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BUREAU OF LAND MANAGEMENT
MANUAL TRANSMITTAL SHEET

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Subject

1730 - Management of Domestic Sheep and Goats to Sustain Wild Sheep (Public)

1. Explanation of Materials Transmitted: This release establishes policy for the management of domestic sheep and goats to sustain wild sheep on public lands administered by the Bureau of Land Management (BLM). This release acknowledges wild sheep habitat as a resource that may require special management considerations in the context of BLM authorized domestic sheep or goat grazing, trailing, or other (e.g., recreational) use within and adjacent to wild sheep habitat.
2. Reports Required: None.
3. Materials Superseded: This manual updates and supersedes policy guidance contained in Instruction Memorandum No. 98-140 – Revised Guidelines for Management of Domestic Sheep and Goats in Native Wild Sheep Habitats.
4. Filing Instructions: File as directed below.

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None

13 Pages

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1.1 Purpose

The purpose of this manual is to provide policy guidance for the coordination and management of domestic sheep and goats to sustain wild sheep on the BLM managed lands (BLM lands). Respiratory disease is one of the most crucial factors influencing the bighorn sheep populations. Domestic sheep and goats are carriers of bacteria that may cause substantial wild sheep mortality as a result of respiratory disease. These carriers are generally not fatal to adult domestic sheep.¹

Specifically, this manual sets forth policy for the management of BLM lands where the presence of domestic sheep or goats may lead to (1) interaction with wild sheep, and (2) the potential for disease transmission between the species. This manual applies to both grazing authorizations, including trailing, and to other non-permitted (or unregulated) activities, where this guidance is applicable, that may result in the presence of domestic sheep or goats in wild sheep habitat on the BLM lands.

1.2 Objectives

The objectives of this manual are to (1) support multiple use and sustained yield management of BLM lands; (2) promote sound management of domestic sheep and goats to sustain wild sheep; and (3) provide bureau-wide consistency to reduce the potential for contact between wild sheep and domestic sheep or goats that could result in disease transmission between the species.

1.3 Authorities

A. Statutes

1. The Federal Land Policy and Management Act of 1976, as amended (43 U.S.C. §1701, *et seq.*)
2. Public Rangelands Improvement Act of 1978 (43 U.S.C. §1901, *et seq.*)
3. National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. §4321, *et seq.*)
4. Endangered Species Act of 1973 (16 U.S.C. §1531, *et seq.*)
5. Sikes Act of 1960 (16 U.S.C. §670, *et seq.*)
6. Taylor Grazing Act of 1934, as amended (43 U.S.C. §315, *et seq.*)
7. Tribal Forest Protection Act of 2004 (25 U.S.C. §3115a)

¹ Miller, M.W.; Knowles, D.P.; Bulgin, M.S.; Clay, B.R.; Cook, W.E.; Srikumaran, S.; Scarfe, A.D.; and Layfield, D. 2008. Pasteurellosis Transmission Risks between Domestic and Wild Sheep. Publications from U.S. Department of Agriculture –Agricultural Research Service, University of Nebraska Faculty Paper Number 285.

Wild Sheep Working Group. 2012. Recommendations for Domestic Sheep and Goat Management in Wild Sheep Habitat. Western Association of Fish and Wildlife Agencies.

B. Regulations

1. 43 C.F.R. Part 24 – Department of the Interior Fish and Wildlife Policy: State-Federal Relationships
2. 43 C.F.R. Subpart 1601 – Planning and Subpart 1610 – Resource Management Planning
3. 43 C.F.R. Subparts 4100 and 4200 (1995) – Grazing Administration

C. Orders

Secretarial Order 3317 – Department of the Interior Policy on Consultation with Indian Tribes

1.4 Responsibility

A. Director

The Director is responsible for overall leadership to implement this policy on the coordination and management of domestic sheep and goats to sustain wild sheep on BLM lands.

B. Assistant Director of Resources and Planning

The Assistant Director of Resources and Planning is responsible for ensuring the implementation of this policy on BLM lands. The Assistant Director also provides policy and program interpretations, direction, and line management to achieve consistency of field implementation of this policy.

C. Chief, Division of Fish and Wildlife Conservation

The Chief, Division of Fish and Wildlife Conservation, is responsible for initiating and recommending policies, objectives, general procedures, national level coordination (including partner organizations), and priorities relating to implementation of this policy.

