UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
GRAND JUNCTION FIELD OFFICE
2815 H Road,
Grand Junction, Colorado 81506

Decision Record

DOI-BLM-CO-130-2012-0003-EA

UNIT and LEASE NUMBERS:

Units: COC-73038X (Whitewater)

Leases: COC-061847, COC-062810, COC-062814, COC-063027, COC-063033, COC-063929, COC-064949, COC-064950, COC-064951, COC-064952

LOCATION: The legal description (federal lands) is provided in Exhibit 1.

PROJECT NAME: Fram Whitewater Unit Master Development Plan

APPLICANT: Fram Operating, LLC (Fram)

INTRODUCTION: Fram Operating, LLC (Fram) submitted the Whitewater Unit Master Development Plan (Whitewater MDP) for oil and gas exploration to the Bureau of Land Management (BLM) Grand Junction Field Office (GJFO) in August 2011. It was updated in February 2013 with minor clarifying revisions. Fram removed hydraulic fracturing from their proposal in an April 2014 update to the Whitewater MDP. This proposal replaces a much larger development proposal for the Whitewater Unit submitted by Fram in spring 2010 that included lands in both Delta and Mesa counties. Based on existing commodity prices, geology, and other resource concerns, development in the southern portion of the Whitewater Unit is not reasonably foreseeable. The Whitewater MDP proposes a 4 year program of oil and gas exploration on federal leases in Mesa County (the Proposed Action). Fram proposes to drill up to 108 wells on 12 new well pads. The Proposed Action consists of construction, operation, maintenance and abandonment of well pads, wells, roads, gas gathering pipelines, oil gathering pipelines and produced water gathering pipelines. An Environmental Assessment (EA) prepared by the BLM GJFO, responds to the Whitewater MDP. Construction and operation of the Whitewater MDP will allow for production of up to 8.7 million barrels of oil over the life of the project, estimated to be 20 years. Natural gas will be co-produced with oil but is not anticipated to be produced in quantities that could be compressed and sold to markets.

DECISION: It is my decision to approve the B Road Alternative as described in DOI-BLM-CO-130-2012-0003-EA, including Project Design Features included in the proposal and in the BLM-Protection/Mitigation Measures developed as part of the Environmental Assessment.

In response to public comment, BLM developed the B Road Alternative. Under this alternative, B Road, rather than C Road, will be used as the northern access route rather than C Road under the Proposed Action.

This approval also incorporates the following:

- All permitted wells, pads and associated infrastructure must conform to attached Mitigation Measures/Conditions of Approval COAs, including the following:

    - BLM Grand Junction Field Office Standard COAs (Exhibit 2)
    - Site-Specific COAs developed for Fram's proposal by the EA (Exhibit 3)
    - Fram's Project Design Features (Exhibit 4)

- Well pads Federal 2-2-2-1, Federal 13-98-12-2, and Federal 1-2-33-1 are not approved under this decision. Approval of these well pads would be considered after detailed proposals are submitted, and it is possible that addition resource surveys could be required. Impacts associated with these types of facilities were analyzed in the FRAM EA (DOI-BLM-CO-13-2012-003-EA) and considered in the FONSI associated with this decision.

The Whitewater MDP is a 4-year program of oil and gas exploration on federal and private leases. The Proposed Action includes up to 108 wells on 12 new well pads and consists of construction, operation, maintenance and abandonment of well pads, wells, roads, gas and oil gathering pipelines, produced water lines, and centralized facilities.

ALTERNATIVES CONSIDERED BUT NOT SELECTED

The Proposed Action, the Single Access Alternative, and the No Action Alternative were analyzed in detail but not selected.

RATIONALE: Analysis of the B Road Alternative demonstrates that, with mitigation, it will allow Fram to exercise their valid federal lease rights, with an acceptable level of impacts to other natural resources. The Environmental Assessment has concluded that there will be no significant negative impacts and that implementation of the B Road Alternative will meet Colorado Standards for Public Land Health. This Decision will provide for the orderly, economical and environmentally sound exploration and development of federal fluid mineral resources on oil and gas leases in force. The B Road Alternative will allow for production of up to 8.7 million barrels of oil over the life of the project (20 years), subject to the mitigation measures listed below.

The Proposed Action includes a northern access road (C Road) to reduce impacts to wintering big game from December 1 through April 30. In response to public comment regarding the use of C Road, BLM developed the B Road Alternative.

Air quality modeling indicates that the B Road Alternative will comply with all federal and state ambient air quality standards.

On September 3, 2013, the FWS issued a Programmatic Biological Opinion stating that with the proposed conservation measures included in the Biological Assessment, the proposed Fram Operating, LLC Whitewater Unit Master Development Plan is not likely to jeopardize the continued existence of the threatened Colorado hookless cactus, or of the four Colorado River endangered fish species.

Site-specific mitigation measures for 19 eligible or potentially eligible cultural resource sites are fully described in a treatment plan that has been developed between the BLM, Fram, tribes, and the SHPO and a Memorandum of Agreement has been signed (see Exhibit 5). Alternative cultural resource mitigation per a Memorandum of Agreement will lessen possible effects to historic properties on un-inventoried private lands and potential cumulative effects to historic sites and settings (see Exhibit 5).

To minimize impacts to the Grand Mesa Slopes Special Management Area, for proposed well pads Federal 1-2-25-2, Federal 1-2-15-1, Federal 1-2-22-1, and Federal 1-2-16-1, Fram will conduct a Visual Contrast Rating evaluation and/or Sensitivity Rating evaluation prior to ground disturbance. A detailed, site-specific inventory and plan describing proposed visual mitigations to minimize contrasts will be prepared for approval by the BLM.

To minimize possible upward light scattering/pollution, all drilling rig and well test facility lighting will be limited to that required to safely conduct operations. Permanent lighting will be shielded and/or down-directed, and/or targeted to limit light specifically to a work area.

The Project will be consistent with COGCC 800-series rules for noise abatement and will comply with COGCC maximum permissible noise levels. Where noise reduction is shown to be necessary, moveable paneled noise shields, barriers, or enclosures will be installed adjacent to or around noisy equipment, where required to meet the Project noise limits.

A closed-loop drilling system and multi-well pad design will reduce disturbance and minimize each well pad footprint, reduce fresh water use and eliminate the need for any reserve pits. Conveying produced water and oil by pipeline will reduce truck traffic, resulting in fewer disturbances to wildlife, less dust and air pollution, lowered traffic impacts to road users and less damage to road infrastructure. Fram revised their MDP to move all proposed disturbance outside of the Grand Junction Watershed.

Application of protective seasonal timing limitations for vegetation removal, surveys for nesting raptors during breeding seasons, mesh screens over open tanks, use of bird excluders on exhaust stacks and reporting sick/dead birds will greatly reduce the probability of impacts on migratory and resident birds.

Storm water management plans and permits from the State's Water Quality Control Division will require installation, monitoring and maintenance of site-specific adaptive BMPs to reduce soil erosion and sediment transport. Proper siting of pads, roads, and pipelines away from defined drainages and leaving vegetated buffer strips between disturbed areas and drainages will also help decrease soil movement, limit sediment introduction to local streams, protect soils and safeguard water quality. Topsoil salvage and management practices including berming to

maintain biotic activities/native seed banks will support revegetation of disturbances and habitat during all stages of the Project.

Fram will also prepare site specific interim reclamation plans outlining procedures to be implemented to minimize erosion and sedimentation and ensure that disturbed areas are successfully reclaimed in the short-term. In particular, seedbed preparation and rapid seeding of disturbances will support interim and final reclamation and help reestablish native forbs, shrubs and grasses. Planning will include measures to limit/control off-highway vehicle (OHV) and/or livestock use of reclaimed areas.

Selection of the B Road Alternative and observation of lease-stipulated timing limitations will minimize impacts to wintering big game. To minimize habitat fragmentation, duplicate roads will be reclaimed where multiple roads go to the same location. Fram and Colorado Parks and Wildlife have signed a Wildlife Mitigation Plan which identifies best practices for oil and natural gas development within the Whitewater Unit to protect wildlife and documents that consultation on wildlife issues has occurred. Fram has appended the Wildlife Mitigation Plan to their Biological Resources Protection Plan in the MDP as Project Design Features.

Approval of this action will be consistent with BLM management goals and prescriptions for the area. Any approvals will include the Stipulations attached to the Federal leases, the BLM Grand Junction Field Office's Standard Conditions of Approval, and Site-Specific Conditions of Approval developed during this EA or during the consideration of future APDs. All Stipulations and Conditions of Approval are consistent with the BLM land use plan.

This Decision balances the B Road Alternative with protection of other resources and resource uses consistent with the applicable laws, regulations, BLM policy and Resource Management Plan goals and objectives, standards and guidelines, and multiple-use decisions.

MITIGATION MEASURES: The BLM GJFO Standard Conditions of Approval are included as Exhibit 2, the Project-Specific Conditions of Approval are included as Exhibit 3, and Fram's Project Design Features are included as Exhibit 4.

MONITORING: BLM routinely monitors and inspects to ensure surface and production compliance throughout the life of the project. Fram also has multiple responsibilities to monitor and report various aspects of their project activities. BLM inspection and enforcement activities are designed to observe any environmental effects of the project and to make sure that the operator complies with all lease stipulations, Conditions of Approval, and permit requirements as well as with all applicable laws, regulations and policy.

Monitoring and fencing will be implemented where appropriate to protect eligible or potentially eligible cultural resource sites as well as during well pad construction, road construction and upgrading, and trenching. The final treatment plan includes details of site-specific avoidance and data recovery measures for all nineteen eligible or potentially eligible sites, as well as Project-wide protocol for archaeological monitoring.

A BLM-approved on-site monitor (licensed paleontologist) will be present during surface disturbance, including construction, in areas where bedrock exposure is present, to assure protection of fossil resources.

Noxious weeds will be regularly monitored and promptly controlled as set forth in the BLM/USFS Noxious and Invasive Weed Management Plan for Oil and Gas Operators, dated March 2007.

A well to monitor water quality will be installed to protect municipal water resources in Juniata Reservoir.

A BLM-approved biological monitor will be on-site during pipeline routing in areas that have not been previously evaluated for wetlands.

Colorado hookless cactus plants documented within 20 meters (328 feet) of proposed disturbance will be monitored annually during the flowering period (April and May) for at least 3 years after ground-disturbing activities by a BLM-approved monitor. A report will be submitted to the BLM after each annual survey.

A long-term monitoring plan will be developed with the BLM GJFO and the FWS for a select number of sites with Colorado hookless cactus plants to monitor fugitive dust.

Storm water management BMPs will be systematically monitored and maintained in functional condition in accordance with Fram's General Construction Permit from the Colorado Department of Public Health and Environment.

Fram will regularly monitor for reclamation success and will submit an annual monitoring report to the BLM by December 1 of each year.

COMPLIANCE WITH MAJOR LAWS: This Decision complies with applicable laws, regulations and policy, including the Endangered Species Act, Migratory Bird Treaty Act, Clean Water Act, Clean Air Act, Paleontological Resources Preservation Act, Archaeological Resources Protection Act, and the National Historic Preservation Act.

PUBLIC INVOLVEMENT: Scoping (internal and external) was the primary mechanism used by the BLM to identify topics of concern relative to the proposal. Internal scoping was initiated when the Project was presented to the BLM Grand Junction Field Office interdisciplinary team.

A letter to the public, a legal ad and a news release were prepared and publicized, outlining the 2011 revised development plan as well as BLM's intent to prepare an EA analyzing the proposal. The news release was posted on November 3, 2011. The legal ad was published in the Grand Junction Daily Sentinel, the newspaper of record for the region, for three consecutive weeks beginning on November 3, 2011. The proposal, the news release and a map were posted to the BLM GJFO website at http://www.blm.gov/co/st/en/fo/gjfo.html. Additionally, 192 letters were mailed on October 28, 2011 to interested parties to solicit their comments on the proposal. The BLM invited the public to provide comments on the proposal for 30 days beginning October 28,

2011 through December 1, 2011. The BLM conducted one public scoping meeting on November 8, 2011 in Grand Junction.

During the comment period, 191 comment letters/emails were received including one from the U.S. Department of Agriculture Forest Service (Forest Service), one from Colorado Parks and Wildlife (CPW), four from local agencies and two from environmental advocacy groups. Individuals provided 183 comments, of which 69 were unique letters and 114 were form letters generated by the Colorado Environmental Coalition website. Comments were categorized by topic and each comment was given an identification number. Comments received during the public comment period have been considered as part of the impact analysis.

The BLM also invited the public to comment on the Preliminary EA for 30 days. A news release was posted on June 28, 2013 at the BLM GJFO website at: http://www.blm.gov/co/st/en/fo/gjfo/html. The Preliminary EA was also posted. The BLM invited the public to provide comments on the EA for 30 days beginning June 28, 2013 through July 31, 2013. A mailing was sent to interested parties. The comment period was extended to August 14, 2013, and a mailing was sent to interested parties notifying them of the extension of the comment period. During the comment period on the preliminary EA, 208 unique comment letters/emails were received, including one from CPW, five from local agencies, six from business and industry, five from environmental advocacy groups, and 191 from individuals. Additionally, the BLM received 25,833 form letters from the Natural Resources Defense Council, and 75 form letters from other advocacy groups. After the comment period closed, the BLM received an additional comment letter from the Town of Palisade, along with one unique individual letter and 16 form letters. Responses to substantive comments are included in the Fram Whitewater EA Public Comment Response Document, which is available at the BLM GJFO.

FINDING OF NO SIGNIFICANT IMPACT: A Finding of No Significant Impact (FONSI) was prepared, based on the information contained in the EA and on my consideration of criteria for significance (40 CFR 1508.27). Based on the EA, it is my determination that: 1) the implementation of the B Road Alternative will not have significant environmental impacts; 2) the B Road Alternative is in conformance with the Grand Junction Resource Management Plan; and 3) the B Road Alternative does not constitute a major federal action having significant effect on the human environment. No EIS is necessary.

APPEAL PROCEDURES: Under regulations addressed in 43 CFR 3165.3(b), any adversely affected party that contests a decision of the Authorized Officer may request an administrative review, before the State Director, either with or without oral presentation. Such request, including all supporting documentation, shall be filed in writing with the BLM Colorado State Office at 2850 Youngfield Street, Lakewood, Colorado 80215 within 20 business days of the date such decision was received or considered to have been received. Upon request and showing of good cause, an extension may be granted by the State Director. Such review shall include all factors or circumstances relevant to the particular case.

Appeal

Any party who is adversely affected by the decision of the State Director after State Director review, under 43 CFR 3165.3(b), of a decision may appeal that decision to the Interior Board of Land Appeals pursuant to the regulations set out in 43 CRF Part 4.

