

U.S. Department of the Interior  
Bureau of Land Management  
White River Field Office  
73544 Hwy 64  
Meeker, CO 81641

## ENVIRONMENTAL ASSESSMENT

**NUMBER:** CO-110-2004-096-EA

**CASEFILE/PROJECT NUMBER** (optional): COC010178, COC56873

**PROJECT NAME:** Evergreen, Cottonwood Wells

**LEGAL DESCRIPTION:** #1-3; T1S R103W Sec 3 SESE COC010178  
#3-3; T1S R103W Sec 3 SESW COC010178  
#3-7; T1S R103W Sec 7 SESW COC56873  
#3-17; T1S R103W Sec 17 SESW COC127178  
#6-8; T1S R103W Sec 8 NESW COC10178

**APPLICANT:** Evergreen Operating Corp.

### **DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:**

#### ***Background/Introduction:***

**Proposed Action:** Evergreen proposes to drill 5 wells in the Cottonwood Creek area southwest of Rangely Colorado. These gas wells will be about 4000 feet deep. Access roads and drill pads will be new construction with pipelines next to the access roads as needed. The total length of access road to be built is 1856 feet (1.46 acres) and the total acres disturbed by drill pad construction will be 6.2 acres. The proposed action for each well is as follows:

#1-3 about 800 feet of access road 40 feet wide and a drill pad, 270 feet by 200 feet will result in a total disturbance of 1.97 acres. There are a number of small trees to be removed. These trees will be cut to four foot lengths and the limbs scattered or Evergreen will submit an alternative plan. This location is screened by P-J vegetation and the visual impacts should be low.

#3-3 this location is on the top of the hill, next to the existing road. Due to required set backs from lease and section lines, we could not move it out of site to the north. The location will be visible and these impacts and mitigation will follow in this document. Drill pad size is 270 feet by 200 feet. Total disturbance for the drill pad will be about 1.24 acres. No road will be needed.

#3-7 about 0.2 miles of new road is proposed which will be 30 feet wide. The drill pad will be 270 feet by 200 feet. Total new disturbance will be about 1.97 acres. At the onsite inspection of

this proposed well we discussed the merits of a locked gate where this access road leaves Cottonwood wash. This location is in a valley and not readily visible.

#3-17 no new road will be required. New disturbance will be limited to the 270 feet by 200 feet drill pad. Total disturbance will be about 1.24 acre. This location will not be visible with controlled access.

#6-8 no new road will be built. About 200 feet of abandoned road will be upgraded and the run off from this road directed into an existing water/sediment basin. The drill pad will be 270 feet by 200 feet, or about 1 acre.

**No Action Alternative:** There would be no additional environmental impacts from the no action alternative.

**ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD:**

**NEED FOR THE ACTION:** To respond to the request by the applicant to exercise lease rights and develop hydrocarbon reserves.

**PLAN CONFORMANCE REVIEW:** The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

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

Date Approved: July 1, 1997

Decision Number/Page: Page 2-5

Decision Language: "Make federal oil and gas resources available for leasing and development in a manner that provides reasonable protection for other resource values."

**AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:**

**STANDARDS FOR PUBLIC LAND HEALTH:** In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below:

## **CRITICAL ELEMENTS**

### **AIR QUALITY**

*Affected Environment:* There are no special designation air sheds or non-attainment areas nearby that would be affected by the proposed action. During periods of low precipitation, air quality in the area of the proposed action is often diminished by dust caused by human disturbance.

*Environmental Consequences of the Proposed Action:* Impacts from the no-action alternative are not anticipated.

*Environmental Consequences of the No Action Alternative:* No increase in dust would occur.

*Mitigation:* No additional mitigation is necessary.

### **CULTURAL RESOURCES**

*Affected Environment:* #1-3 well pad and about 1000 feet of new access road: the proposed well pad location and access road route have been inventoried at the Class III (100% pedestrian) level (Scott 2004, Compliance Dated 4/28/2004) with no new cultural resources identified in the inventoried area.

#3-3 well pad: the proposed well pad location has been inventoried at the Class III (100% pedestrian) level (Scott 2004, Compliance Dated 4/28/2004) with no new cultural resources identified in the inventoried area.

#3-7 well pad and about 0.2 miles of new road is proposed which will be 30 feet wide: the proposed well pad location and access road route have been inventoried at the Class III (100% pedestrian) level (Scott 2004, Compliance Dated 4/28/2004) with no new cultural resources identified in the inventoried area.

#3-17 no new road will be required: the proposed well pad location has been inventoried at the Class III (100% pedestrian) level (Scott 2004, Compliance Dated 4/28/2004) with no new cultural resources identified in the inventoried area.

#6-8 no new road will be built. About 200 feet of abandoned road will be upgraded: the proposed well pad location and access road route have been inventoried at the Class III (100% pedestrian) level (Scott 2004, Compliance Dated 4/28/2004) with no new cultural resources identified in the inventoried area.

*Environmental Consequences of the Proposed Action:* #1-3 well pad and about 1000 feet of new access road: The proposed well pad location and access road will not impact any known cultural resources.

#3-3 well pad; the proposed well pad location will not impact any known cultural resources.

#3-7 well pad and about 0.2 miles of new road is proposed which will be 30 feet wide: The proposed well pad location and access road will not impact any known cultural resources.

#3-17 no new road will be built. The proposed well pad location will not impact any known cultural resources.

