

**DECISION RECORD  
AND  
FINDING OF NO SIGNIFICANT IMPACT  
SULLIVAN ELECTRIC FENCE ENVIRONMENTAL ASSESSMENT  
EA No. WY-030-EA1-180**

**INTRODUCTION**

The proposed action involves electrifying 14.3 miles of three-wire electric fence and removing 3.2 miles of non-electrified electric fence in the Sullivan Allotment. The Sullivan Allotment occurs both east and west of Wyoming Highway 487 as well as north and south of Wyoming Highway 77. An environmental assessment (EA) was prepared and sent out to the public for comments.

**LETTER OF PROTEST**

A letter of protest from Mr. Derrel Rasmusson was received on July 25, 2001 in the Rawlins Field Office regarding EA No. WY-030-EA1-180. The letter opposed constructing electric fence on any public properties within Carbon County, the State of Wyoming, or the entire nation.

**Response:** As stated in the Rawlins Field Office Electric Fence Policy there are over 96 miles of electric fence already permitted in our field office administrative area. Many federal and state land management agencies throughout the west have used electric fence to more effectively distribute livestock. In the last ten years, electric fence has become an increasingly popular tool in grazing management on western rangelands. Fencing, regardless of type, is a necessary tool for management and control of livestock. Fences reduce the size of pastures; thereby reducing the grazing duration. By shortening duration of use, both upland and especially riparian forage production for both livestock and wildlife can be increased. Plant vigor or health is also greatly improved by more intensive management. In addition, it is important to note that in this specific case, conventional fence was present in these locations already.

**COMMENTS RECEIVED ON THE DRAFT ENVIRONMENTAL ASSESSMENT**

Letters were received from the State of Wyoming Office of Federal Land Policy, the National and Wyoming Wildlife Federations, North American Pronghorn Foundation, and several individuals. Responses to comments were developed from existing documents and additional information from other sources, especially the Wyoming Cooperative Fish and Wildlife Research Unit. The following are the comments and their responses.

**1. State of Wyoming Office of Federal Land Policy**

"We do not oppose construction of this fence provided that the design details be disclosed for public comment before that design decision is made. Please see the attached Game and Fish letter for further clarification."

**Response**

Design details can be found in the Revised Rawlins Field Office Interim Electric Fence Policy dated May 2001. As identified in the EA and on the map, the electrified portion would be a three-wire fence. The policy designates the acceptable wire spacings for a three-wire fence, post spacing, and also references to specific fence specifications.

There are several specific comments and concerns reflected in the Wyoming Game and Fish Department (WGFD) letter, each point of concern will be responded to specifically.

- a. "The removal of the 6.4 miles of fence constructed in segment 2, as proposed, would improve migration ease for big game, especially pronghorn. Timing stipulations identified for construction and charging of electric fences on public lands should be sufficient to protect wildlife resources and to allow reasonable access for sportsmen. At the present time, the earliest hunting seasons begin September 1<sup>st</sup> and end on November 10<sup>th</sup>. These dates may change in the future as management needs dictate."

**Response**

At the Medicine Bow Open House, Wyoming Game and Fish Department (WGFD) employee Carol Havlik also provided our office with the dates that hunting seasons in the project area begin. The electric fence will be turned off prior to September 1 (or the new date if it is revised) to facilitate access during hunting season.

- b. "The EA should specifically state the details of design of the electric fence, including the number of wires, post spacing, wire spacing, wires that would carry current, and the energy those wires would carry (joules). The rangeland management specialist provided specific information on wire spacing and placement of hot and cold wires in a personal communication but could not provide information on current and energy. We ask that this information be disclosed and that interested citizens be given a chance to comment prior to the design decision being made."

**Response**

The EA specifically states that the fence will be a three-wire electric fence that complies with the Revised Rawlins Field Office Electric Fence Policy (Policy). The Policy specifies wire spacings and post spacings. The original policy was released during the scoping period for the original Q Creek proposal in March 2000. Q Creek withdrew its proposal, but the electric fence policy was put into effect in October 2000. Following WGFD input, the fence policy was revised in May 2001 and is now the guiding document for electric fence construction on public land within the Rawlins Field Office. According to the Policy, on page 3, a three-wire electric fence with top and bottom wires electrified will have: 20-inch bottom wire spacing, maximum top wire height of 42 inches and the middle wire will be 12 inches below the top wire. Post spacing will average 80 feet, as identified on page 6 of the Policy. Also on page 6 is a note, "For further information on electric fencing specifications please contact the Rawlins Field Office." Our office has developed specific recommendations for building electric fences within our field office management area.

