

DECISION RECORD

EA LOG No. OR-010-2004-03

Project Name: Integrated Noxious Weed Management Program

Applicant: Lakeview BLM

Address: 1301 South G Street
Lakeview, OR 97630

County: Lake

BLM Office: Lakeview District

Phone: 541/947-2177

Decision Record

Decision

The following is the decision of the Bureau: to implement an integrated noxious weed management program throughout the Lakeview Resource Area, as described in Alternative B (Preferred Alternative) of the EA. This consists of expanding the existing noxious weed management program (described under Alternative A – No Action) to continue to treat existing weed species and sites, as well as treat new or additional weed sites and species. Treatment would include cultural, physical, biological, and chemical methods and follow the treatment priorities established in the EA. Standard operating procedures would be followed throughout the area and additional measures would be employed within special management areas to reduce potential negative impacts, as described in the EA.

Rationale

The expansion of the existing noxious weed management program is needed for several reasons: Federal law requires that BLM manage noxious weeds; ecological impacts are occurring on a number of acres; large established sites are continuing to expand; the existing weed management plan does not provide adequate flexibility to deal with changing conditions such as new and/or expanding sites, new species, and new control methods; the counties, private landowners, local tribes, and other agencies are very concerned about the increase and impacts of noxious weeds; the economic cost of managing noxious weeds will increase the longer the situation is not adequately addressed; and the current situation is still manageable, given the parameters described in this EA.

The EA and FONSI were made available for a 30-day public comment period. During this time, comment letters were received from three individuals/groups. One letter consisted of an email message generally supporting the proposed weed management

program. The other two letters were from environmental groups expressing additional concerns that they felt needed to be analyzed within the EA. None of the comments were found to be substantive enough to warrant modification of the analysis within the EA. However, those concerns were addressed through individual response letters mailed out with a copy of this decision record.



Thomas E. Rasmussen, Field Manager
Lakeview Field Office

6/4/04
Date

FINDING OF NO SIGNIFICANT IMPACT

Integrated Weed Management Program

EA# OR-010-2004-03

The Bureau of Land Management, Lakeview District, Lakeview Resource Area, has analyzed a proposal and alternatives to implement an integrated weed management program across the Resource Area. Noxious weeds and non-native invasive plants are compromising our ability to manage BLM lands as healthy ecosystems.

This program is in conformance with the Lakeview Resource Management Plan/Record of Decision (2003), Vegetation Treatment on BLM Lands in Thirteen Western States FEIS and ROD (1991), and the Northwest Area Noxious Weed Control Program EIS as supplemented (1987). The following resource values either are not present or would not be affected by any of the alternatives considered: prime and unique farmlands, land tenure, air quality, paleontology, cultural sites, or geology and mineral resources. No significant or disproportionate impacts would occur to low income or minority populations. The program will have no direct or indirect adverse impact on energy development, production, supply, or distribution. There would be short-term negligible impacts to water quality due to erosion, wildlife habitat, and forage as weed sites are controlled and new vegetation is establishing. There are several resources that would benefit from an integrated noxious weed program. These include but are not limited to wild and scenic rivers, traditional uses, culturally important plants, threatened and endangered fish, wildlife, and plant species, wilderness study areas, areas of critical environmental concern, research natural areas, visual resources, water quality, fisheries, wetlands, and floodplains.

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 would 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.



Thomas E. Rasmussen, Manager
Lakeview Resource Area

4/29/04
Date

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
LAKEVIEW, OR 97630

Noxious Weed Management Program
Environmental Assessment
EA No. OR-010-2004-03

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APPENDIX B - Herbicides Approved for Use
ROD, EIS, Vegetation Treatment on BLM Lands in Thirteen Western States

Atrazine
Bromacil
Bromacil + Diuron
Chlorsulfuron
Clopyralid
2, 4-D*
Dicamba*
Dicamba + 2, 4-D*
Diuron
Glyphosate*
Glyphosate + 2, 4-D*
Hexazinone
Imazapyr
Mefluidide
Metsulfuron Methyl
Picloram*
Picloram + 2 4-D*
Simazine
Sulfometuron Methyl
Tebuthiuron
Triclopyr

* Chemicals currently approved for noxious weed control in Oregon.

**Environmental Assessment
(EA No. OR-010-2004-03)
Integrated Noxious Weed Management Program
for the Lakeview Resource Area**

I. INTRODUCTION

The Lakeview District of the Bureau of Land Management (BLM) proposes to implement an integrated noxious weed management program on the Lakeview Resource Area. The area to be covered by this assessment includes approximately 3.2 million acres (See Map). These lands are located primarily in Lake County with portions in Harney County in southeastern Oregon.

The increase in noxious weeds and the effects they are having on local lands and resources are causing concerns for land managers and the public. New invasions of noxious weeds and the spread of established infestations are threatening the productivity of public land. To date, noxious weeds have been located on approximately 2000 acres of BLM administered land occurring on about 900 individual locations on the Lakeview Resource Area. These infestations have a high potential to expand and threaten ecological resources. Infested areas represent potential seed sources for further invasion onto neighboring lands.

Management of noxious weeds is important for maintaining healthy ecosystems. These plants create a host of environmental and other ill effects to ecosystem processes, and can contribute to economic losses. These include displacement of desirable plants, reduction in functionality of habitat and forage for wildlife and livestock, loss of threatened, endangered, and sensitive species, increased soil erosion and reduced water quality, alteration of physical and biological properties of soil including reduced soil productivity, changes to the intensity and frequency of fires, high cost (financial) of controlling invasive plants, and loss of recreational opportunities.

II. PURPOSE OF AND NEED FOR THE PROPOSAL

A. Purpose and Need

The purpose of this proposal is to implement an integrated weed management program that would:

- Improve public awareness and reduce new infestations of noxious weeds through education and prevention.
- Maintain healthy functioning ecosystems.
- Aid in the restoration of native plant communities that have been degraded or taken over by noxious weeds.
- Protect natural resource values.
- Maintain established noxious weed populations at levels that would not cause unacceptable environmental degradation.
- Eradicate new invading noxious weeds before they become established within the Resource Area.
- Reduce the risk of spread and invasion.

