

U.S. Department of the Interior  
Bureau of Land Management  
White River Field Office  
220 E Market St  
Meeker, CO 81641

## CATEGORICAL EXCLUSION

NUMBER: DOI-BLM-CO-110-2014-0062-CX

CASEFILE/PROJECT NUMBER: COC118327-01

PROJECT NAME: Natural Soda Relocation of 14H Well Pair

LEGAL DESCRIPTION: Sixth Principal Meridian  
T 1S, R 98 W  
Section 25 Lots 12 and 13

APPLICANT: Natural Soda Inc.

DESCRIPTION OF PROPOSED ACTION:

***Background/Introduction:*** Natural Soda Inc. (NSI) operates an in-situ sodium bicarbonate (nahcolite) solution mining operation and has been in continual operations since 1991. Their operation and facilities are located at the termination of Rio Blanco County (RBC) Road 31 (see Figures 1 and 2) in the Piceance Creek Basin, approximately 37 miles west and south of Meeker, Colorado. NSI current mining operations involve solution mining from five available mining well pairs. A plant expansion completed in spring of 2013 was designed to increase plant capacity from 125,000 tons per year to 250,000 tons per year. Production for 2014 is projected for approximately 180,000 tons and is anticipated to increase to the new plant capacity within the next two years. Current production requires, as a minimum, the availability of two well pairs to adequately supply a continuous feed stock to the processing facility.

Solution mining of the nahcolite occurs at a depth of greater than 1,900 feet in a 35 to 40 foot depositional horizon of nahcolite, oil shale and nahcolitic-halite identified as the Boies Bed. In the current mining area the Boies Bed assays between 80 to 85 percent nahcolite. Progressing northeast of NSI's well field towards the depositional center of the basin, the Boies Bed transitions through a facies change from nahcolite to halite (sodium chloride). Halite is an impurity in the sodium bicarbonate solution mining recovery process and final product.

In August of 2013 NSI submitted an application for the construction of the 14H well pair. This proposal conflicted with an approved power line ROW and the BLM requested NSI to relocate the 14H well pair away from the proposed power line ROW. NSI resubmitted the application relocating the well pair approximately 500 feet east of the initial proposal which was subsequently approved by the BLM in December of 2013. Additional geologic interpretation of the mining horizon indicates the eastern portion of the relocated 14H well pairs would intersect the halite portion of the Boies Bed which could create difficulties in the drilling/completion of

the horizontal wells and introduce a potential for halite contamination of the solution mining fluids.

**Proposed Action:** NSI proposes to relocate well pad 14H (Figures 1 and 2) and drill horizontal production wells 14H-I and 14H-R at the new location. The additional production well pair would enable NSI to have a backup plant feed in case of a disruption in any of the current mining cavities. The proposed wells would be drilled from a single well pad 14H and would involve approximately 3.2 acres of associated surface disturbance. Access would be from Rio Blanco County Road 31, approximately 70 feet in length and would have a 14 foot running width. Both wells would be directionally drilled having a true vertical depth of approximately 2,000 feet with a measured depth of greater than 4,000 feet for 14H-I (the longest well). Construction of these wells is anticipated to begin in the first half 2014 and require three to five weeks of drilling activity per bore. Construction, monitoring, reclamation, and maintenance activities for NSI's facilities and well field are governed by the approved mine plan.

**PLAN CONFORMANCE REVIEW:** The Proposed Action is subject to and has been reviewed for conformance with (43 CFR 1610.5-3, BLM 1601.08) the following plan:

Name of Plan: White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

Date Approved: July 1, 1997

Decision Number/Page: Page 2-6 and 2-7

Decision Language: "Facilitate the orderly and environmentally sound development of sodium resources occurring on public lands."

**CATEGORICAL EXCLUSION REVIEW:** The Proposed Action qualifies as a categorical exclusion under 516 DM 11.9, Number F-8: "*Approval of minor modifications to or minor variances from activities described in an approved underground or surface mine plan for leasable minerals (e.g., change in mining sequence or timing).*"

The Proposed Action has been reviewed with the list of extraordinary circumstances (43 CFR 46.215) described in the table below.