The effectiveness of an electric fence depends on many factors including: the power of the energizer, the wire carrying the current, the insulators carrying the charged wire, the type of post, the conductive nature of the ground and the earth-return wire, and the amount of vegetation that touches the charged wires. Energizers should be selected that suit the size of the area to be enclosed. For the Sullivan fence it is a B600 Gallagher energizer that is U.L. listed. According to Gallagher, this energizer can power up to 25 miles of fence, has a stored energy of approximately 5.5 Joules, and a maximum output voltage of 7,000 volts. This type of energizer is for remote areas and depends on solar charging. Gallagher makes several types of energizers, and they are rated depending mainly on how far a charge can be transmitted by the capacitor. They operate at 4,500 to 6,000 volts at a relatively high amperage. They are safe due to the short duration of the pulse and some units are U.L. approved. This higher voltage and amperage is possible through larger capacitors and pulsating current. The pulses occur at a rate of approximately 55 per minute. The end result is that much of the current passes through the wire even under relatively heavy

vegetational loads. Also, the continuous recurring pulses serve as a follow-through if the animal persists in touching the fences. The safety feature of these electric currents lies with the short duration of the electric pulse. The principal limiting factor determining energizer efficiency may be proper grounding.

- c. "The conclusion that electric fences are less hazardous for wildlife may be premature (pages 9 and 10). The EA accurately acknowledges that little research has been done (page 10) and that current research is promising, but has not yet been completed."

**Response**

As stated in the EA and in the Policy, there is little information at this time. We gathered as much information as was available and developed our policy. As more information is collected, including the Coop Unit Study, it will be incorporated into our policy.

- d. "Joules, not watts, is the appropriate unit of measure for determining sportsmen or public safety with electric fences. Rory Karhu, graduate student at UW studying wildlife movements through electric fences, provided considerable information regarding this safety issue. We suggest the BLM contact an expert in this field to develop safety recommendations for the number of joules to be used in the proposed electric fences."

**Response**

As stated on page 5 of the Policy, "All electric fence manufacturers must comply with national standards (UL69) to ensure they are safe for people." Until more information regarding public safety is identified--either through specific concerns or additional information through the Coop study--conformance with national electrical standards shall be sufficient.

**2. National Wildlife Federation**

- a. "Improper Segmentation. We are concerned about illegal segmentation of fencing and livestock decisions on this allotment. Breaking a series of actions into small components and then examining only the isolated segments avoids a complete disclosure of environmental impacts and violates federal rules implementing the National Environmental Policy Act (NEPA).

"The courts have repeatedly held that illegal segmentation - 'dividing a project into multiple "actions," each of which individually has an insignificant environmental impact but which collectively have a substantial impact' - is contrary to NEPA. *Thomas v. Peterson*, 753 F.2d 754, 758 (9<sup>th</sup> Cir. 1985) [citing *Alpine Lakes Protection Society v. Schapfler*, 518 F.2d 1089, 1090 (9<sup>th</sup> Cir. 1975)].

"Unfortunately, the Q Creek Ranch proposal has several segmentation problems:

- a. The original proposal included a change in livestock use on the allotment from cattle to bison. The challenges of managing bison were used to justify modifying the fence from standard wire to electric. In the new proposal, electrifying the fence is justified by claiming that the current fence is failing to keep livestock within their appropriate pastures. One wonders if there is some other justification for the fences and if we will see another, segmented and separate request for a change of use converting cattle to bison."

**Response**

We have not received a new proposal for a conversion from cattle to bison for the Sullivan Allotment. In the future, a proposal may or may not be submitted by Q Creek to convert cattle use to bison use. The only proposals we can evaluate are those that are submitted to our office.

- b. “The EA acknowledges on page 1 that ‘[t]his proposal would be an interim measure while a more complete grazing plan is developed.’ Later in that page, BLM acknowledges that ‘[s]egment 2 of the non-electrified electric fence will be removed until management decisions are made regarding the necessity of additional fencing and appropriate locations for any additional electric or barbed-wire fence.’

