



PALEONTOLOGICAL RESOURCE MANAGEMENT CONSIDERATIONS FOR LAND USE PLANS

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Paleo Resources & Planning

- Objectives
- Where paleo resources fit into the Land Use Planning process
- Potential Fossil Yield Classification
- Where the PFYC fits into the LUP
- Implementation of Paleo Resources Management Decisions

Where Does Paleontology fit into Land Use Planning?

FLPMA - 43 U.S.C. 1701(a)(8)

“...the public lands be managed in a manner that will protect the quality of **scientific**, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; ...”

Paleontological resources are natural resources with **scientific** values.

Where Does Paleontology fit into Land Use Planning?

BLM Policy – MS 8270.06A.

The paleontological resources found on public lands are recognized by the BLM as constituting a fragile and nonrenewable scientific record of the history of life on Earth, and so represent an important and critical component of America's natural heritage.

BLM will exercise stewardship of these resources as part of its public land management responsibility.



Where Does Paleontology fit into Land Use Planning?

BLM Policy – MS 8270.06A.

Consider paleontological resources management a distinct BLM program to be given full and equal consideration in all its land use planning and decision making actions.

Where Does Paleontology fit into Land Use Planning?

BLM Planning Guidance, H-8270-1, Chapter II

Objective: to manage paleontological resources for their scientific, educational and recreational values.

Early consideration of paleontological data and appropriate uses for paleontological localities when making land-use decisions is most cost-effective.

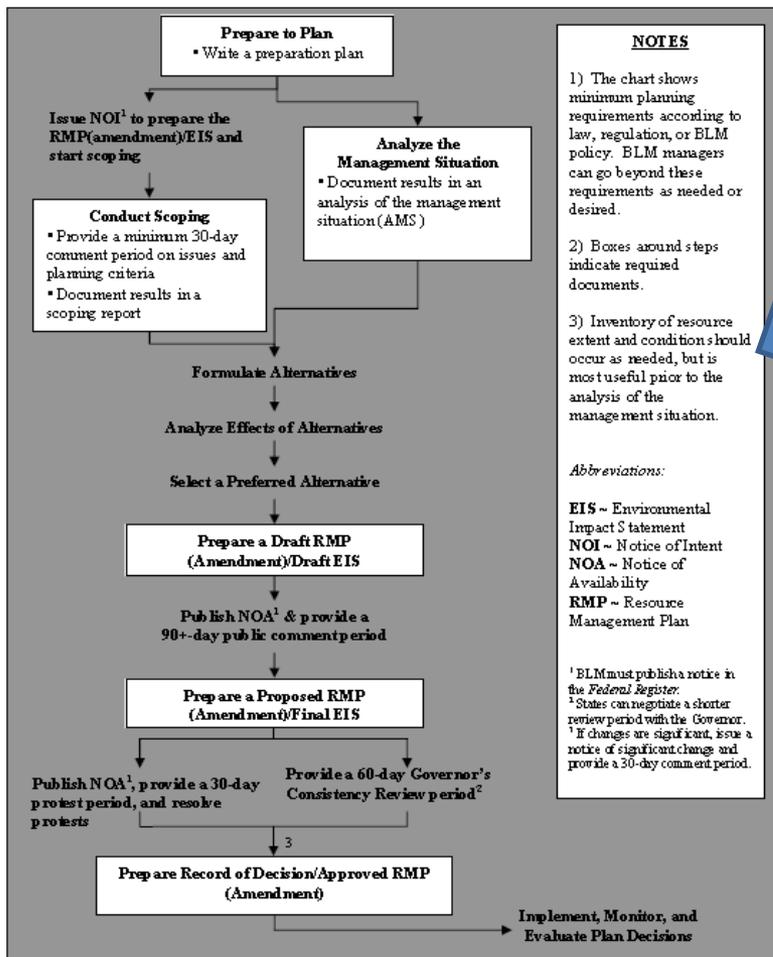
The potential for the occurrence of paleontological resources is essential for making decisions.

Where Does Paleontology fit into Land Use Planning?

Analysis of the Management Situation (AMS)

- Describes current conditions and trends of the resources and the uses/activities in the planning area.
- Focuses on the issues relevant to resource management.
- Creates a framework from which to resolve the planning issues through the development of alternatives.

Where Does Paleontology fit into Land Use Planning?



PFYC

3) Inventory of resource extent and condition should occur as needed, but is most useful prior to the analysis of the management situation.