DOCUMENT PREPARER: Julia Christiansen

ENVIRONMENTAL COORDINATOR: Christina Stark

SIGNATURE OF AUTHORIZED OFFICIAL: Katie A Stevens June 13, 2014

Katie A. Stevens
Field Manager
BLM, Grand Junction Field Office

Exhibit 1

Legal Description

Whitewater Unit MDP Project Area
Legal Description

Federal Lands

Ute Meridian, Mesa County, Colorado

T. 1 S., R. 1 E.,	Sec. 25, S½SE¼
	Sec. 35, E½
T. 1 S., R. 2 E.,	Sec. 10, S½, S½NW¼, SW¼NE¼
	Sec. 11, S½S½, NW¼SW¼
	Sec. 13, SW¼, S½SE¼
	Sec. 14 & 15
	Sec. 16, S½, S½N½
	Sec. 17, SE¼, S½NE¼
	Sec. 19, SE¼
	Sec. 20, NE¼, SW¼SW¼
	Sec. 21, SW¼NW¼, W½SW¼, E½
	Sec. 22, NW¼, W½SW¼, NE¼SW¼
	Sec. 23, NW¼NW¼, E½NW¼, NE¼, E½SE¼, SW¼SW¼
	Sec. 24 & 25
	Sec. 26, E½, N½NW¼, SE¼SW¼
	Sec. 27, S½SW¼, SW¼SE¼
	Sec. 28, NW¼NW¼, SE¼NW¼
	Sec. 29, All except the SE¼NE¼
	Sec. 30, E½, SE¼NW¼, E½SW¼, SW¼SW¼
	Sec. 31, All except the NE¼NE¼
	Sec. 32, SW¼NW¼, N½NE¼, SW¼, W½SE¼
	Sec. 33, All except the N½NE¼
	Sec. 34, W½NW¼, SW¼SW¼
	Sec. 35, W½SW¼, SE¼SW¼, SW¼SE¼
	Sec. 36, N½NW¼, SE¼NW¼, NE¼, N½SE¼
T. 2 S., R. 1 E.,	Sec. 1, E½, NW¼
	Sec. 2, NE¼
T. 2 S., R. 2 E.,	Sec. 1, NE¼NW¼, N½NE¼
	Sec. 2, N½NW¼, SE¼NW¼, NE¼, NW¼SE¼, E½SW¼, SW¼SW¼
	Sec. 3, NW¼, W½NE¼, NE¼NE¼, N½SW¼, NW¼SE¼

	Sec. 4, All except the NW¼NW¼, NE¼NE¼NW¼, SE¼SW¼, S½SE¼
	Sec. 5, All except the NE¼NE¼
	Sec. 6
	Sec. 8, NW¼, NW¼NE¼, E½E½, SE¼SW¼, SW¼SE¼
	Sec. 9, NW¼NW¼, SE¼NE¼, S½S½
	Sec. 10, SW¼NW¼, N½NE¼, SE¼SW¼
	Sec. 11, N½NW¼
	Sec. 12, S½
	Sec. 13, N½, N½S½
	Sec. 14
	Sec. 15, All except the W½NW¼
	Sec. 16
	Sec. 17, E½NE¼, SE¼
	Sec. 21, NW¼, NE¼SW¼, E½
	Sec. 22, W½, NE¼, NW¼SE¼
	Sec. 23, NW¼NW¼
	Sec. 26, W½NW¼
	Sec. 27, NW¼, E½NE¼, N½SW¼, SW¼SW¼
	Sec. 28, N½, N½S½, SE¼SE¼
	Sec. 33, SW¼NE¼, E½NE¼, N½SE¼
	Sec. 34, W½NW¼, NW¼SW¼
T. 3 S., R. 2 E.,	Sec. 1, NE¼NE¼, SW¼NW¼, SW¼SW½, S½SE¼
	Sec. 2, SE¼NE¼, E½SE¼, SW¼SE¼, SW¼SW¼

<u>6th Principal Meridian, Mesa County, Colorado</u>

T. 11 S., R. 98 W.,	Sec. 25, W½
	Sec. 26, N½NE¼, S½SE¼
	Sec. 35 & 36
T. 12 S., R. 98 W.,	Sec. 1, 2 & 11
	Sec. 12, All except the SW¼SW¼
	Sec. 13, All except the NW¼NW¼
	Sec. 14, S½S½
	Sec. 23, N½, N½S½
	Sec. 24, N½, N½SW¼, NW¼SE¼

	Sec. 25, S½NE¼
T. 12 S., R. 97 W.,	Sec. 6, 7, 18, & 19
	Sec. 20 & 29 (USFS)
	Sec. 30, All except NW¼NW¼, SW¼SE½
	Sec. 32, NE¼NW¼, N½NE¼
	Sec. 33, N½N½, E½SE¼, SW¼SE¼
T. 13 S., R. 98 W.,	Sec. 1, SE¼SE¼
	Sec. 11, S½S½
	Sec. 12, SE¼NW¼, NE¼
T. 13 S., R. 97 W.,	Sec. 4
	Sec. 5, All except the N½NW¼, NW¼NE¼
	Sec. 6, S½NE¼, SE¼, E½SW¼, SW¼SW¼
	Sec. 7, All except the NW¼SW¼
	Sec. 8 & 9

Exhibit 2

BLM GJFO Standard Conditions of Approval

STANDARD SURFACE USE CONDITIONS OF APPROVAL

Company/Operator: Fram Operating, LLC
Federal Lease: Whitewater Unit
Date: **May 2014**

The following standard surface use COAs are in addition to all stipulations attached to the respective Federal lease.

1. Administrative Notification & Requirements. The operator shall notify the BLM representative at least 48 hours prior to initiation of construction or reclamation activities. A pre-construction meeting may be scheduled to review all conditions and or stipulations with the operator. Complete copies of all applicable permits, shall be kept on site during construction and drilling activities. All on-site personnel shall review the approved permit with the COAs before working on the project.

2. Fire. The operator shall implement measures to prevent fires on public and private land and shall be held responsible for the costs of suppressing fires on public lands that result from the actions of its employees, contractors, or subcontractors. Range or forest fires caused or observed by the operator's employees, contractors, or subcontractors shall be immediately reported to the BLM Grand Junction Dispatch 970-257-4800. All fires or explosions that cause damage to property or equipment, loss of oil or gas, or injuries to personnel shall immediately be reported to the BLM Dispatch and the BLM Grand Junction Field Office at 970-244-3000.

   During conditions of extreme fire danger, surface-use operations may be restricted or suspended in specific areas, or additional measures may be required by the BLM.

   In cases of fire hazard, BLM may require adaptive management techniques to minimize risks.

3. Other Permits. This authorization is contingent upon receipt of and compliance with all applicable federal, state, county, municipal and local permits, including all necessary environmental clearances and permits (Colorado Oil and Gas Conservation Commission (COGCC), U.S. Army Corps of Engineers (USACE), U.S. Fish & Wildlife, U.S. Forest Service, Colorado Department of Transportation, Colorado Department of Health & Environment, County Health and Road Departments, municipalities, etc.).

4. Existing Uses. The operator shall obtain agreements allowing construction and maintenance with all existing right-of-way holders, authorized users, and pipeline operators prior to surface disturbance or construction of a location or access across or adjacent to any existing or approved rights-of-way or pipelines.

   In the case of privately owned surface, the operator shall certify to BLM that a Surface Use Agreement has been reached with the private surface owners prior to commencing construction and that the owner has been provided a copy of the Surface Use Plan of Operations (SUPO) required as part of a federal APD. If Agreement cannot be reached, the operator shall comply with provisions of the laws or regulations governing the Federal right of re-entry to the surface (43 CFR 3814).

5. Migratory Bird Act. New surface disturbance, especially vegetation removal, shall not be allowed between May 15 and July 15, to prevent potential taking of migratory birds and/or eggs, unless otherwise approved in writing by the Grand Junction Field Manager. If surface disturbance is

proposed during this period, a written request for exception and a migratory bird survey shall be submitted for approval prior to any surface disturbance. If vegetation removal is accomplished prior to May 15, exception may be granted to allow project activities to proceed during the closure period.

Any bird found dead, injured or apparently ill, especially in or near a pit, trench, tank, exhaust stack, or fence shall immediately be reported to the BLM, at 970-244-3000.

Open metal or plastic pipes or posts shall be permanently filled or capped, to prevent bird entrapment.

All production equipment with a chimney, vent, or stack shall be fitted with a device such as an excluder cone that prevents birds and small mammals from entering or perching on any part of the chimney. Flat screens inside stacks are insufficient protection.

All open top tanks and pits shall be covered or netted to eliminate any hazard to birds and flying mammals (CERCLA Section 101(14)).

6. Federally Protected Species Notifications. Any dead or injured migratory bird, bald or golden eagle, or species listed by the US Fish and Wildlife Service (FWS) as threatened or endangered, that is found in or adjacent to a pit, trench, tank, exhaust stack, or fence shall immediately be reported to the FWS at: Creed Clayton, USFWS, 445 West Gunnison Avenue, Suite 240, Grand Junction, CO 81501; creed_clayton@fws.gov and to the Grand Junction Field Office at 970-244-3000.

7. Jurisdictional Waters of the U.S. The operator shall obtain appropriate permits from the U.S. Army Corps of Engineers (USACE) prior to discharging fill material into Waters of the U.S. (WoUS) in accordance with Section 404 of the Clean Water Act. WoUS are defined in 33 CFR Section 328.3 and may include wetlands as well as perennial, intermittent, and ephemeral streams. Impacts to WoUS may require mitigation. Copies of any approved USACE permits or verification letters shall be forwarded to the BLM prior to permitted work commencing.

   When activity in a wetland is unavoidable, the operator may be required to prevent disturbance by use of wooden or other protective mats and shall restore all temporarily disturbed wetlands or riparian areas. The operator shall consult with the BLM to determine appropriate mitigation, including verification of native plant species to be used in restoration. Temporary and permanent impacts to jurisdictional WoUS may require additional mitigation, including compensatory offsite mitigation. Contact the USACE, Colorado West Regulatory Branch, at 970-243-1199, or susan.nall@usace.army.mil.

8. Heritage Resources - Cultural and Paleontological. All persons in the area who are associated with this authorization shall be informed that any person who, without a permit, injures, destroys, excavates, appropriates or removes any vertebrate fossil, historic or prehistoric ruin, artifact, object of antiquity, Native American remains, Native American cultural item, or archaeological resources on public lands is subject to arrest and penalty of law (16 USC 433, 16 USC 470, 18 USC 641, 18 USC 1170, and 18 USC 1361). Any heritage resource discovered requires that work in the area must stop and the BLM Authorized Officer notified. Strict adherence to the confidentiality of information concerning the nature and location of archeological resources would be required of the proponent and all of their subcontractors (Archaeological Resource Protection Act, 16 U.S.C. 470hh).

   Inadvertent Discovery:

   a) The **National Historic Preservation Act** (NHPA) [16 USC 470s., 36 CFR §800.13], as amended, requires that if newly discovered historic or archaeological materials or other cultural resources are identified during the Proposed Action implementation, work in that area must stop and the BLM

Authorized Officer (AO) must be notified immediately. Within five working days the AO will determine the actions that will likely have to be completed before the site can be used, assuming in place preservation is not necessary §800.13(b)(3).

b) The **Native American Graves Protection and Repatriation Act** (NAGPRA) [25 USC 3001 et seq., 43 CFR 10.4] requires that if inadvertent discovery of Native American Human Remains or Objects of Cultural Patrimony occurs, any activity must cease in the area of discovery, a reasonable effort made to protect the item(s) discovered, and immediate notice be made to the BLM Authorized Officer, as well as the appropriate Native American group(s) (IV.C.2). Notice may be followed by a 30-day delay (NAGPRA §3(d)).

c) The **Paleontological Resources Preservation Act** (PRPA) [16 U.S.C. 470aaa] requires the proponent to immediately suspend activities in the vicinity, protect the discovery from damage and notify the BLM Authorized Officer of any paleontological resources discovered as a result of operations under this authorization. The Authorized Officer will evaluate, or will have evaluated, such discoveries as soon as possible, but not later than 10 working days after being notified. Appropriate measures to mitigate adverse effects to significant paleontological resources will be determined by the Authorized Officer after consulting with the operator. Within 10 days, the operator will be allowed to continue construction through the site, or will be given the choice of either (1) following the Authorized Officer's instructions for stabilizing the fossil resource in place and avoiding further disturbance to the fossil resource, or (2) following the Authorized Officer's instructions for mitigating impacts to the fossil resource prior to continuing construction through the project area.

d) If human remains are discovered on private or state land associated with this authorization, the BLM will notify the State of Colorado Archaeologist immediately, which will comply with Colorado Revised Statutes (Appendix) regarding the discovery of human remains (24-80-1302).

e) In a new discovery situation, the operator may relocate activities to avoid the expense of mitigation and delays associated with this process, as long as the new area has been appropriately inventoried and has no other resource concerns, and the exposed materials are recorded and stabilized. Otherwise, the operator shall be responsible for mitigation costs. The BLM authorized officer will provide technical and procedural guidelines for relocation and/or to conduct mitigation. Upon verification from the BLM authorized officer that the required mitigation has been completed, the operator will be allowed to resume construction.

9. Big Game Winter Range Timing Limitation. Where winter range areas identified by BLM are not protected by lease stipulations, an annual Timing Limitation (TL) period shall apply from January 1 to March 1, to minimize impacts to wintering big game. All construction, drilling, completion, work-overs and other intensive activities are prohibited during the 60-day period. Requests for exceptions to TLs shall be submitted in writing to the BLM via a Sundry Notice or letter.

10. Range Management. Damage to range improvements (fences, gates, reservoirs, pipelines, etc.) shall be avoided, but if they are damaged, the operator shall immediately repair or replace them.

    Where an access road bisects an existing livestock fence, a steel frame gate or a cattle-guard with a bypass gate shall be installed across the roadway, unless a landowner dictates otherwise.

11. Soils. Cuts and fills shall be minimized when working on erosive soils and on slopes in excess of 30 percent. On slopes greater than 50 percent, BLM may require a professional geotechnical analysis and/or engineered plans prior to construction.

All cut and fill slopes for roads and well pads shall be protected against rilling and erosion by BMPs such as soil texturing and seeding or additional measures approved by the BLM to minimize the potential for erosion, soil loss and slope failure. Measures may include matting, geotextiles, weed-free straw crimping, anchored bales/wattles, as needed or as detailed by storm water plan or BLM permit. BMPs shall be monitored and maintained in functional condition.

12. Weed Control. **Before any mobilization of equipment onto public lands**, in order to prevent the spread of invasive species, the operator shall perform inspections to insure that all construction equipment and vehicles are clean and free of soil, mud and vegetative material. The operator shall provide copies of such inspections upon request by the BLM. Vehicles and equipment shall avoid driving through or parking on weeds.

    Straw mulch, seeds, BMPs and all materials used on BLM lands shall be certified weed-free. Certification shall be provided to the BLM upon request.

    In areas with sensitive plant species, weed treatments shall be limited to spot treatments and require site-specific pre-approval by the BLM.

    The operator shall regularly monitor and promptly control noxious weeds or other undesirable plant species as set forth in the BLM/USFS *Noxious and Invasive Weed Management Plan for Oil and Gas Operators*, dated March 2007. Pesticide Use Proposals (PUPs) shall be approved by the BLM prior to the use of herbicides.

    Annual reports regarding weed management and reclamation success shall be submitted to the Grand Junction Field Office in compliance with the *Noxious and Invasive Weed Management Plan for Oil and Gas Operators*.

13. Dust Abatement. The operator shall prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations or wind events. If dust abatement is insufficient, the BLM may direct the operator to change the level and type of treatment. BLM approval is required before application of surfactants, binding agents, or other dust-suppression chemicals on federally permitted projects and on public lands. More stringent dust control may be required in areas adjacent to Federal- or State-listed threatened, endangered, or sensitive plant species.

14. Pre-Construction and Limits of Disturbance. An onsite pre-construction meeting may be required, to ensure that construction proceeds in accordance with all specifications, approved permit and COAs. At least 48 hours prior to initiation of construction or reclamation activities, contact Julia Christiansen at 970-244-3093 or the Grand Junction Field Office at 970-244-3000.

    Construction control and limit-of-disturbance stakes shall be placed before construction, and maintained in place throughout, to ensure construction in accordance with the surface use plan.

    Pre-construction storm water BMPs shall be installed before pre-construction inspection.

    Limit-of-disturbance (LOD) stakes or markers shall be placed before pre-construction inspection. If disturbed during construction, they shall be immediately replaced before construction proceeds and remain in place until final construction cleanup is completed. Markers shall be visible from one to another and no further than 100 feet apart. Access road, pipeline and pad edges, cut and fill slopes and soil storage areas shall also be distinctively marked with flagging, snow fence or stakes, visible from one to another. All construction control markers shall remain in place until the post-construction inspection with the BLM is concluded.