- Reduce negative economic impacts.
- Provide for human health and safety.
- Be economical to implement.

An integrated weed management plan is needed for several reasons:

- Federal law requires that the BLM manage noxious weeds (Federal Land Policy Act of 1976, Federal Noxious Weed Act of 1974).
- Serious ecological impacts are beginning to occur on a number of acres.
- Large established sites are continuing to expand. Control methods for large sites would increase in cost and complexity as the sites expand.
- The existing weed management plan (*Noxious Weed Control Program EA, 1994*) is outdated. It does not provide enough flexibility to deal with changing conditions such as new and/or expanding sites, new species, and new control methods. It does not incorporate all of the goals described in the *Partners Against Weeds, 1996*) (an Action Plan for the BLM).
- Some species are expanding in spite of current control strategies. The causes of noxious weed infestations are many. Weed populations have expanded in the Resource Area through movement by wind, water, animals, and vehicles.
- The counties, private landowners, the local tribe, and other agencies are very concerned about the increase and impacts of noxious weeds.
- The economic cost of managing noxious weeds will increase the longer the situation is not adequately addressed.
- The current situation is still manageable, given the parameters described in this EA.

B. Relationship to Other Plans

This program is tiered to the *Northwest Area Noxious Weed Control Program Environmental Impact Statement (EIS) as Supplemented (1987)* and the *Vegetation Treatment on BLM Lands in Thirteen Western States FEIS and ROD (1991)*.

C. Conformance with Applicable Land Use Plans, Policies, and Strategies

This program has been reviewed and found to be in conformance with the following additional BLM plans or programmatic environmental analyses:

Lakeview Resource Management Plan/Record of Decision (2003)
Proposed Jurisdictional Land Exchange Between Hart Mountain National Antelope Refuge, Fish and Wildlife Service, and Lakeview District, Bureau of Land Management – Warner Lakes Management Framework Plan Amendment/EA (1998)
High Desert Management Framework Plan Amendment and Record of Decision for the Lake Abert Area of Critical Environmental Concern (ACEC) in Lake County, Oregon (1996)
Warner Lakes Plan Amendment for Wetlands and Associated Uplands (EA and DR 1989)
Oregon Wilderness FEIS and ROD (1989 and 1991)
Wilderness Interim Management Policy (1995)
Lakeview District Fire Management Plan - Phase 1 (1998)
Wildland and Prescribed Fire Management Policy (1998)

Emergency Fire Rehabilitation Handbook (1998)
Rangeland Reform '94 FEIS and ROD (1995)
Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands Administered by the Bureau of Land Management in the States of Oregon and Washington (1997)
Standards for Land Health for Lands Administered by the Bureau of Land Management in the States of Oregon and Washington (1998)
Interior Columbia Basin Strategy (2003)

III. PROPOSED ACTION

The proposed action is to implement a long-term integrated weed management program on public land within Lakeview Resource Area. The program is designed to address the dynamic nature of weeds such as increasing numbers of species, different plant physiologies for various species, changing conditions of infestations, and changing technologies. Due to the nature of weeds and the size of the land base involved, weeds will never be permanently eradicated. The intent of this program is to manage weeds at a level where they are causing negligible ecological or economic impacts.

The majority of the existing sites are small in size (1/2 acre or less), widely dispersed, and occur along roads. Treatments will employ cultural, physical, biological, and chemical methods. The proposed action would implement the seven goals identified in *Partners Against Weeds, 1996*.

- Goal 1: Prevention and Detection
- Goal 2: Education and Awareness
- Goal 3: Inventory
- Goal 4: Planning
- Goal 5: Integrated Weed Management
- Goal 6: Coordination
- Goal 7: Monitoring, Evaluation, Research and Technology Transfer

IV. ALTERNATIVES CONSIDERED IN DETAIL

A. No Action

The alternative consists of no change in current management. The current weed control program would continue to be administered under the direction set forth in the existing *Integrated Noxious Weed Control Program Environmental Assessment (1994)*. The existing EA lists only 33 sites. Treatment is limited to 300-1500 acres per year. The EA does not allow for additional species to be treated on sites that existed in 1994, is limited to the use of four chemicals currently allowed under the Court injunction, and does not allow new sites larger than ten acres to be treated without doing an additional NEPA analysis.

B. Preferred Alternative

Under this alternative, the existing program would be expanded to include more sites, and more species (including new species that could invade the planning area in the future), than are

analyzed under the current EA. The seven goals identified in *Partners Against Weeds (1996)*, would be implemented. An outline of the activities associated with each goal follows.

Goal 1 and 2: Implementation of Goals 1 and 2 are the foundation for a long-term successful weed management program. These goals are the priority for the integrated weed management program. They would be implemented in the following ways:

- Implementation of the Resource Area Weed Prevention Schedule (revised annually).
- Being a partner with County, State, and other agency weed programs.
- Coordinating with County and State transportation departments.
- Implementation of the BLM and Oregon State education programs.
- Educating and working with contractors and public land users.
- Publishing news articles and participating in local activities such as the County fair, and other events.
- Education signing at all major recreation sites.

Goal 3: Inventories would be conducted annually to identify new infestations, changes in rates of spread for established infestations, and determine which activities are the major contributors to spread.

Goal 4: Since it is unlikely that all weed sites would be treated each year, weed treatment work conducted under this program would be prioritized annually based on budget and other factors. In addition, all other types of proposed projects would be analyzed with respect to the relative risk of causing additional weed spread.

Goal 5: Integrated weed management would include the use of cultural, physical, biological, and chemical methods in combination according to annual treatment strategies.

Priorities for Treatment

Annual inventories would be conducted on the Lakeview Resource Area to locate new infestations and to monitor the spread of known infestations. This inventory would be the basis for determining annual treatment strategies. The following priorities would also be based on coordination with local, tribal, state and federal governmental entities, private landowners, and Resource Area staff.