“We do not fault BLM for undertaking an EA on an interim proposal. However, because there are probable upcoming connected actions, BLM must make it clear that the agency is free to amend or reverse these decisions as new and connected actions are proposed. In evaluating future proposals, it cannot be an excuse that these current pending proposed fencing modifications are already in place and cannot be changed. The permittee must be advised that as a condition of approving these interim modifications, BLM may, at the permittee’s expense, reverse or amend these decisions if presented with new connected proposals or new information on performance of the interim fencing standards.”

**Response:**

We agree that BLM has the authority to amend or reverse decisions regarding public lands. We also agree that, with further information becomes available, our interim fencing policy may change and modifications on previously-permitted fences may be warranted.

- c. “BLM has jurisdiction over some fences on private land. On page 2 of the EA, BLM makes an incorrect legal statement which should be modified. Under the discussion of the Proposed Action (Segment 1) the EA advises: ‘note: fence constructed along any public land/private land boundary that is constructed on private land is considered to be private fence and does not fall under the jurisdiction of the BLM.’

“In *United States v. Lawrence*, 620 F.Supp. 1414 (D. Wyo. 1985), 848 F.2d 1502 (10<sup>th</sup> Cir 1988) both the Wyoming Federal District Court and the 10<sup>th</sup> Circuit Court of Appeals made it clear the United States has authority to demand removal of fences, even if they are built entirely on private land, if the fence violates the Unlawful Enclosures of Public Lands Act, 43 U.S.C. 1061 et seq. (UIA). The UIA makes illegal both: (i) fences which enclose public lands where the person making the enclosure had not right to enclose those lands; and (ii) fences which ‘prevent or obstruct free passage or transit over or through the public lands...’ including fences which obstruct pronghorn antelope from reaching federal lands.

“Accordingly, the EA’s assertion that the United States has no jurisdiction over fences on private land is flat out wrong.”

**Response**

We recognize our responsibility in regards to the UIA, however this situation is completely different from that on Red Rim. Q Creek did not intentionally construct these fences to restrict wildlife passage, but to control livestock. We will modify the statement to read,

*note: fence constructed along any public land/private land boundary that is constructed on private land is considered to be private fence,*

*and unless it violates the UIA, does not fall under the jurisdiction of the BLM.*

- d. "Insufficient range of alternatives evaluated. Paragraph 2 of The Alternatives Considered But Not Analyzed In Detail (page 4 Section C) states removing both segments of the electric fence and not replacing it with conventional fence was ruled out because it would greatly increase the size of pastures and hamper 'control of livestock' which would result, among other things, in 'increased impacts to riparian areas.' Surely an obvious alternative - but one not considered in this EA - would be to reduce the number of livestock and/or their time on public lands as a means of protecting riparian areas.

"BLM should first ask and then evaluate the question of why environmental protection is being provided by fencing, with its impacts to wildlife, and not by a reduction in livestock grazing."

### **Response**

Segment 1 (the portion that is proposed to be electrified) replaced existing and permitted conventional fence. These fences provided shorter periods of grazing for each pasture within the allotment. Shorter duration grazing is more beneficial to rangeland health than longer durations of use. Reducing cattle numbers would not likely result in lessened impact to riparian areas since those areas tend to be livestock concentration areas. Proper management of livestock through rotational grazing, upland water developments, fencing, and supplementing can result in land improvement both riparian and upland. In addition, most of the riparian areas in this portion of the allotment are on private land, therefore, protection of these limited riparian areas on BLM would not greatly impact overall riparian improvement throughout the allotment. Improving rangeland health on both the public and private lands has important benefits to wildlife using the area.

- e. "Failure to adequately consult with public on interim fencing policy. The proposed action relies on the Rawlins Field Office Interim Electric Fence Policy both for construction of the fence and for assessing the impacts of the fencing. Reliance on this Interim Electric Fence Policy is procedurally troubling for the following reasons:

"a. The Federations had expressed substantial interest in the development of this Interim Electric Fence Policy to several members of BLM's Wyoming staff. While we were assured that we would be consulted, we were not. This is particularly troubling because it appears several grazing permit holders were involved with preparation of the Interim Electric Fence Policy.

