

## DECISION RECORD

EA LOG NO: **OR-010-2000-01**

Project Name: **Lakeview District Wild Horse Fertility Control**

Applicant: **Bureau of Land Management**

Address: **HC 10 Box 337**  
**Lakeview, OR 97630** County: **Lake**

BLM Office: **Lakeview District** Phone No.: **(541) 947-2177**

### DECISION RECORD

**Decision:** The following is the decision of the Bureau:

Implement fertility control research in two of the three Herd Management Areas (HMAs) in the Lakeview District. The two HMAs in the Lakeview Resource Area, Beaty Butte and Paisley Desert will potentially be selected for research on immunocontraception. On a case by case basis, a percentage of mares will be treated with Porcine zona pellucidae (PZP) inoculations. Treatment would occur during gathers of excess wild horses. Gathering of excess wild horses is analyzed in EA-OR-010-95-10.

The environmental assessment will be long term in duration (ie until such a time when management objectives or the environmental conditions have changed) and will be implemented as needed.

### Rationale:

Implementation of the proposed actions for the Lakeview Resource Area would provide further data as a continuation of research started with wild horses in Nevada. The proposed action is considered the best alternative because fertility control may provide a means of lengthening the time periods between gathers of excess horses. The vegetation community and soil resources will also benefit from the proposed action. Additionally, the BLM's objective of restoring and maintaining the range in a thriving natural ecological balance to prevent resource deterioration, would be met.

EA-OR-010-2000-01 and a Finding of No Significant Impact (FONSI), have been available for public review. Two comments were received during the comment period. The actions recommended by both comments were outside the recommended goals and objectives of current land use plans.

Based on the analysis in EA-OR-010-2000-01, and all other information available to me, it is my decision to proceed with the proposed action.

  
Scott R. Florence, Manager  
Lakeview Resource Area

## FINDING OF NO SIGNIFICANT IMPACT

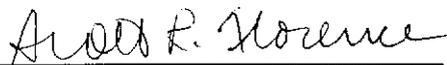
### Lakeview District Wild Horse Fertility Control

EA# OR-010-2000-01

The Bureau of Land Management, Lakeview District, has analyzed a proposal and its alternative to implement fertility control of wild horse populations in two of the three Herd Management Areas (HMAs) in the district: Beaty Butte and Paisley Desert. The no action alternative would result in normal gathering procedures, without the use of fertility control research. Both alternatives would meet the BLM's objective of restoring and maintaining the range in a thriving natural ecological balance and prevent deterioration. The proposed action is considered the best alternative, because the gathering cycle for the two HMA's could be lengthened by one or more years. This project is in conformance with the goals and objectives of the appropriate land use plans, (High Desert and Warner Lakes Management Framework Plans, Lakeview Grazing Management Environmental Impact Statement; Klamath Falls Area Resource Management Plan/EIS and horse herd management plans, (Paisley Desert, Beaty Butte, and Pokema).

There are no wild and scenic rivers, known hazardous waste areas, areas of religious concern, low income/ minority populations or prime or unique farmlands in the immediate project area. No adverse or beneficial significant effects are anticipated to fisheries, lands, wetlands, minerals, air quality, ACEC/RNAs, cultural resources, flood plains, threatened or endangered species, wilderness study areas, water quality, or noxious weeds.

On the basis of the analysis contained in the attached EA and all other available information, it is my determination that none of the alternatives analyzed constitute a major federal action that would adversely impact the quality of the human environment. Therefore, an Environmental Impact Statement (EIS) is unnecessary and will not be prepared.

  
\_\_\_\_\_  
Scott R. Florence, Manager  
Lakeview Resource Area

4/13/00  
\_\_\_\_\_  
Date

# **PROGRAMMATIC ENVIRONMENTAL ASSESSMENT**

**#OR-010-2000-01**

**Lakeview District/Lakeview Resource Area**

**Wild Horse Fertility Control**

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## **CHAPTER 1 - INTRODUCTION**

### **A. Introduction**

The Lakeview District of the Bureau of Land Management proposes to implement fertility control research of wild horse populations within the district. The two Herd Management Areas (HMAs) in the Lakeview Resource Area, Beaty Butte and Paisley Desert have the potential to be selected for fertility control. The Pokegema HMA in the Klamath Resource Area is managed for 30-50 horses, and is not recommended for the research. The intent is to use the research on immunocontraception from horse herds in Nevada and/or as a continuation of this research to provide the most current, effective vaccine, that will be safe and humane. The vaccine, when used with management prescriptions, may provide an increase in the time period between gatherings of excess horses.