#6-8 no new road will be built. About 200 feet of abandoned road will be upgraded: The proposed well pad location and access road will not impact any known cultural resources.

*Environmental Consequences of the No Action Alternative:* There would be no new impacts to cultural resources under the No Action Alternative.

*Mitigation:* for all well pad locations and access roads:1. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

2. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

**INVASIVE, NON-NATIVE SPECIES/RECLAMATION:** (This includes vegetation information related to Public Land Health Standard 3.)

*Affected Environment:* The proposed project is within the salt desert shrub and western wheatgrass/greasewood vegetation associations. The salt desert shrub soils are moderately deep and also derived from shale. This soil is saline which makes for difficult reclamation. The western wheatgrass/greasewood soils in this area are deep and sandstone derived alluvium. This vegetation type is heavily infested by cheatgrass. Past reclamation efforts have included non-native species, which have performed well in soil stabilization.

The two noxious weeds found in this area are halogeaon and cheatgrass. Both of these species are found throughout the area. Halogeaon has the ability to rapidly colonize disturbed areas, but is easily controlled by successful revegetation. Cheatgrass is found throughout the area, in all of the plant communities. This species can hinder reclamation because of its highly competitive nature. Non-native species have been shown to out-compete cheatgrass. Noxious weeds, such as knapweeds, transported on site by construction equipment and support vehicles would also be of concern.

*Environmental Consequences of the Proposed Action:* Using the proposed non-native seed mix would adequately stabilize soils. These species have not been shown to move off site or to interbreed with adjacent plant species.

With prompt control of any noxious weeds that occur on the project area there would not be any adverse impacts to the adjacent plant communities. Prompt reclamation would prevent cheatgrass and halogeaon from establishing.

*Environmental Consequences of the No Action Alternative:* There would be no impacts.

*Mitigation:* Use Standard Seed Mix #2 for reclamation. In accordance with Condition of Approval #179 from Appendix B of the White River ROD/RMP, application of herbicides must be under field supervision of an EPA-certified pesticide applicator. Herbicides must be registered by the EPA and application proposals must be approved by the BLM.

## **MIGRATORY BIRDS**

*Affected Environment:* Non-game populations associated with these ranges are widespread and common throughout sagebrush and pinyon-juniper habitats in this Resource Area (e.g., green-tailed and spotted towhee, vesper and lark sparrows). There are no specialized or narrowly endemic species known to occupy the project area.

*Environmental Consequences of the Proposed Action:* Although this action would represent an incremental and longer term reduction in the extent of sagebrush and pinyon-juniper habitat available for migratory bird breeding functions, implementation of this project would have no measurable influence on the abundance or distribution of breeding migratory birds even at the smallest landscape scale.

*Environmental Consequences of the No Action Alternative:* Incremental reductions of sagebrush and pinyon-juniper rangelands would not occur at this time or place.

*Mitigation:* None.

**THREATENED, ENDANGERED, AND SENSITIVE PLANT SPECIES** (includes a finding on Standard 4)

*Affected Environment:* There are no threatened, endangered or sensitive plant species occurring within the project area.

*Environmental Consequences of the Proposed Action:* None

*Environmental Consequences of the No Action Alternative:* None

*Mitigation:* None

*Finding on the Public Land Health Standard for Threatened & Endangered species:* There is no reasonable likelihood that the proposed action or no action alternative would have an influence on the condition or function of Threatened, Endangered, or Sensitive plant species. Thus, there would be no effect on achieving the land health standard.

**WASTES, HAZARDOUS OR SOLID**

*Affected Environment:* There are no known hazardous or other solid wastes on the subject lands. No hazardous materials are known to have been used, stored or disposed of at this site.

*Environmental Consequences of the Proposed Action:* No listed or extremely hazardous materials in excess of threshold quantities are proposed for use in this project. While commercial preparations of fuels and lubricants proposed for use may contain some hazardous constituents, they would be stored, used and transported in a manner consistent with applicable laws, and the generation of hazardous wastes would not be anticipated.

*Environmental Consequences of the No Action Alternative:* No hazardous or other solid wastes would be generated under the no-action alternative.

*Mitigation:* The operator shall be required to collect and properly dispose of any solid wastes generated by this project.

**WATER QUALITY, SURFACE AND GROUND** (includes a finding on Standard 5)

*Affected Environment:* The proposed action is in Shavetail Wash and Cottonwood Creek, all tributaries to the White River. A review of the Colorado's 1989 Nonpoint Source Assessment Report (plus updates), the 305(b) report, the 303(d) list and the Unified Watershed Assessment was done to see if any water quality concerns have been identified. The proposed action is in a

Category 1, Priority 2, watershed (The Lower White) identified in the Unified Watershed Assessment report. The state has reasons to believe this watershed has water quality problems (sediment and salinity loads) that may impair the watershed. Information needs to be gathered before total maximum daily loads (TMDL) will be determined.

The State has classified this stream segment as Aquatic Life Warm 1, Recreation 1a, Water Supply and Agriculture. The state has further defined water quality parameters with table values. These standards reflect the ambient water quality and define maximum allowable concentrations for the various water quality parameters. The anti-degradation rule applies to this segment meaning no further water quality degradation is allowable that would interfere with or become harmful to the designated uses.

Water quality data is not available for these upper reaches of Cottonwood Creek. These segments of stream are considered to be ephemeral, which means they flow in direct response to winter snow melt and late summer/fall rainstorms. Water quality of precipitation is considered to be of good quality, but can be high in sediment depending on the magnitude and duration of the storm event.