D. Chief, Division of Forest, Rangeland, Riparian and Plant Conservation

The Chief, Division of Forest, Rangeland, Riparian and Plant Conservation is responsible for initiating and recommending policies, objectives, general procedures, national level coordination (including partner organizations), and priorities relating to implementation of this policy.

E. State Directors

State Directors are responsible for:

1. Establishing policy supplemental to Manual 1730, if necessary, on BLM lands within their state(s) for the management of domestic sheep and goats to sustain wild sheep that is consistent with applicable laws, regulations, and policies.

2. Providing state leadership to ensure the management of domestic sheep and goats to sustain wild sheep is integrated into statewide programs and land use plans (e.g., Resource Management Plans) as appropriate.
3. Coordinating with other federal agencies, states, tribes, local governments, private industry, and the public when planning and implementing this policy.
4. Ensuring government-to-government consultation and collaboration with tribes, as applicable, when planning and implementing this policy.

F. District Managers

District Managers are responsible for:

1. Implementing laws, regulations, and policies to ensure the management of domestic sheep and goats to sustain wild sheep is considered in land use plans, implementation-level plans, and land-use authorizations.
2. Coordinating with other BLM offices, other federal agencies, states, tribes, local governments, private livestock industry, and the public when implementing this policy.

G. Field Managers

Field Managers are responsible for:

1. Planning and implementing wild sheep and habitat projects, in coordination with the states, tribes, and/or partner organizations, to ensure they are consistent with applicable laws, regulations and policies. Field Managers also are responsible for planning and implementing domestic sheep and goat management decisions that are consistent with applicable laws, regulations and policies.
2. Coordinating with other BLM offices, other federal agencies, states, tribes, local governments, private livestock industry, permittees/lessees, and the public when implementing this policy.

1.5 References

1. BLM Manual 1601 – Land Use Planning.
2. BLM Handbook H-1601 – Land Use Planning Handbook.
3. BLM Manual 1745 – Introduction, Transplant, Augmentation, and Reestablishment of Fish, Wildlife, and Plants.
4. BLM Manual 6500 - Fish and Wildlife Conservation.
5. BLM Manual 4100 - Grazing Administration.

6. BLM Handbook 4110 – Grazing Qualifications and Preference.
7. BLM Handbook 4130 – Grazing Use Authorizations.
8. BLM Handbook 4160 – Decisions, Appeals, and Hearings.
9. Western Association of Fish and Wildlife Agencies. Recommendations for Domestic Sheep and Goat Management in Wild Sheep Habitat. Prepared by the Wild Sheep Working Group. 2012.
10. U.S. Animal Health Association Joint Working Group Committee of Wildlife Diseases & Committee on Sheep and Goats. Recommendations on best management practices for domestic sheep grazing on public land ranges shared with bighorn sheep. 2009.

1.6 Policy

The BLM's policy will be to (1) achieve effective separation of BLM authorized domestic sheep or goats from wild sheep on BLM lands, and (2) to minimize the risk of contact between the species. Effective separation is defined as the spatial or temporal separation between wild sheep and domestic sheep or goats, resulting in minimal risk of contact and subsequent transmission of respiratory disease between animal groups (see glossary). Currently, physical separation of domestic sheep or goats from wild sheep is the only effective means to reduce the potential for pneumonia-type disease transmission. Domestic sheep and goat authorizations and other uses will be implemented to ensure that effective separation results in a high degree of confidence that there will be a low to no risk of contact with wild sheep.

The BLM will execute this policy by including goals and objectives within land use plans, implementation-level plans, and land-use authorizations to support sustainable wild sheep and wild sheep habitat in fulfillment of the BLM's multiple-use and sustained yield mission. Where appropriate, the BLM will consider the potential for disease transmission in NEPA analyses, land use plans, implementation-level planning documents, and land-use authorizations. Wild sheep and domestic sheep and goat management activities will be planned, implemented, monitored, and evaluated in consideration of current and desired conditions and the potential for future changes in landscape and environmental conditions.

