

LOST WATER CANYON
RESEARCH NATURAL AREA

SECTION 18 NEPA REVIEW AND CORRECTION
And
2004 ERRATA
to
1994 DECISION NOTICE
1994 ESTABLISHMENT RECORD
1994 CUSTER FOREST PLAN AMENDMENT #28

Custer National Forest
Carbon County, Montana

The undersigned certify that Section 18 NEPA Review indicates a correction needs to be made to the Lost Water Canyon Research Natural Area boundary to resolve mapping errors done when transposing map information. Errata background and corrections follow.

Recommended by Kim Reid Date 9/28/04
Kim Reid, Research Natural Areas Coordinator, Custer National Forest

Recommended by Steve Shelly Date 10/7/04
Steve Shelly, Research Natural Areas Coordinator, Northern Region

Recommended by John Byrne Date 10/12/2004
John Byrne, Rocky Mountain Research Station RNA Coordinator

Recommended by Steve Kratville Date 9/28/2004
Steve Kratville, Acting District Ranger, Beartooth Ranger District

Recommended by Nancy T. Curriden Date 9/28/2004
Nancy T. Curriden, Forest Supervisor, Custer National Forest

Recommended by Marcia Patton-Mallory Date 12/9/04
Marcia Patton-Mallory, Station Director, Rocky Mountain Research Station

Approved by Abigail R. Kimbell Date 12-13-04
Abigail R. Kimbell, Regional Forester, Northern Region

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Introduction

Lost Water Canyon Research Natural Area (RNA) is located in the southeastern portion of the Pryor Mountains of southcentral Montana, about 45 air miles south of Billings, Montana. The Pryor Mountains are a floristically rich, isolated mountain range composed primarily of limestone, and surrounded by lower elevation areas of the Northern Great Plains and Bighorn Basin. Within this setting, the RNA encompasses essentially an entire watershed largely defined by a steep-walled limestone canyon nearly one mile across and about six miles long. A wide elevational gradient of nearly 3,500 feet occurs in the RNA, and habitats range from subalpine forest and grassland communities to montane Douglas-fir forests to low-elevation riparian areas. The canyon is drained by Lost Water Creek, an intermittent stream for all but one mile of its length. The RNA, as described in the 1994 Designation, encompasses 3,645 acres.

Lost Water Canyon RNA serves as a baseline area for monitoring long-term ecological changes, especially in those communities dominated by Douglas-fir, found near its eastern limit, and in subalpine grasslands. The RNA serves as a nearly intact watershed for study of limestone bedrock hydrology. The RNA also provides a protected site for long-term monitoring of a large population of the regionally endemic and sensitive plant species, *Shoshonea pulvinata*, known only from the Pryor and Beartooth Mountains of Montana and portions of northwestern Wyoming.

Refinement of the RNA boundary is needed in order to be consistent with the Wild Free-Roaming Horse and Burro Act of 1971 through more accurate "edge-matching" of the two boundary designations. Recommended boundary changes would result in total RNA acreage changing from 3,645 to 2,809. The original candidate RNA boundary consisted of 1,756 acres prior to its modification during the 1994 environmental analysis. With this correction, there would still be representation of all vegetation types targeted for inclusion in the RNA and addressed in the 1994 EA. No significant changes to the environmental effects of the analysis are being made by this correction. The following information outlines the issue and recommendations.

These proposed changes are consistent with Forest Plan direction. The Forest Plan notes, "Except for Congressionally established boundaries or special administrative boundaries, management area boundaries are not firm lines and do not always follow topographic features, such as ridges or drainages, or administrative boundaries. The boundaries represent a transition from one set of opportunities and constraints to another with management direction established for each. The boundaries are flexible to assure that the values identified are protected and to incorporate additional information gained from further on-the-ground reconnaissance and project level planning. Boundaries can be adjusted up to one quarter of a mile to facilitate management with Forest Supervisor approval." (page 40).

Background

The Lost Water Canyon area was originally proposed as a research natural area in 1969 following field examination by the regional RNA committee. An initial establishment report was prepared in 1973 by District and Forest personnel. The possibility of wilderness designation for the general area delayed action on the proposal. In 1979, a second establishment report was drafted. Progress on establishment was again postponed pending completion of the Forest Plan, the final version of which proposed the site as a Research Natural Area.

On July 20, 1994, the Regional Forester signed the Decision Notice, Finding of No Significant Impact, and Designation Order, establishing the Lost Water Canyon RNA. Custer Forest Plan Amendment #28 outlines the decision as well.

The 1994 Decision for the Lost Water Canyon Research Natural Area included a boundary modification similar to past boundary proposals except that it extended the candidate RNA boundary to the north to capture 650 acres of upper elevation subalpine fir "islands" and subalpine grassland (Idaho fescue / Single-spiked sedge) not yet represented in the Northern Region's RNA network. The modification also captured 1,239 acres of sparse Douglas-fir with depauperate undergrowth in Sec. 35, T9S, R27E. These areas represent the easternmost distribution of Douglas-fir. These modifications resulted in the 1,756 acre candidate Lost Water Canyon RNA area being established as a formally designated RNA with a modified boundary for a total of 3,645 acres.

