



United States Department of the Interior
BUREAU OF LAND MANAGEMENT
White River Resource Area
220 East Market
Meeker, Colorado 81641



AUG 14 2015

In Reply Refer To:

LLCON050

3592

C-0118326

C-0118327

C-0119986

C-0119985

C-37474

Certified Mail: 7014 0150 0000 5650 3896

Return Receipt Requested

Natural Soda LLC

Attention: Kirk Daehling

3200 County Rd. 31

Rifle, Colorado 81650

RECEIVED

AUG 17 2015

GRAND JUNCTION FIELD OFFICE
DIVISION OF
RECLAMATION MINING & SAFETY

Dear Mr. Daehling:

We have reviewed your September 15, 2014 Mine Plan Modification to accommodate an increase in the current sodium bicarbonate production design capacity of 250,000 tons per year to 500,000 tons per year. The proposed project involves lands located in Township 1 South, Range 98 West; Sections 25, 26, 27, 34, 35, and 36 of the 6th P.M.

Based on the outcome of the Environmental Assessment for the 500,000 tons per year expansion the modification is approved with the attached conditions of approval (COAs).

Updated sections, figures, and diagrams of the 500,000 tons per year Mine Plan that incorporate the attached COAs, and any updates submitted during the EA process, are required to be submitted to our office within 60 days of receipt of this approval letter. This includes updating the 2010 Environmental Monitoring Plan with new information and newly constructed or plugged and abandoned monitoring wells along with their sampling schedules.

If there any questions, please contact Paul Daggett Mining Engineer at (970) 878-3819.

Sincerely,

Kent Walter
Field Manager

Enc
Conditions of Approval

cc:

Travis Marshall
Grand Junction Field Office
Colorado Division of Reclamation, Mining and Safety
101 South 3rd, Suite 301
Grand Junction, CO 81501

Daub & Associates, Inc.
1985½ South Broadway
Grand Junction, CO 81507-9649

RECEIVED

MAY 13 2011

GRAND JUNCTION FIELD OFFICE
DIVISION OF
RECLAMATION MINING & SAFETY

Conditions of Approval for Natural Soda LLC Mine Plan Modification

1. All operations will be conducted according to Natural Soda LLC's (NS) approved Mine Plan.
2. Natural Soda LLC 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.
3. 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 Authorized Officer (AO). Natural Soda 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 LLC, 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 to the SHPO for review and concurrence.
4. Pursuant to 43 CFR 10.4(g), NS 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 operator must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the AO.
5. Natural Soda LLC 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.
6. If any paleontological resources are discovered as a result of operations under this authorization, NS or any of his 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.

Minerals

7. To minimize or prevent potential conflicts between sodium recovery and oil shale RD&D operations, an agreement between NSI and the oil shale RD&D lessees should be in place prior to the approval of any ROW for the placement of off lease well pads or facilities.

Soil Resources

8. When preparing the site, all suitable topsoil should be stripped from the surface of the location and stockpiled for reclamation once the location is abandoned. When topsoil is stockpiled on slopes exceeding five percent, construct a berm or trench below the stockpile.
9. Sedimentation shall be diverted and/or run through catchment basins in order to protect surface waters.
10. All sediment control structures or disposal pits will be designed to contain a 100-year, 6-hour storm event. Storage volumes within these structures will have a design life of 25 years.

Surface and Groundwater

11. All fluid storage tanks shall have a dike constructed around the tank of sufficient capacity to adequately contain at least 110 percent of the largest tank.
12. Pits designed to contain fluids shall be constructed so that leaking or breaching problems are minimized and reclamation potential is maximized. At least 50 percent of the pit capacity shall be in cut material. When fractured rock or porous materials are encountered, pits shall be lined with bentonite or an impermeable membrane to prevent leakage.

Vegetation

13. For reclamation actions described in Section 8 (Reclamation) of NSI's approved Mine Plan seed mixture tables for both interim and final reclamation; replace pubescent wheatgrass with Bluebunch wheatgrass (Whitmar), replace Russian wildrye with Needle and Thread grass (*Hesperostipa comata* spp. *comata*), and replace Palmer's penstemon with Rocky Mountain Penstemon as listed below in the tables below.

Reclamation Seed Species List¹

Species	Variety	Pounds Pure Live Seed/Acre
Grasses		
Thickspike wheatgrass	Critana	0.5
Streambank wheatgrass	Sodar	0.5
Western wheatgrass	Arriba	1.0
Bluebunch wheatgrass	Whitmar (<i>Pseudoroegneria spicata</i> spp. <i>inermis</i>)	1.0
Basin wildrye	Magnar	0.5
Needle and thread grass	(<i>Hesperostipa comata</i> spp. <i>comata</i>)	1.0
Green needlegrass	Common or Lodorm	2.0
Forbs		
Lewis flax	Appar	0.2
Cicer milkvetch	Monarch*	0.5
Alfalfa	50% Ladak*	0.75
	50% Nomad*	0.75
Scarlet globemallow	VNS or common	0.2
Rocky Mountain Penstemon	Bandera	0.2
Shrubs		
Fourwing saltbush	Rincon (dewinged)	1.5
Winterfat	VNS or common	0.5
Antelope bitterbrush	VNS or common	1.0
* preinoculated	Total	12.1

¹See Terrestrial Wildlife Mitigation measure Number 24 below regarding the requirement to incorporate efforts to expedite establishment of big sagebrush on final reclamation sites.