The BLM will use the best available science and information and carefully assess the stressors on wild sheep and habitat, including but not limited to the potential for disease transmission from domestic sheep or goats. Stressors will depend on local conditions but may include proximity to domestic sheep on private land, development pressure, degraded habitat and fragmentation, and translocation efforts, among other stressors. The BLM will consider the needs of the public through land use planning efforts so that it can make informed decisions on the management of domestic sheep and goat use and wild sheep and habitat on BLM lands. Further, the BLM will communicate, coordinate, and collaborate with stakeholders of BLM lands to achieve wild sheep and domestic sheep and goat management objectives. See also Coordination Section 1.9.

1.7 File and Record Maintenance

All records associated with wild sheep and domestic sheep and goat management will be managed according to established records retention and disposal policies. See BLM Manual Section 1220, Records and Information Management, for disposition policies and procedures.

1.8 Guide to Management Practices

Management practices will be considered during NEPA analyses for inclusion as terms and conditions in domestic sheep and goat grazing permits and leases, where applicable, along with additional site-specific or new practices that help to achieve effective separation and minimize the risk of contact, based on the best available science and information. To reduce the potential for disease transmission, the BLM will consider (1) habitat distribution; (2) connectivity; (3) wild sheep occurrence; (4) wild sheep population numbers; (5) proximity of wild sheep populations to areas authorized for domestic sheep and goat grazing or trailing; (6) risk of inter-species contact; (7) domestic sheep and goat allotment boundaries and season of use; (8) domestic livestock operational needs; and (9) other pertinent parameters affecting the BLM's ability to provide for effective separation when authorizing domestic sheep and goat uses on BLM lands. The selection of management actions will consider the context of surrounding lands, especially those involving domestic sheep or goats, as well as surrounding wild sheep populations across one or more planning areas.

Coordination is essential when making management decisions and implementing management practices. This includes early and timely communication with other federal agencies, states, tribes, local governments, permittees, lessees, and partner organizations. Public involvement occurs primarily through the NEPA and decision-making process. The BLM will provide outreach to the public through educational efforts and with partner organizations. See also Section 1.9 – Coordination.

In general, these management practices will apply to (1) BLM grazing allotments with authorized domestic sheep or goat use, including trailing; (2) authorized recreational activities involving domestic sheep or goats; and (3) the use of domestic sheep or goats in vegetation management, including treatment of invasive or undesirable plant species. Management practices also will apply where use of goats may occur in connection with generally unregulated recreational activities, and for unauthorized livestock grazing actions where there is a potential risk of contact with wild sheep, to the extent feasible.

The BLM will coordinate with Federal, State and local agencies and Tribes to map habitat, connectivity, wild sheep occupied habitats, and movement patterns of wild sheep within and among the states. Current habitat maps and movement (i.e., telemetry) information are available in many States as well as wild sheep management plans. These maps and plans will be a source of information to identify wild sheep distribution and use patterns.

The potential risk of wild sheep contact or interaction with domestic sheep or goats will be analyzed using the best available science and information, best available models, and updated

habitat maps.² Specifically, a risk analysis will be conducted when domestic sheep or goat grazing authorizations, including trailing, or other activities, are under consideration when (1) land-use plans are developed, including revisions, relevant amendments, and implementation-level plans; (2) issuing or renewing domestic sheep or goat grazing permits; and (3) when risk has not previously been analyzed or when new/updated science, information, analysis tools, models, or maps could substantially affect the results of a previous risk analysis, as determined by the BLM authorized officer (normally the BLM field manager). At the outset of planning and identifying the range of alternatives in the NEPA review, the level of analysis should be commensurate with the presumed degree of risk for inter-species contact and potential disease transmission determined with coordination with partner agencies, tribes, and permittees, and lessees.

Once the risk of contact between wild sheep and domestic sheep or goats has been identified for a specific area, and for the range of alternatives in NEPA, the BLM authorized officer will evaluate the identified level or extent of risk and determine if domestic sheep or goat grazing can occur and still achieve effective separation from wild sheep. The decision will include an assessment of how management practices and geographic features are expected to provide for effective separation as documented in the applicable NEPA analyses and decision documents for proposed activities. The higher the level of risk, the more likely that management practices will need to be incorporated into decisions to achieve effective separation, including not authorizing domestic sheep or goat grazing or other uses.