Priority 1: Eradication of new locations of weeds that are of known ecologic and economic threat as determined by the Oregon Department of Agriculture (ODA) and Lake County.

Priority 2: Eradication of small infestations of weeds that are of known ecologic and economic threat in areas that have a high potential for spread such as roads/trails (including rights-of-way), recreation sites, rivers/streams, mineral material sites, and other places where soil disturbance occurs.

Priority 3: Containment of large weed populations.

Area of Treatment

Treatment could occur anywhere within the Lakeview Resource Area where either existing sites occur or new sites are located in the future during annual inventories. Most sites treated are small (less than 1/2 acre), but sites up to 1500 acres are known. The average number of sites and acres treated annually would be based on available funding, weather, and condition of the weed sites.

Special Management Areas

Wilderness Study Areas (WSAs): Weeds discovered in WSAs would be treated with methods that are in accordance with the provisions of Chapter III.C.2 of the Bureau's *Interim Management Policy for Lands under Wilderness Review (1995)*.

Areas of Critical Environmental Concern (ACECs) and Research Natural Areas (RNAs): Weeds would be treated in ACECs and RNAs in accordance with treatment strategies developed through direction established in the *Lakeview Resource Management Plan/Record of Decision (2003)*, or specific ACEC and RNA management plans.

Wild and Scenic Rivers: Consideration for treatment of weeds within the one stream system identified as suitable for designation as a Wild and Scenic River corridor would be the same as in ACECs.

Treatment Methods

Selection of treatment method would be in accordance with the priorities established in the *Vegetation Treatment on BLM Lands in Thirteen Western States FEIS and ROD (1991)*. Cultural methods include management activities designed to prevent weed introduction or minimize the rate of spread. Some examples are using certified weed free seed in revegetation projects, cleaning equipment, feed lotting cattle before turning out onto public lands, and restricting access in weed infested areas. Physical practices may include hand pulling, hoeing, prescribed burning and agricultural activities such as mowing. Biological control includes the use of insects, pathogens, and grazing animals to control target species. Chemical control includes the use of herbicides.

Herbicides that may be used are those currently approved in the *Vegetation Treatment on BLM Lands in Thirteen Western States FEIS and ROD (1991)*, or any that are subsequently approved through a plan amendment or other Agency approval process such as the on-going, programmatic *National Vegetation Management EIS* process (see Appendix B for the current approved list of chemicals). Chemical use on BLM lands in Oregon is currently restricted to four herbicides available for noxious weed treatment. The use of additional chemicals other than those currently allowed under Court injunction would require first lifting the injunction. Application would take place only in accordance with the manufacturer's label and by qualified/certified applicators. Methods of application could include wiping or wicking, spot treatments using backpacks or vehicles with hand wands, vehicles with booms, aerial or other approved methods.

Goal 6: The Lakeview Resource Area would coordinate weed management activities with local, state and federal agencies, tribal governments, and private landowners. Coordination would include the implementation of Goals 1 and 2, sharing of inventory and monitoring information, and developing annual treatment programs.

Goal 7: Monitoring would be conducted annually to determine the overall effectiveness of the program, effectiveness of treatments, and compliance with laws, regulations, and policies. The Lakeview Resource Area would continue to participate in weed oriented research projects and provide for technology transfer as opportunities arise.

Standard Operating Procedures

1. When herbicide use is proposed adjacent to lakes, streams, wetlands, ephemeral drainages with water, or springs, buffer strips would be provided in accordance with the *Record of Decision (ROD) for Vegetation Treatment of BLM Lands in Thirteen Western States (1991)* and in accordance with labeled use.
2. All chemically treated sites will be posted with date of application and any restrictions to entry as per the pesticide label. Recreation sites may be temporarily closed while herbicides are applied.
3. Following successful weed control, if adequate desirable seed sources are not present to fill the void left by the weeds, seeding or transplanting of seedlings of desirable species (preferably native species) would take place to fill the voids.
4. All sites proposed for treatment would be reviewed for potential effects to cultural resources.
5. In areas of restricted travel, access to and treatment of weed sites would be on existing and/or designated roads and trails where possible. The use of motorized equipment in areas closed to off-road travel would generally not be permitted (unless determined on a case by case basis by management, with input by an interdisciplinary team, to be necessary to access and effectively treat weeds; this is referred to as administrative use).
6. All sites proposed for treatment would be inventoried for Special Status (Threatened, Endangered or Sensitive) species. In any areas where Special Status species, cultural plants, or biological crusts exist, site-specific mitigation measures would be identified and implemented on a case by case basis.
7. If Federally-listed species occur within a treatment site, mitigation would be developed to eliminate effects on the species, if possible. If treatment is necessary and effects may occur, then the Endangered Species Act (ESA) Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) would be conducted.

8. In treatment areas in which the Visual Resource Management (VRM) Class is I or II, and/or where treatments might be suspected of having effects which would detract from the visual resource, a visual contrast ratings form (8400-4) would be completed.
9. Minimize potential for compaction and erosion from physical treatments by using low surface pressure equipment, fewer passes, and/or operating when the ground is dry or frozen.
10. When spraying areas subject to grazing, notify permittees and BLM staff of livestock feeding and slaughter restrictions, as per the pesticide label.

Additional operating procedures, mitigation measures, and best management practices (BMPs) can be found in *Vegetation Treatment on BLM Lands in Thirteen Western States FEIS and ROD (1991)* Chapter 1, the *Northwest Area Noxious Weed Control Program Environmental Impact Statement (EIS) and Supplement (1987)* Appendix I and Chapter 1, and in Appendix D of the *Lakeview Resource Management Plan/Record of Decision (2003)*.

Monitoring

Treated sites would receive short and long-term monitoring to determine effectiveness of meeting treatment objectives, effects on non-target species, and to determine the need for follow-up treatments, as described in Appendix A of the *Lakeview Resource Management Plan/Record of Decision (2003)*.

