in this area have weathered and eroded into a highly colorful and unique landscape that provides exceptional scenic values that typify portions of the American West.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).	No	Similar fish and wildlife resources and values can be found in other areas of Wyoming and the West.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	Yes	The proposed Rainbow Canyon ACEC contains important scenic and geologic values, as well as vertebrate and scientifically-important paleontological resources including dinosaurian and paleobotanical fossils. These important scientific resources are found throughout the Early Cretaceous Cloverly Formation, which crops out over large portions of this area. In addition, the colorful landforms/badlands that result from erosion of the formations provide important scenic values that, coupled with the paleontological and scientific values, can be considered as "rare geologic features."

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs. A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process).	No	No substantial natural hazards are known to occur in the proposed ACEC.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	The scenic values associated with the proposed ACEC located at the foot of the western Big Horn Mountains are a unique resource both on a regional and national scale. Coupled with the important paleontological resources in the area, Rainbow Canyon represents an important natural resource in the Planning Area.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	The area has soil instability, erosion potential and fossil occurrence that make it fragile, sensitive, rare, irreplaceable, exemplary, unique and vulnerable to adverse change resulting from continued surface disturbance and potential irreversible loss of resources.
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	No	No national priority concerns are known in the proposed ACEC.
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	No	No safety or public welfare concerns are known in the proposed ACEC.
Poses a substantial threat to human life and safety or to property.	No	No substantial threats are known to occur in the proposed ACEC.

Map 18. Rainbow Canyon



ACEC Proposal Evaluation Form – Rattlesnake Mountain

Area Considered	Rattlesnake Mountain
General Location	Approximately 5 miles northwest of Cody (Map 19).
General Description	**Wildlife** The proposed Rattlesnake Mountain ACEC contains big game winter, transition, parturition ranges and migration corridors; grizzly bear and gray wolf habitat; potential Canada lynx habitats; sage-grouse brood rearing, and migratory bird nesting habitat. **Vegetation Communities** The proposed ACEC contains mixed conifer and aspen stands, riparian willow, sagebrush and mountain shrub communities. This habitat is unique, because it contains volcanic soils, Precambrian and limestone soils which are associated with the Laramide Orogeny. **Sensitive Species** The unique uplifted limestone relics provide habitat for the rare and BLM sensitive plant species which includes: Shoshonea, Absaroka Beardtongue, and Wyoming Tansymustard. The watersheds on this special area drain into the north fork of the Shoshone River. The north fork provides cold water fisheries habitat and supports Yellowstone River Cutthroat Trout (a BLM sensitive species and special concern species for the WGFD).
Acreage	19,119 acres BLM-administered surface
Values Considered	Wildlife, sensitive species

IDENTIFICATION CRITERIA

To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:

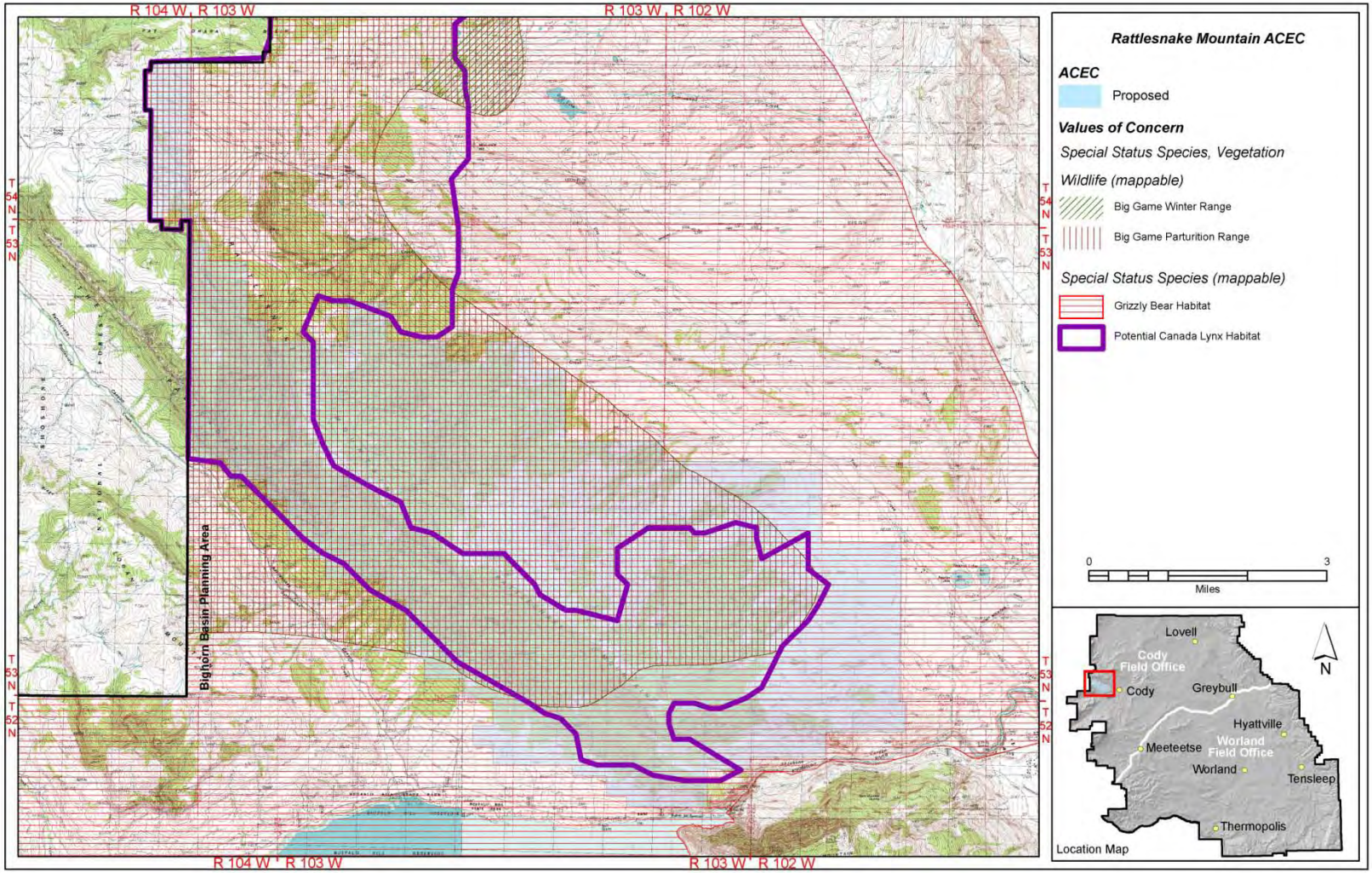
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	No	Similar sites and values can be found in other areas of Wyoming and the West.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).	Yes	The proposed Rattlesnake Mountain ACEC has a mix of elk, mule deer, moose, and bighorn sheep; winter, transition, parturition ranges and migration corridors. The winter ranges in this area are the eastern most terminuses of some of the longest intact migration routes in the lower 48 states. This area also provides winter habitat for wolves and habitat for grizzly bears. The area is also unique habitat for BLM sensitive plant species

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
		identified above under the area description.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	Yes	This area provides valuable habitat to both the grizzly bear and gray wolf. There are also forest stands suitable for potential Canada lynx habitats within this area. In addition, sage-grouse use the area for brood rearing.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs. A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process).	No	No substantial natural hazards are known to occur in the proposed ACEC.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	This area is part of the Yellowstone Ecosystem, where winter range is important for many big game species and listed Endangered Species Act species. The proposed ACEC also contains important big game migration routes which link USFS land and Yellowstone National Park with available habitat for wintering and raising young.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	The proposed ACEC contains habitat that provides an important link in the life history of big game species. These species winter and raise young in the area. The proposed ACEC provides forage and habitat for early summer activities which increases the viability of species throughout the year (especially through accumulation of body mass to sustain species during winter). There are also important foraging areas in the proposed ACEC for grizzly bear, and important shrub communities and parturition ranges for hunting big game young.
Has been recognized as warranting protection in order to satisfy national priority concerns or to	Yes	Special management of the area in the proposed ACEC is important to accommodate recreation, hunting, and sustaining wildlife and sensitive species habitat and to balance

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
carry out the mandates of FLPMA.		management of these resources with other resource uses such as mineral development.
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	No	No safety or public welfare concerns are known in the proposed ACEC.
Poses a substantial threat to human life and safety or to property.	No	No substantial threats are known to occur in the proposed ACEC.

Map 19. Rattlesnake Mountain



ACEC Proposal Evaluation Form – Sheep Mountain

Area Considered	Sheep Mountain
General Location	Immediately west of Buffalo Bill Reservoir (Map 20).
General Description	**Wildlife** The proposed Sheep Mountain ACEC contains big game winter, transition, parturition ranges and migration corridors; grizzly bear and gray wolf habitat; potential Canada lynx habitats; sage-grouse brood rearing, and migratory bird nesting habitat. **Vegetation Communities** The proposed ACEC has mixed conifer and aspen stands, riparian willow, sagebrush and mountain shrub communities. This habitat is unique, because it contains volcanic soils and limestone soils which are associated with the Heart Mountain Detachment. **Sensitive Species** Unique limestone relics provide habitat for the rare and BLM sensitive plant species which includes: Shoshonea, Absaroka Beardtongue, and Wyoming Tansymustard. The watersheds on this special area drain into both the north and south forks of the Shoshone River. Both drainages provide cold water fisheries habitat and support Yellowstone River Cutthroat Trout (a BLM sensitive species and special concern species for the WGFD).
Acreage	25,153 acres BLM-administered surface
Values Considered	Wildlife, vegetation communities, sensitive species