This environmental assessment (EA) is designed to serve as a district wide analysis of fertility control in wild horse populations. Specific proposals for fertility control in each HMA will be tiered to this EA. Fertility control research would be implemented when a gather of wild horses is necessary, as described in EA-OR-010-95-10. Therefore, EA-OR-010-2000-01 is tiered to EA-OR-010-95-10.

### **B. Purpose and Need for Action**

Appropriate Management Levels (AMLs) are established for wild horses to maintain healthy populations of horses in ecological balance with resources. Gathering and removal of excess horses has been the method used to maintain AMLs. Fertility treatment of mares to block estrus, provides an option to gathering at three to four year intervals. Development of an effective fertility control vaccine may lead to a reduction in the number of horses gathered nationally each year and may increase the time period between gathers.

### **C. Conformance with Existing Plan(s)**

The proposed fertility control project is in conformance with the wild horse objectives in the High Desert and Warner Lakes Management Framework Plans (MFPs) and the Lakeview Grazing Environmental Impact Statement and Record of Decision EIS/ROD (1982), although it is not specifically mentioned as a method to obtain these objectives.

## **CHAPTER 2 - ALTERNATIVES INCLUDING THE PROPOSED PLAN**

### **A. Alternatives Considered But Eliminated from Further Study**

The Nevada Wild Horse Pilot Fertility Project Task Force considered several other forms of fertility control prior to initiating the study to develop a vaccine blocking estrus in mares. Methods considered were selective removal targeting one or the other sex, sterilization, and hormone implants. Selective removals targeting one or the other sex was not recommended due to doubts about its effectiveness. Sterilization was not recommended because of the invasive surgery required, post surgery recovery time, potential risk of death, and permanence. Hormonal implant was not recommended because it required invasive surgery and lengthy recovery time. Therefore, further analysis of these alternatives are not explored in this EA.

### **B. No Action Alternative**

Excess wild horses would be gathered periodically without treating mares with Porcine zona pellucida (PZP) inoculations as described in EA-OR-010-95-10. Research in developing the fertility control vaccine would not be conducted in the Lakeview District. The possibility of extending time periods between gathers would be eliminated. The existing horse populations would continue to increase at rate of approximately 20% per year. Gathering would be required at approximately 3-4 year intervals.

### **C. Proposed Action**

The proposed action is to select herds that may be included in the fertility control study on a case by case basis. If a gather of excess horses occurs, a percentage of mares may be treated with a fertility control vaccine. EA-OR-010-95-10 describes the conditions under which a gather of excess horses will be done. Mares not placed in the Wild Horse and Burro Adoption Program that are to return to an HMA would be inoculated with a revised immunocontraceptive vaccine, PZP.

The inoculation of mares would consist of a liquid dose of PZP vaccine and a time released portion of the drug in the form of pellets. The inoculation may be delivered as an intramuscular injection by a jabstick syringe, CO2 dart, or hand pump air powered dart into the mares in a working chute, corral or in the field. Such a vaccine would permit a single injection to cause one or more years of contraception at up to 90% efficiency. Only trained personnel would mix and/or administer the vaccine.

### **CHAPTER 3 - AFFECTED ENVIRONMENT**

The Paisley Desert and Beaty Butte Herd Management Areas (HMAs) are typical of the Lakeview District. The climate is semi arid, with long, cool moist winters and short, warm, dry summers. The area has a winter precipitation pattern, with about 47% of the total annual precipitation occurring in November through February. Most of the remaining precipitation occurs as spring rains in May and June. July, August and September are usually dry. Vegetation varies with elevation, exposure, climate and soil type. Vegetation varies from salt-tolerant shrubs and grasses which inhabit lower valley bottoms, mainly in the Paisley Desert HMA, to sagebrush steppe vegetation at the intermediate elevation to mountain brush at higher elevations.

The Paisley Desert Herd Management Area is located 10 miles northeast of Paisley, Oregon and 15 miles southeast of Christmas Valley, Oregon (Map1). Several livestock grazing allotments are within the boundaries of the HMA including all of the Sheeprack Allotment #428, and portions of the Saint Patricks #419, Squaw Lake #418 and ZX Christmas Lake #103 Allotments. Topography is best described as rocky and broken, with a series of southeast-northwest trending rims with wide swales and lakebeds between the rims. The Appropriate Management Level (AML) for the Paisley Desert HMA is 60-110 horses.

