



United States Department of the Interior

FISH AND WILDLIFE SERVICE
NEVADA ECOLOGICAL SERVICES STATE OFFICE DISTRICT OFFICE
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Bureau of Land Management
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April 29, 1994
File No. 1-5-94-F-53R

Memorandum

To: District Manager, Winnemucca District, Bureau of Land Management, Winnemucca, Nevada

From: State Supervisor, Ecological Services, Reno, Nevada

Subject: Formal Section 7 Consultation for the Bullhead Allotment

This memorandum responds to your December 14, 1993, request for formal consultation with the Fish and Wildlife Service (Service) pursuant to section 7 of the Endangered Species Act of 1973, as amended (Act). At issue are the potential adverse effects to the federally listed threatened Lahontan cutthroat trout (LCT) (Oncorhynchus clarki henshawi) resulting from implementation of the Bureau of Land Management's (BLM) Paradise-Denio Resource Area, proposed multiple use grazing decision which implements selected management actions for the Bullhead Allotment.

This Biological Opinion was prepared using: (1) The Bullhead Allotment Biological Assessment (BA); (2) the February 7, 1994, Notice of Area Manager's Proposed Decision; (3) the March 9, 1994, letter to Nevada First Corporation; (4) a March 14, 1994, facsimile concerning the grazing application for the allotment; and (5) information in the Nevada State Office files.

Biological Opinion

It is our Biological Opinion that the proposed Bullhead Allotment grazing decision is not likely to jeopardize the continued existence of the threatened LCT. Critical habitat has not been designated for this subspecies. Therefore, determining whether or not critical habitat will be destroyed or adversely modified by the proposed action is not appropriate.

Consultation History

The Bullhead Coordinated Resource Management Plan (CRMP) was adopted in July 1982. Formal consultation was requested on June 27, 1983, on actions proposed in the CRMP. Formal section 7 consultation was completed on September 23, 1983. The Bullhead Allotment Management Plan (AMP) was signed on

March 4, 1985, outlining spring and summer rest-rotation grazing systems. Consultation was formally reinitiated with the Service on December 15, 1993, because of the new Proposed Multiple Use Decision for the Bullhead Allotment dated December 14, 1993, and the request to re-initiate formal consultation pursuant to section 7 of the Act dated December 14, 1993.

Description of the Proposed Action

The allotment comprises a total of 170,456 acres, of which 145,016 acres are public lands and 25,440 acres are private lands. The eastern one-third of the allotment lies within the Elko BLM District, but is managed by the Winnemucca BLM District. The allotment includes the Dry Hills, Snowstorm Flat, Winter Ridge, Snowstorm Mountain, and the Castle Ridge area. The elevations range from 4,500 to 7,500 feet and has a wide variety of vegetative communities.

Three of the eight pastures in the allotment contain LCT. LCT pastures are First Creek Basin, Snowstorm Flat, and Castle Ridge. Streams located within these pastures supporting LCT include the South Fork Little Humboldt River (SFLHR) and Pole Creek. With the exception of four water gaps (encompassing approximately 400 feet), the entire length of the BLM public lands portion of the SFLHR from Rodear Flat upstream to the confluence of Pole Creek within the First Creek Basin and Castle Ridge pastures are protected by a riparian exclosure fence constructed in 1985 (11.5 miles). Natural features of steep and near vertical canyon walls combined with a narrow vegetated rocky stream bottom protect the reach of the SFLHR which extends from a cross-fence downstream from Rodear Flat to private lands upstream from the Little Humboldt Ranch.

The pasture having the most potential to affect LCT and LCT habitat is the South Snowstorm Flat pasture which contains Pole Creek. Pole Creek is about 4.8 miles in total length, with about 2 miles of public land, and 2.8 miles of private ownership. Pole Creek may currently act as a seasonally intermittent-dry spawning tributary for SFLHR LCT population. Flows are intermittent-dry during late summer.

Allowable use levels of 30 percent for streambank riparian vegetation on Pole Creek and 50 percent for upland riparian habitats on all summer pastures will be enforced. These allowable use levels will dictate livestock removal (if necessary). Removal dates for the summer pastures will be based on mid-point utilization studies conducted by BLM. When streambank riparian utilization levels on Pole Creek reach 25 percent or when upland riparian condition utilization levels within summer pastures reach 45 percent, the livestock

operator will be given 7 days notice in which to remove livestock from the pasture and/or allotment. No grazing will be authorized after August 31 in the summer pastures.

