~~Las Vegas~~ 11/8/91

IN REPLY REFER TO:

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

CALIENTE RESOURCE AREA
P.O. Box 237
Caliente, Nevada 89008

4320
Case File
(NV-055.5404)

NOV 0 8 1991

(702) 726-3141

Dear Concerned Citizen:

This letter is to inform you of a Bureau's proposal to construct up to 53 fences around spring/riparian areas in the Caliente Resource Area. One of the 53 projects may be constructed in your allotment or area of interest on BLM lands. Approximately 40, one acre and approximately 13, ten acre fences could be constructed. These projects would implement the Bureau's Riparian Management Policy in the Caliente Resource Area. These projects should improve the condition of the vegetation and help to ensure that springs are not lost.

The fences would be constructed of galvanized rail, wood, or barbed wire materials. Wildlife, cattle, sheep, and wild horses and burros would have access to water at all of the springs. Water would be available through existing conveyance systems or at watering access areas outside the fences.

A riparian vegetation Environmental Assessment has been prepared. If you have any comments concerning these projects, please address them to the Caliente Resource Area at the above address by December 8, 1991. If you do not comment by that date I will assume that you have no concerns with the projects.

If you have any questions or concerns regarding these projects please call Don Hovik at the Caliente Resource Area office at your convenience.

Sincerely,

Terry Lee Smith for

Curtis C. Tucker
Area Manager

Enclosure (1):

1. Environmental Assessment: Riparian Area Enhancement Activities in the Caliente Resource Area, Las Vegas District.

Riparian Area Enhancement Activities in the Caliente Resource Area, Las Vegas District.

EA-NV-055-01-10

Prepared by Don Hovik
Caliente Resource Area

October 1991
Date

Bureau of Land Management
Caliente Resource Area
Las Vegas District, Nevada

I. INTRODUCTION

In 1989, a riparian area inventory was authorized in the Las Vegas District to implement the Bureau of Land Management's (BLM) Riparian Management Policy. Data were collected on soils, ground cover percentage, vegetation types, condition, and improvement potential, riparian acreage, and hydrology at 57 riparian areas in the Caliente Resource Area during the inventory. Inventory data indicated that riparian vegetation at the majority of those riparian areas (44 of 57 areas) was in fair to poor condition. Fifty-three of the inventoried riparian areas had the potential for substantial improvement in vegetative condition if riparian enhancement projects were developed at those locations.

II. PURPOSE AND NEED

The purpose of this programmatic Environmental Assessment (EA) is to analyze the environmental consequences of conducting riparian enhancement activities at 53 areas in the Caliente Resource Area. Such riparian area management actions would help to maintain, restore, and improve riparian values at each of these locations and meet the goals of BLM's Riparian Management Policy.

III. CONFORMANCE WITH APPROVED LAND USE PLANS

A review of the Caliente Management Framework Plan, Step III (1982) indicates that the proposed riparian enhancement activities are in conformance with decisions contained in that plan. Wildlife Decisions 3.4, 3.5, and 4.1 state that water sources (developed or undeveloped) should be protected from trampling and destruction, that water quality should be maintained at the highest possible level, and that water should remain available for all users on a year-round basis, whenever possible.

IV. PROPOSED ACTION AND ALTERNATIVES:

A. Proposed Action: Thirteen Possible Fence Designs Designs 1 to 6 and Designs 7 to 13 (A to G).

Riparian enhancement activities proposed for authorization would include the construction of rail, pipe, steel post, wood, or barbed wire fencing at 53 riparian areas on public lands in the Caliente Resource Area. Thirteen possible fence designs are included in this proposal; Appendix 1 contains the technical specifications and design attributes of the various fence types. Each fence design would include an access ladder or gate of wood, metal, or a combination of these materials that would permit human access to each riparian area. Fence designs would also allow livestock, wildlife, wild horses and burros to access water either inside or outside the fenced riparian area. When water is provided inside the riparian areas, fence materials will be constructed to funnel ungulates to the concrete walkway or location where soil is very

stable. These gaps will allow ungulates to obtain water and simultaneously allow vegetation in the fenced area to be restored. All livestock, wildlife, and wild horses and burros will enter the same watering access area. If a riparian area has an operational water conveyance system and trough, fencing would be constructed around the entire riparian area. Concrete walkways are proposed for construction at specific riparian areas where erosion resulting from ungulate access could cause headcutting of the spring source. All project elements would be constructed by BLM personnel, in cooperation with volunteers. Environmental variables such as topography, soils, vegetation, and resource users would determine the selection of the fencing design and materials for each of the 53 riparian areas. Site-specific EA's tiered to this programmatic EA, would address the specific impacts associated with individual project implementation.

From 1 to 10 acres of land would be enclosed at each of the identified riparian areas. Fence length would range from 700 to 1,500 feet at the one-acre areas, which comprise approximately 40 of the 53 riparian areas. Between 2,640 and 6,000 feet of fencing would be installed at the 13 remaining sites. Fenceposts would be installed at varying intervals, depending on design type selected. A minimum of 88 posts and a maximum of 225 could be required to fence the one-acre riparian areas. A maximum of 900 posts would be installed at the 10-acre areas. Concrete walkways would cover approximately 0.002 acres at those riparian areas determined to need additional protection from erosion.

No roads would be constructed to access the riparian areas proposed for enhancement projects. Adequate vehicle access for project installation, inspection, and maintenance is available at 44 of the 53 riparian areas. All terrain vehicles would be used to access the nine areas with poor vehicle access for construction and maintenance purposes. No road construction would be authorized to improve access to these locations.

The riparian enhancement projects would be monitored on an annual basis for a 25-year period. Table 2 displays the long-term monitoring schedule for the areas. If properly maintained, all of the proposed fences and walkways could last approximately 50 years.

The following Standard Operating Procedures, Mitigation, and Stipulations would be included as part of the proposed action:

STANDARD OPERATING PROCEDURES:

1. Prior to the authorization of individual riparian enhancement projects, compliance with applicable laws, regulations, Executive Orders, and BLM policy would be completed and a site-specific EA, tiered to this programmatic document, prepared. Resource concerns would be identified and mitigated through appropriate regulatory mechanisms (ie. Section 7 and Section 106 consultation).

MITIGATION MEASURES AND STIPULATIONS:

The following stipulations and or mitigation measures would be included on projects to reduce and mitigate potential impacts. Site specific construction would not be authorized until the above regulatory procedures and following mitigation measures are completed.

General Measures:

1. Excess materials will be removed from the area once the project is completed.

2. Post cement would be mixed away from wet areas to prevent cement from entering the riparian area.

3. A BLM representative would be present during all construction activities.

Vegetation:

The objective of these projects is to enhance vegetation and water quality at the riparian areas. Therefore, minimal disturbance of native vegetation would occur.