15. Storm Water Management and Soil Protection. A General Construction Permit from the Colorado Department of Public Health and Environment (CDPHE) is required and a copy shall be provided to the BLM prior to construction. Permit compliance, which coincides with BLM resource protection objectives, requires a site-specific Storm Water Management Plan, controls for storm water run-off and run-on, adaptive BMPs and systematic monitoring and maintenance of all BMPs. Storm water BMPs may also be designed to function as Spill Prevention, Control and Countermeasures (SPCC) controls, reclamation BMPs or visual resource protection BMPs.

    Pre-construction storm water BMPs shall be installed before construction starts and be inspected during pre-construction inspections.

    All BMPs must be maintained in good repair and functional condition, including clean-out of sediment basins and catchments, and replacement of straw wattles/ bales or silt fence.

16. As-Built Details. Within 30 days of setting production facilities or completing a facility, pipeline, location or new road, the operator shall submit to the BLM a digital "as-built" file that documents the actual boundaries of disturbance for that location/feature. This perimeter shall include all disturbance related to the permitted location: the pad, all storm water BMPs, and the complete disturbance area of new access roads. All fill slopes, cut slopes, associated soil storage areas, etc. shall be depicted. The digital depiction shall be in an ArcGIS-compatible format (shapefile or geodatabase), in NAD83, UTM coordinate system, Zone 13 North, in meters.

17. Drainage Crossings and Culverts. Pads, roads, and pipelines shall be located away from defined drainages wherever possible. Where construction is located within 100 feet of a drainage, an adequate vegetative buffer, artificial buffer (e.g., straw bales, matting, etc.), or filter strip shall be maintained between the constructed feature and the drainage, to minimize sediment transport into the drainage.

    All vehicles shall be fueled at least 100 feet from stream corridors.

    Any construction activities at perennial, intermittent and ephemeral drainage crossings (e.g. burying pipelines, installing culverts) shall be timed to avoid high flow conditions. The minimum culvert diameter in any installation for a drainage crossing or road drainage shall be 24 inches. Culverts on perennial and intermittent streams shall be designed to allow for passage of aquatic biota. Culverts at drainage crossings shall be designed and installed to pass, without development of a static head at the pipe inlet, at least a 25-year storm event, but may be deemed to require additional culvert design capacity. Due to the flashy nature of area drainages and anticipated culvert maintenance, the USACE recommends designing drainage crossings for the 100-year event. Contact the USACE Colorado West Regulatory Branch at 970-243-1199.

18. Road Construction, Use and Maintenance. Roads shall be crowned or sloped, drained with ditches, culverts and/or water dips, and constructed, sized and surfaced in compliance with BLM Gold Book standards (pp. 24-28).

    Water outlets and roadside ditches shall incorporate BMPs such as rip-rap, sediment catchments and anchored check structures that slow water velocity, to prevent erosion and sediment transport. Ditches may be revegetated and/or include large rocks or other BMPs to slow water and settle sediment. Ditch revegetation may be required in erodible soils. All drainage ditches and culverts shall be kept clear and free flowing, and shall be maintained in good condition.

Road use and construction shall halt under conditions of undue damage and erosion to soils, roads and/or locations. When saturated soil conditions exist on access roads or location, or rutting deepens past 3 inches, construction and travel shall halt until soil material dries out, is frozen sufficiently or is otherwise brought to standards that provide for resource protection. Where applicable, initial road base/gravel application shall be of CDOT Class 6 aggregate or equivalent, to a minimum depth of 6 inches.

Where roads are located near drainages, vegetated buffer strips shall be left between areas of disturbance and drainages. (See Drainage Crossings and Culverts.)

All cut and fill slopes for roads (and well pads and related locations) shall be protected against rilling and erosion with BMPs such as soil texturing and seeding or additional measures approved by the BLM. Measures may include geotextiles, weed-free straw crimping/ bales/ wattles/ matting, as needed or as detailed by storm water plan or BLM permit. BMPs shall be monitored and maintained in functional condition.

Roads that access active construction and drilling sites shall be posted with warning signs to alert hunters and recreational vehicle users to project personnel and vehicles in the area. Construction ad rig schedules may be included.

Project personnel shall restrict activities and travel to permitted roads and sites.

Operator shall install speed control measures on project-related unpaved roads and enforce them with project personnel.

The operator shall routinely provide timely maintenance of roads. Regular maintenance shall include, but not be limited to dust abatement, reconstruction of the crown, slope, or water dips/bars; blading or resurfacing; clean-out of ditches, culverts, catchments and other BMPs. When rutting of the travel-way deepens to 3 inches, maintenance or upgrade shall be conducted as approved by BLM.

19. Visual Resource Protection. Pads, roads, pipelines and production facilities shall be located and placed to avoid or minimize visibility from travel corridors, residential areas and other sensitive observation points and shall be designed to maximize reshaping of cut/fill slopes and interim reclamation of the pad.

    To the extent practical, existing vegetation shall be preserved when clearing and grading for pads, roads, and pipelines. Trees or shrubs may be appropriate to cut or shred in place, to protect visual resources, enhance slope stability or to leave root systems in place. The BLM may direct that cleared trees and rocks be salvaged and redistributed over reshaped cut-and-fill slopes or along linear features. Salvaged native rocks may be also be used where appropriate as perimeter storm water controls, toe slope anchors or angular armor against erosion protection.

    To mitigate straight-line visual contrast effects of cut/ fill slopes, pad margins or cleared vegetation, adaptive management techniques may be required by the BLM before or after construction. For example, additional tree removal could be required along a contrasting edge, to create irregularly shaped openings or natural-looking mosaic patterns; surfaces might require texturing or coloring to mitigate visual contrasts.

    Construction shall utilize measures such as soil-roughening, recontouring and/or revegetation, and/or shall be employed to reduce contrasts in texture, color and form. Hydro-applied colorant of fill slopes may be required.

To blend with the natural environment, all permanent above-ground facilities placed on the location shall be painted a natural color to blend with the background landscape, in a non-reflective finish. A BLM Standard Environmental Color may be specified.

Where determined by the BLM to be necessary based on site-specific visual impacts of project components, a site-specific Visual Mitigation Plan shall be required before surface disturbance and project activities begin. This plan would include a detailed analysis of potential impacts and mitigation measures that shall be developed and implemented.

20. Construction, Vegetation Removal, Topsoil Stripping and Storage. Pre-construction BMPs shall be installed inspected by the BLM before construction.

    Areas of approved activities shall be cleared of brush and trees. Trees or shrubs may be appropriate to cut or shred in place, depending on needs to protect visual resources, enhance slope stability or leave root systems in place. No stump left in place shall exceed six inches in height. Accordingly,

    - Trees that are chipped or shredded in place shall be salvaged and stored with topsoil.

    - Trees that are cut down, cut up or track-walked shall be salvaged and stored as storm water perimeter controls for later redistribution on reclaimed areas.

    A wood cutting permit from the BLM may be required prior to any clearing.

    When saturated soil conditions exist on access roads or location, construction shall be halted until soil dries or until activities can proceed without soil damage. No saturated or frozen topsoil shall be stripped.

    At the time of construction, (well pads, pipelines, roads, or other surface facilities) topsoil shall be stripped following vegetation removal. Topsoil shall include all suitable growth medium present at a site, as indicated by color or texture — depths may vary across a site. Stripped topsoil and vegetation smaller than 4 inches in diameter shall be segregated and stored separately from sub-soils or other excavated material and replaced prior to final seedbed preparation.

    To facilitate its replacement, extend its biological viability and create a berm to control storm water, topsoil shall be wind-rowed around pad perimeter wherever practical. Along pipelines and roads, topsoil shall be wind-rowed, segregated and stored for later redistribution during reclamation.

    Topsoil storage piles, storm water control features, temporarily disturbed areas along roads and pipelines, and cut and fill slopes shall be seeded at the time of construction or within 30 days, to stabilize materials, maintain biotic soil activities, and minimize weeds. Seedbed prep shall be required unless seeding occurs immediately after construction.

21. Chemical and Fuels - Secondary Containment /Exclosure Screening – The operator shall prevent all hazardous, poisonous, flammable and toxic substances from contacting soil and/or water. At a minimum, the operator shall install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable or toxic substances. Containment shall be sufficient to contain 110% of the contents as well as any drips, leaks and anticipated precipitation.

    All installed production facilities (storage tanks, load outs, separators, treating units, etc.) with the potential to leak or spill oil, condensate, produced water, glycol, or other fluid which may be a hazard to public health or safety shall be placed within an appropriate impervious secondary containment

structure that shall hold 110% of the capacity of the largest single container within it for 72 hours.

All secondary containment systems shall be designed, constructed, and maintained to prevent exposure of wildlife and livestock to harmful substances. The operator shall install effective wildlife and livestock exclusion systems like fencing, netting, expanded metal mesh, lids and grate covers.

Chemical containers shall be clearly labeled, maintained in good condition and placed within secondary containment. They shall not be stored on bare ground, nor exposed to sun and moisture.

Any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported per the Comprehensive Environmental Response Compensation and Liability Act of 1980, Section 102b (CERCLA). Copies of any report to any Federal agency or State government as a result of a reportable release/ spill of any toxic substances shall be furnished to the BLM, concurrent with the filing of the reports to any Federal agency or State government.

The operator shall dispose of any fluids that collect in the containment system which do not meet applicable State or U.S. Environmental Protection Agency livestock water standards, per State law and in a manner so that fluids do not drain to the soil or ground.

The BLM, CDPHE Water Quality Control Division, COGCC and CPW shall be contacted immediately if a reportable spill occurs.

22. Pipelines. Buried pipelines shall have a minimum cover of 48 inches in a roadway and at road crossings, 36 inches through typical soil and rock, and 24 inches in areas requiring rock blasting. The permit holder shall bury a pipeline to a depth that safely accommodates existing land and road uses and routine maintenance activities such as grading.

    Pipeline warning signs permanently marked with the operator's and owner's names (emergency contacts) and purpose (product) of the pipeline shall be installed within five days of construction completion and prior to use of the pipeline. Pipeline warning signs are required at all road crossings and along the alignment, visible from sign to sign.

    Pipelines installed beneath stream crossings shall be buried to a minimum depth of 4 feet below the channel substrate, to avoid pipeline exposure by channel scour and degradation. Following pipeline burial, the channel grade and substrate composition shall be returned to pre-construction conditions.

    All pipeline welds within 100 feet of a perennial stream shall be x-rayed to prevent leakage. Where pipelines cross streams that support Federal- or State-listed threatened or endangered species or other sensitive species, the BLM may require additional safeguards, including double-walled pipe, and remotely-actuated block or check valves on both sides of the stream.

    Buried pipelines shall be reclaimed to final reclamation standards at the time of installation.

23. Well Drilling, Testing, and Completion (Pits). Substances specifically listed as a hazardous waste or demonstrating character of a hazardous waste (40 CFR 261) shall not be used in drilling, testing, or completion operations, nor introduced at any time into the reserve or cuttings pit.

    The operator shall minimize or preclude releases of hydrocarbons into open pits. Unless the authorized officer approves the release, no oil should go into a pit except in an emergency. The operator must remove any hydrocarbons (oil, condensate, paraffin, diesel, etc.) introduced to a pit within 24 hours of discovery.

During air drilling, the blooey line shall be misted. Cuttings and fluids shall be confined to pits or tanks during drilling, flaring or fracturing operations. Flare or blooey lines shall be directed into a pit and against a bank, or otherwise contained, to prevent dispersion of materials or flame, fluids and cuttings.

All pits that may contain liquid material shall be lined to prevent seepage into the ground. The pit liner shall be maintained in good working condition, with no tears or holes, until the pit is closed.

Pits shall be constructed to prevent accumulating precipitation runoff and to maintain at least two feet of freeboard between the maximum fluid level and the lowest point of containment. If pit fluids threaten to rise higher, the operator shall immediately prevent introduction of additional fluids until sufficient pit capacity has been restored through fluid removal or shall install an alternative approved containment method.

The operator shall prevent wildlife and livestock access (including avian wildlife) to fluids pits that contain or have the potential to contain salinity sufficient to harm wildlife or livestock, to contain hydrocarbons, surfactants, or Resource Conservation and Recovery Act-exempt hazardous substances. For reserve pits, fence all four sides as soon as the pit is constructed. Reconstruct any damage to the rig side of the fence immediately following release of the drilling rig. At a minimum, the operator shall adequately fence all fluids pits and open cellars during and after drilling operations until the pit is free of fluids and the operator initiates backfilling.

Fencing for pits and other facilities with potential to cause harm to big game and other wildlife shall be 8-foot woven wire fence with adequate bracing, constructed at least 2 feet from the edge of the pit berm. The bottom two feet of woven wire shall have openings no larger than 1½ inches, to preclude small animals. All corners shall be braced and fence construction shall be on cut or undisturbed ground. The fence shall be maintained erect and in good condition. (Fencing: BLM Manual Handbook H-1741-1, p. 16)

All open top tanks and pits shall be covered or netted to eliminate any hazard to birds and flying mammals (CERCLA Section 101(14)). The operator shall prevent wildlife, bird and livestock access to fluids pits that could contain salinity sufficient to harm them or to contain hydrocarbons, surfactants, or Resource Conservation and Recovery Act-exempt hazardous substances. At a minimum, the operator shall install approved netting in these circumstances, immediately following release of the drilling rig. The BLM does not approve flagging, floating balls, strobe lights, metal reflectors or noisemakers.

Minimum Netting Requirements: The operator shall:

a. Construct a rigid structure of steel tubing or wooden posts with cable strung across the pit no further apart than 7-foot intervals along the X and Y axes to form a grid of 7-foot squares.

b. Suspend netting a minimum of 4 to 5 feet above the pit surface.

c. Use a maximum netting mesh size of 1½ inches to allow for snow loading while excluding most birds, in accordance with Fish and Wildlife Service recommendations. Refer to: http://www.fws.gov/mountain-prairie/contaminants/contaminants1c.html

d. Cover the top and sides of the netting support frame with netting and secure the netting at the ground surface around the entire pit to prevent wildlife entry at the netting edges. Note:

Other fencing or a wire mesh panel with openings larger than 1½ inches does not sufficiently exclude small wildlife and songbirds unless it is covered by smaller meshed netting.

e. Monitor and maintain the netting sufficiently to ensure it is functioning as intended, has not sagged closer to the pit, has not entrapped wildlife, and is free of holes and gaps greater than 1½ inches.

Any wildlife or birds found dead or apparently ill in or near pits must be reported to the Grand Junction Field Office immediately.

Any lined pit, any pit constructed with a slope steeper than 3:1, or where entrapment hazards may exist, shall include escape ramps or ladders installed every 50 feet along the slope and at each corner. Example: anchored sections of galvanized chain-link fence at least 24 inches wide extending from the bottom of the pit to the top of the pit slope and across the top edge of the pit liner for at least two feet.

The operator and all subcontractors shall comply with all State wildlife laws. As per Colorado Revised Statute 33-6-109 (1), it is unlawful for anyone to hunt, take or possess wildlife except as permitted by Colorado Statute or by Colorado Wildlife Commission regulation. Colorado statute defines "hunt" to include "trapping" and "capturing." The trapping and subsequent drowning of wildlife within a pit may be viewed as illegal taking of wildlife and criminal or civil actions/ penalties for wildlife could be imposed. "Wildlife friendly" conditions are intended to prevent wildlife loss and potential legal consequences.

Pits shall be dry prior to soil testing and backfilling and closed per COGCC (EPA Table 910-1) standards. Before backfilling, impervious pit liner shall be removed and disposed of properly. Liquids and solids collected on/in the liners shall not be allowed to come into contact with the pad surface, parent soil or any other earthen layers during site cleanup. Liners shall be properly cleaned prior to removal or removed in such a manner that liquids/solids do not escape. Liners may be washed off into lined ditches, lined sumps or into the lined cellar and then pumped to the lined sumps prior to being removed. At the time of backfilling, all muds and associated solids shall be confined to the pit, with none squeezed out or incorporated into surface materials. A minimum of 4 feet of cover (overburden) is required above any muds or solids. When work is complete, the pit area must support the weight of heavy equipment without subsidence.