The following is the proposed grazing system in the BA for pastures which may affect LCT.

A. Snowstorm Flat pasture 16,328 public land acres

- 1. South Snowstorm Flat pasture. Summer use each year (07/01 to 08/31). 395 animal unit months (AUM).
- 2. North Snowstorm Flat pasture.
 - 1994 - Rest
 - 1995, 04/01 to 06/30 395 AUMs
 - 1996 - Rest
 - 1997, 04/01 to 06/30 395 AUMs

B. First Creek Basin pasture 44,543 public land acres

First Creek pasture will be used every year as a spring pasture. In the years the North Snowstorm pasture is scheduled for use, the eastern half of First Creek pasture will be used. In the years that West Kinney will be used, the western half of First Creek pasture will be used. LCT occur in the East First Creek Basin pasture, but all public land access points, except for the four water gaps, are within a fenced enclosure.

East First Creek pasture

- 1994 - Rest
- 1995, 04/01 to 06/30 980 AUMs
- 1996 - Rest
- 1997, 04/01 to 06/30 980 AUMs

C. Castle Ridge pasture 19,759 public land acres

SFLHR forms the western boundary of the Castle Ridge pasture, but all livestock access points to the stream are within a fenced enclosure.

1994 - 1997 03/01 to 03/31 469 AUMs

For the 1994 grazing season, the following grazing use has been authorized by BLM.

- A. South Snowstorm pasture
08/15 to 08/31
- B. North Snowstorm pasture
07/1 to 08/31

- C. East First Creek pasture
05/15 to 06/30
- D. Castle Ridge pasture
04/15 to 05/15

Species Account/Environmental Baseline

LCT is one subspecies of a wide-ranging species that includes at least 14 recognized forms in the Western United States. Cutthroat trout have the most extensive range of any inland trout species of Western North America, and occur in anadromous, nonanadromous, fluvial, and lacustrine populations (Behnke 1979). Many of the basins in which cutthroat trout occur contain remnants of much more extensive bodies of water which were present during the wetter period of the late Pleistocene epoch (Smith 1978).

Differentiation of the species into 14 or so recognized subspecies occurred during subsequent general desiccation of the Great Basin and Inter-mountain Region since the end of the Pleistocene, and indicates presence of cutthroat trout in most of their historical range prior to the last major Pleistocene glaciation (Behnke 1981; Loudenslager and Gall 1980). Ancestral LCT probably invaded the pluvial lake Lahontan system more than 35,000 years ago (Gerstung 1981; Coffin 1982), although the precise events of entry and origin of the original stock are unclear (Behnke 1979; Loudenslager and Gall 1980). Fossils of LCT have been found in middle Pleistocene lacustrine sediments in the Humboldt River Canyon near Lovelock indicating the subspecies may have been present in the Lahontan basin for a much longer period than earlier thought (Gobalet and Negrini 1989).

LCT historically occurred in most cold waters of the Lahontan basin of northern Nevada, eastern California, and southern Oregon, including the Humboldt, Truckee, Carson, Walker, Black Rock/Quinn, and Coyote Lake drainages. Large alkaline lakes, small mountain streams and lakes, small tributary streams, and major rivers were inhabited, resulting in the present highly variable subspecies. The fish occurred in Tahoe, Pyramid, Winnemucca, Summit, Donner, Walker, and Independence Lakes, but disappeared from the type locality, Lake Tahoe, about 1940 due primarily to the blockage of spawning tributaries, and subsequently from Pyramid and Walker Lakes (Behnke 1979). The subspecies has been extirpated from most of the western portion of its range in the Truckee, Carson and Walker River basins, and from much of its historical range in the Humboldt and Black Rock/Quinn River basins. Only remnant populations remain in a few streams in the Truckee, Carson, and Walker

River basins out of an estimated 1,020 miles of historical habitat (Gerstung 1986). Coffin (1988) estimated that only 85 stream populations of LCT existed in the Humboldt River basin in a total of 270 miles of habitat compared with an estimated historical occurrence in 2,210 stream miles.