1. Ensure that the fence post materials are installed during a time period that results in minimal vegetation loss.

2. Existing roads and trails would be used for access to riparian sites.

Wildlife:

1. Construction vehicles will not travel through riparian areas and streams.

2. Install the fence posts and bird ladders during a time period that results in minimal disruption of breeding seasons and fawning seasons.

3. Install galvanized pipe/rail material so that big game do not become caught in the fence. Additional mitigation measures could be developed for each site specific project depending on the nature of the vegetative community in a minimal EA referencing this programmatic EA.

4. Wild animal escape ladders would be constructed on existing water troughs and wildlife drinkers at riparian areas. Ladders would be permanently attached to the troughs.

5. The rail fence design will prevent ungulates from becoming caught in the fence. Barbed fences could require the installation of a smooth top wire. Spacing of wires would follow designs in the Bureau Manual or Designs listed in the Proceedings for the 1988 Wildlife Water Development Symposium, Las Vegas, Nevada.

6. Any T & E or Candidate flora or fauna species which are encountered shall be left undisturbed. The fenceposts would be relocated to a new location at the riparian area. No fence construction would be conducted in special habitats or during a critical wildlife use period for non-sensitive wildlife.

Livestock & Wild Horses and Burros:

1. Construct the fences when these animals are not licensed/found near the riparian area.

2. Install galvanized pipe/rail/wood material so that these animals do not become caught in the fence.

3. Additional mitigation measures could be developed for each site specific fence project depending on the nature of the vegetative community in a minimal EA referencing this programmatic EA.

Cultural Resources:

1. If previously unidentified cultural resources are found at the area, all work will immediately cease and the Authorized Officer notified. Work will not resume until these resources have been evaluated by a qualified BLM or BLM-permitted archaeologist and Section 106 consultation, as required, completed.

Visual Resources:

1. Fence material will be painted to reduce the visual contrast of the rails.

B. Alternative A: No Action Alternative:

The No Action alternative would not authorize the construction of riparian enhancement projects at 53 riparian areas in the Caliente Resource Area. While Wildlife Decisions 3.4, 3.5, and 4.1 recommend the protection of spring sources from user impacts, no protection mechanisms are identified for implementation. No prioritization for implementation of such projects is provided. Riparian enhancement activities would be conducted on an as-needed basis, and would not be integrated into the over-all BLM riparian management strategy.

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER CONSIDERATION:

C. Alternative B: Changes in Grazing Management Systems:

An alternative was proposed which would have restricted classes of livestock (cattle and domestic sheep) to certain seasons of use, grazing systems, or be subject to removal from allotments. The above actions would conflict with policy and direction given in the Caliente Management Framework Plan, Step 3, approved in 1982. If a change in season of use or livestock grazing was pursued, these changes would not become effective until the approval of the Caliente Resource Management Plan in 1996. Therefore, this alternative was eliminated from further consideration in this EA.

V. AFFECTED ENVIRONMENT:

The Caliente Grazing EIS (INT FES 79-44) provides a detailed discussion of the affected environment within the Caliente Resource Area. Included in this document are discussions of climate, air quality, soils, watershed, water resources, vegetation, wildlife, wild horses and burros, visual and cultural resources, land uses and social economics. Visual Resource Management Class 3 is defined as follows: Contrasts to the basic elements caused by a management activity are evident, but should remain subordinate to the existing landscape. VRM Class 4 is defined as follows: Any contrast attracts attention and is a dominant feature of the landscape in terms of scale, but it should repeat the form, line, color, and texture of the characteristic landscape.

The following Environmental Assessment Mandatory Elements would not be impacted by the Proposed Action, or the No Action Alternative, as described in this programmatic Environmental Assessment.

1. Areas of Critical Environmental Concern
2. Farm Lands
3. Flood Plains
4. Wastes, Hazardous Liquid or Solid
5. Wild and Scenic Rivers
6. Wilderness
7. Wetlands
8. Air Quality
9. Cultural/ Paleontological Resources

10. Threatened and Endangered Wildlife

VI. IMPACTS OF THE PROPOSED ACTION, AND NO ACTION ALTERNATIVE:

A. Soil Resources:

1) No Action Alternative:

Soil Resources on 170 acres (40 one-acre areas, 13 ten-acre areas) of riparian land would continue to erode if fence projects are not constructed. Soil compaction would also occur. Top soil would enter creeks and streams and result in an increase in watershed siltation. Organic and inorganic matter would be transported out of the riparian area during wind and rain storms. On a long-term basis, many sites would not be able to support vegetation due to the loss of topsoil and the emergence of bedrock. It would not be possible to achieve a productive ecological condition for maximum long-term benefits and riparian values at 53 sites. Land resources such as soil would remain in a degraded condition for many years at 53 riparian areas.

2) Proposed Action:

Short-term impacts to the soil resources would be dependent upon the type of soil at the project area. A minimum of 0.002 acres (100 square ft.) and a maximum of 0.005 acres (225 square ft.) of soil would be disturbed at each 1 acre riparian area. A minimum of 0.009 acres (375 square ft., 10 acre square shaped fence) and a maximum of 0.021 acres (900 square ft., 10 acre rectangle fence) of soil would be disturbed at each 10 acre riparian area. By constructing a fence at 53 riparian areas, a maximum of 0.5 acres (21,780 square ft.) of soil would be disturbed when fencepost holes are excavated. Concrete would be poured into the post holes. Soil would be backfilled after the posts are installed. Construction vehicle tracks might be left in the soil. The results of these impacts would vary depending on the soil type and structure and if soils are wet. A maximum of 0.002 acres of ground would be covered when ungulate access walkways are installed at each riparian area.

In the long-term, natural soil regeneration would occur due to the presence of decaying vegetation, animal matter, breakdown of inorganic matter, and the absence of high erosion in the riparian area. Ungulate trampling would be reduced and directed to the land surrounding a trough or water access area. Soil stability would be increased and erosion would be reduced in 90 percent of the riparian area. Erosion would not occur in the ungulate access area because the access area would contain a concrete slab or be located in an area where stable soils existed.

B. Vegetative Resources:

1) No Action Alternative:

Vegetation resources in riparian areas would continually be disturbed by hoof action from ungulates such as horses and burros, cattle, and domestic sheep. At least 85 acres of the 170 acres of land at 57 riparian areas would be disturbed by hoof action. Less natural revegetation of grasses, shrubs, and trees (willow /aspen /cottonwood) would occur under this alternative. Traditional use by ungulates would remain the same in and around the riparian areas. Trampling would occur at sites that receive a lot of ungulate use.