24. Production. Production facilities shall be located and arranged to facilitate safety and minimize long-term surface disturbance. Typically, this means clustered at the access end of the pad, with tanks in cut. Access to facilities should be provided by a teardrop-shaped road through the production area, so that the driving area may be clearly defined and limited and the teardrop center may be revegetated. This is especially applicable when roads are maintained as "primitive," per the BLM Gold Book.

    To blend with the natural environment, all permanent above-ground facilities placed on the location will be painted a natural color that blends with the background landscape, in a non-reflective finish. A BLM Standard Environmental Color may be specified.

25. Interim Reclamation of Producing Wells.

    a. Deadlines and Objectives. (Deadlines are subject to extension on a case-by-case basis, following application in writing to the BLM.)

    Interim reclamation shall restore landforms; reestablish/maintain biologically active topsoil, including vegetative cover; control erosion and sediment transport; and minimize losses of habitat, visual resources, and forage throughout the life of the well. (BLM Northwest District

Recommended Outline for Surface Reclamation Planning for Oil and Gas Operations, Including Objectives, Performance and Monitoring Standards, 2013)

Within 6 months following completion of the last well planned on a pad, or after a year has passed with no new wells drilled, IR shall be completed to reduce the well pad to the smallest size needed for production. IR shall include earthwork, seeding and BMPs.

Topsoil storage piles, storm water control features, temporarily disturbed areas along roads and pipelines, and cut and fill slopes shall be seeded at the time of construction or within 30 days, to stabilize materials, maintain biotic soil activities, and minimize weeds. Seedbed prep shall be required unless seeding occurs immediately after construction.

Within 6 months following completion of the last well planned on a pad, or after a year has passed with no new wells drilled, interim reclamation (IR) shall be completed to reduce the well pad to the smallest size needed for production. IR shall include earthwork, seeding and BMPs.

Prior to interim reclamation, the operator shall meet with BLM to inspect the disturbed area, to review the existing reclamation plan and agree upon any revisions to the plan.

Seed tags shall be submitted for BLM approval at least 14 days before proposed seeding date.

Notify the BLM at least 48 hours prior to beginning any reclamation work.

Weed-free certification, seed tags, and a Subsequent Report Sundry Notice describing the reclamation shall be submitted to the Grand Junction Field Office within 30 days of seeding.

IR performance standards shall be considered met when disturbed areas not needed for long-term production operations or vehicle travel have been

- recontoured and stabilized, and
- revegetated with a self-sustaining, vigorous, diverse, native (or otherwise approved) plant community that anchors soils, minimizes visual impacts, and provides forage.

At a minimum, the established plant community shall consist of species included in the seed mix and/or desirable species which occur in the surrounding natural vegetation. Permanent vegetative cover will be determined successful when the basal cover of desirable perennial species is at least 80 percent of the basal cover of the adjacent undisturbed area or of potential basal cover as defined in the National Resource Conservation Service Ecological Site(s) for the area.

Operators and right-of-way holders are required to meet reclamation performance standards. Successful compliance with standards is determined by the BLM. If revegetation is unsuccessful, subsequent treatments and reseedings shall be required until standards are met.

b. *Recontouring and Seedbed Preparation.* Leaving in place only the areas needed for production, pull fill slope soils up and return them to cut areas, pushing up and over the edges of the cut. Compacted areas to be reclaimed shall be ripped in two passes at opposite directions before being reshaped.

Following recontouring, evenly redistribute salvaged topsoil. Soil amendments may be permitted or required. Seedbed preparation shall consist of scarifying (roughening) spread topsoil prior to seeding, unless seeding takes place immediately or is drilled. Seedbed

preparation techniques may include pocking, ripping, disking or other soil roughening techniques. If contour cultivating is approved, it shall be 4-6 inches deep or to the depth of redistributed topsoil. If pocking, pit the surface with small depressions to form micro-basins, in a "fish scale" pattern. Construct them along the contour, across (not parallel with) the natural flow of water and/or prevailing wind.

c. *Seed Mixes.* All disturbed areas shall be seeded with a seed mixture approved by the BLM, consistent with BLM standards in terms of species and seeding rate for the specific habitat type within the project area.

- Seed shall contain no noxious, prohibited or restricted weed seeds and contain no more than 0.5 percent by weight of other weed seeds.
- Only viability-tested, certified seed for the current year, with a minimum germination rate of 80% and a minimum purity of 90% shall be used.
- Seed that does not meet the above criteria shall not be applied to public lands.

d. *Approved Seed Mixture*. All disturbed areas shall be seeded with the following:

EXAMPLE SEED MIX Species Name	**Common Name**	**Synonym**	**Lb/ac (PLS)**
Native Grasses			
Koeleria macrantha	Prairie junegrass		1.0
Muhlenbergia montana	Mountain muhly		1.0
Elymus elymoides	Bottlebrush squirreltail	*Sitanion hystrix*	2.0
Elymus glaucus	blue wildrye		5.0
Elymus trachycaulus, Var."Pryor"or "Primar"	slender wheatgrass	*Agropyron trachycaulum*	2.7
Festuca idahoensis	Idaho fescue		0.5
Native Perennial Forbs			
Wyethia amplexicaulis	Mule's ear sunflower		3
Linum lewisii	Blue flax		0.5
Penstemon strictus	Rocky Mountain penstemon		1.0
Sanguisorba minor, Var. "Delar"	Small Burnet		2.0
This rate is for drilled seed and will be doubled for broadcast seeding.			**18.7**

e. *Seeding procedures.* Seeding shall be conducted no more than 24 hours following final seedbed preparation. If interim revegetation is unsuccessful, the operator shall implement subsequent reseedings until interim reclamation standards are met.

Where possible, drill seed ½ inch deep, following the contour of the site. Follow drill seeding with culti-paction or crimped weed-free straw mulch, to enhance seed-to-soil contact and prevent loss of seeds and soil. In areas that cannot be drilled, broadcast seed at 2.0 times the application rate, within 24 hours of soil work. If seeding takes place later than within 24 hours of dirt work, cover seed ½ to 1 inch deep with a harrow or drag bar, unless pocking. When pocking is used as seedbed preparation, seed must be broadcast within 24 hours of soil prep.

f. *Erosion Control.* Cut-and-fill slopes shall be protected against erosion with the use of pocking/ pitting, lateral furrows, hydromulch or other measures approved by the BLM. Near drainages or in areas with high erosion potential, additional revegetation, BMPs or methods may be required, to reduce soil erosion and sediment transport.

g. *Fencing and Site Protection.* The pad shall be fenced to BLM standards to exclude grazing livestock for the first two growing seasons or until seeded species are firmly established, whichever comes later. The BLM shall approve the type of fencing.

In deer and elk habitat, fences for livestock exclusion shall not exceed 40 inches. The four-strand fence shall have smooth top and bottom wires. Distance from the ground to the bottom smooth wire shall be no less than 16 inches. Distance from the top wire to the second wire shall be no less than 12 inches. Middle wires shall be barbed, with 6 inch spacing.

h. *Monitoring.* The operator shall regularly monitor, for reclamation success and for invasive species, all sites categorized as "operator reclamation in progress" and shall submit an annual monitoring report of these sites to the BLM by December 1 of each year. The annual report shall document whether attainment of reclamation objectives appears likely. If objectives appear unlikely to be achieved, the report shall identify appropriate corrective actions. Upon review and approval of the report by the BLM, the operator shall be responsible for implementing approved or specified measures.

26. Final Reclamation. The long-term objective of final reclamation is to return the land, following authorized use, to a condition approximating that which existed prior to disturbance. This includes restoration of the landform and natural vegetative community, hydrologic systems, visual resources, and wildlife habitats.

A well pad with no producing well shall undergo final reclamation within no more than 1 year following plugging and abandonment of the final well on that pad. Buried pipelines shall be reclaimed to final reclamation standards at the time of installation.

Prior to final reclamation of a well pad or pipeline, the operator shall meet with BLM to inspect the disturbed area, review the existing reclamation plan, and agree to any changes to the plan.

The BLM shall be notified at least 48 hours prior to commencing any reclamation work and within 48 hours of completion of reclamation work.

Prior to recontouring and reseeding the pad, the operator shall complete the following:

- All equipment, facilities, and trash shall be removed from the location.
- Each borehole shall be plugged and capped, and its related surface equipment removed.
- Subsurface pipelines shall be purged and plugged at specific intervals.
- Dry hole markers shall be subsurface, to prevent their use as raptor perching sites.

Recontouring for final reclamation shall consist of returning the pad, material storage piles, cut-and-fill slopes, and storm water control features to natural contours that blend with adjacent undisturbed areas, as specified in the final reclamation plan or final reclamation plat approved by BLM.

Requirements for seedbed preparation, soil amendments, seed, seeding procedures, mulching, erosion control, fencing, site security, and monitoring shall be as specified for interim reclamation.

Exhibit 3

Site-Specific Conditions of Approval

SITE SPECIFIC CONDITIONS OF APPROVAL

Company/Operator: Fram Operating, LLC
Federal Lease: Whitewater Unit
Date: June 2014

The following Project-Specific COAs are in addition to all stipulations attached to the respective Federal lease.

Air Quality

1) No venting of natural gas shall occur.
2) Speeds on unpaved access roads and disturbed areas shall not exceed 10 to 15 miles per hour, and the operator shall enforce with project personnel.

Soils

1) Site specific interim reclamation plans shall be prepared, outlining procedures to minimize erosion and sedimentation and ensure that disturbed areas are successfully reclaimed in the short-term. In particular, seedbed preparation and rapid seeding of disturbances would support interim and final reclamation and help reestablish native forbs, shrubs and grasses. The plans shall address vegetation removal, topsoil salvaging and storage, recontouring of disturbed areas, contour grading for vegetated visual barriers where needed, restoration of natural landforms and drainage patterns, scarification/seedbed preparation, installation of temporary and permanent erosion control measures, seeding methods, seed mixtures, reseeding schedule/timing, mulching, monitoring to ensure success and weed control. Planning shall include measures to limit/control vehicle and/or livestock use of reclaimed areas.

Hydrology and Water Quality

1) Water supply trucks carrying fresh water shall be dedicated to freshwater transport only. Transports that previously carried produced water, exploration and production waste, or other liquid or solid waste shall not be used to transport fresh water. Dedicated freshwater trucks shall be clearly labelled, so that they may be identified in the field.
2) Freshwater transports shall be equipped with check valves to prevent backflow into the water source.
3) If hydrostatic test water or trench dewatering water is discharged, it shall be discharged to an upland area at least 150 feet from WoUS and wetlands, in a manner so that it infiltrates into the ground without causing erosion. BLM approval of the discharge location and proposed BMPs must be obtained before discharging hydrostatic test water to an upland area. All discharges of hydrostatic test water shall be in compliance with State permits and requirements.
4) Any construction activities at perennial, intermittent and ephemeral drainage crossings (e.g. burying pipelines, installing culverts) shall occur when no flowing water is present.
5) Engineered culverts or bridges shall be required at crossings of all ditches and perennial or intermittent stream channels, rather than low water crossings. Engineered plans shall be provide to the BLM for approval with APDs or before crossing construction.

6) Pipelines that cross perennial, intermittent and ephemeral stream channels shall be constructed to withstand floods of extreme magnitude to prevent rupture and accidental contamination of runoff during high flow events. Methods and analysis outlined in BLM technical note 423-Hydraulic Considerations for Pipelines Crossing Stream Channels shall be closely followed to prevent undesirable events.
7) A copy of the SPCC Plan shall be provided to the BLM with the APD submittal, including locations of stored/staged emergency spill response equipment.
8) Staging, refueling and storage areas shall be located further than 300 feet from any reservoir, lake, wetland, or natural perennial or seasonally flowing stream or river.
9) Emergency spill response equipment shall be stored and staged at strategic locations along perennial water courses so that it is available to expedite effective spill response.
10) All vehicles shall be fueled within secondary containment structures.

Noise

1) Fram shall minimize noise to reduce potential impacts to birds, wildlife and the public.
2) Construction shall occur during daylight hours, when there is less sensitivity to sound.
3) All equipment shall have sound control devices no less effective than those provided by the manufacturer. All equipment shall have muffled exhausts.
4) Consistent with COGCC 800-series rules for noise abatement, oil and gas operations at any well site, production facility, or gas facility shall comply with the COGCC maximum permissible noise levels. Where noise reduction is shown to be necessary, moveable paneled noise shields, barriers, or enclosures shall be installed adjacent to or around noisy equipment, where required to meet the project noise limits.
5) Generator(s) serving drilling rigs shall be installed and operated at the site in a manner that at least meets the COGCC's Noise Abatement regulation (No. 802) for Residential/Agricultural/Rural Zones. This regulation requires that the noise level not exceed 50 dbA.

Invasive, Non-native Species

1) In areas with sensitive plant species, weed treatments shall be limited to spot treatments and require site-specific pre-approval by the BLM.

Vegetation

1) Berms of salvaged topsoil shall be placed around well pad perimeters to keep appropriate seed banks segregated and allow them to be replaced in the spatial context from which they were removed during pad construction.
2) Exclusion fencing shall be erected along the revegetated pipeline and road disturbance in highly vulnerable areas (e.g., along streambanks) to exclude livestock, accelerate reclamation of surface disturbances and minimize weed infestations, until monitoring has determined reclamation is successful. The BLM will determine areas for potential exclusion and evaluate reclamation success.
3) An on-site post-construction meeting shall be required, to ensure that construction is in accordance with all specifications, approved permit and COAs. At least 48 hours prior to post-construction meeting, contact Julia Christiansen at 970-244-3093 or the Grand Junction Field Office at 970-244-3000. Post-construction storm water BMPs shall be installed before inspection.

4) Cleared rocks may be salvaged and stored for later redistribution over reshaped cut-and-fill slopes, reclaimed areas or along linear features. Salvaged native rocks shall be used where appropriate as perimeter storm water controls, toe slope anchors or angular armor against erosion protection.

Wetland and Riparian Zones

1) In wetland and riparian zones adjacent to proposed gathering pipelines, pipeline disturbance widths shall be reduced to minimize direct effects to the wetlands and riparian zones.
2) To minimize effects to vegetation in riparian zones adjacent to drainages crossed by the proposed gathering pipelines, Fram shall reduce the 20-foot width of the pipeline construction disturbance width shall be reduced, or a BLM-approved biological monitor shall be present during surface disturbance and construction.
3) In areas where a wetland evaluation has not been conducted, a BLM-approved biological monitor shall be on-site during pipeline routing, to identify and avoid potential wetlands.
4) A wetland delineation shall be conducted for any wetlands that cannot be avoided. Appropriate permits from the USACE shall be required and provided to the BLM before surface disturbance.

Threatened, Endangered and Sensitive Animal Species

1) A background analytical report on the source water for hydrostatic testing shall be provided to the BLM before use, per CDPHE recommendations.
2) New pipe shall be required to ensure avoidance of any contaminants that previously used pipe could introduce.
3) Fram shall use a flume crossing technique (dry open-cut) when water is present in drainages to install gathering pipelines in order to maintain water flow, minimize changes in water body flow characteristics, and reduce downstream turbidity and sedimentation. A biological monitor shall be present during this process and prior to dewatering the isolated in-stream workspace. Aquatic species (fish, amphibians) present shall be removed and released in the same stream outside the workspace.
4) Construction at perennial, intermittent, and ephemeral drainage crossings (e.g. burying pipelines, installing culverts) shall be timed to avoid high flow conditions and shall consists of dry open-cut crossing.
5) Shutoff valves shall be installed on pipelines at sensitive water crossings. Fram shall submit shutoff valve proposal to BLM for approval before installation.
6) Culverts at drainage crossings shall be designed and installed to pass a 25-year or greater storm event. However, due to the flash flood nature of area drainages and anticipated culvert maintenance, the USACE recommends designing drainage crossings for the 100-year event. On perennial and intermittent streams, culverts shall be designed to allow for passage of aquatic biota. The minimum culvert diameter in any installation for a drainage crossing or road drainage shall be 24 inches.
7) Crossing structures, such as bridges, culverts or hard-bottoms shall be installed before construction (with approval from the BLM) where Project-related traffic must cross any aquatic habitat where water would be present during all or portions of the year, such as the Brandon and Lockhart ditches. Any proposed culvert or bridge installations shall be constructed during dry periods to minimize erosion and sedimentation. These structures

shall also not limit fish passage in appropriate creeks.