Alternatives Considered, but Eliminated from Detailed Analysis

A. No Aerial Herbicide Application

This alternative would be the same as the preferred alternative except that no aerial herbicide application would be used. This alternative was not analyzed because it is not consistent with the EIS, *Vegetation Treatment on BLM Lands in Thirteen Western States (1991)* and some infestations have reached a scale where aerial application needs to be considered.

B. Use of Control Methods That Do Not Include Chemicals

This alternative was considered, but was not analyzed further. Monitoring has shown that non-chemical treatments alone have not been fully successful in eradicating or controlling many past and existing noxious weed infestations. Integrated weed management includes the use of all available tools in a complementary way to achieve control. The prevalence of current noxious weed infestations is extensive enough that all control options need to be considered.

C. No Control

Under this alternative, no control measures would be implemented. This alternative was not analyzed in detail because it was not considered viable. The following Federal laws require that noxious weeds be controlled on Federal land: Federal Noxious Weed Act of 1974 as amended, the Carlson-Foley-Act of 1986, and the Invasive Species Executive Order 13112 of 1999.

V. AFFECTED ENVIRONMENT

A detailed description of the public lands within the Lakeview Resource Area can be found in the *Lakeview Proposed Resource Management Plan and Final Environmental Impact Statement (2003)*. This section will highlight some of the key resource values of concern.

A. Vegetation

Upland vegetation within the Lakeview Resource Area is dominated by sagebrush-bunchgrass communities, with small forested areas of juniper, ponderosa pine, and aspen. Water associated hardwood trees, shrubs, forbs, and grasses exist in riparian zones along perennial streams, reservoirs, and springs. Biological crusts and cultural plants are present in the Resource Area. The Lakeview Resource Area contains populations of several Special Status plant species. These are described in Chapter 2 of the *Lakeview Proposed Resource Management Plan/Record of Decision (2003)*. Additional information on these species is on file in the Lakeview District Office. Some areas of the Resource Area have been converted to introduced species, mainly crested wheatgrass seedings, through rangeland rehabilitation projects intended to decrease livestock use on native range, reduce the spread of annual, non-native invasive vegetation (ie cheatgrass), and to reduce soil erosion.

Several noxious weed populations currently exist in the Lakeview Resource Area. They pose an ecologic and economic threat to the integrity of the Resource Area's resources because of the rapidity with which they can invade and replace desirable plant communities (Olsen 1999). Most current weed sites in the resource area are located along road, trail, and stream corridors (See Map). In neighboring counties, (Harney, Klamath, Deschutes, Modoc, Washoe) noxious weeds are rapidly expanding and moving in to Lake County, particularly along road corridors. For a complete list of the noxious weed species currently known to occur on the Lakeview Resource Area, see Appendix C.

B. Soil and Water Resources

There are four major groups of soil in the Resource Area. Mollisols are present in sagebrush/grass communities that have enough litter to make the soil dark. Aridisols are present in sagebrush/grass communities that are in drier locations with a lack of litter. Aridisols are often pale. Salt-affected soils occur in salt collecting locations like playa rims. Dust or dune deposit soils are mixes of material from different types of soils (usually mollisols and aridisols). Soil development and recovery from disturbance may be slow in the four soil types due to climate and the inherent lack of organic matter.

Water resources on the Resource Area include streams, lakes, wetlands, springs, and seeps. There are no municipal watersheds within the Lakeview Resource Area. Streams are perennial, intermittent, and ephemeral. There are a number of wetlands, including a large network of lakes included in the Warner Wetlands ACEC. Riparian areas occur between the aquatic and upland ecological type. These areas have vegetation and soil which are dependent on a high water table for part of the year.

C. Wildlife and Fisheries

The Lakeview Resource Area contains a wide variety of wildlife species. The majority of these species are those that occur in the sagebrush steppe regions of southeast Oregon, but there is also a mix of species that occur mainly in the dry forest types of central Oregon. There are also several species that are of special concern to the public or are on the Bureau of Land Management Special Status Species (SSS) list. These SSS species are those that are federally or state listed as Endangered or Threatened, or are sensitive to certain land management activities. There are also several SSS species that are known to occur or have habitat on the Lakeview Resource Area. These include, but are not limited to bald eagle (*Haliaeetus leucocephalus*), peregrine falcon (*Falco peregrinus*), snowy plover (*Charadrius alexandrinus*), sage-grouse (*Centrocercus urophasianus*), Ferruginous hawk (*Buteo regalis*), burrowing owl (*Athene cunicularia*), kit fox (*Vulpes velox*), and pygmy rabbits (*Brachylagus idahoensis*). There are several species that are of high interest to the public. These include the mule deer (*Odocoileus hemionus*), pronghorn antelope (*Antilocapra americana*), elk (*Cervus elaphus*), and bighorn sheep (*Ovis canadensis*), and numerous species of waterbirds and waterfowl.

The perennial streams in the project area usually provide habitat for speckled dace, redband trout, and in the Warner Watershed, Warner suckers. The Warner Valley lakes also provide habitat for black and white crappie, tui chub, brown bullhead, and largemouth bass. A few springs have isolated endemic species of chubs and dace. Quality of stream habitat is dependent on the associated vegetation on the stream reach. Woody riparian shrubs and a diverse community of herbaceous plants with strong root systems are critical to better habitat.

D. Recreation

The Resource Area has several recreation sites. These areas are located along major travel corridors and pose high potential for introduction and further spread of weeds. Motorized travel is a popular activity. Motorized vehicle travel is prohibited on 10,608 acres and restricted to designated roads and trails on 348,090 acres. The remainder of the Resource Area either allows motorized vehicle travel on existing roads and trails (1,092,685 acres), or is designated as open (1,756,799 acres). Hunting, sight-seeing, dispersed camping, fishing, and rock hounding are also popular activities.

E. Special Management Areas

There are twelve Wilderness Study Areas and one Instant Study Area (ISA) managed by the Lakeview Resource Area totaling 486,873 acres (*Lakeview Resource Management Plan/Record of Decision (2003)*; Table 2-34 and Map R-9). In addition, two WSA's managed by the Burns District are partially located within the Lakeview Resource Area.