Oil and Gas operations are considered to be a light industrial activity by the Colorado Department of Public Health and Environment. As industrial dischargers the applicant is required to obtain a permit authorizing the discharge of stormwater from these well pads and roads and show how the lessee will prevent sediment from entering the surrounding water ways.

*Environmental Consequences of the Proposed Action:* Fragile watersheds that have very high erosion potential (i.e. Cottonwood Creek) are frequently high in salts and can contribute to increased salinity loads to the White River and the Colorado River Basin. Annual runoff is dynamic and dependent on some aspects we control, such as the amount of vegetation retained for watershed protection and vegetation density. Depleting this vegetation cover needed to protect watersheds from raindrop impact and runoff could cause long-term erosion and water quality problems for Cottonwood Creek and on downstream. BMPs are needed to re-establish a protective vegetative cover and to collect sediment during runoff events.

*Environmental Consequences of the No Action Alternative:* Impacts from the no-action alternative are not anticipated.

*Mitigation:* Submit a copy of the Stormwater Discharge Plan, which is required by the State identifying how BMPs will be used to reduce stormwater discharge. Apply Conditions of Approval, (BMPs) listed in Appendix B, in the White River RMP to help minimize surface disturbing impacts.

When preparing the site, all suitable topsoil should be stripped from the surface of the location and stockpiled for reclamation. For the interim, if the topsoil is stockpiled on slopes exceeding five percent, construct a berm or trench below the stockpile. Once construction is completed, reclaim as much of the pad that is not needed for maintenance of the well facility.

All sediment control structures or disposal pits will be designed to contain a 100-year, 6-hour storm event. Storage volumes within these structures will have a design life of 25 years.

All activity shall cease when soils or road surfaces become saturated to a depth of three inches unless otherwise approved by the Authorized Officer.

Provide vegetative or artificial stabilization of cut and fill slopes in the design process. Avoid establishment of vegetation where it inhibits drainage from the road surface or where it restricts safety or maintenance.

Eliminate undesirable berms that retard normal surface runoff. Fill material associated with construction of this project shall not be deposited in ephemeral draws adjacent to two of these wells.

*Finding on the Public Land Health Standard for water quality:* The proposed action will have no effect on the watershed’s ability to meet these water quality standards.

**CRITICAL ELEMENTS NOT PRESENT OR NOT AFFECTED:**

No ACEC’s, flood plains, riparian or wetland systems, prime and unique farmlands, wild and scenic rivers, threatened, endangered or sensitive animal species exist within the area affected by the proposed action. Furthermore, there is no reasonable likelihood that the proposed action or no action alternative would have an influence on whether riparian or wetland habitats would meet the Public Land Health Standard. For threatened, endangered and sensitive animal species the Public Land Health Standard is not applicable since neither the proposed nor the no-action alternative would have any influence on populations of, or habitats potentially occupied by, special status animals. There are also no Native American religious or environmental justice concerns associated with the proposed action.

**NON-CRITICAL ELEMENTS**

The following elements **must** be addressed due to the involvement of Standards for Public Land Health:

**SOILS** (includes a finding on Standard 1)

*Affected Environment:* Baseline soils data have been collected for Rio Blanco County by the NRCS and are published in an order III Soil Survey. This survey is available for review from the White River Field Office. The table below identifies soil characteristics for the soils encountered from the proposed action.

Proposed Action	Soil Number	Soil Name	Slope	Range site	Salinity	RunOff	Erosion Potential	Bedrock
Well 3-3	1	Abor Clay Loam	5-30%	Clayey Foothills	<4	Rapid	High	20-40
Well 3-7 and road	19	Chipeta-Walknolls Complex	5-15%	Clayey Saltdesert/Saltdesert breaks	8-16	Rapid	High	10-20
Well 1-3	64	Piceance fine sandy	5-15%	Rolling Loam	<2	Medium	Moderate to	20-40

Proposed Action	Soil Number	Soil Name	Slope	Range site	Salinity	RunOff	Erosion Potential	Bedrock
road		loam					high	
Well 1-3	70	Redcreek-Rentsac complex	5-30%	PJ woodlands/PJ woodlands	<2	Very high	Moderate to high	10-20
Well 6-8	90	Torrifluents gullied		None		Rapid	Very high	>60
Well 6-8 road	93	Turley fine sandy loam	0-3%	Alkaline Slopes	2-4	Medium	Slight	>60

Revegetation limitations for these soil types include an arid alkalinity, climate and droughty soil condition. The well location and road to well 3-7 are located on soils delineated as being fragile, saline and on slopes greater than 35 percent. CSU-1 stipulation description states, surface-disturbing activities will be allowed only after the operator submits an engineered construction/reclamation plan and approved by the Area Manager. The plan would address how soil productivity would be restored and how surface runoff would be treated to avoid accelerated erosion and mass wasting. Exceptions would be granted if after environmental analysis the proposed action did not fit the criteria identifying fragile soils on slopes greater than 35% or the disturbance would not result in any long-term decrease in site productivity or increased erosion.

*Environmental Consequences of the Proposed Action:* General impacts associated with oil and gas and road development include but are not limited to, loss of topsoil, soil compaction and possible increase in sediment loads to the White River. The primary surface-disturbing impact would be a potential increase in sediment transport from runoff events after the protective vegetative cover has been removed.