The severe decline in range and numbers of LCT is attributed to a number of factors including: (1) Hybridization and competition with introduced trout species; (2) loss of spawning habitat due to pollution from logging, mining, and urbanization; (3) blockage of streams due to dams; (4) channelization; (5) dewatering due to irrigation and urban demands; and (6) watershed degradation due to overgrazing of domestic livestock (Gerstung 1986; Coffin 1988; Wydoski 1978). Minshall et al. (1989) states that the major human impact on Great Basin streams have been irrigated farming and livestock grazing. In the Humboldt basin of Nevada, Coffin (1981, 1982, and 1988) and Behnke (1979) attribute the poor condition of most stream habitats primarily to effects of extensive long-term livestock grazing practices. In the Truckee, Carson, and Walker River basins, however, Gerstung (1986) does not include effects of livestock grazing as a factor in the decline of LCT, but includes pollution, overfishing, construction of dams and diversions, and competition and hybridization with nonnative trout species.

According to BLMs' BA, the Nevada Division of Wildlife (NDOW) surveys indicate LCT occur in SFLHR and Pole Creek in the Bullhead Allotment. As presented in the BA, stream habitat surveys by BLM and NDOW rate the overall riparian condition along Pole Creek as fair. Bank cover rated good to excellent at all stations except one. Bank soil and bank vegetation stability rated good to excellent at all sample stations except one. The principal limiting factors for Pole Creek in 1992 were pool measure (pool/riffle ratio), pool structure (quality pools), and preferred substrate (cobble/gravel). Much of the cobble and gravel in this stream was heavily silted.

Recent data collected by NDOW and BLM for SFLHR show that this stream within the enclosure has experienced an upward trend from conditions prior to construction of the enclosure. BLM expects that the stream survey objective of 60 percent of habitat optimum will be exceeded in 1994 for SFLHR.

Pole Creek originates in an allotment under management by the Elko BLM District. It then flows through the Snowstorm Flat pasture. The Elko BLM allotment (Little Humboldt) has four streams that are important for LCT. They are the

headwaters of SFLHR and Pole Creek, and Secret and Sheep Creeks. Activities in the Little Humboldt Allotment influence stream conditions within the Bullhead Allotment.

Effects of the Proposed Action on Listed Species

According to Minshall et al. (1989), riparian/stream habitats are the most threatened habitats in the Great Basin. Native and domestic grazers, especially cattle, are attracted to these narrow green strips of vegetation due to presence of water, shade, microclimate, more level topography, and more succulent vegetation than upland areas, especially during late summer periods.

Livestock grazing can affect riparian areas by changing, reducing, or eliminating vegetation, and by actual elimination of riparian areas through channel widening, channel aggradation, or lowering of the water table. Effects on fish habitat include reduction of shade and cover and resultant increases in water temperature, changes in stream morphology, and the addition of sediment due to bank degradation and offsite soil erosion. Behnke and Zarn (1976) identified livestock grazing as the greatest threat to the integrity of trout stream habitat in the Western United States. Numerous symposia and publications have documented the detrimental effects of livestock grazing on stream/riparian habitats (Platts 1981; Chaney et al. 1990; General Accounting Office (GAO) 1988; American Fisheries Society 1980; Clary and Webster 1989; Kinch 1989; Cope 1979; Peek and Dalke 1982; Gresswell et al. 1989; Menke 1977; Kaufmann and Kruger 1984; Johnson et al. 1974; Meehan and Platts 1978; Omart and Anderson 1982; Minshall et al. 1989).

Elevated water temperatures can be directly lethal to trout, increase susceptibility to disease because of stress, inhibit reproductive success, and adversely affect spawning migrations (Lantz 1971). Another temperature-related factor is the potential for less winter survival of trout in grazed areas.

Platts (in Cope et al. 1977) reported observations of trout migrating from a grazed section of stream to an ungrazed section during winter. Highly grazed areas may be less suitable for fish overwintering because stream channels in such areas tend to be wider and shallower and are thus more susceptible to freezing throughout the water column. Additionally, undercut banks and overhanging vegetation which normally provide shelter are often damaged in grazed areas, thus decreasing the amount of winter habitat. Fish mortality may also occur if the winter carrying capacity of the ungrazed section is exceeded by the influx of fish from grazed sections. In small Great Basin streams the potential

is high for reduced trout survival during seasonal winter low-flow periods if stream morphology has been adversely affected by livestock grazing.