Extraordinary Circumstance	YES	NO
a) Have significant adverse effects on public health and safety.		X
b) Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands; floodplains; national monuments; migratory birds; and other ecologically significant or critical areas.		X

<b>Extraordinary Circumstance</b>	<b>YES</b>	<b>NO</b>
c) Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources.		N
d) Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.		N
e) Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.		X
f) Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects.		X
g) Have significant impacts on properties listed, or eligible for listing, in the National Register of Historic Places as determined by the bureau.		X
h) Have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species, or have adverse effects on designated Critical Habitat for these species.		X
i) Violate a Federal law, or a State, local or tribal law or requirement imposed for the protection of the environment.		X
j) Have a disproportionately high and adverse effect on low income or minority populations.		X
k) Limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly affect the physical integrity of such sacred sites.		X
l) Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species.		X

**INTERDISCIPLINARY REVIEW:**

The Proposed Action was presented to, and reviewed by, the White River Field Office interdisciplinary team on 4/01/2014. A complete list of resource specialists who participated in this review is available upon request from the White River Field Office. The table below lists resource specialists who provided additional remarks concerning cultural resources and special status species.

<b>Name</b>	<b>Title</b>	<b>Resource</b>	<b>Date</b>
Michael Selle	Archaeologist	Cultural Resources, Native American Religious Concerns	6/19/2014
Ed Hollowed	Wildlife Biologist	Special Status Wildlife Species	4/21/2014
Heather Woodruff	Range Management Specialist/Ecologist	Special Status Plant Species	4/1/2014

**REMARKS:**

*Cultural Resources:* The proposed 14H well pad location and access have been inventoried at the Class III (100 percent pedestrian) level (Conner *et al* 2014) which has not identified any cultural resources on the surface. It is unlikely that the proposed action will impact any known cultural resources. However, the potential for subsurface remains cannot be ruled out. Any impacts to previously unidentified subsurface cultural remains would likely result in an irreversible, irretrievable, long term, permanent loss of scientific data from the regional archaeological database.

*Native American Religious Concerns:* No Native American religious concerns are known in the area, and none have been noted by Northern Ute Tribal authorities. Should recommended inventories or future consultations with Tribal authorities reveal the existence of such sensitive properties, appropriate mitigation and/or protection measures may be undertaken.

*Paleontological Resources:* The proposed project is located in an area generally mapped as the Uinta Formation (Tweto 1979) which the BLM has categorized as a Potential Fossil Yield Classification (PFYC) 5 formation indicating that it is known to produce scientifically noteworthy fossil resources on a regular basis (c Armstrong and Wolny 1989). If it becomes necessary to excavate into the underlying sedimentary rock to level the drill area for the wells or bury the pipelines there is a potential to impact scientifically noteworthy fossil resources. Any impacts that result from the construction activities would likely represent an adverse impact to fossil resources. Any such adverse impacts would likely result in loss of fossils and associated environmental and contextual data causing a long term permanent, irreversible and irretrievable loss of data from the regional paleontological database.

*Special Status Wildlife Species:* There are no listed, proposed, or candidate animals directly associated with the proposed action. Water use necessary for well development and production has been previously evaluated and mitigated through a formal Section 7 process (Biological Opinion dated 28 August 1986) in the context of flow depletion effects on the Colorado River fishes and designated critical habitat on the White River. A two-acre pinyon-juniper stand would be removed in the course of pad development. Although woodland patches of this size can serve as raptor nest habitat (including BLM-sensitive northern goshawk), this stand has been subjected to previous thinning and limbing practices (i.e., fuels reduction) and is located immediately adjacent to the mine's access road and an active natural gas well pad. Considering the human influences now exerted on this parcel, the modified nature of the woodland canopy, and the extent of mature trees capable of serving as nest substrate, there remains less than 0.5 acre of woodland suitable for raptor nesting. This habitat fragment likely retains no functional utility as raptor nest habitat in the short or long term.

*Special Status Plant Species:* Threatened and BLM sensitive (SSPS) plant surveys have been conducted in and around the project area. No SSPS were found during these plant surveys. There are no special status plant species issues or concerns associated with the Proposed Action.