"b. This failure to consult the Federations places us in a position of being asked to evaluate and comment on an EA which relies on the Interim Electric Fence Policy which we were not given an opportunity to review. This is inappropriate."

### **Response**

We apologize to the Federations with respect to your lack of involvement developing the Policy. The policy was developed as follows:

A survey was sent out to all landowners who used electric fence (both permitted earlier on BLM or solely on private). This information was used to provide basic, background information on the current situation, not to develop policy. The Policy was developed by the BLM Rawlins Field Office in the spring of 2000 in response to

the Q Creek proposal and posted on the internet. This interim policy has not changed regarding content (wire spacing, post spacing, etc.) since it was released in 2000. Q Creek then dropped its proposal and the immediate need to finalize the policy became less urgent. In addition, the Rawlins Field Office was aware of strong interest in developing a state or national policy. At that time, the Rawlins Field Office deferred to the Wyoming State Office in further development of a statewide electric fence policy. During the last year, BLM State Director Al Pierson requested the BLM Washington Office to develop a national policy for electric fence. The National Science and Technology Center evaluated the request and decided to help Wyoming BLM develop electric fence policy for the state of Wyoming. This process has just started and will go through the public review process.

- f. "The EA fails to disclose electric fence's specifications, making review impossible. The EA fails to provide any details on the physical specifications of the Q Creek Ranch Segment 1 electric fence, other than to reference the Interim Electric Fence Policy. But the Interim Electric Fence Policy is not generally available, was not provide by BLM to the Federations, exists in two Versions (there is a Revised Policy), and is vague."

**Response**

The EA defers to the Policy for specific fence construction. Most EAs written in this office, reference other documents or standards rather than including every specific in the EA. For example, when a conventional three-wire fence is proposed, standard language in the EA consists of "three-wire barbed, bottom smooth following BLM specifications." Those specifications are found in the fencing manual, not in each environmental assessment.

As discussed above, there are two versions of The Rawlins Field Office Interim Electric Fence Policy, but specific fence specifications are identical between the two documents. The documents have been posted on the internet, and copies have been available in our office since last fall.

- g. "One, two, and three-wire electric fences may be built on public lands, as long as the top wire is no higher than 42 inches from the ground and the bottom wire is a minimum of 16 inches from the ground. Will the Q Creek fence for segment 1 be one, two or three wires? This is not specified."

**Response**

See Wyoming Game and Fish Department Response

- h. "If the bottom wire is 16 inches it will not be electrified to allow antelope passage; a 20 inch bottom wire spacing will be required if the wire is electrified. Again, the EA is too vague - will the bottom wire be 16 or 20 inches from the ground? If it is 20 inches, will it be electrified?"

**Response**

See Wyoming Game and Fish Department Response

- i. "The middle wire should be a minimum of 12 inches below the top wire. Is the middle wire on the Q Creek Segment 1 fence to be electrified or not?"

**Response**

See Wyoming Game and Fish Department Response

- j. The May 2001 Revised Interim Electric Fence Policy lists a range of voltages necessary to control various types of wildlife and livestock. Which voltage will be required on the Q Creek Segment 1 fence? The EA fails to specify this.

**Response**

The Rawlins Field Office has not required specific voltages on any electric fence permitted up to this time. More pertinent information regarding this issue is presented in the Annual Report "Evaluation of High Tensile Electric Fence Designs on Big Game Movements and Livestock Containment" by Rory Karhu and Stanley Anderson. On page 12, the report states, "A fence running 4000 volts does not necessarily have more shock energy than a different fence running 2000 volts. In order to get at the shock energy available at any point on a particular fence, you need to know not only voltage, but current, pulse shape, and pulse length." At this time, the Rawlins Field Office will defer to UL national standards with respect to electric fence energizers.

- k. "The May 2001 Revised Interim Electric Fence Policy states, 'Electric fences are psychological barriers to livestock movement more than physical barriers; therefore if livestock are properly trained, three wires or less should be effective.' Does this mean that there will only be a limited livestock "training" period during which the fence is allowed to be turned on? Does this mean the electric fence will be less than three wires?"

**Response**

A three-wire electric fence has been effective throughout the Rawlins Field Office controlling cattle. Livestock learn quickly, many have had prior experience with electric fence, therefore, training is minimal. See also Wyoming Game and Fish Response.