8) Vehicular crossings shall only be allowed during periods of low flow where an access road crosses small drainages and intermittent streams not requiring culverts.
9) During dust suppression, water shall not be applied to surfaces in volumes that would flow into drainages.
10) All herbicides used in the vicinity of drainages shall be non-toxic to fish and other aquatic organisms and shall be labeled for aquatic use. If use of non-toxic herbicides is not possible, other methods such as biological or mechanical shall be used.
11) Spills of oil, gas, or any other potentially hazardous substances shall be reported immediately to the BLM and other responsible parties, such as landowners or the City of Grand Junction, as applicable. Spills shall be mitigated immediately according to an EPA approved spill contingency plan, and spilled material removed to an approved disposal site.

Threatened, Endangered and Sensitive Plant Species

1) Well pads and associated project components with suitable Colorado hookless cactus habitat that have not been previously surveyed shall have botanical surveys conducted prior to ground-disturbing activities during the appropriate survey season, to verify whether or not they are present.
2) Where permission to survey suitable Colorado hookless cactus habitat was denied, Fram shall have a biological monitor present to avoid impacts to the plants. Avoidance could include minor alteration of pipeline alignment or well pad placement to avoid removal of cacti.
3) A biological monitor shall be on-site during all ground-disturbing activities within 100 meters of Colorado hookless cactus, including installation of BMPs and reclamation activities, to ensure that unauthorized disturbance of the cacti will be avoided.
4) Fram shall work with the FWS and the BLM to ensure that new data collected in subsequent surveys is provided to the FWS and that conservation measures are applied to known and future plants identified.
5) No Colorado hookless cactus plants shall be directly removed during construction or operation.
6) Hydrostatic test water shall be discharged using a temporary discharge structure. Discharge locations shall be in vegetated upland areas at a distance from drainages and more than 100 meters from Colorado hookless cactus, to encourage infiltration and minimize flow into drainages (or disposed of in a commercial facility) to avoid an increase of selenium in the soil. BLM approval shall be obtained prior to discharge.

7) Colorado hookless cactus plants documented within 20 meters (328 feet) of proposed disturbance shall be monitored annually during the flowering period (April and May) for at least 3 years after ground-disturbing activities A monitoring report shall be submitted to the BLM and the FWS by December 1, annually.
    - Plants shall be photographed from a staked location prior to ground-disturbing activities and annually during the appropriate flowering season.
    - Plant status and health shall be described, including presence of weed species, if any.
    - A monitoring report shall be submitted to BLM GJFO and FWS after each annual survey.
8) A long-term monitoring plan shall be established that would be developed by the BLM GJFO and the FWS for a select number of sites with Colorado hookless cactus plants to monitor fugitive dust. Sites shall be monitored every 3 to 5 years, depending on results of monitoring, throughout the life of the project. Initially, these sites shall be monitored annually. Long-term monitoring sites shall be established prior to construction, to provide baseline data.
9) If detrimental effects are detected through monitoring, corrective actions shall be taken through adaptive management measures such as:
    - Place wooden mats on road and/or pad surfaces that contribute to fugitive dust at cactus locations (remove mats after construction);
    - Erect dust-control fencing;
    - Fabric could be placed beneath mats, if necessary, to further control dust.
    - Remove silt fence from access roadsides during seasons when roads are not used to avoid shading cactus.

Migratory Birds

1) Before any intensive activities take place, if more than two nesting seasons have passed since the last migratory bird raptor survey, a new full survey shall be conducted.

Wildlife

1) Vehicles traveling through big game winter ranges shall proceed at constant speeds not exceeding 20 miles per hour and drivers shall not stop or get out of their vehicles to view wildlife until outside of winter range areas, except under emergency conditions.
2) Bear-proof trash containers shall be used and refuse shall be collected frequently to minimize potential for conflicts with bears within the Project Area.
3) Disturbed areas shall be reclaimed as quickly as possible, using a wildlife-friendly seed mix as recommended by the BLM GJFO and developed in coordination with CPW.
4) Application of water used for dust control shall be limited to road surfaces farther than 300 feet from any reservoir, lake, wetland, or natural perennial or seasonally flowing stream or river, the same restriction that would apply to refueling.
5) Duplicate roads shall be reclaimed where multiple roads go to the same location.

Cultural Resources

1) Site-specific mitigation measures for all 19 eligible or potentially eligible sites are fully described in a treatment plan that has been developed between the BLM, the Fram, tribes, and the SHPO. Additional tribal consultation is being sought for the treatment plan. The

final treatment plan includes details of site-specific avoidance and data recovery measures for all nineteen sites, as well as project-wide protocol for archaeological monitoring. The final treatment plan will meet the needs of the National Historic Preservation Act (NHPA) [16 USC 470, 36 CFR 800.13], the Archaeological Resources Protection Act (ARPA) [16 USC 433, 18 USC 641, 1170, and 1361], the Native American Graves Protection and Repatriation Act (NAGPRA) [25 USC 3001 et seq., 43 CFR 10.4], and the Colorado Revised Statute concerning unmarked human burials (24-80-1302), and will appropriately mitigate any impacts to significant cultural resources. The BLM, the proponent, and the SHPO signed a Memorandum of Agreement agreeing to the site-specific mitigation measures.

2) Alternative mitigation will be utilized as part of the Section 106 process because of the high potential to impacts to unknown sites on the private land where access was denied and from cumulative impacts as a result of the Proposed Action. This mitigation has been worked out collaboratively among the BLM, the proponent, and the SHPO and a Memorandum of Agreement has been signed. The mitigation could include any or all of the following: data recovery, testing, interpretation of cultural resources for the public via websites, public museum displays, or written materials such as brochures or signage.

Paleontological Resources

1) If bedrock exposure is present, a BLM-approved on-site monitor (licensed paleontologist) shall be present during construction.

Tribal and Native American Religious Concerns

1) The Proposed Action is not currently known to physically threaten the integrity of any Traditional Cultural Properties, prevent access to sacred sites, prevent the possession of sacred objects, or interfere or otherwise hinder the performance of traditional ceremonies and rituals pursuant to AIRFA or EO 13007. There are currently no known threats to remains that fall within the purview of Native American Graves Protection Act Archeological Resources Protection Act. Although none have been identified, any heretofore unidentified effect of the proposed action to Native American Religious Concerns is expected to be negligible in both the short and long term. The Ute have a generalized concept of spiritual significance that is not easily transferred to Western models or definitions. As such, the BLM recognizes that they have identified sites that are of concern because of their association with Ute occupation of the area as part of their traditional lands. Tribal representatives have consulted with the BLM GJFO on previous projects in this area and provided instructions for the protection of culturally sensitive sites, should any be discovered during construction. Specific consultation on the Fram Project has occurred since 2013 and is currently ongoing. In addition to the stipulations for the protection of Cultural Resources if new information is brought forward during consultation, site-specific Native American mitigation measures suggested during previous notification/consultation would be considered during the implementation of the Proposed Action. If new information is provided by Native Americans during the EA process, additional or edited terms and conditions for mitigation may have to be negotiated or enforced to protect resource values.

Visual (see also Well Pad Specific COAs)

1) Well pads and other project components shall be designed in ways to reduce visual impacts. Construction and reclamation shall utilize natural landscape features and other state-of-the art techniques to screen operations from observers or blend them with the landscape.
2) The following measures shall be required, to reduce visual contrasts in texture, color and form across the Project Area: soil roughening/texturing, seeding at the time of the disturbance to improve revegetation, contour berming, and other state-of-the art desert reclamation techniques.
3) Where needed to dampen contrast, basalt rocks and boulders shall be broken up, turned black side up, and/or buried in the cut slopes or used as road surface or erosion protection (armor for water crossings, etc.).
4) To minimize upward light scattering/pollution, all drilling rig and well test facility lighting shall be limited to that required to safely conduct operations taking place at the time. Where safety is not compromised, lighting shall be down-directed and focused on work areas only. Permanent lighting shall be shielded and/or down-directed, and/or directed in a manner that targets light specifically to the work area.
5) Site-specific visual resource protection measures shall also be required for proposed well pads Federal 1-2-25-2, Federal 1-2-15-1, Federal 1-2-22-1, and Federal 1-2-16-1. See Well Pad Specific COAs for detailed information.

Wastes

1) Emergency spill response equipment shall be stored and staged at strategic and clearly identified Spill Station locations, to expedite effective spill response.
2) Produced water pipelines shall be constructed from materials that would not corrode.

Recreation

1) As appropriate, construction timing shall be coordinated with permitted area outfitters and landowners to avoid conflicts with users of dispersed recreation sites
2) As needed, the operator shall coordinate with the BLM recreation staff, mountain bike race organizers and local bike groups to plan for race course adjustments and avoidance of user conflicts.
3) The operator shall coordinate with the BLM, CPW and private landowners to schedule construction to avoid known prime hunting areas/seasons.

Range Management

1) Planned activities shall be coordinated with affected grazing permit holders.
2) Suitable fencing shall be installed (in consultation with BLM wildlife and range staff) to avoid over-grazing and to support successful reclamation.
3) Construction and operation shall be coordinated with affected permittees.
4) Gates shall be left as they are found unless signs are posted on them directing that they be open or closed.
5) Construction trenches shall not be left open without adequate escape ramps.

Forest Management

1) The operator shall purchase a wood-cutting permit at $10 per cord from the BLM prior to clearing trees. No removal of trees or brush shall occur without a BLM permit including during surveying operations. This area has an average of 10 cords of usable fuel wood and/or post and poles per acre. This would require a cost reimbursement of approximately $3,400.
2) The operator shall avoid removal of and damage to old-growth trees and stands within the pinyon-juniper forest type, when practical and safe. Such trees shall be identified at the time of on-site or pre-construction inspection.
3) When not shredded and salvaged with topsoil for later use in reclamation, all material 4 inches and greater in diameter shall be cut into sections not to exceed 4 feet in length and placed in piles along Project Area roads, to be removed by Fram or left to be removed by other parties.

Fire and Fuels

1) Fram shall prepare a Fire Management Plan to assist in preventing and/or containing Project-related accidental ignitions. Copies shall be required to be on locations during construction, drilling, workovers and facility installation and shall be maintained at locations with noted wildfire hazards, such as fine continuous fuels like cheatgrass.
2) Fram shall develop an Emergency Response Plan that defines measures to be taken by employees and contractors in case a wildfire moves toward an active pad or facility and provides guidance on actions if a fire is accidentally started. Copies shall be required to be on locations during construction, drilling, workovers and facility installation and shall be maintained at locations with noted wildfire hazards, such as fine continuous fuels like cheatgrass.
3) Fire suppression equipment and an emergency water tank shall be maintained at each site. Personnel shall be trained in their use to only suppress or try to suppress fires at the smallest size when they start.
4) All fires or explosions that cause damage to property or equipment, loss of oil or gas, or injuries to personnel shall immediately be reported to the BLM Grand Junction Field Office at 970-244-3000.
5) Any welding, acetylene or other torch with open flame, shall be operated in an area barren or cleared of all flammable materials and vegetation for at least 10 feet on all sides from equipment. Wind strength and direction shall be considered during safety decisions relative to open flames.
6) Vehicles shall be parked only in designated areas, away from vegetated places that are likely to contain cured fuels such as cheatgrass.
7) Heat-producing facilities shall be placed at distances of at least 2 to 3 times the height of adjacent fuels. In such areas, as determined on a site-specific basis, trees shall be removed for a distance of 2-3 times their height, from heat-producing facilities. For example, 20 foot tall trees would be removed within a minimum distance of 40-60 feet from production facilities.
8) Site-specific adaptive measures such as bare mineral soil buffers could be required by the BLM, and would be determined on a site-specific basis.
9) Internal combustion engines shall be equipped with approved spark arrestors.

Well-Pad Specific COAs

In addition to the general COAs described above, the following COA apply to specific well pads listed below:

Federal 2-2-2-1

General

1) A detailed proposal shall be submitted for well pad Federal 2-2-2-1, prior to construction.

Cultural

1) Cultural sites along the proposed southern access to Federal 2-2-2-1 include 5ME.6715, 5ME.67212, 5ME.8006, and 5ME.8037. Measures shall be followed in the Treatment Plan for mitigation of these sites prior to construction. Access and pipelines shall be rerouted to avoid eligible or potentially eligible sites.

Federal 12-97-30-1

Cultural

1) Cultural sites along the proposed southern access to Federal 12-97-30-1 include 5ME.10573. Measures shall be followed in the Treatment Plan for mitigation of this site prior to construction. Access and pipelines shall be rerouted to avoid eligible or potentially eligible sites.

Hydrology and Water Quality

1) A copy of the authorization from the State of Colorado to construct the monitoring well near well pad Federal 12-97-30-1 shall be provided to the BLM.
2) Copies of data collected by the City of Grand Junction from the monitoring well near well pad Federal 12-97-30-1 shall be provided to the BLM prior to construction.

Federal 12-09-24-2

No additional measures.

Federal 13-97-8-2

Cultural

1) Cultural sites along the proposed southern access to Federal 13-97-8-2 include 5ME.760. Measures shall be followed in the Treatment Plan for mitigation of this site prior to construction. Access and pipelines shall be rerouted to avoid eligible or potentially eligible sites.

Federal 13-98-12-2

General

1) A detailed proposal shall be submitted for well pad Federal 13-98-12-2, prior to construction.

Soils

1) Proposed well pad location Federal 13-98-12-2 shall be evaluated during an on-site inspection for slopes greater than 30 percent and may require relocation or specific mitigation measures to minimize disturbance to steep slopes.

Federal 12-97-7-1

Cultural

1) Cultural sites along the proposed southern access to Federal 12-97-7-1 include 5ME.16154. Measures shall be followed in the Treatment Plan for mitigation of this site prior to construction. Access and pipelines shall be rerouted to avoid eligible or potentially eligible sites.
2) Monitoring and fencing shall be implemented where appropriate to protect eligible or potentially eligible sites as well as during well pad construction, road construction and upgrading, and trenching.

Federal 1-2-15-1

Visual

1) A Visual Contrast Rating evaluation and/or Sensitivity Rating evaluation shall be conducted, based on BLM on-site inspections.
2) A detailed, site-specific inventory and plan describing proposed visual mitigations to minimize visual contrasts shall be prepared and approved by the BLM.
3) Construction material used for armor and surfacing roads and pads shall avoid high color and textural contrast with the native soil and rock components – e.g., no river cobbles or pit run.
4) Angular native rock that does not create textural or color contrasts, such as local basalt, shall be used to minimize visual impacts of road improvements.
5) Contoured berms shall be placed to reduce the visual impact of the pad. Berm and pad fill slopes shall be roughly textured and seed at the time of construction.
6) Colorant may be required to be applied to berms or pad fill and on road cuts and fills.
7) Low-profile equipment (no taller than 12 feet) shall be used and may be set in-ground to minimize visual dominance.
8) For proposed Well Pad 1-2-15-1, before pre-construction on-site, detailed site-specific plans and drawings of planned road improvements shall be provided to the BLM. Upon review, the BLM may require engineer's certification of plans. Plans shall include the road crossing of the large tributary drainage at the bottom of the slope where the existing access road meets an existing BLM road and the steep grade of the access road itself. Site specific BMPs shall also be included in the plans, but could be adjusted at the pre-construction inspection.

Cultural

1) Cultural sites along the proposed southern access to Federal 1-2-15-1 include 5ME.3827, 5ME.3832, 5ME.3833, 5ME.8006, and 5ME.8037. Measures shall be followed in the Treatment Plan for mitigation of these sites prior to construction. Pipelines shall be rerouted to avoid eligible or potentially eligible sites.
2) Monitoring and fencing shall be implemented where appropriate to protect eligible or potentially eligible sites as well as during well pad construction, road construction and upgrading, and trenching.