Seventeen areas have been designated as ACECs, ten of which are also designated as RNAs (*Lakeview Resource Management Plan/Record of Decision (2003)*; Tables 2-32b and 2-33 and Maps SMA 1 and 4). Eight of these are located within WSAs. Current management direction for these areas is to maintain them in a natural condition and to allow natural processes to take place in accordance with the interim direction established for management of WSAs and specific ACEC and RNA management plans.

The Lakeview Resource Area has one river determined to suitable for inclusion into the Wild and Scenic River system: Twelvemile Creek. The river is classified as a recreational river and is managed under the guidelines and standards prescribed in the Wild and Scenic Rivers Act (Appendix J-3 of the *Lakeview Resource Management Plan/Record of Decision (2003)*).

F. Wild Horses/Livestock

Livestock grazing takes place throughout the Resource Area except for 88,697 acres which are excluded. Permitted livestock are primarily cattle with some domestic horses. There are 164,128 AUM's permitted over 120 allotments involving 72 permittees. The Resource Area has two herd management areas (HMA's) for wild horses. The Paisley Desert HMA is managed for 60-150 horses and the Beatty Butte HMA is managed for 100-250 horses.

G. Mineral Material Sites/Federal Highway Material Site Rights-of-Way/Mineral Exploration/Mineral Production

Twenty rights-of-way and more than thirty sources of sand, gravel, and rock aggregate are located across the Resource Area. Because these areas are often subject to ground-disturbing activities and frequent vehicle use, they are susceptible to new or expanding weed infestations.

H. Fire

Periodically, the Lakeview Resource Area experiences wildfires of varying size and impact. Without rapid revegetation, these burned areas are susceptible to weed invasion.

I. Visual Resources

The Lakeview Resource Area's visual character consists generally of vast open vistas with mountains and large valleys. The vegetation consists mainly of grass/brush/juniper communities. Additional information on visual resources can be found on page 2-89 in the *Lakeview Resource Management Plan/Record of Decision (2003)*.

VI. ENVIRONMENTAL CONSEQUENCES

A complete listing of the environmental consequences can be found in *Vegetation Treatment on BLM Lands for Thirteen Western States FEIS (1991)*, as well as in the *Lakeview Resource Management Plan/Record of Decision (2003)*. No localized impacts have been identified which exceed those already addressed in the FEIS. The following resource values either are not present or would not be impacted by any of the alternatives considered: prime and unique farmlands, land tenure, geology and mineral management. A discussion of localized impacts follows.

A. Vegetation

Under the no action alternative, existing large populations of weeds with multiple species would continue to expand. Limitations on the number of acres that can be treated under the current EA would prevent the noxious weeds program from being proactive and able to adapt to changing situations.

Under the preferred alternative, early detection and rapid response would be emphasized. Large sites with multiple species would continue to be treated as their boundaries change.

Under both alternatives, mortality or severe injury and reduction and/or prevention of seed production would be the direct effect to targeted weeds from all treatment methods. Physical treatments could impact non-target species if mowing or discing is used. Manual control would only affect target species. Biological treatments would only affect targeted species. Some non-target plants may be killed or injured as a result of burning or exposure to herbicides. Most non-target mortality and injury would occur from aerial application of herbicides and burning. Timing of aerial applications and prescribed fires would be planned to minimize negative effects on non-target species while still having the desired affect on noxious weeds. Various plant groups and species are affected differently by different herbicides. For specific effects by the various chemicals that are approved for use see the EIS, *Vegetation Treatment on BLM Lands in Thirteen Western States (1991)*.

Following the removal of weeds, sites would revegetate naturally or would be seeded if native species are absent or not in close proximity to the area (see Standard Operating Procedures, Page 6, Number 3). In some cases, such as where multiple treatments are needed, it may take several years for the native vegetation to revegetate the site.

B. Soil and Water Resources

Under the no action alternative effects on the soil and water resources throughout the Resource Area using any of the control methods would not exceed the impacts analyzed on pages 3-31 to 3-46 of the *Vegetation Treatment on BLM Lands for Thirteen Western States FEIS (1991)*. Direct effects would be temporary surface disturbance and erosion associated with physical (manual, mechanical, prescribed fire) control practices. Effects are expected to be negligible due to small acreages affected by surface disturbance. Temporary loss of vegetative cover would contribute to increased erosion in the short term. Effects would be mitigated in one or two years with natural regrowth of existing desirable vegetation or reseeding.

If herbicide application is used near or adjacent to surface water, ephemeral channels, or on floodplains, some contamination could occur. The project design, consultation with soil and hydrology specialists, and Standard Operating Procedures would minimize the risk of contamination (see Standard Operating Procedures, Page 6, Number 1). Application techniques and timing would be chosen to minimize risk of water contamination. Effects to groundwater and surface water are not expected to exceed those analyzed in the *Vegetation Treatment on BLM Lands for Thirteen Western States FEIS (1991)*. The risk of any negative effects is considered to be very low. By following the manufacturer's label on herbicides and following the project design and Standard Operating Procedures, no negative effects on water resources are anticipated.

Under the preferred alternative, the effects of the program would be similar to the no action alternative.

C. Wildlife and Fisheries

Under the no action alternative, as noxious weeds increased, wildlife habitats would be modified and some species of wildlife would be negatively affected. Effects from introduced grasses like medusahead rye (*Elymus caput-medusae*) would be particularly detrimental. These species modify some ecosystems to the extent that the function of these systems is completely changed, thereby greatly reducing the value of these sites as wildlife habitat. It is hard to fully assess the effects from noxious weeds before they actually occur, but it is apparent from the changes that have occurred in isolated patches throughout the resource area, that if these species are left unchecked, dramatic changes to wildlife habitats would occur over large areas. Changes in the natural fire cycle would affect Special Status species like pygmy rabbits by removing habitats, reducing populations, and possibly making them susceptible to extirpation and extinction. Negative effects to riparian species would occur by reducing the diversity of riparian habitats. Negative effects to most species of wildlife are expected to occur from this alternative.