Because the road and well pad for well 3-7 is in an area that has been identified as CSU-1, it is important to recognize the increased erosion potential and design BMPs, which will minimize this erosion. Submitting a copy of the Stormwater Discharge Plan, which is required by the State (Stormwater Discharge Permit) identifying how BMPs will be used to reduce stormwater discharge and erosion off of the roads, could replace the construction/reclamation plan required by the BLM.

BMPs used to slow runoff, trap sediment and prepare reclaimed areas for seeding would also help reduce soil loss. With an explanation of how these BMPs will be used and implementation of these BMPs, impacts are expected to be short in duration, during the construction phase and for a short time after construction until successful reclamation is achieved.

*Environmental Consequences of the No Action Alternative:* Impacts are not anticipated from not permitting the proposed action.

*Mitigation:* Submit a copy of the Stormwater Discharge Plan, which is required by the State identifying how BMPs will be used to reduce stormwater discharge. Use Standard Seed mix # 2 for the range sites identified. In addition, the following COAs from Appendix B, White River ROD/RMP should be applied.

Water bars or dikes shall be constructed on all of the rights-of-way, and across the full width of the disturbed area, as directed by the authorized officer.

Slopes within the disturbed area shall be stabilized by non-vegetative practices designed to hold the soil in place and minimize erosion. Vegetative cover shall be reestablished to increase infiltration and provide additional protection from erosion.

When erosion is anticipated, sediment barriers shall be constructed to slow runoff, allow deposition of sediment, and prevent it from leaving the site. In addition, straining or filtration mechanisms may also contribute to sediment removal from runoff

*Finding on the Public Land Health Standard for upland soils:* The proposed action will have no effect on the soils' ability to meet the land health standard.

### **VEGETATION** (includes a finding on Standard 3)

*Affected Environment:* The project area is primarily salt desert shrub with junipers growing on ridge tops. These salt desert shrub vegetation associations is on sites with relatively clayey soils, high salt content and relatively low precipitation 10-12 inches. The greasewood/western wheatgrass bottoms are found on deep soils derived from sandstone. Well #13-20 is in the greasewood bottom. Wells #8-7 and #13-17 are in the salt desert shrub vegetation type.

*Environmental Consequences of the Proposed Action:* Following reclamation these vegetation sites have a relatively good success at establishment of perennial vegetation cover. The salt desert shrub type should be adequately reclaimed in 3-5 years with the native community dominating within 20 years. The greasewood bottom would establish cover suitable for soil retention within 3-5 years.

*Environmental Consequences of the No Action Alternative:* There would be no impacts.

*Mitigation:* None

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): The salt desert shrub plant community meets the standards for plant health. The greasewood/western wheatgrass community is dominated by cheatgrass and does not meet the criteria for a healthy plant community. The proposed action would have no effect on the conditions of either of these plant communities.

### **WILDLIFE, AQUATIC** (includes a finding on Standard 3)

*Affected Environment:* There is no aquatic wildlife occurring within the project area.

*Environmental Consequences of the Proposed Action:* None.

*Environmental Consequences of the No Action Alternative:* None.

*Mitigation:* None.

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Vegetation and Wildlife, Terrestrial): There is no aquatic wildlife occurring within the project area. Therefore, this standard is not applicable.

### **WILDLIFE, TERRESTRIAL** (includes a finding on Standard 3)

*Affected Environment:* Well #1-3. This location involves the construction of 1000 feet of new access road that traverses sagebrush and some juniper woodland. The pad occupies a juniper site with some black sagebrush interspersed with big sagebrush, mountain mahogany and *Ephedra*. The pad elevation is approximately 6085 feet and occupies a northern exposure. This pad is located in normal winter range for mule deer. Raptor nesting potential is moderate with no nests observed during a field visit on 24 March 2004. This, and well #3-3-1S-103 are accessed from the north via a road that runs along Shavetail Park, an extensive sagebrush park. The well also falls within overall range for greater sage-grouse as designated in the White River Resource Management Plan (RMP). No evidence of recent grouse use was observed in the field.

Well #3-3. This pad occurs at a flat junction of two roads in greasewood with a few young junipers at an elevation of 6080 feet. Total disturbance is approximately 1.2 acres with no new road construction required. This pad is also accessed via an existing road through Shavetail Park and falls within overall range for greater sage-grouse as designated in the RMP. No evidence of recent grouse use was observed in the field. This location falls within normal winter range for mule deer and the few, young existing junipers are too small to support the nests of woodland raptors.

Well #3-7. Approximately 0.2 miles of new road will be constructed to access this site. This road traverses sagebrush and crosses two ephemeral draws. A unique feature to the immediate vicinity was identified in the form of a small patch (15'x30') of yucca plants immediately adjacent to the proposed road location. The flag line to this road missed these plants. Care should be taken during construction of the road to avoid destruction of these plants. The pad location consists of sagebrush at an elevation of 5627 feet. No woodland or cliff raptor nests were observed during an on-site visit. This location occurs within normal winter range for mule deer.

Well #3-17. This flat location is dominated by cheat grass and greasewood with extensive rimrock located in close proximity (0.25 miles or less) to the site. The potential for use by cliff nesting raptors is high. No additional road construction is required and the site sits at 5653 feet. An active golden eagle nest in 2004 is located on a cliff site 0.25 miles southwest of this location. The pad falls within normal winter range for mule deer.