Federal 1-2-16-1

Visual

1) Well Pad Federal 1-2-16-1 and associated access roads and pipelines, which had cactus plants documented within 100 meters of proposed disturbance shall not be constructed during the Colorado hookless cactus flowering period (April through May).
2) A Visual Contrast Rating evaluation and/or Sensitivity Rating evaluation shall be conducted, based on BLM on-site inspections.
3) A detailed, site-specific inventory and plan describing proposed visual mitigations to minimize visual contrasts shall be prepared and approved by the BLM.
4) Construction material used for armor and surfacing roads and pads shall avoid high color and textural contrast with the native soil and rock components – e.g., no river cobbles or pit run.
5) Angular native rock that does not create textural or color contrasts, such as local basalt, shall be used to minimize visual impacts of road improvements.
6) Contoured berms shall be placed to reduce the visual impact of the pad. Berm and pad fill slopes shall be roughly textured and seed at the time of construction.
7) Colorant may be required to be applied to berms or pad fill and on road cuts and fills.
8) Low-profile equipment (no taller than 12 feet) shall be used and may be set in-ground to minimize visual dominance.

Cultural

1) Cultural sites along the proposed southern access to Federal 1-2-16-1 include 5ME.3827, 5ME.3832, 5ME.3833, 5ME.8006, and 5ME.8037. Measures shall be followed in the Treatment Plan for mitigation of these sites prior to construction. Pipelines shall be moved to avoid eligible or potentially eligible sites.
2) Monitoring and fencing shall be implemented where appropriate to protect eligible or potentially eligible sites as well as during well pad construction, road construction and upgrading, and trenching.

Federal 1-2-22-1

Visual

1) Well Pad Federal 1-2-22-1 and associated access roads and pipelines, which had cactus plants documented within 100 meters of proposed disturbance shall not be constructed during the Colorado hookless cactus flowering period (April through May).
2) A Visual Contrast Rating evaluation and/or Sensitivity Rating evaluation shall be conducted, based on BLM on-site inspections.
3) A detailed, site-specific inventory and plan describing proposed visual mitigations to minimize visual contrasts shall be prepared and approved by the BLM.
4) Construction material used for armor and surfacing roads and pads shall avoid high color and textural contrast with the native soil and rock components – e.g., no river cobbles or pit run.
5) Angular native rock that does not create textural or color contrasts, such as local basalt, shall be used to minimize visual impacts of road improvements.
6) Contoured berms shall be placed to reduce the visual impact of the pad. Berm and pad fill slopes shall be roughly textured and seed at the time of construction.
7) Colorant may be required to be applied to berms or pad fill and on road cuts and fills.
8) Low-profile equipment (no taller than 12 feet) shall be used and may be set in-ground to minimize visual dominance.

Cultural

1) Cultural sites along the proposed southern access to Federal 1-2-22-1 include 5ME.3827, 5ME.3832, 5ME.3833, 5ME.8006, and 5ME.8037. Measures shall be followed in the Treatment Plan for mitigation of these sites prior to construction. Pipelines shall be moved to avoid eligible or potentially eligible sites.
2) Monitoring and fencing shall be implemented where appropriate to protect eligible or potentially eligible sites as well as during well pad construction, road construction and upgrading, and trenching.

Federal 1-2-25-2

Visual

1) A Visual Contrast Rating evaluation and/or Sensitivity Rating evaluation shall be conducted, based on BLM on-site inspections.
2) A detailed, site-specific inventory and plan describing proposed visual mitigations to minimize visual contrasts shall be prepared and approved by the BLM.
3) Construction material used for armor and surfacing roads and pads shall avoid high color and textural contrast with the native soil and rock components – e.g., no river cobbles or pit run.
4) Angular native rock that does not create textural or color contrasts, such as local basalt, shall be used to minimize visual impacts of road improvements.
5) Contoured berms shall be placed to reduce the visual impact of the pad. Berm and pad fill slopes shall be roughly textured and seed at the time of construction.
6) Colorant may be required to be applied to berms or pad fill and on road cuts and fills.
7) Low-profile equipment (no taller than 12 feet) shall be used and may be set in-ground to minimize visual dominance.

Cultural

1) Cultural sites along the proposed southern access to Federal 1-2-25-2 include 5ME.3827, 5ME.3832, 5ME.3833, 5ME.8006, 5ME.8037 and 5ME.16144. Measures shall be followed in the Treatment Plan for mitigation of these sites prior to construction.
2) Cultural sites near the proposed well pad include 5ME.15505, 5ME.15506, 5ME.18181, and 5ME.18183. This well pad shall be moved to avoid eligible or potentially eligible sites. Pipelines shall be moved to avoid eligible or potentially eligible sites.
3) Monitoring and fencing shall be implemented where appropriate to protect eligible or potentially eligible sites as well as during well pad construction, road construction and upgrading, and trenching.

Federal 1-2-26-2

Threatened and Endangered Plant Species

1) Well Pad Federal 1-2-26-2 and associated access roads and pipelines, which had cactus plants documented within 100 meters of proposed disturbance shall not be constructed during the Colorado hookless cactus flowering period (April through May).

Cultural

1) Cultural sites along the proposed southern access to Federal 1-2-26-2 include 5ME.3827, 5ME.3832, 5ME.3833, 5ME.8006, and 5ME.8037. Measures shall be followed in the Treatment Plan for mitigation of these sites prior to construction. Pipelines shall be moved to avoid eligible or potentially eligible sites.
2) Monitoring and fencing shall be implemented where appropriate to protect eligible or potentially eligible sites as well as during well pad construction, road construction and upgrading, and trenching.

Federal 1-2-33-1

General

1) A detailed proposal shall be submitted for well pad Federal 1-2-33-1, prior to construction.

Soils

1) Proposed well pad location Federal 1-2-33-1 shall be evaluated during an on-site inspection for slopes greater than 30 percent and may require relocation or specific mitigation measures to minimize disturbance to steep slopes.

Threatened and Endangered Plant Species

1) Well Pad Federal 1-2-33-1 and associated access roads and pipelines, which had cactus plants documented within 100 meters of proposed disturbance shall not be constructed during the Colorado hookless cactus flowering period (April through May).

Cultural

1) Cultural sites along the proposed southern access to Federal 1-2-33-1 include 5ME.3832, 5ME.3833, 5ME.8006, 5ME.8037, 5ME 18185, and 5ME18511. Measures shall be followed in the Treatment Plan for mitigation of these sites prior to construction. Pipelines shall be rerouted to avoid eligible or potentially eligible sites.

2) Monitoring and fencing shall be implemented where appropriate to protect eligible or potentially eligible sites as well as during well pad construction, road construction and upgrading, and trenching.

Access

1) Fram shall conduct a wetland delineation for the wetlands identified below that cannot be avoided; appropriate permits from the USACE would be required.

Potential Wetlands Documented during Wetland Evaluations within 100 feet of the Proposed Action

Project Component	Wetland Description	Location in Relation to Proposed Action
Proposed Gathering Line/ Existing Access Road	One fringe wetland (2011) approximately 2 inches wide on each side of potential COE drainage.	Proposed pipeline crosses potential COE drainage along Whitewater Creek Road.
Proposed Gathering Line/ Existing Access Road	One fringe wetlands (2011) approximately 3 inches wide on each side of potential COE drainage.	Proposed pipeline crosses potential COE drainage along Whitewater Creek Road.
Proposed Gathering Line/ Existing Access Road	One fringe wetland (2011) approximately 2 inches wide on each side of potential COE drainage.	Proposed pipeline crosses potential COE drainage near Divide Road and Lands End Road intersection.
Proposed Gathering Line/ Existing Access Road	Fringe wetland (2011) at Kannah Creek crossing.	Proposed pipeline crosses Kannah Creek and fringe wetland along unnamed access road to Federal 13-98-12-2 and Federal 13-97-8-2.
Proposed Gathering Line/ Existing Access Road	18” culvert with wetland plants present.	Proposed pipeline crosses potential jurisdictional wetland along Lands End Road.

Exhibit 4

Fram's Project Design Features

Fram Operating, LLC

Project Design Features

The following Project Design Features are included in the Whitewater Unit Master Development Plan:

General

1) Multi-well pads (up to nine wells per pad) will reduce overall surface disturbance.
2) Multi-well pads will share production equipment, to reduce overall surface disturbance and air emissions.
3) Natural gas, oil, and produced water gathering pipelines will be installed to reduce operational traffic and associated dust.
4) Remote telemetry will be used to report well conditions, rather than sending an employee, wherever possible.
5) A Storm Water Management Plan, Best Management Practices, and a Spill Prevention Countermeasure and Control Plan will be implemented.
6) Environmental awareness training will be provided to all employees during orientation to address native wildlife, sensitivity to various kinds of impacts, consequences of poaching, information about federal and state wildlife laws, licensing and residency requirements, and outdoor recreation opportunities.

Air Quality

1) Fugitive dust from traffic, equipment operations, and wind events will be abated by watering and by controlling speed limits. Surfactants, binding agents, or other dust suppression chemicals will not be used on roadways within public lands without BLM approval. Where there is no posted speed limit, speeds on unpaved access roads and disturbed areas will not exceed 20 miles per hour.
2) Tier 2 drill rig engines will be used to minimize impacts to air quality.

Soils

1) Storm water BMPs are included in the SWMP and will be implemented, monitored and maintained to minimize erosion and sediment transport. Measures may include geotextiles, weed-free straw crimping/bales/wattles/matting run-on/run-off controls, swales, ditches or berms, sediment catchments and anchored erosion barriers. BMPS will also include soil texturing and seeding or additional measures approved by the BLM.
2) Earthwork will not be conducted when the wind speed exceeds 30 mph.

Hydrology and Water Quality

1) Monitoring will occur at all well pad locations according to Rule 609, Statewide Groundwater Baseline Sampling and Monitoring (COGCC, 2013a). Up to four initial baseline samples and subsequent monitoring samples will be collected from water sources within a one-half mile radius of a proposed well pad. Initial sampling will be conducted within 12 months prior to setting conductor pipe in the first well on a pad.

2) Diversion ditches will be designed and constructed to capture and divert sheet flows away from disturbed areas and incorporate rip-rap, sediment catchments and anchored check structures to slow water velocity, preventing erosion and sediment transport.
3) Ditches will be allowed to vegetate and/or would include large rocks or stones to slow the drainage velocity and allow sediment to settle out. Ditches may be seeded where soils are erodible.
4) Vegetative strips to filter sediment will be placed on the uphill side of disturbed areas to prevent storm water run on.
5) For disturbed areas along proposed road reaches that lie within 100 feet of stream channels, erosion protection and silt retention techniques such as silt catchment dams, culverts or drainage dips, armored stream crossings and approaches, placement of straw bales and/or matting will be used.
6) In areas within 100 feet of an intermittent drainage, an adequate vegetative buffer, artificial buffer, (e.g., straw bales, matting, etc.), or filter strip will be maintained between the road and the drainage, to minimize sediment transport into the drainage.
7) Construction at perennial, intermittent and ephemeral drainage crossings (e.g. burying pipelines, installing culverts) will consist of a dry open-cut crossing timed to avoid high flow conditions.
8) Requirements associated with the USACE Nationwide Permit 12 (USACE, 2012b) for stream crossings by utility lines and associated access roads will be followed. The USACE will be notified of the intention to construct the Project under Nationwide Permit 12 and abide by any additional Project-specific conditions imposed by the USACE.
9) On perennial and intermittent streams, culverts will be designed to allow for passage of aquatic biota. The minimum culvert diameter in any installation for a drainage crossing or road drainage will be 24 inches according to the Gold Book standards.
10) To minimize erosion and sediment transport, access road water dips will be spaced using the Gold Book standards (pp. 32-33, Figures 5 and 6). Additional water dips, water turn-outs or culverts may be required based on road conditions. Water outlets will incorporate erosion control structures, such as rip-rap and anchored straw bales, to slow water velocity and prevent erosion. All drainage ditches and culverts will be kept clear and free flowing, and will be maintained in good condition.
11) All installed production facilities (storage tanks, load outs, separators, treating units, etc.) with the potential to leak or spill oil, condensate, produced water, glycol, or other fluid which may be a hazard to public health or safety will be placed within an appropriate impervious secondary containment structure that will hold 110 percent of the capacity of the largest single container within it for 72 hours. Chemical containers will be clearly labeled, maintained in good condition and placed within secondary containment. They will not be stored on bare ground, nor exposed to sun and moisture.
12) Any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 will be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act of 1980, Section 102b. A copy of any report required or requested by any federal agency or state government as a result of a reportable release or spill of any toxic substances will be furnished to the BLM AO concurrent with the filing of the reports to the involved federal agency or state government.

13) At the time of final reclamation, well locations and access roads will be restored to approximately their original contours. During reclamation of these sites, fill material would be pushed into cuts and over the backslope. No depressions will be left that would trap water or form ponds, except those designed to support reclamation objectives, such as pocking. Upon completion of backfilling, leveling and recontouring, the salvaged topsoil will be evenly spread over the reclaimed area(s).
14) To protect groundwater, drilling operations will be conducted in compliance with all Federal Onshore Oil and Gas Orders, as well as all other applicable rules and regulations by the BLM GJFO and the COGCC.
15) Closed loop drilling systems will be used; no pits will be used.
16) Surface casing will be run to a minimum depth of 100 feet below freshwater aquifers within one mile radius of the well. The surface hole will be cased with steel and cemented in place entirely from ground level to the depth determined in the APD.
17) Prior to drilling below the surface casing, a BOP will be installed on the surface casing and both the BOP and the surface casing will be tested for pressure integrity. The BOP and related equipment will meet the minimum requirements of Federal Onshore Oil and Gas Order No. 2 and the BLM would be notified in advance of all pressure tests.
18) The proposed casing and cementing program will be designed to protect and/or isolate all usable water zones, potentially productive zones, lost circulation zones, abnormally pressured zones and any prospectively valuable deposits of minerals. BLM approval is required prior to the use of any isolating medium other than cement.
19) Produced water will be stored in sealed tanks with secondary containment structures to prevent off-site migration of produced water and protect shallow groundwater from accidental releases. Any accidental releases of hydrocarbons or other hazardous materials will be cleaned up immediately along with any contaminated soils and disposed at an authorized landfill.
20) To protect groundwater, wells will be cased to specifically prevent hydrocarbon migration from gas producing strata penetrated by the wellbore during drilling, initial production and following well completion. Identification of potential fresh-water bearing zones, aquifers, gas producing zones and under- and over-pressured formations will be incorporated into drilling plans for the proposed wells. Estimates of the depth of these zones will be used to determine surface casing depths and production planning. In the Project Area, the proposed casing and cementing program will be designed to protect and isolate all usable water zones, potentially productive zones, lost circulation zones and abnormally high-pressure zones.
21) Specific casing depths will vary depending on well location and drilling conditions, to protect and isolate usable water zones. The boreholes/wells below the surface casing will be cemented to total depth to provide further protection of any groundwater zones that could be of practical beneficial use. Cement will be circulated to the surface to assure an adequate seal between the pipe and the rock formations. If a water bearing, gas productive, lost circulation or pressured zone was encountered, cement volumes will be adjusted to isolate that zone or zones. Such configuration is designed to prevent accidental contamination or leakage of hydrocarbons from reaching usable groundwater.
22) Certain measures in the City of Grand Junction Watershed Protection Plan will be implemented to minimize potential impacts to proposed well pads 12-97-7-1 and 12-97-30-1.
23) A water quality monitoring well will be drilled for the City of Grand Junction, to the depth of Juniata Reservoir, near proposed Well Pad 12-97-30-1.