Under the preferred alternative, the effects of weed control would be beneficial because they would help restore degraded habitats and plant communities and prevent additional areas from being degraded due to weed invasions. Controlling weeds and encouraging native plant growth would provide higher quality habitat for most wildlife species, including migratory species as well as ensure future productivity and use of the land for wildlife. Without vegetation management to control noxious weeds, desirable riparian species can be replaced by weeds that are less able to hold soil and maintain banks. Removal of weeds along waterways would contribute to improved biodiversity in the riparian vegetation which would provide high quality habitat for fish and wildlife. Incidental effects to birds and mammals would result from the loss of non-target vegetation if areas are treated by fire or aerial application of herbicides. These effects would not be extensive enough to affect populations because the acreage to be treated would not be large enough.

Treatments would be designed to avoid any negative effects to Special Status plants or animals (see Standard Operating Procedures, Page 6, Numbers 6 and 7). By reducing and controlling weeds, long term negative effects from weed invasion would be avoided and Special Status species would benefit from improved ecological conditions.

There is not a substantial difference between the No Action Alternative and the Preferred Alternative as it relates to effects on listed fish species. The USFWS was previously consulted on the No Action Alternative and provided a letter of concurrence finding that weed management was not likely to adversely affect the Warner sucker, Foskett dace, or Hutton chub. The requirements for weed management, as outlined in the concurrence letter and Biological Evaluation, have been incorporated into the Preferred Alternative.

D. Recreation

Under both alternatives, elimination and control of weeds and promotion of native vegetation would serve to maintain a high quality experience for recreating visitors. Elimination and control of weeds would also reduce weed spread to other recreation sites. The recreating public could be inconvenienced by temporary closures of recreational facilities during and following chemical treatments. Recreationists would not be exposed to chemical treatments (see Section J, Human Health).

E. Special Management Areas

Under both alternatives, the implementation of this integrated plan, which follows the direction established in the *Lakeview Resource Management Plan/Record of Decision (2003)*, along with following the *Wilderness Interim Management Policy (1995)* within WSAs, would have no negative effects on special management areas. (See Standard Operating Procedures, Page 6, Numbers 5 and 6).

F. Wild Horses/Livestock

Under both alternatives, wild horses and livestock would be affected by changes in forage species and forage supply. The effects of weed control would be beneficial overall because noxious weed species toxic to horses and livestock would be suppressed. Degraded habitats and plant communities would be restored and additional areas protected from future degradation due to weed invasion. Controlling noxious weeds would assist in improving future productivity and providing dependable forage for livestock, and wild horses. Incidental impacts to wild horses and livestock would result from the loss of non-target vegetation if areas are treated by fire or aerial application of herbicides. These impacts would not be extensive enough to affect populations because the acreage to be treated would not be large enough. Herbicides would be applied in a form or at such low rates that the risk of direct toxic effects to livestock or wild horses would be negligible, even if animals are directly exposed immediately after herbicide treatment. See Appendix E-8 of the *Vegetation Treatment on BLM Lands for Thirteen Western States FEIS (1991)*, for a risk analysis on effects to livestock.

G. Fire

Under both alternatives, areas where wildfires occur undergo rehabilitation as a standard management practice. This is accomplished either as an emergency action or under normal fire rehabilitation procedures. Rehabilitation actions are deemed necessary where soil erosion and weed infestations are serious threats and the native seed sources are absent. These activities are accomplished in accordance with Appendix L of the *Lakeview Resource Management Plan/Record of Decision (2003)* and the *Emergency Fire Rehabilitation Handbook (1998)*. These rehabilitation activities lessen, but do not completely eliminate the potential for weeds to invade a burned area.

Because weed treatment activities under both alternatives would typically occur over small acreages, they would have no impact on future risk of wildfire occurrence, fuel loading, wildfire return intervals, or fire suppression tactics.

H. Visual Resources

Under both alternatives, scenic quality would not be reduced or altered unless large acreages were burned. Depending on the observation point and the topography, large sites would be defined as ten acres or greater. Where individual plants or small groups of plants are treated, the effect would most likely not be noticeable to the casual public land user. Any visual impacts would be short lived (one or two years) as vegetation regrows following treatment.

I. Cultural

Under both alternatives, the treatment of weeds would maintain and enhance traditional (Native American) plant collection areas over the long term. Cultural resource inventories of the affected area and consultation with interested Tribes would precede any management actions that could affect cultural resources or cultural plants (see Standard Operating Procedures, Page 6, Numbers 4 and 5).

J. Human Health

The potential occupational and environmental human health effects were fully analyzed for the no action alternative in the *Vegetation Treatment on BLM Lands for Thirteen Western States FEIS (1991)* (see Appendices E1-E5) and considered in the Record of Decision. A summary of the Worst-Case Analysis was completed; the highest risk of cancer under operational conditions would be to the worker exposed for 40 years at the maximum exposure from ground application with a probability of exposure on the order of 2 out of 10,000 workers exposed. Under the preferred alternative the effects would be the same. Effects of herbicides on humans can also be found in the Oregon Pesticide Safety Education Manual and in Material Safety Data Sheets.

The greatest health risk is to workers applying the herbicides. To ensure pesticides are applied safely and effectively, anyone handling and applying herbicides on public land within the Lakeview Resource Area would be certified and licensed by the Oregon Department of Agriculture or the U.S. Department of Interior in the proper methods of handling and applying herbicides. By following the manufacturer's label and procedures in the Oregon Pesticide Safety Education Manual, no unacceptable effects to humans are anticipated.

With the exception of burning, none of the other control methods are expected to have any risk or effect on human health. Smoke from burning could have short-term effects on people that are sensitive to smoke. No unacceptable effects to humans are anticipated from prescribed burns that take place under prescribed conditions.