Well #6-8. The site is flat and dominated by decadent greasewood and sits 40 feet from an ephemeral draw with prominent incisions. The projected road to be upgraded runs next to an existing stock pond. Pad elevation is approximately 5460 feet and falls within normal winter range for mule deer.

*Environmental Consequences of the Proposed Action:* The construction of this project will result in a long-term increase of road traffic associated with commercial oil/gas related activities. It will result in the loss of approximately 7.2 acres of greasewood, sagebrush and juniper habitat. The development of oil/gas facilities in areas previously undisturbed by commercial oil/gas activities results in incremental reductions of normal winter range habitat for big game, as well as an increase in the disturbance from additional road traffic. Additionally, it will result in increased activity in an area holding high potential for nesting by raptors, with the potential for disturbance to an active golden eagle nest (Well #3-17). Wells 1-3 and 3-3 both fall within overall range for greater sage-grouse as designated in the RMP. Greater sage-grouse have been petitioned for listing under the Endangered Species Act (ESA). Documented use by sage-grouse has occurred within 0.25 miles of these wells, though not since 1990.

*Environmental Consequences of the No Action Alternative:* Failure to construct this well package would reduce short-term construction activity levels in this area as well as longer term activity associated with increased road traffic related to commercial oil/gas development. No net loss of habitat would occur at this time or place.

*Mitigation:* An active golden eagle nest is located 0.25 miles southwest of well #3-17. A timing limitation (TL-04) for this well as stated in the White River RMP shall apply, “No development activities are allowed within ¼ mile of identified nests from February 1 through August 15, or until fledgling and dispersal of young.” If the nest is active, exceptions to this timing limitation will be unlikely. It is the responsibility of Evergreen to contact the BLM prior to initiating activities in this area. A BLM biologist will make a determination as to the status of this nest and then notify Evergreen as to their finding. It should be noted that this is an RMP stipulation. Further protective measures may be taken by the BLM at its discretion, and as needed, to assure compliance with the Bald Eagle Protection Act (includes golden eagles) and preclude “take.” Take includes pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.

Discussion occurred during the on-site visit on the effectiveness of placing a locked gate at the point of new road construction leading to well #3-7. While the surrounding terrain (flat with sagebrush) makes restricting motor vehicle use with gates problematic, the best effort should be made by Evergreen to restrict use to the best degree possible through a locked gate. Fence extensions may be placed on either side of the gate as practical to attempt to further discourage use. Efforts to preclude unauthorized use are necessary as additional road construction is planned from this spur road in the future (spur heading north to well #6-7). This gate shall be installed immediately upon completion of this well.

The yucca plants located adjacent to this new road shall be avoided during the construction of the road. Additionally, the ephemeral draws crossed by this new road shall have low water crossings constructed with the fill material scattered in a manner that will preclude sediment from entering the system during high water events.

A current raptor survey must be obtained from the BLM for well #1-3 if construction and completion activities for this well will not be completed prior to February 1. It is the responsibility of Evergreen to contact the BLM to complete this survey.

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Vegetation and Wildlife, Aquatic): This project would not jeopardize the viability of any animal population. It would have no significant consequence on terrestrial habitat condition, utility, or function, nor have any discernible affect on animal abundance or distribution at any landscape scale. This public land health standard will thus be met.

**OTHER NON-CRITICAL ELEMENTS:** For the following elements, only those brought forward for analysis will be addressed further.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Access and Transportation			X
Cadastral Survey	X		
Fire Management	X		
Forest Management	X		
Geology and Minerals			X
Hydrology/Water Rights	X		
Law Enforcement		X	
Paleontology			X
Rangeland Management			X
Realty Authorizations		X	
Recreation			X
Socio-Economics		X	
Visual Resources			X
Wild Horses	X		

## ACCESS AND TRANSPORTATION

*Affected Environment:* BLM roads 1070, 1071 and 1070A exist within the proposed projects areas.

*Environmental Consequences of the Proposed Action:* An increase in traffic would be expected during pad construction and would be expected to decrease following completion of construction activities. New road construction will provide marginal access to previously unroaded areas.

*Environmental Consequences of the No Action Alternative:* None.

*Mitigation:* None.

## **GEOLOGY AND MINERALS**

*Affected Environment:* The surface geologic formation of the well locations 1-3, 3-3, 3-7, and 3-17 is Green River and 6-8 is Wasatch. Evergreen's targeted zone is in the Mancos. During drilling potential water, coal, oil and gas zones will be encountered from surface to the targeted zone. These wells are located on existing Federal Oil and Gas leases COC-10178, COC-127178 and COC-56873.

*Environmental Consequences of the Proposed Action:* Cementing procedure of the proposed actions isolates the formations and will prevent the migration of gas, water, and oil between formations. The coal zones located the Mesaverde will also be isolated during this procedure. Development of these wells will deplete the hydrocarbon resources in the targeted formation.

*Environmental Consequences of the No Action Alternative:* None

*Mitigation:* None

## **PALEONTOLOGY**

*Affected Environment:* #1-3 About 1000 feet of access road and drill pad: This well pad and access road is located in an area mapped as the Lower Green River and Wasatch Formation (Tweto 1979) suggesting that it is a complex, interbedded area where one or both formations may be found. The Wasatch Formation is classified as a Category I formation meaning it is known to produce scientifically important fossil resources. The Lower Green River formation in this area is classified as a Category II formation meaning its fossil bearing potential is not well understood in the area.