Sloughing and collapse of streambanks due to livestock grazing adversely affects fish populations (Platts 1979). Streambank damage can eliminate trout habitat associated with banks (Armour 1977), alter stream morphology such as pool/riffle and width/depth ratios (Platts 1978; Gunderson 1968), and cover spawning gravels with sediment which reduce survival of trout embryos (Phillips et al. 1975; Bjorn 1969). Duff (1977) found that streambank stability decreased by 14 percent in stream areas following introduction of livestock into an area which had been ungrazed for 4 years and stream-channel widths were 173 percent greater in grazed areas. Likewise, Van Velson (1979) reported decreased stream width and increased streambank stability on Otter Creek, Nebraska, following exclusion of livestock.

The intermittent flow of many western streams may be partially due to lowered water tables resulting from effects of long-term watershed deterioration. Healthy riparian areas protect and stabilize streambanks and promote increased subsurface water storage thereby producing perennial flows (Chaney et al. 1990). Many examples of streams exist where proper riparian management resulted in conversion of intermittent streams into perennial streams capable of supporting fish populations. Following fence construction and reductions in livestock use, streams in the Sedow Allotment in the Tonto National Forest, Arizona, now flow where only dry sandy draws had been present for decades (GAO 1988). Streamflows in Camp Creek, Oregon, changed from intermittent to year-round following construction of fenced exclosures along several miles of the creek (GAO 1988; Stabler 1985).

Sediment introduced into streams can adversely affect fish populations by affecting primary productivity and food supply. Suspended sediments reduce light penetration to plants and reduce oxygen carrying capacity of the water (Ohmart and Anderson 1982). Reduction in photosynthesis and primary productivity decreases productivity of the entire ecosystem (Minshall et al. 1989). Additionally, sedimentation directly decreases the amount of substrate suitable for invertebrates, and reduces instream cover and spawning habitat for fish. Sedimentation can be reduced by providing a healthy riparian-wetland area associated with streams. Increased sedimentation, increased turbidity, soil compaction, and pollution from high levels of ammonia and nitrites are all problems associated with heavy livestock use in riparian areas (U.S. Department of the Interior/BLM 1991).

Habitat for terrestrial insects, an important trout food, is provided by streamside vegetation which also provides organic material for approximately 50 percent of a stream's nutrient energy (Cummins 1974). In addition, detritus from such plants is a principal source of food for aquatic invertebrates, and eventually for fish (Minshall 1967; Meehan et al. 1977). Several studies have specifically addressed the positive effects on fish populations when livestock grazing is reduced or eliminated from riparian areas. In Bear Creek, Utah, a deeply-incised, often intermittent section of the stream was restored to perennial flow, and rainbow trout were re-established, following restriction of livestock grazing to only 2 months during early spring (Chaney et al. 1990). Gunderson (1968) reported that brown trout standing crop was 31 percent greater in an ungrazed versus a grazed section of Rock Creek, Montana. In a subsequent study of Rock Creek, Marcuson (1977) found that standing crop inside the ungrazed area had increased to 3.4 times that found in the grazed section. Stuber (1985) found 96 percent higher trout standing crop in fenced than unfenced areas along Sheep Creek, Colorado. Lorz (1974) reported that trout populations were 35 percent high in ungrazed sections of the Little Deschutes River, Oregon, than in grazed sections. In Huff Creek, Wyoming, Bonneville cutthroat trout numbers increased by 1,100 percent in a 1 mile reach of the stream following fencing (Chaney et al. 1990). Rainbow trout increased from 1 percent of the fish population in a 2-mile reach of Otter Creek, Nebraska, to 97 percent following fencing (Van Velson 1979).

Research by Platts (1981) has shown that riparian habitat alteration is generally insignificant if utilization is 25 percent or less. Myers (1989) concluded that good or excellent riparian conditions were maintained by grazing systems which lacked livestock use during the hot season, and he recommended that grazing not be allowed during the hot period more than once every 4 years. Similarly, Clary and Webster (1989) stated that riparian area grazing should be avoided during mid- and late summer.