IDENTIFICATION CRITERIA

To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:

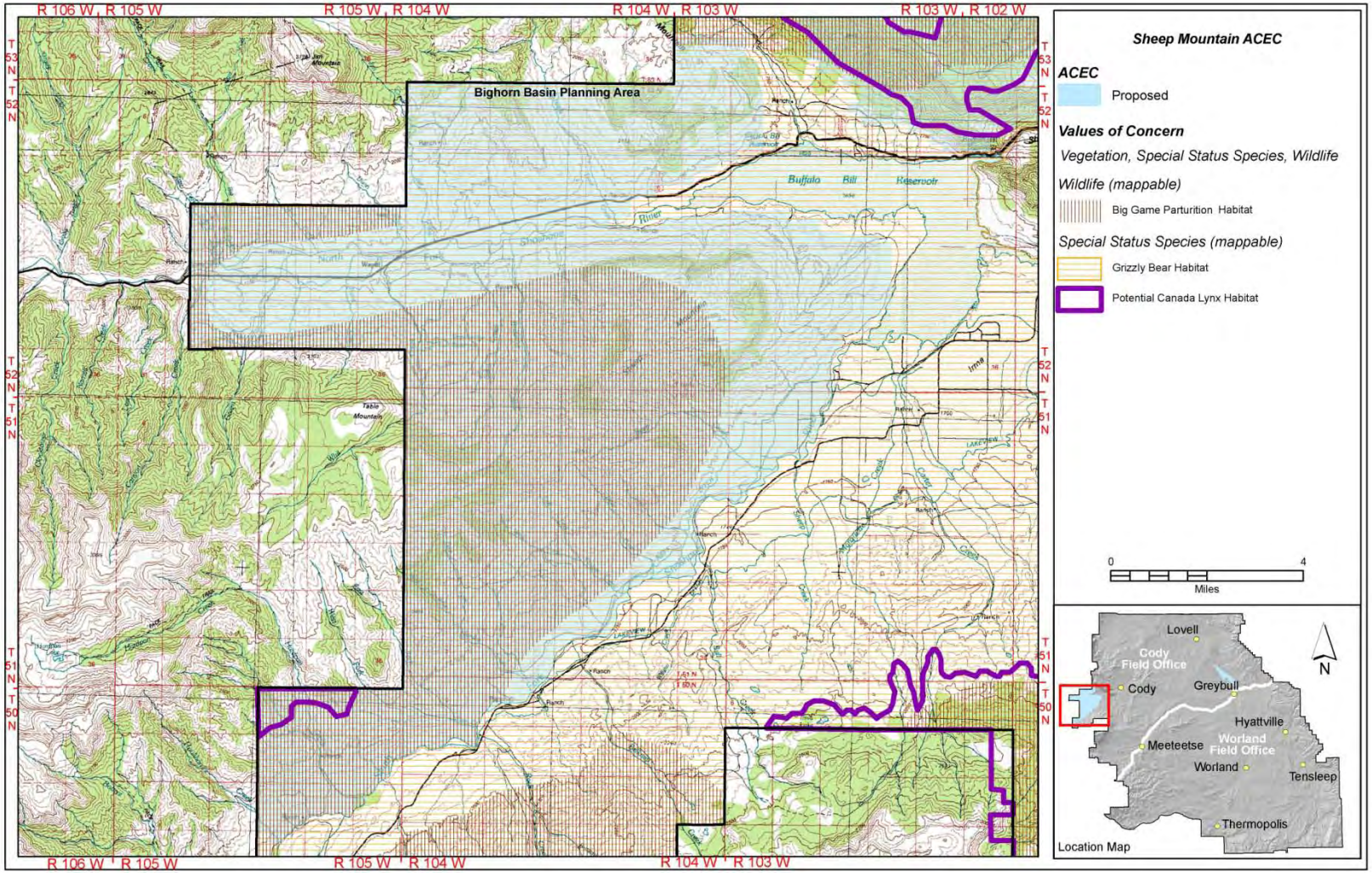
Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	There are visual alignments associated with the equinox and solstice.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).	Yes	The proposed ACEC contains elk, mule deer, moose, and bighorn sheep winter, transition, parturition ranges and migration corridors. Winter ranges in this area are the eastern most terminuses of some of the longest intact migration routes in the lower 48 states. This area also provides winter habitat for wolves and habitat for grizzly bears. The area is also unique habitat for BLM sensitive plant species