Invasive, Non-native Species

1) Noxious weeds or other undesirable plant species will be regularly monitored and promptly controlled as set forth in the joint BLM/Forest Service Noxious and Invasive Weed Management Plan for oil and Gas Operators (BLM, 2007a), to reduce or eliminate noxious weeds identified on BLM-administered lands within the Project Area and prevent the spread of weeds, including:
2) The Project Area will be inventoried prior to ground-disturbing activities. If Class A or Class B noxious weeds are documented within 100 feet of proposed disturbance, they will be treated or removed prior to ground-disturbing activities (Class B and Class C weeds were documented within 100 feet of the proposed Project on BLM-administered lands; see WestWater Engineering, 2010, 2011, 2012a and 2012b).
3) Before any mobilization of equipment onto public lands, in order to prevent the spread of invasive species, Fram will ensure that all construction equipment and vehicles are clean and free of soil, mud, vegetative or any material that could transport weed seeds. All maintenance vehicles would be regularly cleaned of soil. Vehicles will avoid driving through or parking on weeds.
4) BMPs, straw mulch, seeds and all materials used on BLM lands will be certified weed-free.
5) Treatment strategies for weedy species documented would consider effective methods and timing for preventing seed production of that species and could include hand or machine pulling, cutting roots just below soil level, treatment with herbicides, or mowing, as directed by the BLM.
6) Disturbance will be revegetated as soon as possible after construction/disturbance. Pipelines will be reclaimed at the time they are completed, well pad disturbances will require immediate temporary seeding, and road disturbance will be revegetated at the conclusion of construction. Such rapid revegetation/reclamation would minimize the potential for the disturbed areas to be infested with invasive and noxious weeds.
7) Surface disturbances will be reseeded at the appropriate time and with palatable, native species desirable to wildlife, including shrubs and forbs. An annual report to the BLM GJFO identifying the extent of noxious weed infestations and treatment used to eradicate or minimize undesirable species will be provided to the BLM by December 1, annually. Prior to the use of herbicides, a Pesticide Use Proposal (PUP) will be approved by the BLM.

Vegetation

1) Vegetation will be cleared by mowing or brush hogging where appropriate, leaving the root structure intact – instead of scraping the surface (and in agreement with landowner conditions).
2) Fugitive dust would be controlled on the access roads and disturbed surfaces, to minimize effects to adjacent vegetation. Speed limits will be enforced from the beginning of construction throughout the life of the Project, and where speed limits are not posted on unpaved access roads, speeds will not exceed 20 miles per hour.
3) All pipeline-related disturbance will be reclaimed within one growing season after construction. Interim reclamation at well pads will occur within 6 months of the last scheduled well on a pad or within 12 months of a well drilled on the pad.
4) All disturbed surfaces not to be used during operation will be revegetated/reclaimed with native, palatable species for wildlife, with grasses, shrubs, and forbs. Disturbed areas will be recontoured and graded to pre-project contours to create physical diversity of landforms (e.g., slopes, surface undulations, minor depressions, rock piles, etc.).

Threatened, Endangered and Sensitive Animal Species

1) Water will be withdrawn from Brandon Ditch, North Fork Kannah Creek, and an unnamed tributary to Kannah Creek. The FWS will be consulted on appropriate methods to avoid or minimize impingement or entrainment of sensitive fish species in surface water proposed for water withdrawal.
2) All hydrostatic test water will be discharged in vegetated upland areas at a distance from drainages to encourage infiltration and minimize flow into drainages. Discharge locations will be approved by the BLM GJFO

Threatened, Endangered and Sensitive Plant Species

1) No well pads will be constructed within 20 meters of documented Colorado hookless cactus plants. Where feasible, well pads will be placed further than 20 meters from BLM-sensitive plants.
2) Pipeline corridors will be constructed adjacent to existing disturbance (roads or existing pipeline corridors) where feasible, or collocated with new proposed access roads.
3) Pipeline corridors and new access roads will be constructed further than 20 meters from documented Colorado hookless cactus plants and BLM-sensitive plants, if feasible. In situations that this scenario is not possible for pipeline corridors, Fram will minimize effects to special status plants by reducing the construction corridor width, constructing the pipelines on the opposite side of existing disturbance if special status plants are not present, or constructing the pipelines within an existing road if special status plants are present on both sides of the road.
4) No construction would occur within 100 meters of Colorado hookless cactus plants during the flowering season (April and May).
5) Orange fencing will be erected along well pad, pipeline, and access road construction disturbance extents within 20 meters of known Colorado hookless cactus and BLM-sensitive plant species to ensure construction traffic and workers would not accidentally crush plants.
6) During construction, Fram will water (no additives) existing gravel/dirt roads, pipeline construction corridors, and/or well pads within 100 meters on either side of known special status plants to reduce possible dust deposition. Water will be obtained from an approved water source.
7) Straw bale wattles, silt fences, or other measures will be installed on the edge of proposed ground-disturbance and existing access roads if proposed disturbance is within 20 meters of documented Colorado hookless cactus and/or BLM-sensitive plants to reduce the potential for altering hydrology / habitat within occupied habitats.
8) A biological monitor will be present on-site during all ground-disturbing activities, including installation of best management practices (conservation measures) and reclamation activities to ensure effects to special status plants are minimized as much as possible. Areas requiring a biological monitor will be determined in conjunction with BLM GJFO.
9) Fram will follow BLM's *Noxious and Invasive Management Plan for Oil and Gas Operators* (BLM, 2007) to control or eliminate noxious weeds and other undesirable plants documented within the project area.
10) Fram will inform all employees about prohibitions against possessing, damaging, and destroying ESA-listed plants.

11) In areas that permission to complete surveys was not acquired, but the area could provide potential habitat for federally threatened plants (Colorado hookless cactus), Fram will have a biological monitor present to avoid or minimize effects to federally listed species, where feasible. These efforts could include:
    - Minor alteration of the pipeline alignment to avoid removal of a Colorado hookless cactus plant(s).
    - Reduce the pipeline construction corridor to minimize effects to potentially suitable habitat.
    - Reconfigure the proposed well pad to avoid removal of Colorado hookless cactus plant(s).
12) In addition, Fram will provide details of cactus plant locations, as well as actions taken to minimize effects to the plants and/or habitat to the BLM GJFO when and if additional Colorado hookless cactus plants are encountered.

Migratory Birds

1) Nests documented within 0.5 mile of proposed Project components during 2013 surveys will be revisited to determine status prior to construction. If a nest is determined to be occupied, Fram would adhere to the spatial and temporal buffers for each species as identified in Table 3.3-16 and the Biological Resources Protection Plan.
2) Vegetation clearing will not occur between May 15 and July 15.

Raptors

1) If the nest is determined to be occupied and active, surface disturbing activities will be avoided within 0.25 mile or 0.5 mile of the raptor nest during FWS and CPW seasonal breeding periods.
2) If the nest is not occupied, or nestlings have fledged and dispersed from the nest, construction or other disturbing activities will occur without consideration of seasonal breeding periods.

Wildlife and Fisheries

1) See Exhibit 1 to the Biological Resources Protection Plan for the Wildlife Mitigation Plan which includes additional measures for protection of wildlife as agreed to by Fram and CPW.
2) Bear-resistant containers will be used. Refuse will be collected frequently to minimize potential for conflicts with bears.
3) Water will be withdrawn from Brandon Ditch, North Fork Kannah Creek, and an unnamed tributary to Kannah Creek. The FWS will be consulted on appropriate methods to avoid or minimize impingement or entrainment of sensitive fish species in surface water proposed for water withdrawal.
4) Discharge all hydrostatic test water in vegetated upland areas at a distance from drainages to encourage infiltration and minimize flow into drainages. Discharge locations will be approved by the BLM GJFO.
5) Construction will be avoided within active white-tailed prairie dog towns, if feasible. However, if active towns cannot be avoided, Fram will avoid activities within active white-tailed prairie dog towns during pupping season on BLM-administered lands from April 1 through July 15.

6) Redistribute large, woody material salvaged during clearing operations. Disperse materials over disturbed surfaces from which the trees and brush were originally removed to provide wildlife habitat and a deterrent to vehicular traffic.
7) As required by lease stipulation, avoid construction within sensitive big game winter habitats from December 1 through April 30.
8) During operations, to minimize traffic within big game sensitive winter wildlife habitat from December 1 through April 30, oil and produced water from selected well pads (Federal 1-2-15-1, Federal 1-2-16-1, Federal 1-2-22-1, Federal 1-2-26-2, and Federal 1-2-33-1) that flows to the Sink Creek Facility from May 1 to November 30, will be collected by truck directly at the well pad for off-site transport.
9) Fram will be responsible for maintaining locked gates leading to sensitive big game winter habitats.
10) Measures described in the Storm Water Management Plan will be followed to minimize the potential for spills of fuel and/or other hazardous materials to reach drainages.
11) Native stream-bed materials will be used for trench backfill.
12) Application of herbicides within 100 feet of streams, wetlands and floodplains will be avoided, unless approved by the BLM.
13) A policy stating that no guns, dogs, drugs, or alcohol will be in place for all employees and subcontractors to minimize potential conflicts with wildlife.
14) Single-purpose roads will be gated and general public access will be restricted to reduce traffic disruptions to wildlife where possible, and with landowner consent.

Range Management

1) After well pad construction, wildlife-friendly fencing will be erected around well-pad disturbance to exclude livestock grazing and promote successful revegetation. Fencing will be in place during the first two growing seasons after well pad construction, or until it is no longer necessary.

Transportation

1) Fram has prepared and would follow measures included in a Transportation Plan to minimize impacts to transportation and access.
2) Fugitive dust will be controlled during construction of well pads and along unpaved access roads as needed.
3) If wells prove productive, gathering pipelines will be installed for oil and produced water, reducing heavy truck traffic.
4) Existing roads will be used as much as possible, with gathering pipelines installed alongside existing and new roads, to minimize disturbance.
5) Fram will use a northern access route during the winter (December 1 through April 30) to protect sensitive wildlife and habitats.
6) Workers will carpool to drilling locations.
7) Speed limits will be enforced from the beginning of construction throughout the life of the Project and where speed limits are not posted on unpaved access roads, speeds would not exceed 20 mph.
8) Fram employees, contractors, and independent fuel haulers will comply with all requirements and regulations concerning the transport of hazardous materials as set forth by the U.S. Department of Transportation (USDOT) Federal Motor Carrier Safety Administration, Colorado Department of Public Health and Environment, and other appropriate regulatory authorities.

Exhibit 5

Cultural MOAs

Cultural Resources
Memorandum of Understanding

Direct Effects

MEMORANDUM OF AGREEMENT

BETWEEN THE BUREAU OF LAND MANAGEMENT AND

THE COLORADO STATE HISTORIC PRESERVATION OFFICER REGARDING

THE FRAM OPERATING, LLC WHITEWATER UNIT MASTER DEVELOPMENT PLAN

AND ASSOCIATED INFRASTRUCTURE

IN MESA COUNTY, COLORADO

WHEREAS, the Bureau of Land Management – Grand Junction Field Office (BLM) plans to approve a Master Development Plan (MDP) for the future development and construction of up to 108 wells on 12 new well pads, roads, gas gathering pipelines, oil gathering pipelines and produced water gathering pipelines (the undertaking) pursuant to Federal Land Policy and Management Act (FLPMA) Public Law 94–579 of 1976; and

WHEREAS, the BLM has defined the undertaking's area of potential effect (APE) as the 52,543 acres in which the well pads, wells, and linear routes will be built (see Attachment 1); and

WHEREAS, the BLM has determined, in consultation with the Colorado State Historic Preservation Officer (SHPO), that the undertaking will have an adverse effect on historic properties and has consulted with the Colorado State Historic Preservation Officer (SHPO) pursuant to 36 CFR part 800 of the regulations implementing Section 106 of the National Historic Preservation Act (16 USC § 470f) and the Colorado Protocol Agreement; and

WHEREAS, the BLM has consulted with Fram Operating, LLC (Fram) regarding the effects of the undertaking on historic properties and has invited it to sign the Memorandum of Agreement (MOA) as an invited signatory; and

WHEREAS, the purpose of this MOA is to mitigate the undertaking's direct effects to historic properties and to establish acceptable monitoring protocol; and

WHEREAS, this MOA does not exempt Fram from additional mitigation that may be required as a result of future construction activities or tribal mitigation associated with this undertaking; and

WHEREAS, the BLM has consulted with the Colorado State Historic Preservation Officer (Colorado SHPO) on its determinations of eligibility and effect, and the SHPO has concurred with BLM's determinations; and

WHEREAS, the BLM is consulting with the Ute Indian Tribe of the Uintah and Ouray Reservation, Ute Mountain Ute Tribe, and the Southern Ute Tribe pursuant to Section 106 of the NHPA; and

WHEREAS, pursuant to the National Programmatic Agreement among the BLM, the Advisory Council on Historic Preservation (ACHP) and the National Conference of State Historic Preservation Officers, the undertaking does not meet the threshold for ACHP notification; and

NOW, THEREFORE, the BLM and the SHPO agree that the undertaking shall be implemented in

accordance with the following stipulations in order to take into account the direct effects of the undertaking on recorded historic properties within the APE.

STIPULATIONS

The BLM shall ensure that the following measures are carried out:

I. MITIGATION

A. Fram will implement the mitigation measures identified in the Cultural Mitigation Plan for Fram Operating's Whitewater Project, Mesa County, Colorado (Attachment 2) for all drilling and production activities.

B. Fram will implement the alternative mitigation measures for cumulative impacts as outlined in the separate Memorandum of Agreement Between the Bureau of Land Management and the Colorado State Historic Preservation Officer Regarding the Fram Operating, LLC, Whitewater Unit Master Development Plan in Mesa County, Colorado.

II. MONITORING AND DISCOVERIES

A. Fram will implement the Monitoring and Cultural Resource Discovery Plan described in Attachment 2 (Appendix C).

III. DURATION

This MOA will be null and void if its terms are not carried out within five (5) years from the date of its execution. Prior to such time, the BLM may consult with the other signatories to reconsider the terms of the MOA and amend it in accordance with Stipulation VII below.

IV. POST-REVIEW TRIBAL MITIGATION

The BLM shall contact the SHPO to incorporate mitigation identified during its on-going consultation with tribes. Modification to Attachment 2 will not require an amendment to the MOA.

V. MONITORING AND REPORTING

One year following the execution of this MOA, until it expires or is terminated, the BLM shall provide all parties to this MOA an annual summary report detailing work undertaken pursuant to its terms by September 30th. Such report shall include any scheduling changes proposed, any problems encountered, and any disputes and objections received in the BLM's efforts to carry out the terms of this MOA.

VI. DISPUTE RESOLUTION

Should any signatory to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, the BLM shall consult with such party to resolve the objection. If the BLM determines that such objection cannot be resolved, the BLM will:

A. Forward all documentation relevant to the dispute, including the BLM's proposed resolution, to the ACHP. The ACHP shall provide the BLM with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, the BLM

shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. The BLM will then render a Decision and proceed accordingly.

B. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, the BLM may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, the BLM shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the MOA, and provide them and the ACHP with a copy of such written response.

C. It is the BLM's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged.

VII. AMENDMENTS

This MOA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all of the signatories is filed with the ACHP.

VIII. TERMINATION

If any signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other parties to attempt to develop an amendment per Stipulation VIII, above. If within thirty (30) days an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories.

Once the MOA is terminated, and prior to work continuing on the undertaking, the BLM must either (a) execute an MOA pursuant to 36 C.F.R § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 C.F.R § 800.7. The BLM shall notify the signatories as to the course of action it will pursue.

Execution of this MOA by the BLM and the SHPO is in accordance with the Colorado Protocol Stipulation VIII(C)(2)(A)(1) and therefore is in compliance with 36 C.F.R. § 800.6(b)1(iv) and 36 C.F.R. § 800.6(c).

In witness whereof, the parties to this MOA, through their duly authorized representatives, have executed this MOA on the dates set out below, and certify that they have read, understood, and agreed to the terms and conditions of this MOA as set forth herein.

The effective date of this MOA is the date signed by the last signatory below.