In summary, the fenced riparian exclosures along SFLHR will protect and improve LCT habitat in the 11.5 miles from below Rodear Flat to the confluence of Pole Creek. Unfenced areas along Pole Creek during the hot season (08/15 to 08/31) are planned for livestock grazing every year. However, 30 percent utilization standards will allow for significant improvement in riparian habitat quality, although at a slower rate than if a fenced exclosure were present. Upland riparian habitat utilization levels of 50 percent will provide a slower rate of improvement in vegetative cover than will occur in the

streamside riparian habitats. This utilization level will need to be evaluated during this livestock utilization period to determine if it is effective in meeting the needs of the area.

Cumulative Effects

Cumulative effects are those effects of future non-Federal (State, local government, or private) actions on endangered and threatened species or critical habitat that are reasonably certain to occur during the course of the Federal activity subject to consultation. Future Federal actions are subject to the consultation requirements established in section 7 of the Act and, therefore, are not considered cumulative to the proposed action.

Actions on private lands, primarily grazing of livestock on riparian areas, will continue to contribute to habitat degradation and loss unless they are managed as part of the Federal land use plan through an exchange of use agreement, and are therefore part of the section 7 consultation process. Though private lands comprise only a small percentage of the total land area in Nevada, much of the private holdings are along perennial streams, or include springs and outflows, and thus include a disproportionately high percentage of LCT habitat.

Incidental Take

Section 9 of the Act, as amended, prohibits any taking (to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct) of listed species of fish or wildlife without special exemption. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering. Under the terms of section 7(b)(4) and 7(o)(2) of the Act, taking that is incidental to and not intended as part of the agency action is not considered a prohibited taking provided that such taking is in compliance with this incidental take statement. If the specific level of incidental take is exceeded, formal consultation must be reinitiated immediately.

The Service expects that livestock grazing in the riparian area of Pole Creek in the South Snowstorm Flat pasture, Bullhead Allotment, at the four water gaps in the First Creek Basin pasture encompassing about 400 feet, and on private lands along the streams may result in incidental take of LCT because of detrimental effects on parameters

such as water temperature, substrate quality, food supply, spawning success, etc., in these localized areas, which directly affect life history of aquatic species. Because of the inherent biological characteristics of aquatic species such as cutthroat trout, however, the likelihood of discovering an individual death attributable to grazing is very small. For example, small size, behavioral modifications before death, presence of aquatic vegetation, stream flow, predation, and rapid rates of decomposition make finding an incidentally taken individual fish extremely unlikely. Furthermore, effects of management actions such as AMPs are largely unquantifiable in the short term, and may only be measurable as long-term effects on the species' habitat or population levels. Therefore, even though the Service expects incidental take to occur from the effects of grazing within riparian habitats which help support a population of LCT, the best scientific and commercial data available are not sufficient to enable the Service to estimate a specific amount of incidental take of the species itself. In instances such as these, the Service has designated the expected level of individual incidental take as unquantifiable.

This Biological Opinion provides reasonable and prudent measures which are expected to reduce the likelihood of incidental take. The measures described below are nondiscretionary and must be undertaken by the agency or made a binding condition of any grant or permit issued to the applicant, as appropriate.

Reasonable and Prudent Measures

The Service believes that the following reasonable and prudent measures are necessary and appropriate to minimize incidental taking authorized by this Biological Opinion:

1. Measures will be taken to ensure that monitoring of utilization levels within the Bullhead Allotment is fully accomplished and will provide information to effectively assess the benefits of riparian utilization levels and exclosures to LCT habitat recovery.
2. Measures will be taken to ensure all livestock fences on Federal lands within the allotment are in place and functional before livestock use is allowed or authorized by BLM.
3. Measures will be taken to ensure that percent of habitat optimum levels of 60 percent or greater is achieved within the pastures with LCT habitat, and the level of incidental take is reduced.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the Act, BLM must ensure compliance with the following terms and conditions which implement the reasonable and prudent measures described above:

1. To implement Reasonable and Prudent Measure 1, the following terms and conditions will be implemented.
 - a. BLM will fully implement the monitoring called for in the BA in every year grazing is allowed on the allotment. Failure to implement the monitoring as prescribed requires the livestock to be removed immediately from the allotment.
 - b. BLM will complete mid-season and end-of-season monitoring in the South Snowstorm Flat pasture until an exclosure is built on Pole Creek to protect LCT riparian habitat.
 - c. BLM will require the permittee to remove livestock from the South Snowstorm Flat pasture when streambank riparian utilization levels on Pole Creek reach 25 percent or when upland riparian utilization levels within summer pastures reach 45 percent. The livestock operator will be given a 7-day notice in which to remove livestock from the pasture and/or allotment.
 - d. If the use levels reach 25 percent or 45 percent, respectively, the livestock may be moved to one of the other summer pastures if the utilization levels in the new pasture are less than 20 percent on upland riparian habitats. If the utilization exceeds 20 percent on all upland riparian summer pastures, livestock will be removed from the allotment.
 - e. No grazing will be authorized after 08/31 in the summer pastures.
 - f. BLM will manage wild horses within the allotment to preclude damage to riparian habitats, including tributary stream systems to SFLHR.
 - g. BLM will provide reports of the monitoring done at the end of the grazing season for LCT pastures.

2. To implement Reasonable and Prudent Measure 2, the following terms and conditions will be implemented.
 - a. All fences in pastures containing LCT habitat will be maintained prior to livestock use in the area each year of authorized use.
 - b. In the event of any damage to enclosure fences that would allow livestock or wild horses access to the enclosure area, repairs will be made immediately (within 2 days) if livestock are in that pasture, or before livestock enter that pasture in that year.
3. To implement Reasonable and Prudent Measure 3, the following terms and conditions will be implemented.
 - a. A BLM stream habitat survey will be completed in 1994 to confirm the determination that the stream is expected to reach 60 percent of habitat optimum during 1994 for SFLHR.
 - b. A BLM stream habitat survey will be completed on Pole Creek in 1997 to determine its percent of habitat optimum. Annual monitoring of Pole Creek during and after livestock use will indicate whether conditions are improving or declining.

If the incidental take authorized by this opinion is met, BLM should immediately notify the Service in writing. If the incidental take authorized by this opinion is exceeded, BLM shall immediately cease the activity resulting in the take and shall reinitiate formal consultation with the Service.

Reporting Requirements

1. Upon locating dead, injured, or sick LCT during the time when livestock are authorized to be present within the summer pasture, initial notification must be made to the Service's Division of Law Enforcement Special Agent Sam Jojola in Reno, Nevada, at telephone number (702) 784-5229. Instructions for proper handling and disposition of such specimens will be issued by the Division of Law Enforcement. Care must be taken in handling sick or injured fish to ensure effective treatment and care, and in handling dead specimens to preserve biological material in the best possible state. In conjunction with the care of sick and injured cutthroat trout, or the preservation of biological materials from a dead trout, BLM and the permittee have

the responsibility to ensure that information relative to the date, time, and location of the fish when found, and possible cause of injury or death of each fish be recorded and provided to the Service.

2. Riparian habitat monitoring results, to be conducted at the time livestock are removed from each pasture, and halfway through the designated use period as described in 1.a. above, where riparian fencing has not been completed on Pole Creek, will be provided to the Service's Nevada State Office within 2 weeks of data collection. Monitoring data will include: (1) Maps showing areas where monitoring occurred; (2) actual field reports and measurements; (3) calculations/estimates of vegetation utilization levels which have occurred up to that time; and (4) any action taken or proposed to stop utilization of riparian vegetation in excess of allowed levels.

Conservation Recommendations

Section 2(c) and 7(a)(1) of the Act direct Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. "Conservation recommendations" have been defined as Service suggestions regarding discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, or regarding development of information. Recommendations provided here relate only to the proposed action and do not necessarily represent complete fulfillment of your agency's section 7(a)(1) responsibility for this species.

1. BLM should work with permittee in developing alternative watering sites for livestock away from stream/springs.
2. BLM should construct riparian fence enclosures on the public lands portion of Pole Creek.

In order for the Service to be kept informed of actions that either minimize or avoid adverse effects, or that benefit listed species or their habitats, the Service requests notification of the implementation of any conservation recommendation.

Conclusion

This concludes formal consultation on applications submitted by BLM for actions proposed in the proposed Bullhead Allotment grazing decision. As required by 50 CFR § 402.16, reinitiation of formal consultation is required if: (1) The

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amount or extent of incidental take is reached; (2) new information reveals effects of the agency action that may impact listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to a listed species or critical habitat that was not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action.

Please notify this office as to your decision in this matter. We appreciate the assistance and cooperation of your staff throughout this consultation process. If we can be of any further assistance, please contact Patrick Coffin or me at (702) 784-5227.

Patrick Coffin

For David L. Harlow

cc:

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