Interim Reclamation Seed Species List

Species	Variety	Pounds Pure Live Seed/Acre
Grasses		
Bluebunch wheatgrass	Whitmar (<i>Pseudoroegneria spicata</i> spp. <i>inermis</i>)	4.0
Thickspike wheatgrass	Critana	2.0
Forbs		
Alfalfa	Ladak*	2.0
* preinoculated	Total	8.0

14. Successful reclamation must reflect a plant community of at least five desirable plant species where no one species may exceed 70 percent relative cover and desired foliar cover, bare ground, and shrub and/or forb density must have 80 percent similarity in relation to the identified desired plant community (DPC).

Invasive Non-Native Species

15. Application of herbicides must comply with the *Vegetation Treatments on Bureau of Land Management Lands in 17 Western States Programmatic Environments Impact Statement* (EIS), and the WRFO Integrated Weed Management Plan (DOI-BLM-CO-110-2010-0005-EA).
16. All seed, straw, mulch, or other vegetative material to be used on BLM and split-estate lands will comply with United States Department of Agriculture (USDA) state noxious weed seed requirements and must be certified by a qualified Federal, State, or county office as free of noxious weeds. Any seed lot with test results showing presence of State of Colorado A or B list species will be rejected in its entirety and a new tested lot will be used instead. All areas identified to be disturbed under this proposal will be monitored and treated for noxious weeds on an annual basis for the life of the project until Final Abandonment has been approved by the Authorized Officer.
17. Pesticide Use Proposals (PUPs) must be submitted to and approved by the BLM before applying herbicides on BLM lands. The PUP will include target weed species, the herbicides to be used, application rates and timeframes, estimated acres to be treated, as well as maps depicting the areas to be treated and known locations of weeds. The WRFO recommends that all PUPs be submitted no later than March 1st of the year anticipating herbicide application.
18. Pesticide Application Reports (PAR) will be provided to the BLM annually, usually in the fall at the end of annual weed treatment. The PAR will include operator name, PUP number, applicator name(s), application date, timeframe of application, location of application, type of equipment used, pesticide used including manufacturer and trade name, formulation, application rate in terms of active ingredient per acre, acres treated, primary species treated, stage of plant development, and weather conditions during treatment.

Migratory Birds

19. Scheduled development of pads and access, and well drilling/completion operations would not be authorized during the core migratory bird nesting season (from May 15 to July 15).

20. The operator shall prevent migratory bird access to facilities that store or are expected to store fluids which may pose a risk to migratory birds (e.g., toxicity, compromised insulation, drowning). Features that prevent access to such fluids must be in place and functional prior to the discharge or storage of fluids and shall remain in place and effective until such features are removed or incapable of storing fluids. Deterrence methods used by the operator are to remain consistent with the operator's current agreements with the FWS law enforcement branch or that otherwise meet BLM WRFO approval. In the absence of a valid reporting protocol, all lethal and non-lethal events that involve migratory birds will be reported to the AO immediately.

Terrestrial Wildlife

21. Surface disturbing activities involving pad, pipeline, or access preparation or construction, the drilling and completion of wells, and routine activity-intensive maintenance and production activities would not be allowed on this lease between December 1 and April 30 to reduce cumulative impacts on wintering big game. This timing restriction would be subject to exception and modification provisions developed in the 1997 White River RMP.
22. Lease developments would be subject to siting considerations that are intended to reduce long term and residual impacts on the utility and continued availability of suitable shrubland and woodland wildlife habitat in the lease tract. It is recommended that the operator consider these objectives to the extent practicable when planning lease development operations. These objectives would be used, where appropriate, by WRFO staff during project-specific on-sites and NEPA analysis to develop siting adjustment recommendations to meet those objectives. Siting considerations would apply equally to shrubland or woodland habitats and may include, but are not limited to, locating pads, access and pipeline corridors in the following manners:
- a. on stand edges (i.e., avoiding the bisect of, or a centralized disturbance source in larger habitat patches);
 - b. more closely to existing long-term sources of disturbance or concentrated in narrow, widely-spaced corridors;
 - c. in smaller or disconnected patches rather than larger and more cohesive stands;
 - d. among more heavily pinyon-juniper encroached shrubland;
 - e. in less mature/more open canopied woodland types;
 - f. in stands with more poorly developed understories; and
 - g. in stands more strongly represented by invasive annuals or introduced grazing-tolerant grasses.