K. Cumulative, Secondary, and Indirect Impacts

Beneficial cumulative effects of the proposed action are to reduce the introduction, spread, and establishment of noxious weeds across the landscape. Implementation of the proposed action would result in 1) a higher education and awareness level of the current noxious weed problem, 2) a better inventory, 3) a reduction in new weed infestations, 4) containment and reduction of large infestations, 5) reduction in the potential for noxious weeds spreading to areas outside of the LRA, and 6) improved ecosystem health for uplands and riparian areas throughout the resource area.

Close coordination with adjoining public agency weed treatment programs (FS, USFWS, BPA, California BLM, or State of Oregon), other applicators, and the use of certified personnel would minimize long-term, negative cumulative effects to human health and natural resources. Any undesirable cumulative effects of the proposed action are unlikely because the actual treatment areas are small in relation to the total acres of the resource area (approximately 2000 acres out of 3.2 million acres).

Activities occurring within and adjacent to the Lakeview Resource Area such as livestock grazing, natural and prescribed fire, wildlife use, agricultural practices, recreation, mineral extraction, road maintenance and construction, interstate traffic, off-highway vehicles, and natural factors such as wind, water, and wildlife movement, all contribute to the spread of noxious weeds. On the national scale, the cumulative effects of the proposed program are considered within the context of the analyses contained in the *Northwest Area Noxious Weed Control Program Environmental Impact Statement (EIS) as Supplemented (1987)* and the *Vegetation Treatment on BLM Lands in Thirteen Western States FEIS and ROD (1991)* and will not be repeated here. The impacts of the proposed program are not expected to exceed those already analyzed in these documents. Further, by adopting the proposed program along with the associated standard operating procedures the risk of further weed spread and establishment (within and outside of the Lakeview Resource Area) would be reduced.

APPENDIX A* - Integrated Weed Management Guidelines

Cultural

Prevention

1. Develop available preventive measures, such as quarantine and closure, to reduce the spread of the infestation.
2. Determine whether or not policy and laws allow for the use of all preventive measures, including local quarantine and closure.
3. If past management activities have allowed the introduction and spread of noxious weeds, determine how to change management after selecting a treatment method.

Livestock Manipulation

1. Determine whether or not changes in livestock grazing would affect the target weeds.
 - a. Reduced grazing may allow for increased competition from beneficial vegetation or just allow for more seeds to be disseminated.
 - b. Increased grazing may reduce beneficial vegetation or may be used to reduce seed source.
2. Determine whether or not changes in movement or type of livestock is necessary to reduce or contain the infestation due to movement of seeds on or in the animals.
3. Determine whether or not containing livestock in a weed-free area prior to introduction to the area would prevent new infestations.

Wildlife Manipulation

1. Determine whether or not wildlife and/or wildlife feeding programs can be managed to reduce weed infestations.
2. Determine feasibility of changes in wildlife movement that would reduce or contain the infestation due to movement of seeds on or in the animals.

Soil Disturbance Activities

1. Revegetate all bare soil following disturbance.
2. Select plant species that would reduce the spread of noxious weeds.

3. Defer soil disturbance if possible until weeds are controlled or under management.

Rock Sources

1. Develop rock source management plans.
2. Keep utilization of rock source confined to existing contaminated roads.
3. Keep new or “clean” rock stockpiles separate from contaminated stockpiles.
4. Obtain rock from uncontaminated sources.

Public Use

1. Determine most feasible land use to reduce and prevent infestations.
2. Determine whether or not specific public awareness programs could reduce the infestation or control the spread of weeds.
3. Determine whether or not exclusion is a possibility and how it would affect the weed infestation.

Physical Control

Manual Control

1. Determine whether or not hoeing or “grubbing” would reduce (or increase) the infestation.
2. Determine whether or not hand pulling the weeds reduces the seed source.

Mechanical Control

1. Evaluate terrain to allow for mowing and determine whether or not it is an acceptable option for control of the spread of seeds.
2. Evaluate cultivation and other conventional farming practices options that could be utilized cost effectively.

Control by Burning

1. Determine whether or not policy and laws allow controlled burning and address regulations regarding smoke management.
2. Determine whether or not the terrain and vegetative cover allow for a controlled burn program.

3. Evaluate a controlled burn program to reduce the infestation.
4. Determine long-term effect of burning on nontarget species.

Biological Control

Natural Competition

1. Determine whether or not there are naturally occurring agents within the ecosystem which can reduce the infestation.
2. Determine which elements affect natural occurring control agents.
 - a. Determine whether or not these elements can be modified to reduce the negative effect on these agents.
 - b. Determine whether or not these elements can be enhanced to increase the effectiveness of these agents on the weed infestation.

Introduced Competition

1. Determine whether or not biological control agents can be introduced into the ecosystem to reduce the amount of infestation.
2. Determine which introduced biological agents provide an acceptable control method for this infestation.
3. Evaluate if the biological control agent has been tested for adverse affects against all nontarget species within the treatment area.
4. Determine whether or not the introduced biological agent can survive in the environment of the treatment area.
5. Determine whether or not policy and laws allow for the introduction of biological control agents.
6. Determine whether or not policy and laws allow for introduction and grazing of livestock as a biological control agent.

Chemical Control

Fertilization

1. Determine whether or not chemical fertilization would reduce the amount of weeds by increasing competition of beneficial plant species.

2. Determine whether or not increased nitrogen (or other nutrients) would reduce weeds due to direct effect (e.g., Curlycup gumweed).