Figure 1.—EIS-level planning efforts: Required steps for new plans, revisions, and amendments

What is the Potential Fossil Yield Classification (PFYC) System?

The Potential Fossil Yield Classification (PFYC) system provides a more uniform tool for the assessment of potential occurrences of paleontological resources.

PFYC uses geologic data as a basis for determining the potential for the occurrence of paleontological resources.

What is the Potential Fossil Yield Classification (PFYC) System?

Paleontological resources are closely associated with certain types of geologic formations, usually sedimentary rocks.

Therefore, potential for fossil occurrences can be linked to geologic formations that may be present at or near the ground surface allowing for greater management focus on geologic units with higher potential.



What is the Potential Fossil Yield Classification (PFYC) System?

BLM Policy:

IM-2008-009, Potential Fossil Yield Classification (PFYC) System for Paleontological Resources on Public Lands

The classification system is based on the potential for significant paleontological resources to occur in a particular geologic unit, and the associated risk for impacts to the resource based on Federal management actions.

Where Does the PFYC fit into Land Use Planning?

Use the PFYC for:

The inventory phase to identify and classify areas containing, or that are likely to contain, scientifically important paleontological resources including vertebrate fossils and noteworthy occurrences of invertebrate or plant fossils.

The Analysis of the Management Situation to describe current conditions and trends, and the uses and activities that are relevant to the various classes of fossil potential occurring in the resource area.

Where Does the PFYC fit into Land Use Planning?

H-1601-1, Appendix C. I. H. Paleontology

Land Use Plan Decisions.

Identify criteria or use restrictions to ensure that :

(a) areas containing, or that are likely to contain, vertebrate or noteworthy occurrences of invertebrate or plant fossils are identified and evaluated prior to authorizing surface-disturbing activities;

(b) management recommendations are developed to promote the scientific, educational, and recreational uses of fossils; and

(c) threats to paleontological resources are identified and mitigated as appropriate.

Where Does the PFYC fit into Land Use Planning?

BLM Planning Guidance, H-8270-1, Chapter II

For paleontological resources, the land-use planning process includes:

- a. Identifying areas and geological units, i.e., formations, members, etc., containing paleontological resources.
- b. Evaluating the potential of areas to contain vertebrate fossils or noteworthy occurrences of invertebrate or plant fossils.



Implementation of Paleontological Resources Management Decisions

BLM Planning Guidance, H-8270-1, Chapter II

For paleontological resources, the land-use planning process includes:

- c. Developing management recommendations (including mitigation measures in specific locations) to promote the scientific, educational and recreational uses of fossils on public lands and mitigate resource conflicts.
- d. Developing strategies to regularly monitor public lands where important paleontological localities have been identified.

Implementation of Paleontological Resources Management Decisions

H-1601-1, Appendix C. I. H. Paleontology

Implementation Decisions.

Identify appropriate protection measures and scientific, educational, and recreational use opportunities for paleontological localities.

2.2 GOALS, OBJECTIVES, AND MANAGEMENT ACTIONS

Approved Resource Management Plan

6. 14,060 acres will be seasonally closed to OHV use (Map 2-44 and Appendix 21).

2.3.9 Paleontology

Management Goals

1. Maintain the integrity of the scientific value of paleontological resources.
2. Reduce imminent threats from natural or human-caused deterioration, or potential conflict with other resource uses.
3. Promote stewardship, conservation, and appreciation of paleontological resources.

Management Objectives

1. Identify paleontological resources by defining priority inventory areas based on probability of occurrence of high-value resources.
2. Assess the need for project or site-specific treatment plans or other protective measures in areas of high risk for development or at high risk for adverse effects.
3. Develop, maintain, and encourage opportunities for scientific research of paleontological resources.
4. Provide educational opportunities and public outreach programs.
5. Develop and maintain interpretation of paleontological resources in areas of high public interest and access.