#### REFERENCES CITED:

Armstrong, Harley J. and David G. Wolny

1989 Paleontological Resources of Northwest Colorado: A Regional Analysis. Museum of Western Colorado.

Conner, Carl E., Barbara Davenport, Courtney Groff, Natalie Higginson, Dakota Kramer and Hannah Mills

2014 Class III Cultural Resources Inventory Report for the Proposed Resource Development Program, Water Supply, and Production Wells, in Rio Blanco County, Colorado, for Natural Soda, Inc. Grand River Institute, Grand Junction, Colorado. (14-11-04: OAH # RB.LM.R1370)

Tweto, Ogden

1979 Geologic Map of Colorado, United States Geologic Survey, Department of the Interior, Reston, Virginia.

### MITIGATION:

1. Natural Soda Inc. is responsible for informing all persons who are associated with the project that they will be subject to prosecution for knowingly disturbing archaeological sites or for collecting artifacts.
2. If any archaeological materials are discovered as a result of operations under this authorization, activity in the vicinity of the discovery will cease, and the BLM WRFO Archaeologist will be notified immediately. Work may not resume at that location until approved by the AO. Natural Soda Inc. will make every effort to protect the site from further impacts including looting, erosion, or other human or natural damage until BLM determines a treatment approach, and the treatment is completed. Unless previously determined in treatment plans or agreements, BLM will evaluate the cultural resources and, in consultation with the State Historic Preservation Office (SHPO), select the appropriate mitigation option within 48 hours of the discovery. Natural Soda Inc., under guidance of the BLM, will implement the mitigation in a timely manner. The process will be fully documented in reports, site forms, maps, drawings, and photographs. The BLM will forward documentation
3. Pursuant to 43 CFR 10.4(g), Natural Soda Inc., must notify the AO, by telephone and written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), the Natural Soda Inc., must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the AO.
4. Natural Soda Inc., is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for disturbing or collecting vertebrate or other scientifically important fossils, collecting large amounts of petrified wood (over 25lbs./day, up to 250lbs./year), or collecting fossils for commercial purposes on public lands.

5. If any paleontological resources are discovered as a result of operations under this authorization, Natural Soda Inc., or any of its agents must stop work immediately at that site, immediately contact the BLM Paleontology Coordinator, and make every effort to protect the site from further impacts, including looting, erosion, or other human or natural damage. Work may not resume at that location until approved by the AO. The BLM or designated paleontologist will evaluate the discovery and take action to protect or remove the resource within 10 working days. Within 10 days, the operator will be allowed to continue construction through the site, or will be given the choice of either (a) following the Paleontology Coordinator's instructions for stabilizing the fossil resource in place and avoiding further disturbance to the fossil resource, or (b) following the Paleontology Coordinator's instructions for mitigating impacts to the fossil resource prior to continuing construction through the project area.
  
6. Any excavations into the underlying native sedimentary stone must be monitored by a permitted paleontologist. The monitoring paleontologist must be present before the start of excavations that may impact bedrock.

COMPLIANCE PLAN: "Natural Soda 2010 Mine Plan and Environmental Monitoring Plan"

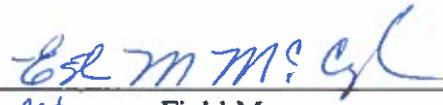
NAME OF PREPARER: Paul Daggett

NAME OF ENVIRONMENTAL COORDINATOR: Ester McCullough

COMPLIANCE WITH NEPA

The Proposed Action is categorically excluded from further documentation under the National Environmental Policy Act (NEPA) in accordance with 516 DM 11.9, Number F-8. This categorical exclusion is appropriate in this situation because there are no extraordinary circumstances potentially having effects that may significantly affect the environment. The Proposed Action has been reviewed, and none of the extraordinary circumstances described in 43 CFR 46.215 apply.