Pesticides

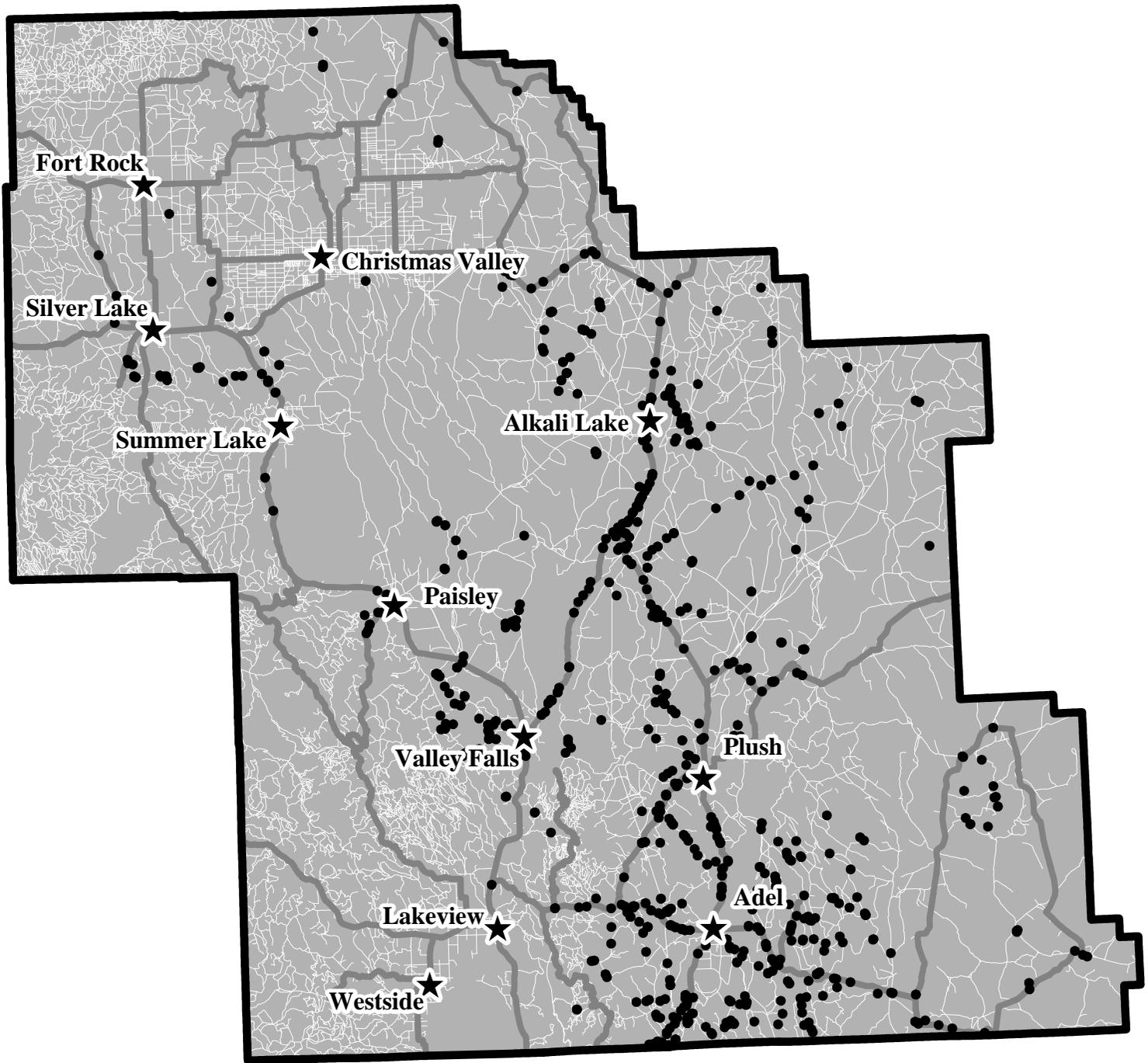
1. Evaluate the acceptability of herbicides (or other pesticides) to control the infestation.
2. Determine whether or not pesticides are labeled for:
 - a. Use on the target weed.
 - b. Use on the infested site (consider nontarget plants, soil type, groundwater location, topography, climate, State labeling, etc.)
 - c. Determine the most effective application techniques.
3. Determine the most effective and cost-efficient types of conventional application equipment.
4. Determine whether or not properly trained personnel are available to apply the pesticides.

* This list is taken from the *Noxious Weed Strategy for Oregon/Washington* (1994), Appendix 4.

**APPENDIX C - NOXIOUS WEED SPECIES KNOWN TO OCCUR ON THE
LAKEVIEW RESOURCE AREA**

<u>Family</u>	<u>Scientific name</u>	<u>Common name</u>
Apiaceae	<i>Conium maculatum</i>	poison hemlock
Asteraceae	<i>Centaurea diffusa</i> <i>Centaurea maculosa</i> <i>Centaurea repens</i> <i>Centaurea solstitialis</i> <i>Cirsium arvense</i> <i>Lactuca pulchella</i> <i>Onopordum acanthium</i> <i>Senecio jacobaea</i> <i>Carduus nutans</i> <i>Xanthium spinosum</i> <i>Cirsium vulgare</i>	diffuse knapweed spotted knapweed Russian knapweed yellow starthistle Canada thistle blue-flowered lettuce scotch thistle tansy ragwort musk thistle spiny cocklebur bull thistle
Boraginaceae	<i>Cynoglossum officinale</i>	hound's tongue
Brassicaceae	<i>Cardaria</i> spp. <i>Isatis tinctoria</i> <i>Lepidium latifolium</i>	whitetop dyers woad perennial pepperweed
Chenopodiaceae	<i>Halogeton glomeratus</i> <i>Kochia scoparia</i>	halogeton kochia
Convolvulaceae	<i>Convolvulus arvensis</i>	bindweed
Cuscutaceae	<i>Cuscuta</i> spp.	dodder
Hypericaceae	<i>Hypericum perforatum</i>	St. John's wort
Lamiaceae	<i>Salvia aethiopsis</i>	Mediterranean sage
Poaceae	<i>Taeniatherum caput-medusae</i>	medusahead rye
Scrophulariaceae	<i>Linaria dalmatica</i> <i>Linaria vulgaris</i>	dalmation toadflax yellow toadflax
Tamaricaceae	<i>Tamarix ramosissima</i>	salt cedar
Zygophyllaceae	<i>Tribulus terrestris</i>	puncturevine

Known Weed Sites on Lakeview Resource Area BLM



Legend

- Weed Sites
- ★ Towns
- Major Roads
- Roads
- Lakeview Resource Area BLM

25 12.5 0 25 Miles



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