SIGNATORIES:

Bureau of Land Management

for Wayne N. Date 5-28-14
Kathryn A. Stevens, Grand Junction Field Office Manager

Colorado State Historic Preservation Office

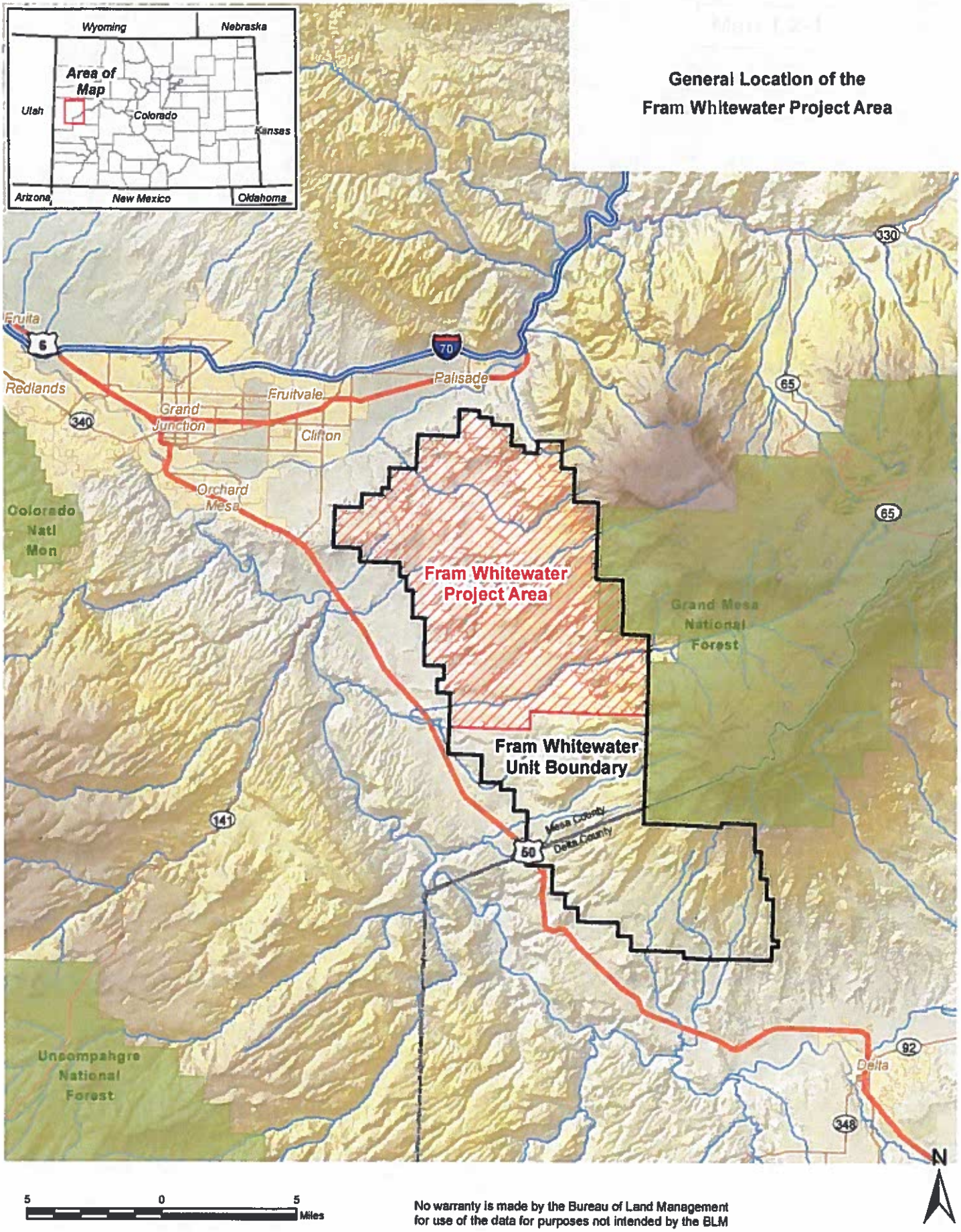
for Richard H. Brown (Deputy SHPO) Date 5-30-14
Edward C. Nichols, State Historic Preservation Officer

INVITED SIGNATORY:

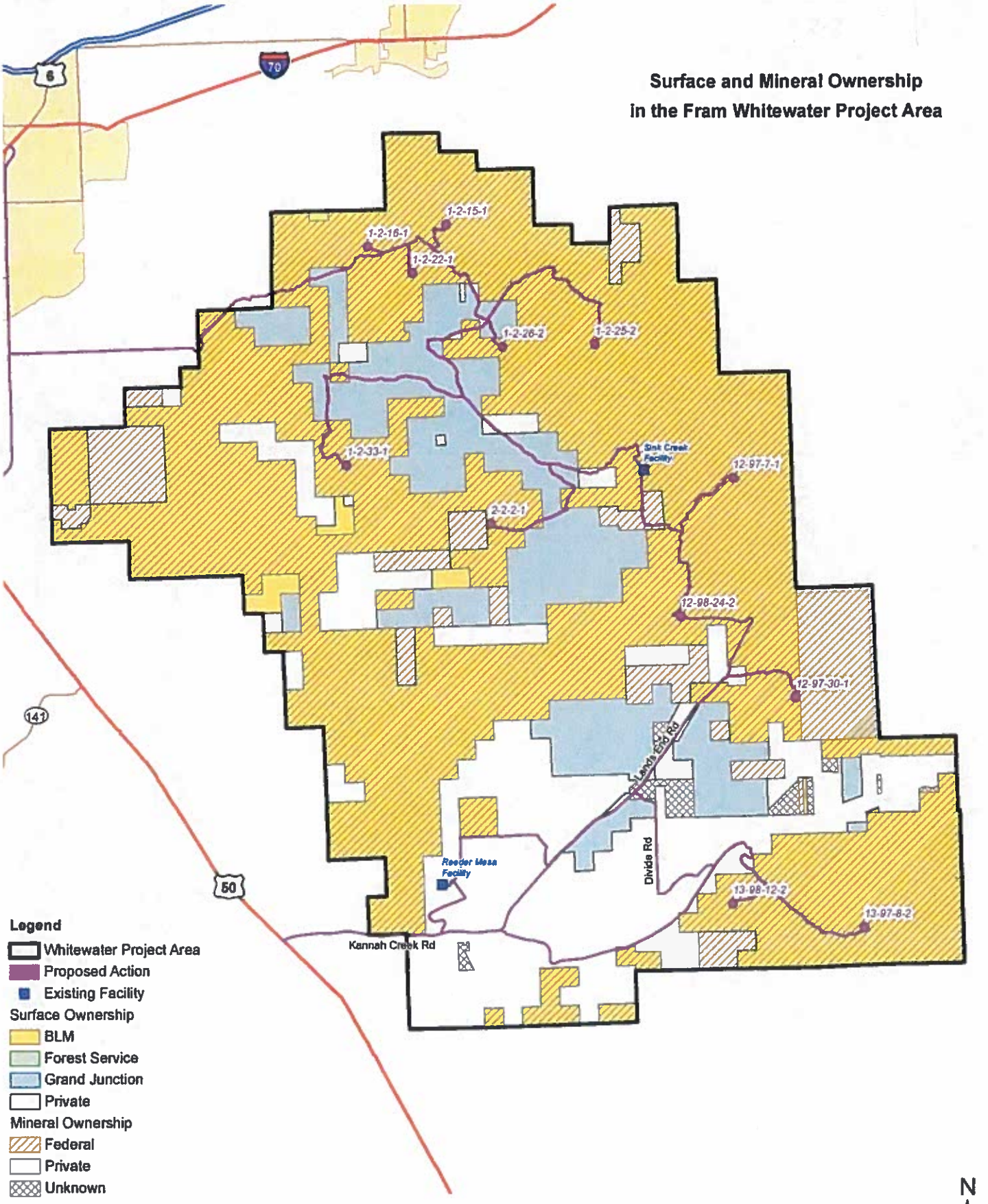
Fram Operating, LLC

David Cook Date 6/2/14
David A. Cook, Manager, Fram Operating, LLC

Attachment 1:
Fram Whitewater Master Development Plan
Location Area and APE Maps



No warranty is made by the Bureau of Land Management for use of the data for purposes not intended by the BLM



No warranty is made by the Bureau of Land Management for use of the data for purposes not intended by the BLM

Attachment 2:

Cultural Mitigation Plan for Fram Operating's Whitewater Project, Mesa County, Colorado

Cultural Resources
Memorandum of Understanding

Cumulative Effects

MEMORANDUM OF AGREEMENT

BETWEEN THE BUREAU OF LAND MANAGEMENT AND

THE COLORADO STATE HISTORIC PRESERVATION OFFICER REGARDING THE FRAM OPERATING, LLC WHITEWATER UNIT MASTER DEVELOPMENT PLAN IN MESA COUNTY, COLORADO

WHEREAS, the Bureau of Land Management – Grand Junction Field Office (BLM) plans to approve a Master Development Plan (MDP) for the future development and construction of up to 108 wells on 12 new well pads, roads, gas gathering pipelines, oil gathering pipelines and produced water gathering pipelines (the undertaking) pursuant to Federal Land Policy and Management Act (FLPMA) Public Law 94–579 of 1976; and

WHEREAS, the BLM has defined the undertaking's area of potential effect (APE) as the 52,543 acres in which the well pads, wells, and linear routes will be built; and

WHEREAS, the BLM has determined, in consultation with the Colorado State Historic Preservation Officer (SHPO), that the undertaking may have an adverse effect on historic properties and has consulted with the Colorado State Historic Preservation Officer (SHPO) pursuant to 36 CFR part 800 of the regulations implementing Section 106 of the National Historic Preservation Act (16 USC § 470f) and the Colorado Protocol Agreement; and

WHEREAS, the BLM has consulted with Fram Operating, LLC (Fram) regarding the effects of the undertaking on historic properties and has invited it to sign the Memorandum of Agreement (MOA) as an invited signatory; and

WHEREAS, the sole purpose of this MOA is to reduce the undertaking's cumulative impacts as well as adverse effects to historic properties that have not been recorded due to denied land owner access for cultural resources survey; and

WHEREAS, this MOA does not exempt Fram from additional mitigation that may be required as a result of future construction activities associated with this undertaking; and

WHEREAS, pursuant to the National Programmatic Agreement among the BLM, the Advisory Council on Historic Preservation (ACHP) and the National Conference of State Historic Preservation Officers, the undertaking does not meet the threshold for ACHP notification; and

NOW, THEREFORE, the BLM and the SHPO agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on unrecorded historic properties on private land and the cumulative effects to historic properties within the APE.

STIPULATIONS

The BLM shall ensure that the following measures are carried out:

I. MITIGATION

A. Fram will voluntarily provide the approximate equivalent of the costs it would have incurred to conduct survey on the 172 private acres where survey permission was not obtained, as well as additional funds to cover administrative costs, in an amount not to exceed $21,000.

B. Such funds will be held by BLM in a "mitigation bank."

C. Mitigation bank funds will be used to address adverse effects to historic properties located within the APE. Examples of mitigation include, but are not limited to:

1) The scientific investigation, through excavation or systematic testing, of features that would likely be impacted in the future by activities such as road maintenance and widening;

2) The interpretation of a site or sites for the public, and/or;

3) The intensive recordation (such as 3D imaging) or listing of a site to the National Register of Historic Places, which would recognize and honor the importance of sites within the project area.

C. The BLM will work with the SHPO to determine appropriate uses for the mitigation bank funds.

II. DURATION

This MOA will be null and void if its terms are not carried out within three (3) years from the date of its execution. Prior to such time, the BLM may consult with the other signatories to reconsider the terms of the MOA and amend it in accordance with Stipulation VI below.

III. POST-REVIEW DISCOVERIES

In the event that additional historic properties are discovered, the BLM shall contact the SHPO for further consultation.

IV. MONITORING AND REPORTING

One year following the execution of this MOA, until it expires or is terminated, the BLM shall provide all parties to this MOA an annual summary report detailing work undertaken pursuant to its terms by September 30th. Such report shall include any scheduling changes proposed, any problems encountered, and any disputes and objections received in the BLM's efforts to carry out the terms of this MOA.

V. DISPUTE RESOLUTION

Should any signatory to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, the BLM shall consult with such party to resolve the objection. If the BLM determines that such objection cannot be resolved, the BLM will:

A. Forward all documentation relevant to the dispute, including the BLM's proposed resolution, to the

ACHP.The ACHP shall provide the BLM with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, the BLM shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. The BLM will then render a Decision and proceed accordingly.

B. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, the BLM may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, the BLM shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the MOA, and provide them and the ACHP with a copy of such written response.

C. It is the BLM's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged.

VI. AMENDMENTS

This MOA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all of the signatories is filed with the ACHP.

VII. TERMINATION

If any signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other parties to attempt to develop an amendment per Stipulation VI, above. If within thirty (30) days an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories.

Once the MOA is terminated, and prior to work continuing on the undertaking, the BLM must either (a) execute an MOA pursuant to 36 C.F.R § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 C.F.R § 800.7. The BLM shall notify the signatories as to the course of action it will pursue.

Execution of this MOA by the BLM and the SHPO is in accordance with the Colorado Protocol Stipulation VIII(C)(2)(A)(1) and therefore is in compliance with 36 C.F.R. § 800.6(b)1(iv) and 36 C.F.R. § 800.6(c).

In witness whereof, the parties to this MOA, through their duly authorized representatives, have executed this MOA on the dates set out below, and certify that they have read, understood, and agreed to the terms and conditions of this MOA as set forth herein.

The effective date of this MOA is the date signed by the last signatory below.

SIGNATORIES:

Bureau of Land Management

Katie A Stevens Date 2-4-2014

Kathryn A. Stevens, Grand Junction Field Office Manager

Colorado State Historic Preservation Office

Date 2/18/14

Edward C. Nichols, State Historic Preservation Officer

INVITED SIGNATORY:

Fram Operating, LLC

Date 3/5/14

David A. Cook, Manager, Fram Operating, LLC

AMENDMENT NO. 1 TO

MEMORANDUM OF AGREEMENT
BETWEEN THE BUREAU OF LAND MANAGEMENT AND
THE COLORADO STATE HISTORIC PRESERVATION OFFICER REGARDING
THE FRAM OPERATING, LLC WHITEWATER UNIT MASTER DEVELOPMENT
PLAN IN MESA COUNTY, COLORADO

WHEREAS, the Bureau of Land Management (BLM) entered into a Memorandum of Agreement (MOA) with the Colorado State Historic Preservation Office (SHPO) which included Fram Operating, LLC (Fram) as an invited signatory and the MOA was executed by all parties as of March 5, 2014;

WHEREAS, Fram has secured additional permissions from private land owners to survey lands within the Whitewater Unit Master Development Plan project and the survey was completed by a permitted BLM Colorado consulting firm. The current amount not surveyed due to landowner denial is now 89 acres.

WHEREAS, pursuant to 36 CFR § 800.6(c)(7), the parties to the MOA desire to amend the MOA.

NOW THEREFORE, the parties agree as follows:

I. The MOA shall be amended to replace Stipulation 1A in full with the following language:

Fram will voluntarily provide the approximate equivalent of the costs it would have incurred to conduct survey on the 89 private acres where survey permission was not obtained, as well as additional funds to cover administrative costs, in an amount not to exceed $17,600.

II. All other provisions of the MOA, as amended, are unchanged and shall remain in full force and effect.

SIGNATORIES:

Bureau of Land Management

for Wayne Werkmeister Date 5-28-14

Kathryn A. Stevens, Grand Junction Field Office Manager

Colorado State Historic Preservation Office

for Richard H. Wilmer (Deputy SHPO) Date 5.30.14

Edward C. Nichols, State Historic Preservation Officer

INVITED SIGNATORY:

Fram Operating, LLC

David A. Cook Date 6/2/14

David A. Cook, Manager, Fram Operating, LLC