2) Proposed Action:

Vegetation inside the proposed fence projects would regenerate more quickly. Grass or tree cover would increase over time. Vegetation species diversity would increase in the riparian areas. Vegetation trampling would not occur inside the fence.

Vegetation utilization in riparian areas would be reduced due to a change in the distribution of big game, livestock, and wild horses and burros. Vegetation utilization and trampling would occur in designated water access areas or around designated troughs. The degree of disturbance would be dependent on the number of animals that obtain water and/or forage.

C. Wildlife:

1) No Action Alternative:

Wildlife species throughout the Caliente Resource Area could be impacted under this alternative because sparse plant cover would remain at riparian areas. Certain species of mammals, birds, reptiles, and amphibians would not be able to find food or cover. Wildlife species would deposit more of their waste products at the spring source in an attempt to obtain water from a source with reduced flow.

If natural spring waters are lost due to excessive ungulate trampling, horses and burros could permanently replace big game at traditional big game use areas. Wild Horses and burros might occupy space that was previously used only by big game animals during a particular season of use.

2) Proposed Action:

The riparian projects could positively and negatively affect wildlife species. In the short-term, big game species may emigrate from the project area. However, the increase in vegetation in the riparian area and the enhancement of the spring source (flow and

water quality) could result in attracting big game animals to those areas in the long-term. This could result in the expansion of desirable habitat or immigration of species. Big game such as deer could jump the fence to obtain water or enter the access area to obtain water. An increase in ground cover would result in an increase in small mammals, and probably an increase in songbird and raptor use of the area.

By fencing the riparian areas, a water source would be maintained/enhanced for mule deer. With ungulate access areas, deer and all ungulates would be able to obtain water. Very little forage exists at riparian areas due to excessive trampling and erosion. Water would be available for use by deer, birds, amphibians, reptiles, and small mammals which are the food source for predatory animals.

Authorization of fence projects could temporarily result in the displacement of mammals and reptiles during construction. This displacement could affect the predators that are dependent on small mammals and reptiles as a food source. The site could be used by the above wildlife once construction was completed. The projects could increase forage competition between wildlife and livestock in the designated water access areas or on lands adjacent to the riparian areas. This competition could result in the home ranges being changed and habitat being reduced.

The choice of fencing would depend on the presence of deer and/or bighorn sheep at a riparian area. Compared to other ungulates, deer would not cause trampling if they were allowed access through a deer pass or other structure such as a modified cattle guard.

D. Livestock:

1) No Action Alternative:

Livestock use throughout the Caliente Resource Area may be impacted under this alternative if soil at 53 spring sources is compacted or eroded. Spring flow could be reduced under this alternative. Domestic ungulates may not have a reliable water source at the riparian area. If wild horses and burros permanently replace cattle or occupy space that was previously not used by equids, public land users such as livestock permittee's could be negatively affected. Livestock would deposit more of their waste products at the spring source in an attempt to obtain water from a source with reduced flow.

2) Proposed Action:

Livestock distribution could change with the construction of the exclosure fences. Livestock congregate in riparian areas because water and forage is available and generally do not leave the area to search for other forage types. The construction of 1 to 10 acre

fences would preclude livestock access to riparian vegetation. Distribution patterns would change as livestock are forced into previously unused areas. Water quality at troughs or access areas would be higher. Natural spring sources would not be lost due to trampling.

Fence project design and mitigation measures would be developed for each project depending on the nature of the area in a site specific EA.

E. Wild Horses and Burros:

1) No Action Alternative:

Wild Horses and burros throughout the Caliente Resource Area may be impacted under this alternative if soil at the spring source is compacted, eroded, or excavated. Wild Horses and burros would deposit their waste products at the spring source in an attempt to obtain water from a source with reduced flow. A water source may be lost if enhancement work is not conducted. Horses and burros would move outside of existing herd management boundaries or extend their home range to find water. Water competition with cattle, sheep, and wild animals would increase. Herd management changes might be needed.

2) Proposed Action:

The fence projects could positively and negatively affect wild horses and burros. Horses and burros would no longer cause trampling at the spring source. The construction of fences could result in maintaining the current distribution of wild horses and burros because the fence would improve soil stability and result in increased vegetation cover. Fence construction could result in more consistent water flow on a yearly basis. The increase in vegetation in the riparian area and site enhancement could attract wild horses and burros to the water troughs or designated water access areas. With natural waters, wild horse and burro distribution and movements could be managed at a lower cost.

The projects could increase forage competition between wildlife, livestock, and wild horses and burros in the designated water access areas or on lands adjacent to the riparian areas. This competition could result in the modification of wild horse and burro distribution. Wild horses and burros may emigrate from the project area.

Horse and burro distribution could change. Horses and burros are attracted to riparian areas because water and forage is available. The construction of fences would exclude horse and burro access to riparian vegetation and force animals to move to surrounding uplands to obtain forage. Utilization levels would be monitored to ensure that proper grazing stimulates plant growth, ensuring that

vegetation would remain healthy and vigorous on upland sites.

F. Visual Resources:

1) No Action Alternative:

Visual resources would be impacted under this alternative. With the absence of fence projects, vegetation and soil would be removed and/or compacted at 53 riparian areas. Each area could easily be identified relative to adjacent areas that have soil and/or more vegetation. Changes in some of the basic elements (form, line, color, texture) would be evident in the characteristic landscape. Contrasts would be seen.

2) Proposed Action:

Fence location could have an affect on the degree of visual intrusion at a potential project site. Hundreds of fence projects are located on BLM lands in the Caliente Resource Area. The addition of these small (1 to 10 acre) projects would not result in a major visual impact. Rail, pipe, and posts would be painted to blend in with natural features. Natural fence materials such as wood would fall into Visual Resource Management class 2. The rail riparian fence projects would fall into VRM class 3, and would remain subordinate to the existing landscape. Based on form and a moderate contrast with the landscape, the Contrast Rating System produces a numerical value of 8 (contrast can be seen but does not attract attention, ie. 0 to 10 points).

Over 85 percent of the Caliente Resource Area is located in a Class 4 Visual Resource Management Area. Based on the presence of hundreds of miles of fences throughout the Caliente Resource Area, an insignificant amount of visual modification would result from the construction of the riparian fences. A maximum of 26.1 miles of fencing would be installed if projects were constructed at the 53 riparian areas. The fence proposals (wood and metal) are in conformance with the degrees of modification allowed in Visual Resource Management Class 2, 3, and 4. Mitigation in the form of rail and fencepost painting will reduce the amount of visual contrast at riparian areas.