New Information:

All of the above boundary modifications were thought to have occurred within Management Area H – Forest Service Recommended Wilderness. However, there was a portion of the additional acreage that actually fell within the formally designated wild horse territory established pursuant to the Wild Free-Roaming Horse and Burro Act of 1971 (Public Law 92-195). This was not discovered until recently when a more thorough investigation of the GIS map coverages for the horse territory, Forest Plan management areas, roadless areas, and RNA boundaries were being assessed for accuracy at the 1:24,000 scale in GIS. The mapping error occurred a few years ago when information was hand digitized from a 1:100,000 scale map into GIS.

When Lost Water Canyon RNA was established, it was not the intent to be within the designated wild horse territory, but rather, adjacent to it. The RNA's eastern bounds should not overlap with the Pryor Mountain Wild Horse Territory's western bounds which follows the 1985 USGS "undefined boundary" line, the physical location of the buck and rail fence found on the northern boundary, and common lines with FS Recommended Wilderness (1984 map). This conflicts with the current RNA boundary defined by the 1994 Decision Notice which overlaps the designated Wild Horse Territory.

Making this mapping correction will ensure that there are no conflicts with the Wild Free-Roaming Horse and Burro Act of 1971 or with adjacent management area objectives. This mapping correction also follows intent mentioned in the 1994 Lost Water Canyon RNA decision where Management Area L (RNA) was stated to be entirely found within the FS Recommended Wilderness (Management Area H).

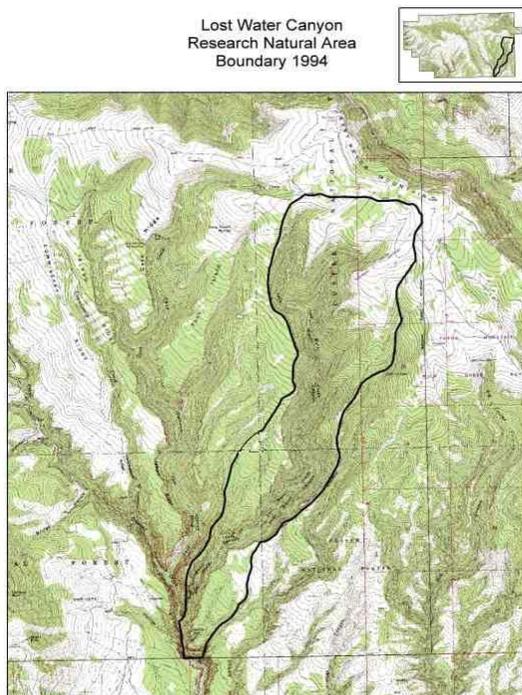
Review and Documentation of New Information Received After a Decision Has Been Made.

Based on a Section 18 review (FSH 1909.15 and 40 CFR 1501) of new information that was not considered in the decision notice for Lost Water Canyon RNA, it is recommended that a correction with an erratum to the decision be issued. This new information is not considered significant and does not require the preparation of a supplement or a revision of the analysis and decision. The effects of the recommended corrections follow:

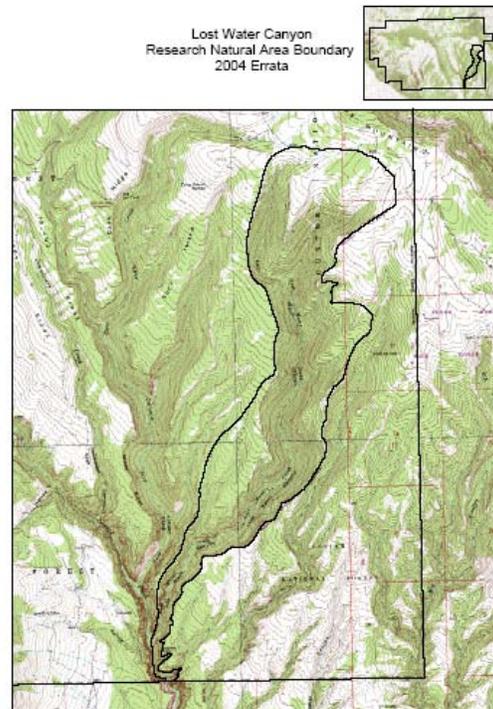
- The subalpine grassland vegetation type would drop from 650 acres to 155 acres. This still retains sufficient acreage to represent subalpine grassland types for inclusion into the RNA network of vegetation types.
- The Douglas fir with depauperate undergrowth would drop from 1,239 acres to 898 acres. This still retains sufficient acreage to represent Douglas fir with depauperate undergrowth types for inclusion into the RNA network of vegetation types.
- The correction will be consistent with other laws and regulations, specifically, the Wild Free-Roaming Horse and Burro Act of 1971.
- The correction will not change any Forest Service recommended wilderness designations as made in the Custer Forest Plan (Record of Decision, p. 36). The RNA falls entirely within the recommended wilderness.

The following maps display the change from the 1994 boundary to the 2004 errata boundary.