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
		identified above under the area description.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).	Yes	This area also provides valuable habitat to both the grizzly bear and gray wolf. There are also forest stands suitable for potential Canada lynx habitats within this area. The area supports important brood-rearing habitat for greater sage-grouse with vegetative green-up starting at the lower elevations in April and moving upslope, supplying green vegetation as late as August.
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs. A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process).	No	No substantial natural hazards are known to occur in the proposed ACEC.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	This area is a part of the Yellowstone Ecosystem, where winter range is important for many big game species and listed Endangered Species Act species. The proposed ACEC also contains important big game migration routes which link USFS land and Yellowstone National Park with available habitat for wintering and raising young.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	The proposed ACEC contains habitat that provides an important link in the life history of big game species. These species winter and raise young in the area. The proposed ACEC provide forage and habitat for early summer activities which increases the viability of species throughout the year (especially through accumulation of body mass to sustain species during winter). There are also important foraging areas in the proposed ACEC for grizzly bear, and important shrub communities and parturition ranges for hunting big game young.
Has been recognized as warranting protection in order to satisfy national priority concerns or to	Yes	Special management of the area in the proposed ACEC is important to accommodate recreation, hunting, and sustaining wildlife and sensitive species and to balance management of

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
carry out the mandates of FLPMA.		these resources with other resource uses such as mineral development.
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	No	No safety or public welfare concerns are known in the proposed ACEC.
Poses a substantial threat to human life and safety or to property.	No	No substantial threats are known to occur in the proposed ACEC.

Map 20. Sheep Mountain



ACEC Proposal Evaluation Form – Shoshone River Parcels

Area Considered	Shoshone River Parcels
General Location	T. 52-56 N., R. 99-102 W., S. various All tracts border the Shoshone River.
General Description	The Shoshone River Corridor consists of scattered parcels of BLM-administered land that are adjacent to the Shoshone River between Cody and Lovell, Wyoming. These tracts provide valuable, and in some cases essential habitat for wildlife species including all local big game species, migratory waterfowl, aquatic mammals, and several BLM sensitive plant and animal species including Yellowstone cutthroat trout. Riparian habitat consists of a small percentage of the total land area but is vital to the survival of many wildlife species and constitutes a much larger portion of the forage for these species than the surrounding uplands. With much of the land along the river being private, protection of what remains public is vital.
Acreage	424 acres
Values Considered	Wildlife

IDENTIFICATION CRITERIA
To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2. Existing ACECs are subject to reconsideration when plans are revised (BLM Manual 1613.2.21.A.1).

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	All parcels of public lands proposed are on the Shoshone River. River systems provide a unique scenic value, especially if they have not been altered substantially by manmade developments. As the river is used for rafting and other recreational activities, protecting the naturalness of the area will help to enhance such experiences. Although not surveyed, riparian sites are often areas of high potential for cultural resources.
A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).	Yes	The Shoshone River provides a perennial flow that provides habitat for a variety of fish species including the Yellowstone Cutthroat Trout. Wildlife tend to focus on riparian areas as a vital source of water and forage.
A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare	Yes	Several endangered and sensitive species are linked to riparian habitat including the following: Spotted Bat, White faced Ibis, Trumpeter Swan, Bald Eagle, Northern Leopard Frog, Boreal Toad, Spotted Frog, Persistent Sepal Yellowcress, and Ute's Ladies-Tress.

Relevance: An area meets the "relevance" criterion if it contains one or more of the following:		
Relevance Value	**Yes/No**	**Rationale for Determination**
geological features).		
Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous it is determined through the resource management planning process that it has become part of a natural process.	Yes	The Shoshone River can flood in the spring, proving a hazard to public safety. Preserving the floodplain of the river provides an outlet for the energy of the water flows, dissipating these energies by spreading out the water and reducing speed by going through the vegetation. Additionally, these systems will provide a place for flood water to deposit its sediment loads.

Importance: The value, resource, system, process, or hazard described above must have substantial significance and values in order to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:		
Importance Value	**Yes/No**	**Rationale for Determination**
Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	No	Habit found along the Shoshone River provides suitable habitat for several endangered and sensitive species. However, similar management concerns are present for all riparian areas throughout the Planning Area.
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	No	Riparian habitat and stream banks are susceptible to damage. However, riparian habitat occurs throughout the Planning Area with similar threats.
Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.	No	No national priority concerns are known.
Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.	No	Safety of public welfare concerns are not known.
Poses a substantial threat to human life and safety or to property.	No	No substantial threats.

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