The Beaty Butte Herd Management Area is located 65 miles east of Lakeview, Oregon (Map1). It is adjacent to and southeast of the Hart Mountain National Wildlife Refuge, southwest of Catlow Valley and is bordered on the south by the Charles Sheldon National Antelope Refuge in Nevada. One livestock grazing allotment, Beaty Butte, is within the boundaries of the HMA. Topography varies from gently rolling hills to steep hills and buttes, with a number of broad valleys and shallow or dry lakebeds. The Beaty Butte HMA is managed for 100-250 horses.

For a more detailed description of the affected environment, please consult the Lakeview Grazing EIS and the Lakeview District Wild Horse Gather EA-OR-010-95-10.

## CHAPTER 4 - ENVIRONMENTAL CONSEQUENCES

### A. Anticipated Impacts

ENVIRONMENTAL IMPACTS: The potential environmental impacts resulting from the alternatives relative to the following critical resource values were evaluated. The following is a summary of the results:

Critical Element/ Resource Value	Significantly Affected		Critical Element/ Resource Value	Significantly Affected	
	Yes	No		Yes	No
Air Quality		X	T & E Species		X
ACEC/RNAs		X	Wilderness		X
Cultural Resources		X	Wild & Scenic Rivers		X
Farmlands, Prime/Unique		X	Hazardous Wastes		X
Floodplains		X	Water Quality		X
Native American Cultural/ Religious Concerns		X	Wetlands/Riparian Zones		X
Low Income/ Minority Populations		X	Noxious Weeds		X

Resources impacted by the Proposed Action and No Action alternatives include wild horses, domestic livestock, wildlife, vegetation and soils. The direct, indirect and cumulative impacts are addressed for each resource.

#### 1. Wild Horses

Immunocontraception research on wild free-roaming horse herds in Nevada has been conducted on the Antelope/Antelope Valley HMA's(1992)(Ely), on the Nevada Wild Horse Range(1996), the Karmas HMA/Antelope HA(1998)(Winnemucca), and the Antelope/Antelope Valley, Sand Springs, and Monte Cristo HMAs (1998)(Ely) utilizing PZP injections. The 1992 Antelope/Antelope Valley HMAs research found that reproductive success was 4.5% using two injections, 20% using 1 injection plus microspheres, and 28.6% using 1 injection with no microspheres. Reproductive success for mares treated with a placebo was 55.0% and untreated mares was 53.9% which was significantly greater than treated mares. The following year, without further treatment, reproductive success was 44% for mares treated with 2 injections, and 54.5 % for untreated mares. Data from the other groups is insufficient for comparison (Turner et al.1997).

The Nevada Wild Horse Range field study utilized three formulations of a revised controlled release PZP vaccine, with the mares broken up into three groups. The microspheres were designed for longer delay in release and contained adjuvant. Reproductive success was 12.8% for group 1 (2 injections), 10.6% for group 2(2 injections) and 11.3% for group 3(1 injection). The lack of difference in fertility rates indicated that the controlled release component in the 1 injection group provided exposure equivalent to a second injection of vaccine (Turner et al. 1997)

The data for the Kamma HMA/Antelope HA (1998) has not been completely analyzed, but preliminary data shows approximately 75% effectiveness on treated mares. The data for the Antelope/Antelope Valley, Sand Springs, and MonteCristo HMAs (1998) have not been completely analyzed to show comparative statistics.

Results of fertility control research conducted to date indicate that PZP Immunocontraception is highly effective, and that the reproductive success of the mares returns to normal the year following fertility control. There would be no significant increase in stress above that normally associated with the processing and sorting of animals during a gather. With the proposed action, foal production would be decreased for one year but would not negatively impact the wild horse populations in the long term.

In the fertility control study on Assateague Island National Seashore (1987) and the Nevada studies showed that PZP vaccine had no apparent affects on pregnancies in progress, the health of the offspring, or the behavior of treated mares (Turner et al. 1997). In addition to controlling the horse populations, research has shown thus far no permanent infertility, and has shown extended lives and improved health condition of older mares, by removing the stresses of pregnancy and lactation (Journal of Reproduction and Fertility 1992 Kirkpatrick, J.)