- l. "If there is to be only a 12 inch spacing between the wires, it seems unlikely wildlife can pass through the fence without touching a hot wire, thereby blocking what could be a vital migration route. Resolution of this issue depends in part on the amount of time the fence is to be electrified and also on whether the bottom wire is electrified. But neither of these attributes is provided."

**Response**

The period of time during which the fence may be electrified to control cattle would be between May 1 and September 1 (September 1 is the beginning of hunting season in the project area). The fence will only be electrified when cattle are in those pastures. More specific timeframes would be difficult to identify due to grazing rotation variations year to year.

- m. There is no information in the May 2001 Revised Interim Electric Fence Policy or in the EA on the spacing of posts and stays. We are concerned the spacing may restrict the "give" in the fence and discourage wildlife passage. But we have no information on this important factor to allow us to comment.

**Response**

On page 6 in the Policy there is a footnote that states, "Average spacing between posts should be 80 feet (closer on rough terrain and farther apart on rolling terrain)...For further information on electric fencing specifications please contact the

Rawlins Field Office.” Numbers of stays used in between posts vary with topography and types of wildlife using the area. One stay would work on flat ground with only antelope using the area, whereas two stays or an anchored stay may be necessary where terrain changes and deer or elk using the area.

- n. There is no guidance on when livestock will be in the pasture and when the fence will be on. How can we evaluate the possible impact on wildlife without knowing this?

**Response**

See Response to 2l.

- o. How can we evaluate the likely impact on wildlife without knowing the voltage at which the fence will be operated?

**Response**

The Wyoming Cooperative Fish and Wildlife Research Unit (Coop Unit) is currently working on this issue (more with respect to Joules-see Response to 2j). Preliminary results documented in its Annual Report suggest that antelope are the least affected by electric fences, and in some cases have shown no sign of receiving any electric shocks when the bottom wire was electrified. At this time in the study, bull elk tend to receive a shock because of their habit of pushing against the fence and forcing a ground and a hotwire contact with their skin.

- p. Not knowing whether the bottom wire will be hot or not makes it impossible to evaluate the impact on young wildlife, which may more typically than mature wildlife seek to pass under fences.

**Response**

As stated in the Policy, little information is available with respect to wildlife passage. As the study through the Coop Unit progresses, more information regarding these important issues will be obtained.

- q. More detailed monitoring is needed. The monitoring plan described in the EA is not sufficiently detailed to ensure that: (i) monitoring will occur; and (ii) the results of monitoring will be used to modify the fence design if necessary. BLM should more definitively describe the monitoring to be performed, provide the public with copies of the monitoring reports, and utilize the results of the monitoring to modify the fence design if necessary. Details should include how often the BLM will monitor the fence during major migrations, how data will be tabulated, and whether the permittee's employees will be allowed to collect data in the absence of BLM personnel. BLM should also commit to incorporating the results of the Wyoming Cooperative Wildlife Research Unit's electric fence project into this proposal. As the researchers learn more about how to design these fences to allow wildlife passage, those results should be applied to the current proposal.

**Response**

Monitoring of the fence will be done by the resources staff of the Rawlins Field Office when a problem is identified. Little monitoring would be done during major migrations as the fences would not be electrified and would have little impact on wildlife passage. BLM helped fund the ongoing study by the Coop Unit regarding electric fences. Many of the fences being studied in this effort are within the Rawlins Field Office boundaries and should provide local fence-specific information. In addition, on page 3 in the Rawlins Field Office Interim Electric Fence Policy, it states that upon

completion of the study and other available information, this policy may be updated.

- r. BLM should collect information from the public regarding its experience in crossing this fence as they access public lands. The proposed fence must not discourage the public or wildlife from legally accessing public lands in and beyond the allotment.

**Response**

Within the EA are provisions to ensure public access, including non-electrified or steel gates, and turning the fence off during hunting season. If specific crossing areas for people are identified through monitoring, additional gates or stiles for crossing the fence would be added.

- s. Signs on the fence. At present, we believe some public sections on this allotment have been signed with "Q Creek Ranch" signs, which is inappropriate because it both confuses and intimidates the public from accessing federal lands. In areas with legal public access, where public sections are signed with the private Q Creek Range signs located on public sections, those ranch signs should be removed and replaced with standard BLM signs indicating public ownership.