SIGNATURE OF AUTHORIZED OFFICIAL:

  
Acting Field Manager

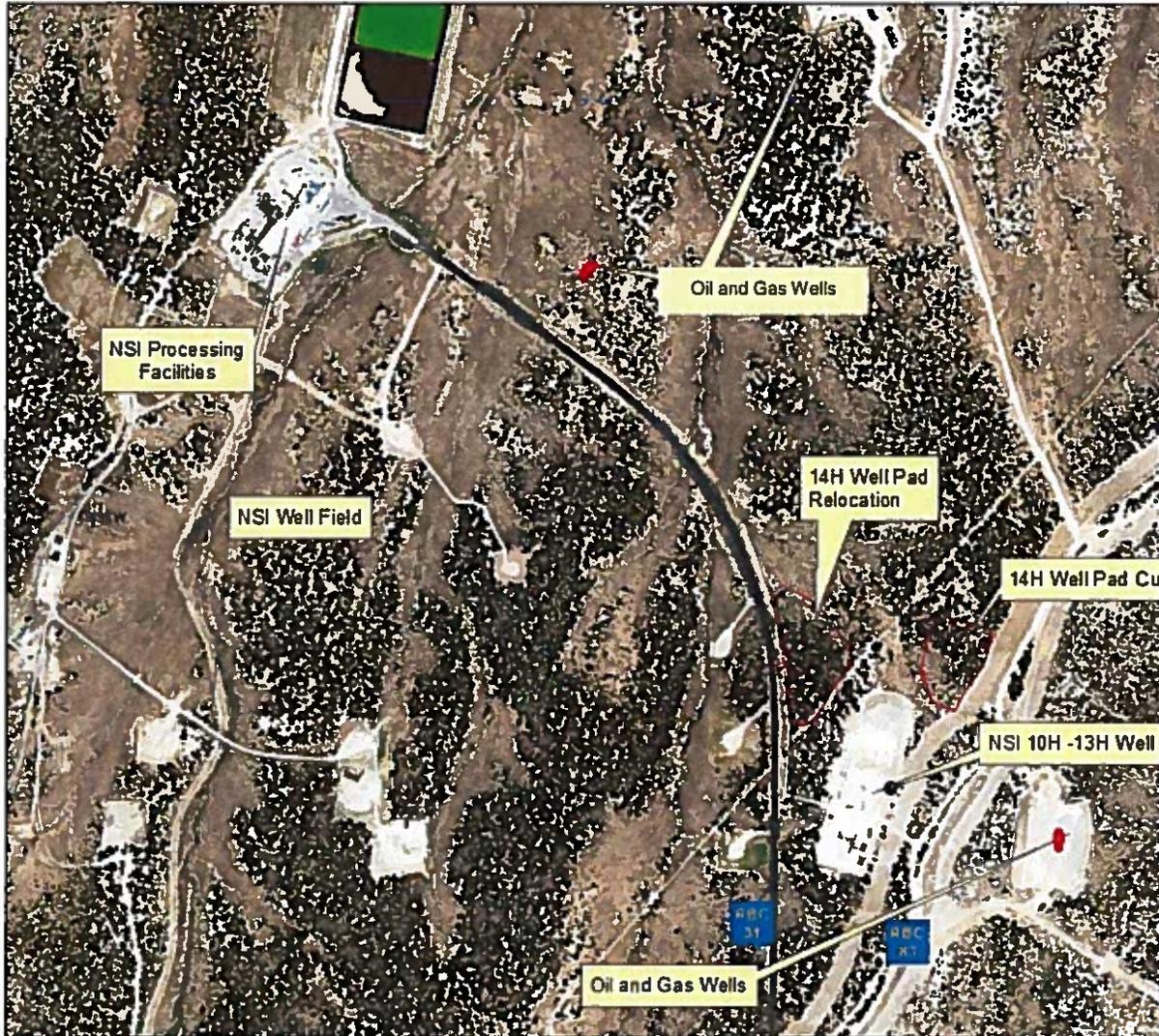
DATE SIGNED: 6/20/14

ATTACHMENTS:

- Figure 1: General Location Map – Aerial Photo
- Figure 2: General Location Map – Topographic

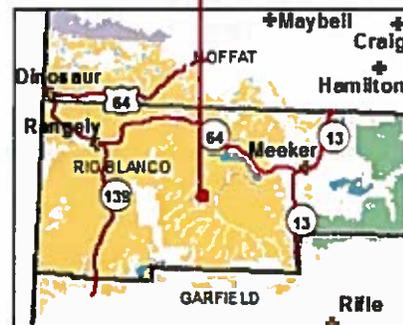
Figure 1: General Location Map – Aerial Photo