G. Recreation:

1) No Action Alternative:

Recreation resources would be impacted under this alternative. Riparian areas may not be visited by recreationist's due to the condition of the vegetation. Picnics and other recreational activities would be limited to sites that were in good condition.

2) Proposed Action:

Most recreation opportunities could be enhanced for the general public by improvement of the riparian area. The public could conduct more picnic and other recreational activities near the sites. Hunting and wildlife viewing opportunities could be increased if upland game birds, deer, and bighorn sheep came to the riparian areas.

Fence project design and mitigation measures would be developed for each project depending on the nature of the area in a site specific EA.

H. Water Quality

1) No Action Alternative:

Water quality would be affected by continuing to implement the no action alternative. Erosion and downstream sedimentation would continue to occur. Spring sources could dry up due to soil compaction and surface disturbance.

2) Proposed Action:

The construction of the projects would result in an increase in the vegetation, and the reduction of erosion and sedimentation. This would improve water quality at each area.

I. Socio-Economic

1) No Action Alternative:

Fewer recreational opportunities would be available at degraded riparian areas, potentially reducing tourism at these areas. Fishermen would catch fewer trout and have limited recreational opportunities in creeks and drainages. If spring flow was reduced at the headwater areas above creek drainages, less water would be available for rainbow trout habitat. Resident and non-resident hunters could be negatively affected if big game and upland gamebird distribution changes. Fewer doves and quail would be available at degraded riparian areas. If several natural waters are lost, there may be a reduction in the number of big game animals and a drop in the number of harvest permits in the resource area. Hunters with permits may have to spend more time in the field. Hunters would need to pay more for guide services if game was harder to locate. As a result more time and money would be needed to harvest a big game animal on public lands. Fewer hunters may visit public lands to pursue big game. Local stores and businesses would receive less income if fewer bird and big game hunters hunted on public lands.

2) Proposed Action:

Riparian dependent populations of non-game birds, game birds, trout, and big game would use riparian habitats more consistently as vegetation condition improves. As a result, bird watchers, recreationist's, and sportsman would travel more often to rural areas to participate in recreational activities. Local businesses would profit from the sale of hunting and fishing licenses and automobile fuel. Public land users such as livestock permittees would benefit because spring source degradation would be prevented. Natural waters would not be lost. Funds would not be needed to conduct water hauls or install headboxes, pipelines, and troughs.

VII. CUMULATIVE EFFECTS:

A maximum of 153 acres of soil could be compacted and would not support riparian vegetation if the No Action alternative is selected. With the No Action alternative, bedrock emergence would occur and soil genesis would not occur in the riparian area for hundreds of years. Vegetation would continue to remain in a degraded condition due to trampling from ungulates.

Under the Proposed Action, a maximum of 0.2 acres of soil would be disturbed at 40 one acre riparian areas when posts are installed. A maximum of 0.273 acres of soil would be disturbed at 13 ten acre riparian area when posts are installed. A maximum of 0.106 acres of ground would be covered by each ungulate access walkway. Surface disturbance under the entire Proposed Action would be less than 0.61 acres at 53 riparian areas. This represents a small amount of disturbance within the 3,433,962 acres of land located in the Caliente Resource Area.

A maximum gain of 153 acres of riparian vegetation would result if fencing is constructed at each of the riparian areas. Resource users such as livestock, wild horses and burros, wildlife, and people would be able to obtain more reliable sources of water and/or vegetation. A minimum of 1000 miles of fences already exist in the Caliente Resource Area. If the Proposed Action is fully implemented, a maximum of 26.1 miles of fences would be constructed in the Caliente Resource Area. A 2.6 percent increase in the amount of fencing would occur if the Proposed Action was fully implemented.

VIII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES:

No irreversible or irretrievable commitment of resources has been identified.

IX. CONSULTATION AND COORDINATION:

Jule Wadsworth, Wild Horse and Burro Specialist, C.R.A.

Dawna Ferris, Archaeologist / Environmental Coordinator, C.R.A.

Marc Pierce, Forester, Wilderness, Recreation, C.R.A.

Donn Siebert, Hydrologist / Soil, Water, Air, District Division of Resources.

Terry Smith, Supervisory Range Conservationist, C.R.A.

Kyle Teel, Wildlife Biologist, C.R.A.

Curtis Tucker, Area Manager, Caliente Resource Area.

X. APPENDICES:

APPENDIX 1. Design drawing for fence designs 1 to 6.

Rail design number 1 is 43 inches high, and this would function to prevent burros and cattle from entering the riparian area. Rail design number 2 is 58 inches high, and is used to prevent entry by horses, burros, and cattle. Fence design number 3 uses "round pipe" rather that square rail as in design number 1. The dimensions of design 3 are equivalent to those in design number 1. The round pipes would be bolted and spotwelded together or welded together. Fence design number 4 resembles fence design number 2. Round pipe material is used rather than rail. Fence design numbers 5 and 6 use "standard fenceposts". Fenceposts are installed in the ground and also used as "horizontal" rails. The length of the rails would be dependent on the installation of bolts in the vertical posts. Fence dimensions are equal to the dimensions in designs 1 and 2.

Steel bars (18 in. by 3/16 in.) would be used to brace the corner posts on designs 1 to 6. Two corner designs are available. Rails are fitted together in the first design, and overlapped in the second design. Rails would be prepainted by the factory or painted by force account personnel. Small interpretive signs would be attached to the fence to tell the public about the purpose of the fence. Fence material would consist of galvanized rail, approximately 2 1/4 inches in width. One foot diameter holes would be excavated to allow for the installation of the rails. Cemented rails would be placed in the ground at a depth of 2 feet.

Fence specifications for design number 7 (Type A), design number 8 (Type B), design number 9 (Type C), design number 10 (Type D), design number 11 (Type E), design number 12 (Type F), and design number 13 (Type G) are located in **Table 1**.

Special fence building construction equipment would be used when constructing the fences. Concrete mixers would be used to mix cement for the rail holes. Concrete would be used to ensure that animals do not disturb rail, pipe, or post materials. Spot welding or arc welding equipment would be used to permanently attach nuts and bolts to the rails. Electric drills would be used at district or resource area service yards to drill holes in the rail, pipe, or fencepost materials.

Holes would be excavated in soil or rock and rail fence posts would be installed in concrete. If soils were found to be fully saturated, the fence would be redesigned or not be constructed. To reduce impacts, fence construction would be conducted when soils were dry or only partially saturated with water. Rail fence posts would be installed at 7, 8, or 10 foot intervals along the fence line. Holes would be drilled in the vertical rails at desired

intervals to set the height of the horizontal rails. Rail would be attached to the posts with carriage bolts, lock washers, and nuts. Spot welding would be used to permanently fasten the bolts to the rails. Fence materials would surround the entire riparian area or a portion of the riparian area where watering access areas are used. Each site would be evaluated to determine if a bird ladder should be constructed at existing troughs/water structures. Bird ladders would be permanently attached to the trough.