#3-3 this location is on the top of the hill, next to the existing road: This well pad and access road is located in an area mapped as the Lower Green River and Wasatch Formation (Tweto 1979) suggesting that it is a complex, interbedded area where one or both formations may be found. The Wasatch Formation is classified as a Category I formation meaning it is known to produce scientifically important fossil resources. The Lower Green River formation in this area is classified as a Category II formation meaning its fossil bearing potential is not well understood in the area.

#3-7 about 0.2 miles of new road is proposed which will be 30 feet wide. This location and access road are located in an area mapped as the Douglas Creek Member of the Lower Green River Formation (Tweto 1979) which the BLM has classified as a Category II formation, meaning that its fossil bearing potential in this area is poorly understood.

#3-17 no new road will be required: This well pad is located in an area mapped as the Douglas Creek Member of the Lower Green River Formation (Tweto 1979) which the BLM has classified as a Category II formation in this area meaning its fossil bearing potential is poorly understood

#6-8 no new road will be built. About 200 feet of abandoned road will be upgraded: This well location is located in what is mapped as the Wasatch Formation (Tweto 1979) which the BLM has classified as a Category I formation which means it is a formation known to produce scientifically important fossil resources.

*Environmental Consequences of the Proposed Action:* #1-3 about 1000 feet of access road and drill pad: Because there is uncertainty as to which formation, Green River or Wasatch, will be impacted by the well pad and access road it is unclear if scientifically important fossils be impacted or not. If the Wasatch formation is impacted then there is a high potential for important fossil resources to be impacted.

#3-3 this location is on the top of the hill, next to the existing road: Because there is uncertainty as to which formation, Green River or Wasatch, will be impacted by the well pad and access road it is unclear if scientifically important fossils be impacted or not. If the Wasatch formation is impacted then there is a high potential for important fossil resources to be impacted.

#3-7 about 0.2 miles of new road is proposed which will be 30 feet wide: Due to the location of this well and access road in the Douglas Creek member of the Green River Formation there is an unknown potential for impacting scientifically important fossil resources during construction of this well pad.

#3-17 No new road will be required: Due to the location of this well and access road in the Douglas Creek member of the Green River Formation there is an unknown potential for impacting scientifically important fossil resources during construction of this well pad.

#6-8 no new road will be built: if it becomes necessary to excavate into the underlying bedrock formation to build the road, level the well pad or excavate the reserve/blooiie pit there is a very high potential to impact scientifically important fossil resources.

*Environmental Consequences of the No Action Alternative:* There would be no new impacts to fossil resources under the No Action Alternative.

*Mitigation:* #1-3 About 1000 feet of access road and drill pad: The location must be inventoried by an approved paleontologist to determine which formation will be impacted by construction. If the Wasatch formation is involved in the construction then a monitor is required. The Douglas Creek member shall be spot checked after pad leveling and reserve/blooiie pit construction and before drilling begins.

#3-3 this location is on the top of the hill, next to the existing road: The location must be inventoried by an approved paleontologist to determine which formation will be impacted by construction. If the Wasatch formation is involved in the construction then a monitor is required.

The Douglas Creek member shall be spot checked after pad leveling and reserve/blooiie pit construction and before drilling begins.

#3-7 about 0.2 miles of new road is proposed which will be 30 feet wide: excavation into the underlying bedrock to level the pad or excavate the reserve/blooiie pit shall be monitored by an approved paleontologist.

#3-17 no new road will be required: If paleontological materials (fossils) are uncovered during project activities, the operator is to immediately stop activities that might further disturb such materials, and contact the authorized officer (AO). The operator and the authorized officer will consult and determine the best option for avoiding or mitigating paleontological site damage.

#6-8 no new road will be built: any exposed outcrops shall be inventoried by an approved paleontologist with a report of any findings and recommended mitigation prior to the initiation of any construction. If it becomes necessary to excavate into the underlying bedrock formation to build the road, level the pad or excavate the reserve/blooiie pit then a monitor shall be required during all excavation.

## **RANGELAND MANAGEMENT**

*Affected Environment:* All of the wells are within the Banta Flats allotment. This allotment is grazed by sheep during the winter and spring.

*Environmental Consequences of the Proposed Action:* all of the wells within the Banta Flats allotment would remove important forage for livestock during the life of the project. Halogeaton was discussed in the noxious weed section. This weed is highly toxic to sheep. If disturbed soils are reclaimed promptly there would not be a problem with this weed. Using sheep wire on all pits would prevent access to livestock.

The 3-3 well is located on the Banta Flats #1 range monitoring plot. This plot was established in 1978 to monitor range conditions on the range site on which it is located.

*Environmental Consequences of the Action Alternative:* There would be no adverse impacts.

*Mitigation Measures:* The operator is to avoid Banta Flats Range Study plot by moving the pad to the north or east across the road. The operator will install sheep wire fencing to prevent livestock from accessing all constructed pits. Also, in accordance with Condition of Approval #181 from Appendix B of the White River ROD/RMP, reclamation should be implemented concurrent with construction and site operations to the fullest extent possible.

## **RECREATION**

*Affected Environment:* The proposed action occurs within the White River Extensive Recreation Management Area (ERMA). BLM custodially manages the ERMA to provide for

unstructured recreation activities such as hunting, dispersed camping, hiking, horseback riding, wildlife viewing and off-highway vehicle use.