23. Special stipulations attached to this mine's lease commits the lessee to compensate for and/or offset the loss, displacement, or adverse modification of wildlife populations and/or associated habitats, on or off lease, which occur as the result of lease development and operation. This provision explicitly targeted raptors and mule deer. Consistent with this stipulation's intent, the WRFO recommends that the lessee be responsible for the removal of conifer regeneration from 135 acres of fire-disclimax shrublands identified by WRFO wildlife staff within the boundaries of the current well field and the mine field expansion areas evaluated in this document. Authorization and implementation of this project would be subject to separate environmental analysis and conditions of approval. The lessee would be responsible for all costs associated with necessary resource surveys and clearances, and equipment operation and maintenance. The BLM would remain responsible for NEPA preparation and project delineation. Barring unforeseen circumstances, the project would be required to be finalized within 3 years of the signing of the Decision Record. Treatment areas would not necessarily preclude subsequent siting of proposed processing or well-field features or infrastructure.
24. Final reclamation practices would be required to include efforts to accelerate the reestablishment of big sagebrush on reclamation sites from collections of local sagebrush stock. The goal of reestablishment would be to develop internal seed sources at mature canopy densities of 5 to 10 percent.
25. Surface occupancy would not be allowed within 200 meters of functional nest sites of raptors. No development activities are allowed within 0.25 mile of identified raptor nest sites from April 1 through August 15 or until fledging and dispersal of young. These conditions of approval would be subject to the same NSO and TL exception and modification provisions as established in the 1997 White River RMP.

Special Status Animals Species

26. Natural Soda LLC will make a one-time payment which has been calculated by multiplying the Project's average annual depletion (475 acre feet) by the depletion charge in effect at the time payment is made. For Fiscal Year 2015 (October 1, 2014, to September 30, 2015), the depletion charge is \$20.54 per acre feet for the average annual depletion which equals a total payment of \$9,756.50 for this Project. Ten percent of the total contribution (\$975.65) will be provided to the Service's designated agent, the National Fish and Wildlife Foundation (Foundation), at the time of issuance of the Federal approvals from the BLM. The balance will be due at the time the construction commences. The amount payable will be adjusted annually for inflation on October 1 of each year based on the Composite Consumer Price Index. All payments should be made to the Foundation:

National Fish and Wildlife Foundation
Attn: Donna McNamara, Finance Department
1133 15th Street, NW, Suite 1100

Washington DC 20005

The payment will be accompanied by a cover letter that identifies the project and BO number (ES/GJ-6-C0-15-F-005) that requires the payment, the amount of payment enclosed, check number, and the following notation on the check - "Upper Colorado Fish Recovery Program, NA.1104". The cover letter also shall identify the name and address of the payor, the name and address of the Federal Agency responsible for authorizing the project, and the address of the Service office issuing the BO. This information will be used by the Foundation to notify the BLM and the Service that payment has been received.

Cultural Resources

27. One eligible site (5RB 398) and one "needs data" site (5RB 396), which has to be treated as potentially eligible will need to be protected through avoidance during the development of the well field. The general area of avoidance spans the following:

Township 1 South, Range 98 West, 6th P.M.
Section 26, Lots 13 and 14,
Section 27 Lots 16,
Section 35 Lots 3 and 4.

Any ground disturbing work within these defined areas will require the following monitoring requirements to be followed to ensure project activities will have "no effect" on eligible NRHP cultural resources. The BLM will determine if cultural monitors, or other potential mitigations, are needed when applications are submitted for individual wells.

- a) A qualified archaeologist who holds a valid Cultural Resource Use Permit from the Colorado BLM will monitor all construction activities in and near the areas of the NRHP eligible properties. The monitor archaeologist will be present during construction activities in and near the locations of the eligible NRHP cultural resource sites, to ensure construction activities do not encroach within the identified site boundaries. No construction activities will be allowed within the identified cultural site boundaries.
- b) The monitor archaeologist will have the authority to temporarily halt construction to examine cultural resources, or newly discovered archaeological objects within the project corridor. After an examination of the materials, the monitor archaeologist will either authorize the resumption of project activities or require that all work should be halted in that location until appropriate evaluations and consultations between BLM, the Colorado SHPO, and other affected parties have been conducted.

- c) Prior to construction activities, the two NRHP eligible site boundaries adjacent to any planned production well will be identified in the field with surveyors flagging by the monitor archaeologist in a manner which makes the site boundary easily visible and definable.
- d) The monitor archaeologist will attend all pre-construction and project meetings when construction activities are scheduled to be in the area of the NRHP eligible properties. The monitor archaeologist will coordinate with the project construction supervisor to identify and schedule monitoring requirements. A pre-construction field meeting with the construction supervisors and crews will include a discussion of the legal context of cultural resource property protection, the types of archaeological resources in the project corridor, the importance of avoiding adverse effects to cultural properties that could result from project development activities, the procedures for monitoring, and the protocols that will be followed in the event of new discoveries.
- e) The monitor archaeologist will notify the WRFO BLM archaeologist when construction activities are scheduled in the areas of the NRHP eligible cultural resource properties.

Visual Resources

- 28. Where feasible and not impeding safety requirements, paint and maintain the paint on all permanent above ground structures (on-site for six months or longer) including buildings, tanks, associated production equipment, and any piping and valves. Paint color is to be Juniper Green according to the BLM Standard Environmental Chart CC-001: June 2008 or the same dark green shade that is on the existing plant facility.