An additional rail, pipe, post, strand of barbed wire, or woven wire may be added to the bottom of the fence on designs 1 through 11 and 13 where domestic sheep could walk underneath the fence. The materials would be used in allotments that have domestic sheep. Fences could be modified at key locations to allow wildlife such as deer to enter the riparian area.

The BLM would do construction work, monitoring work, and maintenance work on fences. The BLM could be assisted by conservation groups during construction, monitoring, or fence maintenance activities. Funding would be provided by the use of 8100 range improvement funds. Fifty-three projects would be constructed (**Table 2**).

If the barbed wire design is used, special maintenance funds, personnel, and maintenance schedules must be identified in project folders to prevent these projects from falling into a state of disrepair. Compared to designs 1 to 6, and designs 7, 8, 10, and 13, barbed fences would be more difficult to maintain on the public lands. The choice of fencing would depend on the conditions that are found at each riparian area, the objectives to be achieved, and the cost of materials.

Design numbers 7 to 13 have been used to exclude ungulate passage in the Bureau of Land Management Carson City District (**Appendices, Table 1**). Designs 1 to 8, and 13 would result in less injury to fawn mule deer and bighorn lambs. Small deer could possibly become caught in the fence (design 9) in an attempt to enter the riparian area.

Design number 9 cannot stand up to the pressure that is exerted by large horses. Wild horses & burros could possibly become caught in fence design number 9 in an attempt to enter the riparian area. If barbed wire was used, fence design number 11 (Type E) should be used. Designs 1 to 6, or design numbers 7, 8, and 13 would result in less injury to horses (**Appendices; Table 1, Appendices; Figure 1, 2, 3**).

Fence design number 9 requires a higher amount of monitoring, maintenance, and maintenance personnel. If the barbed wire design is used, special maintenance funds, personnel, and maintenance schedules must be identified in project folders to prevent these projects from falling into a state of disrepair. Fence designs 1

to 8, and 13 should be used because they are more sturdy and require less long term maintenance on public lands. Design number 9 can fall apart more easily, thereby allowing ungulates to disturb soil in the riparian area. The choice of fencing would depend on the conditions that are found at each riparian area. From 1 to 10 acres of land would be enclosed at each riparian area in the Caliente Resource Area. Fence length would range from 700 to 1,500 feet at 1 acre areas. Approximately 1325 (mean figure) feet of fence would be installed at each 1 acre area. Approximately 40 of the 53 riparian areas would fall into the 1 acre fence category. Fence length would be 2,640 feet to 6,000 feet at 13 ten acre riparian areas.

Table 1. Fence types recommended around wildlife water developments, comparing animals to be excluded and animals to be allowed passage.

	Allowed Species			
Excluded	Bighorn Sheep	Mule Deer	Pronghorn Antelope	Smaller Wildlife Species
Horses	A	A, E, G	A, E	A, E
Burros	B	B	B	B
Cattle	B	C	C	C, D
Domestic Sheep		F		F

A - Rail Fence: Steel: Posts on 8 feet centers, 3 rails 32-46-60 inches above ground, measured to bottom of rail. Wood: Posts on 7 foot centers, rails 16 feet X 3-4 inches, 28-45-72 inches along slanting pole, from bottom, pole legs 72 inches between ground ends.

B - Helvie Fence: Wire: Posts on 10 feet centers; wire spacing 20, 35, and 39 inches from ground, bottom wire smooth. Can go higher but only in 4 inch increments. Rail posts on 10 feet centers, rails 2 inch pipe or 4 inch wood, spaced 20-38-44 inches above ground to bottom of rail.

C - BLM Standard Fence: Posts on 10-16.5 feet centers, wire spacing 16/18, 22, 30, 42 inches from the ground, bottom wire smooth.

D - Attach barbed wire to steel uprights with vertical wood poles in front of apron to protect gutter.

E - Fence C with higher (46 inch) top wire.

F - Posts 10-16.5 feet apart, wire 6, 12, 18, 24, 30, 36 inches from the ground.

G - Single wood post, 2 rails: Posts 7 feet on centers, rails 30 and 60 inches above ground.

Specifications: Rick Brigham, BLM Carson City District.

Table 2. Construction, Monitoring, and Maintenance schedule for riparian fences constructed in the Caliente Resource Area.

	FY92	FY93	FY94	FY95	FY96	FY97	FY98	FY99
Construction Project/Yr.	6	6	6	7	7	7	7	7
Monitoring/Yr	6	9	12	15	18	20	20	20
Maintenance Projects/Yr.	0	1	3	4	5	6	7	8
Construction Work Months/Yr.	2	3	3	3	3	3	3	3
Monitoring Work Months/Yr.	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Maintenance Work Months/Yr.	0.2	0.5	1.0	1.0	1.0	2.0	2.0	2.0