**DOI-BLM-CO-N05-2014-0062-CX**  
**Natural Soda Relocation of 14H Production Well Pair**



3/27/2014

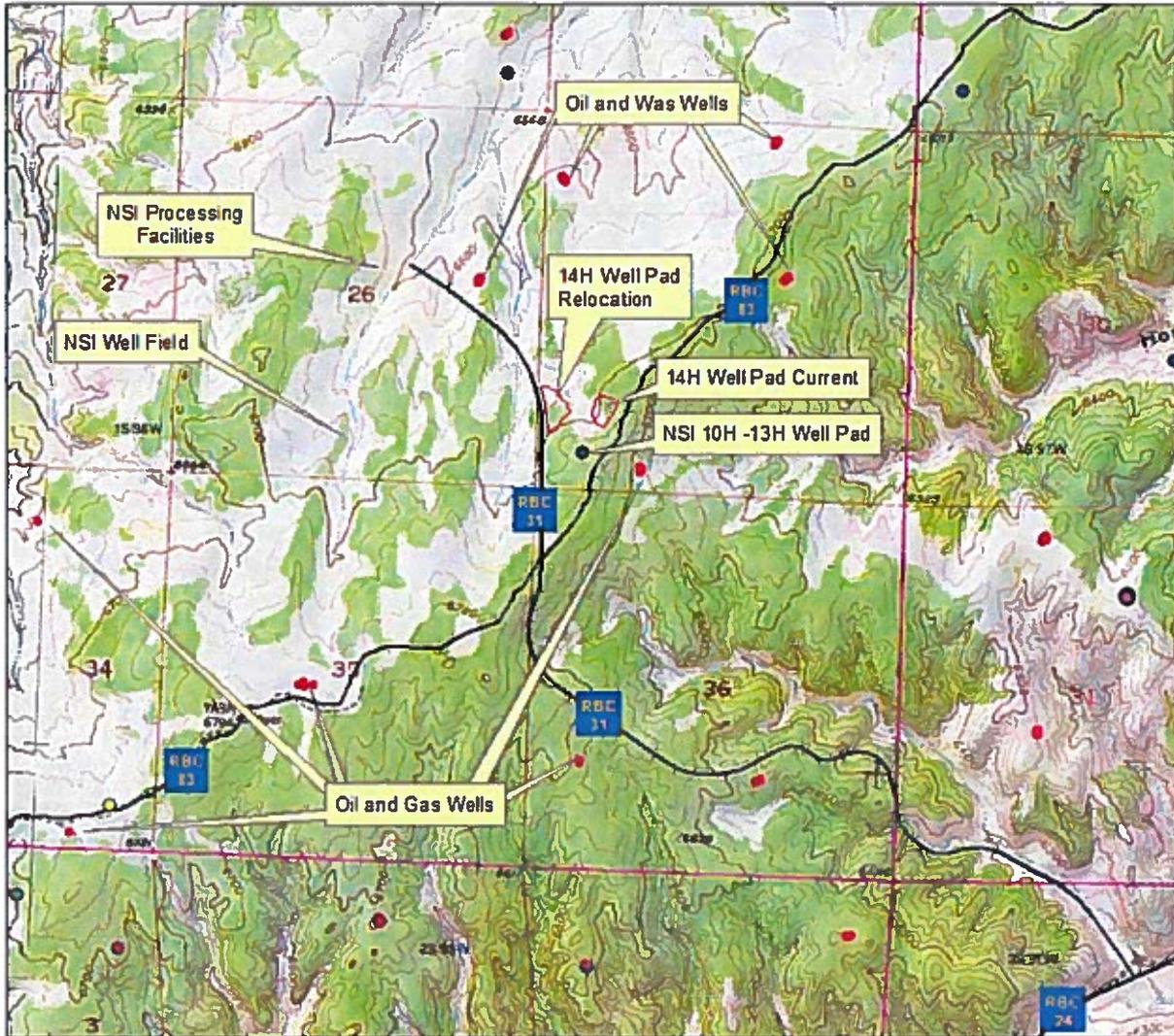
**T 1S, R 98 W 6th PM**  
**Section 26 Lots 12 and 13**