**Response**

We agree that private signs on public lands can mislead and intimidate the recreating public. When we are aware of signs illegally posted on public lands, we have them removed immediately. We have standard BLM signs we can place in those areas that are identified as being improperly posted.

**3. North American Pronghorn Foundation (NAPF) and Other Public Comments**

- a. The North American Pronghorn Foundation (NAPF) provided comments regarding concerns with antelope and other wildlife passage through electric fences similar to those above. Specific information regarding antelope passage with respect to electric fences has been identified above (in addition more information is found with the Coop Report). The NAPF supported removal of Segment 2. In addition, the last two main comments in their response were also reflected in many of the public letters that were submitted. Of the two main concerns identified by the public and NAPF, many people didn't want fence (electric or any other) on public lands.

**Response**

The BLM's mandate is multiple use management, which includes grazing, mining, other commercial activities, recreation, wilderness, etc. Fencing is an important tool to effectively manage livestock grazing. The electric fence proposed in the EA largely replaced conventional barbed wire fence that had been there previously.

- b. The second main concern of the public and NAPF was about loss of access to the public lands.

**Response**

Legal public access will not be reduced by this proposal. All existing gates will be maintained, and if additional crossing sites that present an access problem are identified, gates and stiles will be installed. The fence will not be electrified during hunting seasons, and will actually be easier to cross than conventional fence.

## RECOMMENDATION

My recommendation is to approve the proposed action of electrifying Segment 1 of the fence within the Sullivan Allotment after ensuring compliance with the Rawlins Field Office electric fence policy for a three-wire electric fence.

## RATIONALE FOR RECOMMENDATION

The non-electrified electric fence has been ineffective in controlling livestock within the grazing rotation authorized for the allotment. The proposed action would result in rangeland health improvement by reducing duration of use within these pastures. In addition, the electric fence will only be on in the spring and summer, and should prove to be less of an impact to wildlife movement as compared to a conventional barbed wire fence. The project will not have significant impact on the area in terms of soil, vegetation, wildlife and air. Public comments on the EA have been adequately addressed. No unresolved issues or conflicts exist that will not be addressed in further meetings and consultations with the State of Wyoming.

## MITIGATION AND MONITORING

No additional mitigation will be required. A monitoring program for the electric fence is being developed by BLM.

/S/ Cheryl Newberry

August 3, 2001

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Rangeland Management Specialist

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Date

## FINDING OF NO SIGNIFICANT IMPACT

Based on the analysis of potential environmental impacts contained in the environmental assessment, I have determined that impacts are not expected to be significant and an environmental impact statement is not required.

## FINAL DECISION

It is my final decision to approve the proposed action of electrifying Segment 1 of the fence within the Sullivan Allotment after ensuring compliance with the Rawlins Field Office Interim Electric Fence Policy. Mitigation measures identified in the EA as part of the proposed action shall be incorporated.

Any applicant, permittee, lessee or other person whose interest is adversely affected by the final decision may file an appeal under 43 CFR 4.470 and petition for stay of the decision pending final determination on appeal. The appeal and petition for stay must be filed with Kurt Kotter, Field Manager, Bureau of Land Management, Rawlins Field Office, P.O. Box 2407, Rawlins, Wyoming 82301, within 30 days following receipt of the final decision.

The appeal shall state the reasons, clearly and concisely, why the appellant thinks the final decision is in error.

Should you wish to file a motion for stay, the appellant shall show sufficient justification based on the following standards:

- (1) The relative harm to the parties if the stay is granted or denied.
- (2) The likelihood of the appellant's success on the merits.
- (3) The likelihood of immediate and irreparable harm if the stay is not granted, and
- (4) Whether the public interest favors granting the stay.

If you decide to also submit a petition for stay of the decision, a copy of the notice of appeal, statement of reasons, and petition for stay should also be simultaneously filed with the Office of the Regional Solicitor, Rocky Mountain Region, 755 Parfet Street, Suite 151, Lakewood, Colorado 80215

As noted above the petition for stay must be filed in the office of the authorized officer.

/S/ Kurt Kotter

August 3, 2001

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Field Manager, Rawlins

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Date