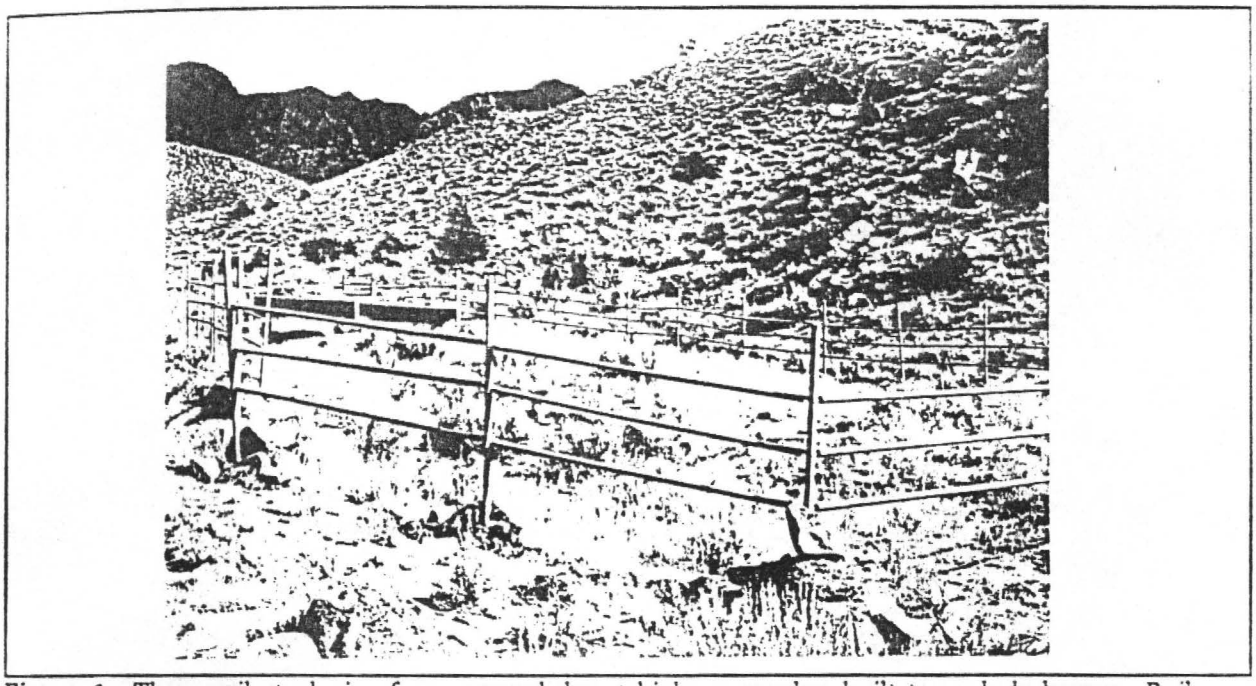

Figure 1 Three rail steel pipe fence around desert bighorn guzzler, built to exclude horses. Rails are 32, 46, and 60 inches above ground. Note grass inside the fence and lack of it outside.

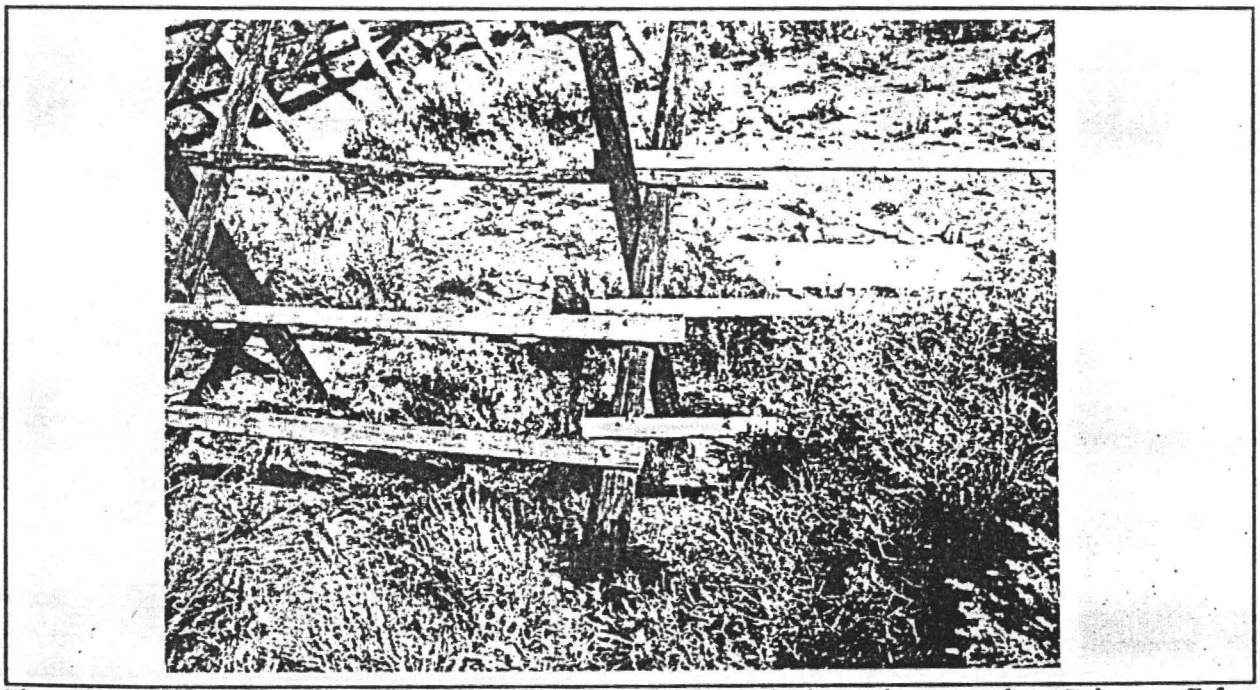

Figure 2 Pole and rail fence to exclude horses from a desert bighorn sheep guzzler. Poles are 7 feet apart, rails are 28, 45, and 72 inches up the pole from ground level. Pole feet are spread 6 feet apart.

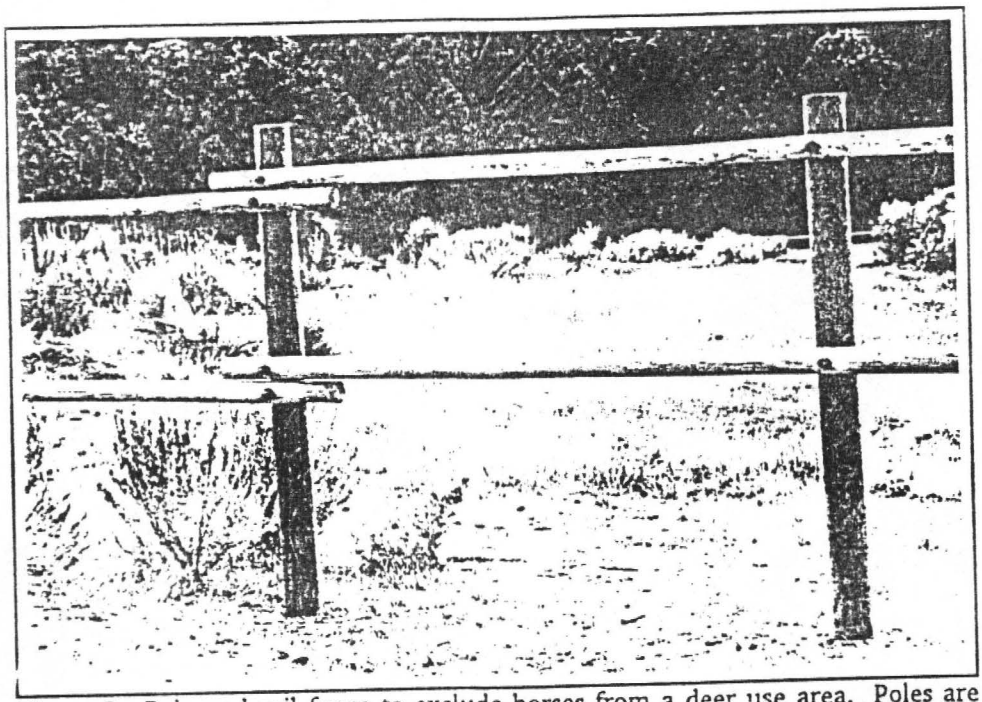

Figure 3. Pole and rail fence to exclude horses from a deer use area. Poles are on 7 foot centers, 16 foot rails are 30 and 60 inches above ground.