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Figure 2: General Location Map – Topographic

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**Natural Soda Relocation of 14H Production Well Pair**

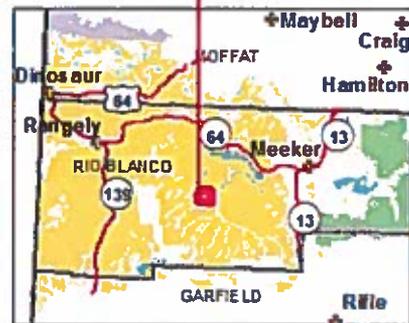


3/27/2014

T1S, R 98 W 6th PM  
 Section 25 Lots 12 and 13



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**U.S. Department of the Interior  
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220 E Market St  
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**DECISION RECORD**

**PROJECT NAME:** Natural Soda Relocation of 14H Well Pair

**CATEGORICAL EXCLUSION NUMBER:** DOI-BLM-CO-110-2014-0062-CX

**DECISION**

It is my decision to implement the Proposed Action, as mitigated in DOI-BLM-CO-110-2014-0062-CX, authorizing the construction, operation, and maintenance of sodium solution mining 14H well pair 14H-I and 14H-R.

**Mitigation Measures**

1. Natural Soda Inc. is responsible for informing all persons who are associated with the project that they will be subject to prosecution for knowingly disturbing archaeological sites or for collecting artifacts.
2. If any archaeological materials are discovered as a result of operations under this authorization, activity in the vicinity of the discovery will cease, and the BLM WRFO Archaeologist will be notified immediately. Work may not resume at that location until approved by the AO. Natural Soda Inc. will make every effort to protect the site from further impacts including looting, erosion, or other human or natural damage until BLM determines a treatment approach, and the treatment is completed. Unless previously determined in treatment plans or agreements, BLM will evaluate the cultural resources and, in consultation with the State Historic Preservation Office (SHPO), select the appropriate mitigation option within 48 hours of the discovery. Natural Soda Inc., under guidance of the BLM, will implement the mitigation in a timely manner. The process will be fully documented in reports, site forms, maps, drawings, and photographs. The BLM will forward documentation
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6. Any excavations into the underlying native sedimentary stone must be monitored by a permitted paleontologist. The monitoring paleontologist must be present before the start of excavations that may impact bedrock.

#### **COMPLIANCE WITH LAWS & CONFORMANCE WITH THE LAND USE PLAN**

This decision is in compliance with the Endangered Species Act, and the National Historic Preservation Act. It is also in conformance with the 1997 White River Record of Decision/Approved Resource Management Plan.

#### **PUBLIC INVOLVEMENT**

The BLM informed the public about this project by listing it on the online WRFO NEPA Register on 4/15/2014 and a copy of the completed Categorical Exclusion will be posted on the WRFO website.

#### **RATIONALE**

The Proposed Action is categorically excluded from further documentation under the National Environmental Policy Act (NEPA) in accordance with 516 DM 11.9, Number F-8. This categorical exclusion is appropriate in this situation because there are no extraordinary circumstances potentially having effects that may significantly affect the environment. The Proposed Action has been reviewed, and none of the extraordinary circumstances described in 43 CFR 46.215 apply.

#### **ADMINISTRATIVE REMEDIES**

Any appeal of this decision must follow the procedures set forth in 43 CFR Part 4. Within 30 days of the decision, a Notice of Appeal must be filed in the office of the Authorized Officer at White River Field Office, 220 East Market St., Meeker, CO 81641 with copies sent to the Regional Solicitor, Rocky Mountain Region, 755 Parfet St., Suite 151, Lakewood, CO 80215, and to the Department of the Interior, Board of Land Appeals, 801 North Quincy St., MS300-QC, Arlington, VA, 22203. If a statement of reasons for the appeal is not included with the notice, it must be filed with the Interior Board of Land Appeals at the above address within 30 days after the Notice of Appeal is filed with the Authorized Officer.

**SIGNATURE OF AUTHORIZED OFFICIAL:**

  
Acting Field Manager

**DATE SIGNED:** 6/20/14