The section below outlines (1) BLM management practices; (2) permittee/lessee management practices; and (3) options for developing agreements to address site-specific, time-sensitive, and other state and local level actions to achieve effective separation. The practices that are applicable to particular planning efforts or land-use authorizations will be considered in the applicable NEPA analyses and range of alternatives. Not all practices will be feasible or relevant to a particular planning effort or land-use authorization. However, the BLM authorized officer (i.e., field manager) will include the practices that are expected to provide for effective separation between wild sheep and domestic sheep or goats. Selected practices will be included as terms and conditions in land-use authorizations, including livestock grazing permits.

A. BLM Management Practices

1. The BLM will consult with the state wildlife agencies, tribes, and other experts (e.g., other federal agencies, academic institutions, partner organizations) for the most current techniques, management practices, plans, and local maps to provide effective separation

² Maps displaying occupied wild sheep habitat and domestic sheep and goat grazing authorizations on BLM lands are available on the BLM's national website under the Wildlife Program at:

http://www.blm.gov/wo/st/en/prog/more/fish_wildlife_and/wildlife3/1.html.

Also, the Bighorn Sheep Risk of Contact Model, is available for BLM decision makers to analyze risk of contact between domestic sheep or goats and wild sheep. The BLM field staff should contact their state wildlife program lead to access model components, updated user guide, and required software. The maps and modeling tool are subject to periodic updates. Refined maps or modeling tools may be available for local areas but should be commensurate with these nationally-available tools.

between wild sheep and domestic sheep or goats. The BLM will consider developing a separation response plan in cooperation with the affected permittee/lessee, state wildlife agency, and other affected entities.

2. Where domestic sheep or goats are authorized (including trailing and for vegetation management), or where recreational sheep or goats use (e.g., pack animals) may occur, and there is a potential for inter-species contact of wild sheep and domestic sheep or goats, land use plans and/or implementation-level plans will prescribe management practices to provide effective separation. Identify in the land use plan and/or implementation-level plan if opportunities exist for allotment or pasture management changes to help achieve effective separation.
3. The BLM will work with federal land managers, tribes, state agencies and the public to establish attainable goals and objectives for the abundance and distribution of wild sheep within current, historic, and/or other suitable ranges adjacent to BLM lands.
4. The BLM will develop management practices that address the potential for interaction between wild sheep with domestic sheep or goats when developing implementation-level plans for the management of livestock grazing allotments, including permit renewals and terms and conditions, as well as other projects involving domestic sheep or goats on BLM lands. The outcomes of these implementation-level plans and NEPA-supported decisions will inform subsequent land use planning efforts on BLM lands.
5. In the absence of a specific agreement with the state, tribes, permittees/lessees, and/or other entities, the BLM will identify the process, protocols, and timelines for short-term or emergency management actions and communications when intervention is needed to respond to observed or reported interaction of wild sheep with domestic sheep or goats (i.e., emergency separation response plan). At a minimum, the BLM will immediately notify (i.e., as soon as feasible) the applicable state wildlife agency of any observed or reported contact, interactions, or close proximity between wild sheep and domestic sheep or goats.
6. Coordinate with the applicable state wildlife agency to determine the wild sheep population and herd priorities or emphasis areas, using state Wildlife Action Plans or other plans (e.g., state Bighorn Sheep Management Plan) and use that information to inform domestic livestock grazing authorization decisions. Determine occupied and suitable unoccupied wild sheep habitat within the planning unit in coordination with the state wildlife agency. Encourage early coordination regarding state agency actions to translocate wild sheep to avoid areas where the BLM has authorized domestic sheep and goat grazing or other uses.
7. Develop an approach for identifying, reporting, and quickly recovering stray domestic sheep or goats. Ensure that any permit terms and conditions are being implemented. The BLM will track and record the number of stray domestic sheep or goats, and whether stray animals were located and returned to the herd or authorized use area on BLM lands, in cooperation with permittees/lessees.
8. Do not convert the kind of livestock use from cattle to domestic sheep or goats on allotments within, or in proximity to, priority wild sheep populations or emphasis areas (as described in BLM Management Practice #6, above).