APPENDIX 2. Names of areas that may be accessed by singe seat all-terrain vehicles.

Materials could be hauled to Connor, Chokecherry (T3S R69E), Pine, Buckboard, Chokecherry (T5S R65E), Applewhite, Lower Indian, Mud (T6S R70E) and Boulder springs.

APPENDIX 3. Fifty-seven areas where riparian vegetation exists.

1. Lime
2. Highland
3. Deadman
4. Connor
5. Big Tree
6. Pine
7. Hackett Cemetary
8. Deerlodge 1
9. Rattlesnake
10. Pace
11. Dow
12. Summit
13. Little Boulder
14. Chokecherry
15. Oak
16. Pine
17. Willow
18. Buckboard
19. Oak Well
20. April Fool
21. Old Tikaboo
22. Sharp
23. North Brownie
24. Brownie
25. Sixmile
26. Eightmile
27. Chokecherry
28. Cottonwood
29. Applewhite
30. Abandon
31. Coyote
32. Mud
33. Ash Canyon
34. Ella
35. Little
36. Big
37. Cliff
38. Hells half acre
39. Lower Indian
40. Blyth
41. Willow Creek
42. Grapevine Canyon
43. Fife
44. Mud Spring 1-3
45. Mud Spring 4
46. Unnamed Cody
47. Boulder
48. Lower Riggs
49. East Setting
50. Quaking Aspen

51. Kane
52. Garden
53. Box
54. Snow
55. Hackberry
56. Abe
57. Davies

Bureau of Land Management
Caliente Resource Area

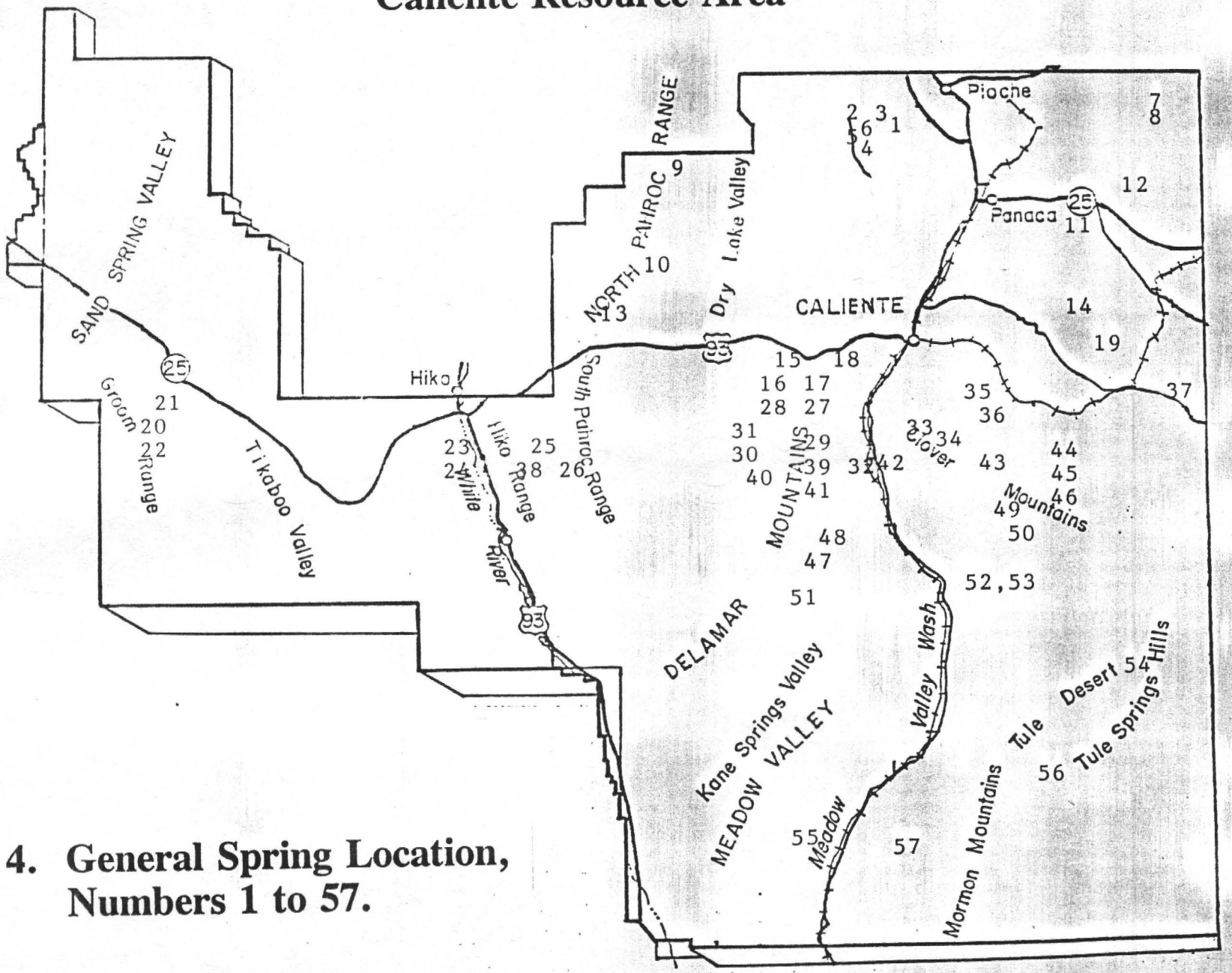

Figure 4. General Spring Location, Numbers 1 to 57.

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

I have reviewed the Proposed Action, and Alternative A, the No Action Alternative, and have determined that the actions and approved mitigation measures in the Proposed Action would not have significant effects on the human environment. Therefore, an environmental impact statement is not needed. The Proposed Action is environmentally preferable to Alternative A, the No Action alternative.

I concur with the proposed action:

_____ _____

Dawna Ferris — Date
Caliente Environmental Coordinator

I concur with the proposed action:

_____ _____

Curtis Tucker — Date
Area Manager
Caliente Resource Area

Ely Dist.

12-3-91

BOB MILLER
Governor

STATE OF NEVADA

CATHERINE BARCOMB
Executive Director

COMMISSION FOR THE PRESERVATION OF WILD HORSES
Stewart Facility
Capitol Complex
Carson City, Nevada 89710
(702) 687-5589

December 3, 1991

Curtis Tucker, Area Manager
BLM-Caliente Resource Area
P.O. Box 237
Caliente, Nevada 89008

Dear Mr. Tucker,

Thank you for the opportunity to comment on the proposal to construct up to 53 fences around spring/riparian areas in the Caliente Resource Area.