### **Age Structure & Selective Removal**

Cumulative impacts of the proposed action and the no action alternative will have no cumulative impacts to the long-term viability of the herds and will aid in the attainment of a thriving ecological balance.

### **Proposed Action**

The proposed action varies from the no action only slightly. Under the proposed action, mares that have been inoculated with the fertility control vaccine, will be healthy and better able to survive difficult conditions. There may be an increase in reproductive success following a successful application of fertility control. Some of the older mares may survive longer than they would under a no action alternative. After a period up to two years of fertility control, normal processes would take over as described in the no action alternative.

### No Action

In most herds the younger horses are placed in the adopt a horse program after a gather of excess numbers which leaves horses 6 and older to reproduce. The approximate age structure of a herd that has not been gathered for several years is:

Age Class 0-5: 60-70 percent of herd

Age Class 6& older: 30-40 percent of herd

The actual age structure varies continually as a natural cycle of mortality and reproduction occur. Mature animals 6-9 years of age are the most likely to survive difficult conditions. Older age and newborn have the highest rates of mortality. Maintaining herds within AML provides the best opportunity to manage for healthy horses of varying age classes.

## **2. Domestic Livestock and Wildlife**

Under both the proposed action and the no action alternative, reaching and maintaining wild horse populations within AML provides that the quantity of forage needed by wild horses, wildlife and livestock is available. The quantity and quality of forage will improve during the time period that horses numbers are below the maximum of the AML. Wildlife would be able to utilize forage that would otherwise be grazed by excess horses. The proposed action would increase the time period of improved forage. The positive cumulative impact is that a stable sustained forage for all resources will be maintained. No negative cumulative impacts are for seen.

## **3. Vegetation and Soils**

The proposed action and no action alternative would avoid overutilization of forage which results in decreased ground cover. Vegetation composition, cover, and vigor could be maintained near water sources where horses, livestock and wildlife congregate. The loss of soil associated with reduced cover would be reduced. The proposed action allows a longer time period for vegetation to recover from grazing impacts. Positive cumulative impacts would be vegetation cover will be maintained, soils will be protected, and Standards for Rangeland Health would be met. No cumulative adverse impacts to vegetation or soils would result from the alternatives.

## **4. Waste, Hazardous or Solid**

Syringes, darts, needles, vaccine containers, etc, used in the administration of the immunocontraceptive vaccine are considered regulated medical waste. Regulated medical waste must be placed in leak proof containers that are contained in a red plastic bag labeled medical waste. Medical waste must be handled and transported separately from other waste to an approved disposal facility.

The amount of regulated medical waste that would be generated by this project would be minimal, and not result in any threat to the environment.

### **3. Other Impacts**

Normal impacts associated with gathering of wild horses are describe in Programmatic EA-OR-010-95-10. The proposed action, to include fertility control at the time excess horses are gathered, would have generally the same impacts. However, an increase would occur, in the time period of reduced competition between, horses, wildlife and cattle. This would result in improved health and productivity of the rangelands, soils, and water resources.