1994



2004 Errata



Correction Errata:

In order to be consistent with the Wild Free-Roaming Horse and Burro Act of 1971, the following corrections are made to the Lost Water Canyon RNA decision, establishment record, designation order, and associated Forest Plan Amendment #28. This errata corrects 836 acres currently shown as part of the Lost Water Canyon RNA to Forest Service Pryor Mountain Wild Horse Territory. Attached is a map displaying the revised bounds of Lost Water Canyon RNA.

1. Corrects a typographical error on a legal label (used Wyoming's Township and Range instead of Montana's) used in Decision Notice under the selected alternative description as follows:

Replace the legal label of:	Sec. 1, T8S, R96W and Sec. 6, T8S, R95W
With:	Sec. 1, T8S, R27E and Sec. 6, T8S, R28E

2. Corrects boundary lines by edge matching the Lost Water Canyon RNA boundaries to the boundaries of the Pryor Mountain Wild Horse Territory designated under the Wild Free-Roaming Horse and Burro Act of 1971. By making this correction:

- The subalpine grassland vegetation type drops from 650 acres to 155 acres. This still retains sufficient acreage to represent subalpine grassland types for inclusion into the RNA network of vegetation types.
- The Douglas fir with depauperate undergrowth drops from 1,239 acres to 898 acres. This still retains sufficient acreage to represent Douglas fir with depauperate undergrowth types for inclusion into the RNA network of vegetation types.
- The correction is consistent with other laws and regulations, specifically, the Wild Free-Roaming Horse and Burro Act of 1971.
- The correction does not change any Forest Service recommended wilderness designations as outlined in the Custer Forest Plan. The RNA is entirely within the recommended wilderness.

LOST WATER CANYON RNA LEGAL DESCRIPTION

The exterior boundary of the Lost Water Canyon RNA, covering 2,809 acres, as outlined in the 2004 errata of the 1994 Lost Water Canyon RNA EA, is as follows:

Beginning at a point where Crooked Creek meets the boundary between the Forest Service and Bureau of Land Management at the intersection of sections 34 and 35 of T8S R27E, and sections 2 and 3 of T9S R27E, Principal Meridian;

Thence north up Crooked Creek about 1/2 mile to its confluence with Lost Water Creek;

Thence northerly along the ridge dividing Crooked Creek and Lost Water Creek for about 1/2 mile to near the intersection of sections 26, 27, 34, and 35, T8S R27E;

Thence northeasterly along the ridge dividing Cave Creek drainage and Lost Water Creek drainage for about 2 1/4 mile to a point along the same hydrologic divide to a point in NE1/4 SW1/4 SW1/4, section 13, T8S R27E;

Thence northerly along the same Cave Creek/Lost Water Creek hydrologic divide for about 2 1/4 miles to a the high point within the SW1/4 SE1/4 NW1/4, section 1, T8S R27E;

Thence east and southeastly (south of closed road #2308G) for about 1 1/4 miles to the headwaters of an unnamed tributary (main East Fork headwaters) of Lost Water Canyon; near the center of section 6, T8S R28E;

Thence south (west of the mechanically terraced area) for about 1/8 mile to a point where the north boundary of the Pryor Mountain Wild Horse Range occurs in SE1/4 NW1/4 SE1/4, section 6, T8S R28E;

Thence southwesterly along the Pryor Mountain Wild Horse Range boundary on ridge above Lost Water Canyon for about one mile to a point along 8000 foot elevation in NE1/4 NE1/4 SE1/4, section 12, T8S R27E;

Thence southerly along the Pryor Mountain Wild Horse Range boundary on eastern ridge above Lost Water Canyon along the 8000 foot elevation contour for about 3/4 mile to a point on a ridge being the hydrologic divide, between Lost Water Creek to the west and the unnamed tributary (Little Ice Cave drainage) to the east, in NW1/4 SE1/4 NW1/4, section 18 T8S R28E;

Thence south-southwesterly along the Pryor Mountain Wild Horse Range boundary along the ridge being the Eastern Rim of Lost Water Canyon for about 4 1/2 miles to the Forest Service (USFS) / Bureau of Land Management (BLM) boundary line dividing USFS section 35 T8S, R28E and BLM section 2, T9S, R28E.

Thence west along the USFS / BLM boundary line for about 1/10 mile to Crooked Creek at the USFS / BLM boundary, which is the point of beginning.

3. The attached 2004 errata map reflects the corrected legal boundary description.

**2004 Errata for
Forest Plan Amendment Number 28
Custer National Forest
Billings, Montana**

Based on a mapping correction and the attached 2004 errata to the 1994 FONSI, Decision Notice, Designation Order, and Establishment Record for the Lost Water Canyon Research Natural Area, the Custer National Forest Land and Resource Management Plan and Forest Plan Amendment #28 is corrected as follows:

- The acreage for Lost Water Canyon RNA – Management Area L is changed from 3,645 established acres to 2,809 acres. The Forest Plan goals and management standards for both Management Areas H and L still apply to the RNA since the RNA lies within the Forest Service Recommended Wilderness – Management Area H (see Custer Forest Plan, Chapter III, p. 77, which describes that the Lost Water Canyon RNA is included in the recommended Lost Water Canyon wilderness area).