The project areas and the surrounding Cottonwood Creek area has been delineated a Recreation Opportunity Spectrum (ROS) class of Semi-Primitive Motorized (SPM). SPM recreation setting is typically characterized by a natural appearing environment with few administrative controls, low interaction between users but evidence of other users may be present. SPM recreation experience is characterized by a high probability of isolation from the sights and sounds of humans that offers an environment that offers challenge and risk.

*Environmental Consequences of the Proposed Action:* The public will lose approximately 8 acres of dispersed recreation potential while wells are in operation. The public will most likely not recreate in the vicinity of these facilities and will be dispersed elsewhere. If action coincides with hunting seasons (September through November) it will most likely disrupt the experience sought by those recreationists.

With the introduction of new well pads and roads, an increase of traffic could be expected increasing the likelihood of human interactions, the sights and sounds associated with the human environment and a less naturally appearing environment.

*Environmental Consequences of the No Action Alternative:* No loss of dispersed recreation potential and no impact to hunting recreationists.

*Mitigation:* None.

## **VISUAL RESOURCES**

*Affected Environment:* This project is in a Visual Resource Management (VRM) Class 2 area. The objective of this class is to retain the existing characteristic landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

*Environmental Consequences of the Proposed Action:* Total disturbance for these wells will be about 8 acres and only one well will have some impact on the visual resources. This was accomplished by drill pad selection and modification at the onsite inspection. The 3-3 location is complicated by the close proximity of the lease line, section line and a range monitoring site. This drill pad will be in an open, grassy, flat area. VRM Class 2 standards will not be met until successful reclamation has occurred

*Environmental Consequences of the No Action Alternative:* There would be no impacts to the visual resources.

*Mitigation:* None

**CUMULATIVE IMPACTS SUMMARY:** Cumulative impacts from oil and gas development were analyzed in the White River Resource Area Proposed Resource Management Plan/Final Environmental Impact Statement (PRMP/FEIS) completed in June 1996. Current development, including the proposed action, has not exceeded the foreseeable development analyzed in the PRMP/FEIS.

**PERSONS / AGENCIES CONSULTED:**

**REFERENCES CITED:**

Scott, John M.

2004 Evergreen Resources, Inc: Class III Cultural Resource Inventories of Five Proposed Banta Ridge Federal Well Pads (#1-3-1S-103, #3-3-1S-103, #3-17-1S-103, 6-7-1S-103, 6-8-1S-1-3) in Rio Blanco County, Colorado.

Tweto, Ogden

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

**INTERDISCIPLINARY REVIEW:**

<b>Name</b>	<b>Title</b>	<b>Area of Responsibility</b>
Caroline Hollowed	Hydrologist	Air Quality
Tamara Meagley	NRS	Areas of Critical Environmental Concern
Tamara Meagley	NRS	Threatened and Endangered Plant Species
Michael Selle	Archaeologist	Cultural Resources Paleontological Resources
Robert Fowler	Forester	Invasive, Non-Native Species
Glenn Klingler	Wildlife Biologist	Migratory Birds
Glenn Klingler	Wildlife Biologist	Threatened, Endangered and Sensitive Animal Species, Wildlife
Marty O'Mara	Hazmat Collateral	Wastes, Hazardous or Solid
Caroline Hollowed	Hydrologist	Water Quality, Surface and Ground Hydrology and Water Rights
Glenn Klingler	Wildlife Biologist	Wetlands and Riparian Zones
Chris Ham	ORP	Wilderness
Caroline Hollowed	Hydrologist	Soils
Robert Fowler	Forester	Vegetation
Glenn Klingler		Wildlife Terrestrial and Aquatic

<b>Name</b>	<b>Title</b>	<b>Area of Responsibility</b>
Chris Ham	ORP	Access and Transportation
Ken Holsinger	NRS	Fire Management
Robert Fowler	Forester	Forest Management
Paul Daggett	Mining Engineer	Geology and Minerals
Robert Fowler	Forester	Rangeland Management
Penny Brown	Realty Specialist	Realty Authorizations
Chris Ham	ORP	Recreation
Max McCoy	NRS	Visual Resources
Valerie Dobrich	NRS	Wild Horses

# **Finding of No Significant Impact/Decision Record (FONSI/DR)**

## **CO-110-2004-096-EA**

**FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE:** The environmental assessment and analyzing the environmental effects of the proposed action have been reviewed. The approved mitigation measures (listed below) result in a Finding of No Significant Impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

**DECISION/RATIONALE:** It is my decision to approve the development of this project as described in the proposed action, with the mitigation measures listed below. This development, with mitigation, is consistent with the decisions in the White River ROD/RMP, and environmental impacts will be minimal.

### **MITIGATION MEASURES:**

1. The operator will spread water on the road surfaces to control fugitive dust.
2. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:
  - whether the materials appear eligible for the National Register of Historic Places
  - the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
  - a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

3. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

4. Use Standard Seed Mix #2 for reclamation:

SPECIES (VARIETY)	LBS. PLS/ACRE
Western wheatgrass (Arriba)	3
Pubescent wheatgrass (Luna)	2
Russian wildrye (Bozoisky)	2
Crested wheatgrass (Fairway/Ephraim)	2

5. In accordance with Condition of Approval #179 from Appendix B of the White River ROD/RMP, application of herbicides must be under field supervision of an EPA-certified pesticide applicator. Herbicides must be registered by the EPA and application proposals must be approved by the BLM.

6. The operator shall be required to collect and properly dispose of any solid wastes generated by this project.

7. Submit a copy of the Stormwater Discharge Plan, which is required by the State identifying how BMPs will be used to reduce stormwater discharge.