## **CHAPTER 5 - CONSULTATION AND PUBLIC INPUT**

### **Public Involvement/ Interagency Involvement/Recipients**

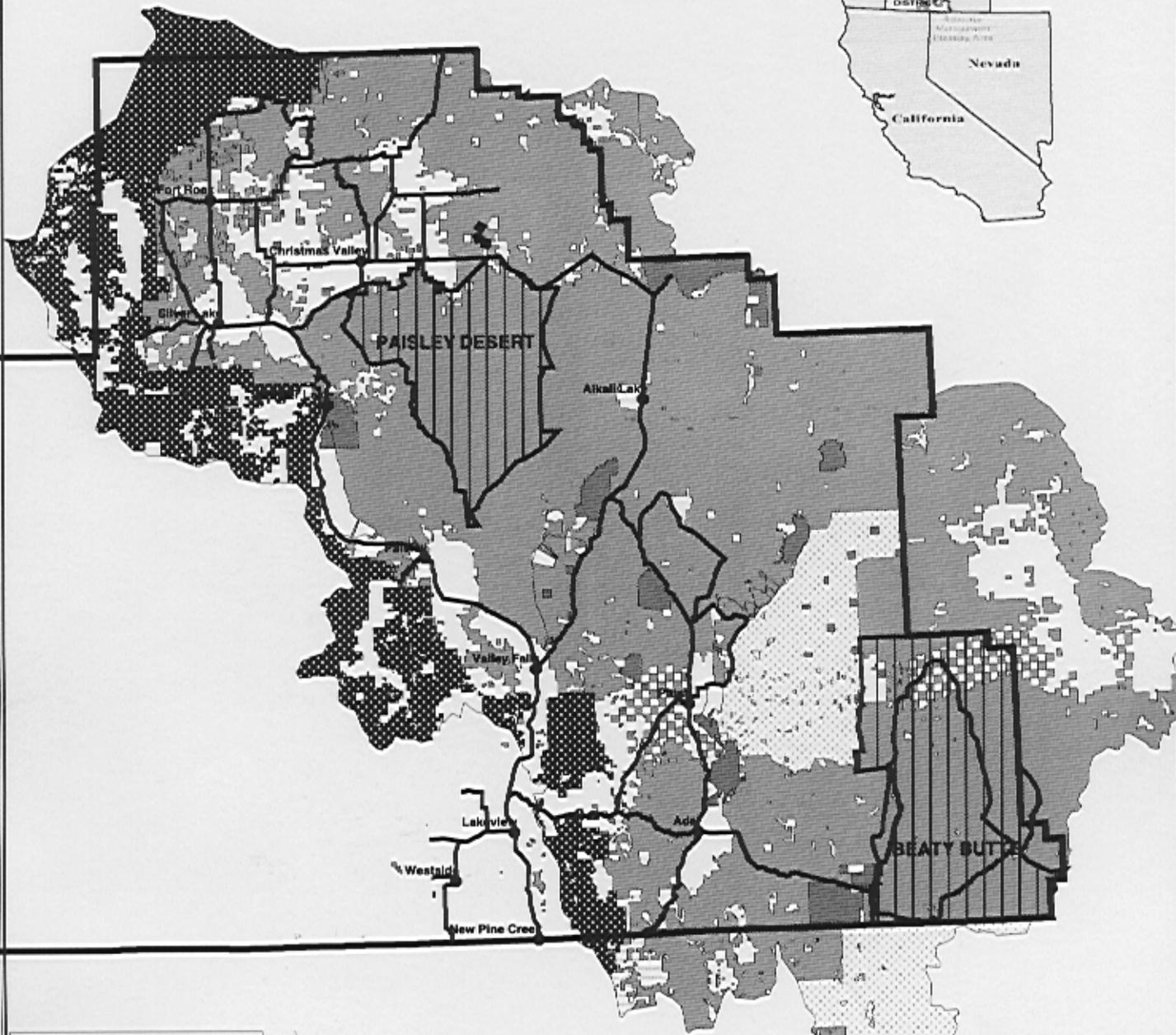
The management of wild horses has been and ongoing process for the Bureau of Land Management since 1971. Various contacts have been made in the writing of past environmental assessments by the Lakeview District. The individuals, organizations, and agencies that were contacted for previous environmental assessments as well as those that have expressed an interest in wild horse issues, have been provided a copy of this EA and attached Finding of No Significant. This mailing list will be maintained as part of the project file.

### **LITERATURE CITED**

Turner, J.W., Jr, I. Liu, and A. Rutberg. immunocontraception limits foal production in free-roaming feral horses in Nevada Reno. 1996

Turner, J. W., Jr, I. Liu, A. Rutberg, and J. Kirkpatrick. Immunocontraception of free-roaming feral horses in Nevada summary of field studies in Antelope/ Antelope Valley and Nevada Wild Horse Range. Unpublished 1997

Turner, J. W., Jr, I. Liu, A. Rutberg, and J. Kirkpatrick. Final report 1992-1996 Nevada Wild Horse Fertility Control Project (BLM cooperative agreement #1422F950A20002). 1997



**LEGEND**

- Lakeview District Boundary
- Major Roads
- Cities
- Herd Management Areas (HMAs)
- Ownership**
- Other
- U.S. Forest Service
- Bureau of Land Management
- Department of Defense
- U.S. Fish and Wildlife Service
- Private
- State



U.S. DEPARTMENT OF THE INTERIOR  
Bureau of Land Management

Lakeview District  
Lakeview Resource Area

Spring 2000



**Map 1: Herd Management Areas within the Lakeview Resource Area**

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