Our only concern, in light of the recent drought years, is that these projects are monitored regularly to assure consistent water availablility for wild horses. We would worry that unless monitored a spring may recede as flows are reduced from drought conditions and that wild horses may lose access to that water. We would like to recommend that initially monitoring be established on more than an just an annual basis, especially during the warmer months when a problem might arrive and become an emergency very quickly.

We fully agree with your recommendation (page 5, Livestock & Wild Horses and Burros, 2.), that you install galvanized pipe/rail/wood material so that the wild horses and burros do not become caught in the fence.

We feel that the riparian projects are very important to improve soil stability, increase vegetative cover, and improve the consistency and quality of water flow on a yearly basis.

Again, thank you for the opportunity to comment on these proposed projects. We would still like to receive and review any individual project that affects wild horses and/or their habitat.

If you have any questions, please feel free to contact me.

Sincerly,

Catherine Barcomb

CATHERINE BARCOMB
Executive Director

12-23-91

WHOA
WILD HORSE ORGANIZED ASSISTANCE
P.O. BOX 555
RENO, NEVADA 89504
(702) 851-4817

December 23, 1991

Gerald M. Smith, Manager
Schell Resource Area
BLM-Ely District Office
HC33 Box 150
Ely, Nevada 89301-9408

Dear Mr. Smith,

Thank you for the opportunity to participate in and comment on the Management Action Selection Report (MASR).

WHOA strongly supports the development of a grazing decision in an effort to get control of one of the largest, yet previously most poorly managed allotments in the State of Nevada. We greatly appreciate the continued efforts of you and your staff to personally meet and discuss Wilson Creek and any potential concerns or conflicts with the various interested and effected parties.

We agree that the riparian areas need to be protected. We are somewhat concerned about the continued impact on riparian areas with no timetable in which the protection and restoration of these areas is scheduled. We feel that it would be in the best interest of the permittees, since they are the major users of this allotment, to assist in the funding and labor of completing these projects. There have been successful cooperative efforts between various organizations when working together towards rehabilitation of riparian areas. Have you considered this option?

At the recent meeting we raised five issues that concerned us. The following is what we understood would be the resolution of our conflicts with the MASR. Please correct us if this is in error.

1) The most serious concern was the setting of AML by horse use area within livestock use areas. The allotment is almost entirely within their HMA's. We are gravely concerned that if this happened the MASR would allow the permittees to claim a violation if a few wild horses appear from an adjacent "use area" and request BLM to immediately remove the horses. We understood from the meeting that the AML will be set for the entire HMA to allow for daily or seasonal movement to provide the wild horses with full use of their habitat.

2) We were assured that the Dry Lake fencing would be open ended and that there were no plans in the future to close those

ends. This fence should be flagged initially and monitoring should be done to assure the safety of the horses.

3) That all water improvements done with BLM supplies or money have a caveat under Section 4, to allow for multiple use of those waters.

4) You have assured us that wild horses would not be denied use of the seedings within their HMA and impled that you would adjust the language as such.

5) We were assured that there would be no automatic re-activation of non-use without a decision document in which other affected parties would have the opportunity to review and comment.

If you have any questions or if any of the above was incorrect, please contact us.

Sincerely,

DAWN Y. LAPPIN
Director

Ely

1-9-92

IN REPLY REFER TO:

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

CALIENTE RESOURCE AREA
P.O. Box 237
Caliente, Nevada 89008

4320
Case File
(NV-055.5404)

(702) 726-3141

JAN 09 1992

Dear Concerned Citizen:

The draft Environmental Assessment for Riparian Area Enhancement Activities in the Caliente Resource Area, Las Vegas District, was mailed to the public on November 8, 1991. Questions and concerns were provided by 5 interested publics.

1. State of Nevada, Department of Wildlife, Las Vegas, Nevada.

2. State of Nevada, Commission for the Preservation of Wild Horses, Carson City, Nevada.

3. United States Soil Conservation Service, Caliente, Nevada. Phone Conversation with Rick Orr, 11/19/91.

4. National Mustang Association, Newcastle, Utah. Phone Conversation with Richard Sewing, 11/25/91.

5. State of Nevada, Division of Conservation Districts, Department of Conservation and Natural Resources, Carson City, Nevada.

The following is a summary of the questions and concerns that were provided.

Question 1:

Has the use of solar power been considered to pump water away from springs?

Response:

The Bureau does not intend to remove water from the source and pump it to a nearby location. Private water rights holders own much of the water on the public lands. The Bureau would have to obtain a portion of the water rights to install a development. If water developments are required, solar power equipment could be used if it is determined to be feasible at the site.

Question 2:

Are the fence types going to be selected based on the expected wildlife and livestock impacts at the springs?

Response:

Fence types will be selected based on the type of use and amount of use by deer, antelope, bighorn sheep, breed of cattle and sheep, and wild horses and burros, and costs involved in construction and maintenance.

Question 3:

Is there any plan to graze the enclosed areas in the future?

Response:

There are no plans to graze in the enclosed areas. Forty of the riparian areas are no greater than one acre in size. Most of the riparian areas would be too small to graze.

Comment 1:

We would like to recommend that initially monitoring be established on more than just an annual basis, especially during the warmer months when a problem might arrive and become an emergency very quickly.

Response:

Monitoring could be conducted during the summer and serve as the monitoring period for each exclosure. Monitoring would be conducted by wildlife biologists, range conservationists, or wild horse and burro specialists. Additional monitoring could be conducted if circumstances warranted.

Comment 2:

During periods of low flow or drought, water could be lost.

Response:

Based on the roaming nature of horses and burros, water would be obtained from more than one source during the summer months. Wild horses and burros use several different springs during the year. Therefore, horse herds are not dependent on the existence of a single source to obtain water.

Each fence project would be designed on a case by case basis. The amount of flow would be considered during the design phase of each project. The water access areas would be designed to allow ungulates to obtain water from springs so that water developments are not needed.

The development of sources at BLM owned waters will be considered on a case by case basis subject to BLM water policy. Spring development is possible at private sources if the water rights holder turns over a portion of the rights to the BLM. The development of private sources will be considered on a case by case basis subject to BLM water policy and the consent of the water rights holder.

Comment 3:

It is felt that each of the protective fences could/should encompass more of the habitat if possible.

Response:

Fence size will be considered on a case by case basis in relation to the type of use by wildlife, the quantity of land that is to be fenced, and the cost of materials. Fence shape will be considered on a case by case basis to maximize the area that is contained within the exclosures.

Thank you for providing comments on the riparian enhancement Environmental Assessment.

Sincerely,

Curtis C. Tucker

Curtis C. Tucker
Area Manager