8. When preparing the site, all suitable topsoil should be stripped from the surface of the location and stockpiled for reclamation. For the interim, if the topsoil is stockpiled on slopes exceeding five percent, construct a berm or trench below the stockpile.

9. Once construction is completed, reclaim as much of the pad that is not needed for maintenance of the well facility.

10. All sediment control structures or disposal pits will be designed to contain a 100-year, 6-hour storm event. Storage volumes within these structures will have a design life of 25 years.

11. All activity shall cease when soils or road surfaces become saturated to a depth of three inches unless otherwise approved by the Authorized Officer.

12. Provide vegetative or artificial stabilization of cut and fill slopes in the design process. Avoid establishment of vegetation where it inhibits drainage from the road surface or where it restricts safety or maintenance.

13. Eliminate undesirable berms that retard normal surface runoff. Fill material associated with construction of this project shall not be deposited in ephemeral draws adjacent to two of these wells.

14. Water bars or dikes shall be constructed on all of the rights-of-way, and across the full width of the disturbed area, as directed by the authorized officer.

15. Slopes within the disturbed area shall be stabilized by non-vegetative practices designed to hold the soil in place and minimize erosion. Vegetative cover shall be reestablished to increase infiltration and provide additional protection from erosion.

16. When erosion is anticipated, sediment barriers shall be constructed to slow runoff, allow deposition of sediment, and prevent it from leaving the site. In addition, straining or filtration mechanisms may also contribute to sediment removal from runoff

17. An active golden eagle nest is located 0.25 miles southwest of Well #3-17. A timing limitation (TL-04) for this well as stated in the White River RMP shall apply, "No development activities are allowed within ¼ mile of identified nests from February 1 through August 15, or until fledgling and dispersal of young." If the nest is active, exceptions to this timing limitation will be unlikely. It is the responsibility of Evergreen to contact the BLM prior to initiating activities in this area. A BLM biologist will make a determination as to the status of this nest and then notify Evergreen as to their finding. It should be noted that this is an RMP stipulation. Further protective measures may be taken by the BLM at its discretion, and as needed, to assure compliance with the Bald Eagle Protection Act (includes golden eagles) and preclude "take." Take includes pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.

18. Discussion occurred during the on-site visit on the effectiveness of placing a locked gate at the point of new road construction leading to well #3-7. While the surrounding terrain (flat with sagebrush) makes restricting motor vehicle use with gates problematic, the best effort should be made by Evergreen to restrict use to the best degree possible through a locked gate. Fence extensions may be placed on either side of the gate as practical to attempt to further discourage use. Efforts to preclude unauthorized use are necessary as additional road construction is planned from this spur road in the future (spur heading north to well #6-7). This gate shall be installed immediately upon completion of this well.

19. The yucca plants located adjacent to this new road shall be avoided during the construction of the road. Additionally, the ephemeral draws crossed by this new road shall have low water crossings constructed with the fill material scattered in a manner that will preclude sediment from entering the system during high water events.

20. A current raptor survey must be obtained from the BLM for Well #1-3 if construction and completion activities for this well will not be completed prior to February 1. It is the responsibility of Evergreen to contact the BLM to complete this survey

21. For well #1-3, the location must be inventoried by an approved paleontologist to determine which formation will be impacted by construction. If the Wasatch formation is involved in the

construction then a monitor is required. The Douglas Creek member shall be spot checked after pad leveling and reserve/blooiie pit construction and before drilling begins.

22. For well #3-3, the location must be inventoried by an approved paleontologist to determine which formation will be impacted by construction. If the Wasatch formation is involved in the construction then a monitor is required. The Douglas Creek member shall be spot checked after pad leveling and reserve/blooiie pit construction and before drilling begins.

23. For well #3-7, excavation into the underlying bedrock to level the pad or excavate the reserve/blooiie pit shall be monitored by an approved paleontologist.

24. For well #3-17, if paleontological materials (fossils) are uncovered during project activities, the operator is to immediately stop activities that might further disturb such materials, and contact the authorized officer (AO). The operator and the authorized officer will consult and determine the best option for avoiding or mitigating paleontological site damage.

25. For well #6-8, any exposed outcrops shall be inventoried by an approved paleontologist with a report of any findings and recommended mitigation prior to the initiation of any construction. If it becomes necessary to excavate into the underlying bedrock formation to build the road, level the pad or excavate the reserve/blooiie pit then a monitor shall be required during all excavation.

26. For well # 3-3, the operator is to avoid Banta Flats Range Study plot by moving the pad to the north or east across the road. The operator will install sheep wire fencing to prevent livestock from accessing all constructed pits.

27. Reclamation should be implemented concurrent with construction and site operations to the fullest extent possible.

28. The operator is to avoid Banta Flats Range Study plot by moving the pad to the north or east across the road. The operator will install sheep wire fencing to prevent livestock from accessing all constructed pits.

**COMPLIANCE/MONITORING:**

**NAME OF PREPARER:** Max McCoy

**NAME OF ENVIRONMENTAL COORDINATOR:** *Caroline P. Helboed 7/8/04*

**SIGNATURE OF AUTHORIZED OFFICIAL:** *Hunt C. Walker*  
Field Manager

**DATE SIGNED:** *07/08/04*

**ATTACHMENTS:** Location map of the proposed action

# Location of Proposed Action CO-110-2004-096-EA