Management Actions

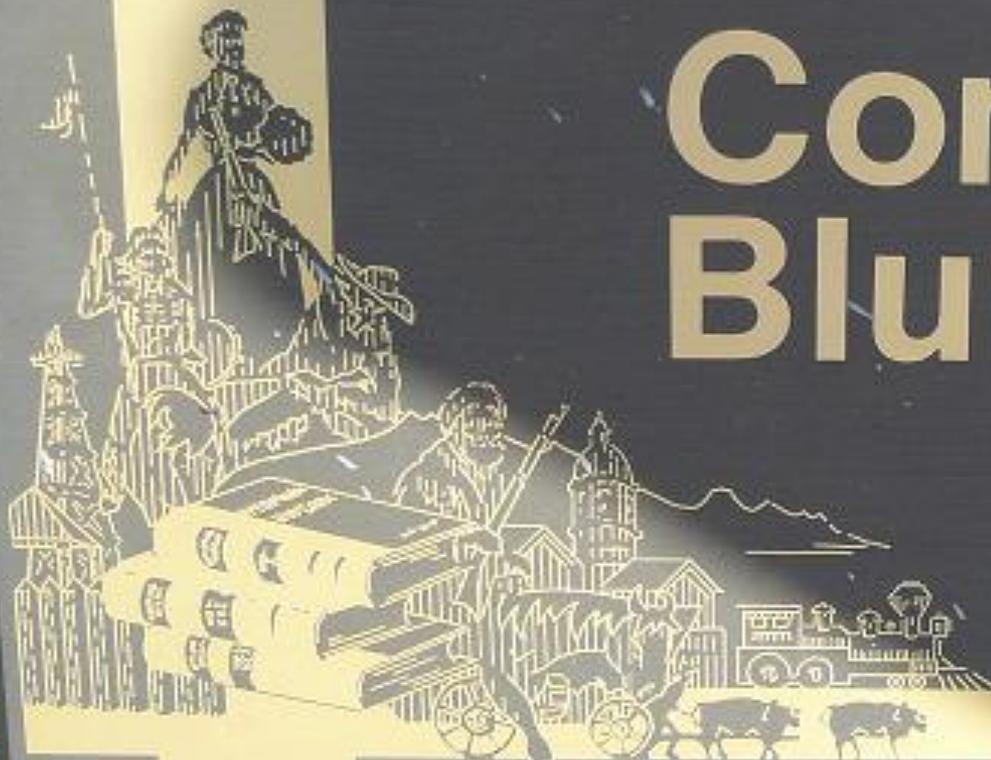
(Note: This section presents actions for the management of paleontological resources. Section 2.3.12.4 discusses the management actions for the Como Bluff NNL.)

1. Paleontological resources will be managed to protect their important scientific values. Area closures, restrictions, or other mitigation requirements for the protection of paleontological values will be determined on a case-by-case basis.
2. Collecting of scientifically significant vertebrate fossils by qualified paleontologists is allowed by permit only.
3. Manage paleontological resources to meet the Wyoming Standards for Healthy Rangelands.
4. Develop interpretive facilities (such as signs, kiosks, and developed areas) at specific localities with high paleontological values on a case-by-case basis.
5. Collection of fossils from public lands is allowed with some restrictions, depending on the significance of the fossils. Hobby collection of common invertebrate or plant fossils by the public is allowed in reasonable quantities using hand tools.
6. Utilize on-the-ground survey prior to approval of surface disturbing activities or land disposal actions for Class 4 and Class 5 formations to avoid resource-bearing strata on a case-by-case basis. Monitor during surface disturbing activities in potential resource bearing strata on a case-by-case basis. Survey and monitor on a case-by-case basis following discovery for Class 3 formations.



The National Register
of Historic Places -
Wyoming Place No. 53

Como Bluffs



2.3.12.4 National Natural Landmarks Management

Como Bluff NNL

Management Goal

1. Protect the integrity of paleontological resource values, preserve historic significance, and provide opportunity for other uses where appropriate.

Management Objective

1. Provide for permitted research and protect the historical significance of the site.

Management Actions

1. The Como Bluff area (1,690 acres) will be managed as an NNL (Map 2-18).
2. Case-by-case examination of any proposed surface disturbing and disruptive activities will be made to determine potential adverse effects and appropriate mitigation will be applied to minimize those effects.
3. The Como Bluff NNL is open to oil and gas leasing with intensive management of surface disturbing and disruptive activities within one-quarter mile of exposures of the Morrison Formation.
4. Lands will be managed in accordance with 43 CFR 3809.11, *When do I have to submit a plan of operations?* Plans of operations are required for locatable mineral exploration and development (except casual use) for surface disturbances of 5 acres or more.
5. The area is open to mineral material disposals.
6. As opportunities arise, acquisition of adjacent lands or easements to obtain public access will be considered and evaluated (Appendix 6).
7. Off-road motor vehicle use for "necessary tasks" (as defined in the Glossary) is allowed.



Informational poster on the left wall with text and images.



Informational poster on the wall.



Head to Tail

Informational sign above a doorway.





POTENTIAL FOSSIL YIELD CLASSIFICATION, A TOOL FOR LAND USE PLANNING

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