9. Identify topographic features or natural or man-made barriers (e.g., fencing, interstate highways, extensive areas of dense forest vegetation, lack of suitable habitat) that increase physical separation between wild sheep and domestic sheep or goats.
10. Do not authorize trailing of domestic sheep or goats across areas where wild sheep are present during the time of trailing. Ensure an advance on-site evaluation to determine if wild sheep are present near the trailing route and proceed according to a separation response plan or other authorization terms and conditions.
11. If effective separation between wild sheep and domestic sheep or goats cannot be reasonably expected, and/or if reporting indicates that contact has occurred in spite of the best efforts to implement management practices to prevent contact, consider relocating the authorized sheep or goats to another allotment(s) where risk of contact is lower.
12. If the allotment/authorization cannot be managed in a manner that will provide effective separation, then seek voluntary non-use from the permittee (in accordance with the provisions in 43 C.F.R. §4110.3-3 – Grazing Qualifications and Preference) while seeking long-term solutions to achieve effective separation.
13. If the permittee/lessee is unwilling to apply for voluntary non-use, issue a final decision effective upon issuance or temporary suspension of domestic sheep or goat use in the allotment (in accordance with the provisions in 43 C.F.R. §4110.3-3 – Grazing Qualifications and Preference) while seeking long-term solutions to achieve effective separation.
14. If effective separation between wild sheep and domestic sheep or goats is not achievable, and relocating the permitted or authorized use is not possible, consider livestock use conversion from domestic sheep or goats.
15. If effective separation between wild sheep and domestic sheep or goats is not achievable, consider cancelling a domestic sheep or goat authorization or closing an allotment to domestic sheep and goat use, particularly when priority wild sheep populations or emphasis areas are in close proximity. Such actions must comply with NEPA, grazing regulations, and land use planning regulations.

B. Permittee/Lessee Management Practices

The practices listed below are actions that could be implemented by grazing permittees/lessees and are intended to assist in achieving effective separation. These actions may be included as terms and conditions to new, renewed, and modified permits and leases. Additional practices may be appropriate based on site-specific circumstances and current science.

1. The permittee/lessee will immediately notify the local BLM authorized officer (i.e., field manager), or other primary point of contact designated by the authorized officer, of any observed or reported contact, or close proximity, between wild sheep and the permittee's/lessee's domestic sheep or goats.
2. The permittee/lessee will prevent the turnout of sheep or goats with observed or known respiratory infection or disease (e.g., Mycoplasma or Pasteurella-type pneumonia

bacteria) on grazing allotments or trailing routes, or for use in vegetation management activities, or authorized/recreational activities.

3. The permittee/lessee will retrieve and remove sick or physically infirmed domestic sheep or goats from the herd as soon as possible.
4. When trailing domestic sheep through areas where there is a potential for contact with wild sheep, the permittee/lessee will use the appropriate combination of close herding, multiple herders, and well-trained herd dogs to keep the sheep bunched and to minimize the risk of strays. Any strays will be gathered and moved back with the herd as soon as possible or removed from BLM lands as the trailing occurs.
5. Permittee/lessee will report their authorized domestic sheep or goat routing and distribution within an allotment, trailing between allotments, strays and recovery efforts, according to the terms and conditions of their authorization(s) or permit(s)/lease(s).
6. Immediately report (as soon as feasible) to the authorized office (i.e., field manager) any wild sheep sightings in proximity to authorized domestic sheep or goat allotments or trailing routes.
7. Grazing domestic ewes while in estrus heightens the possibility of contact between wild sheep and domestic sheep or goats. Decrease inter-species attraction by only turning out ewes and nannies that are known to be pregnant or with lamb(s) during the grazing period in areas of potential for contact with wild sheep.
8. When trailing in areas where physical separation cannot be assured, use trucking instead of trailing.

C. Optional Agreements to Address Site Specific Issues

1. Determine if past agreements or documentation exist that addressed site-specific domestic sheep or goat grazing and evaluate the effectiveness, validity, and whether circumstances have changed since the date of the agreement or documentation. Ensure consistency of agreements with the objectives of this policy.
2. Determine if state, regional, or local level agreements or similar instruments exist to address site-specific, time-sensitive and other state and local level actions to achieve effective separation and determine the effectiveness and validity of such agreements. Ensure consistency of agreements with the objectives of this policy.
3. Consider developing new agreements to address state, tribal, regional, and/or local-level management practices. Examples of such agreements may include emergency and short-term response plans for observed and reported contact or interactions between wild sheep and domestic sheep or goats.

1.9 Coordination

Coordinate with partners including federal, state, and local agencies, grazing permittees/lessees, tribes, tribal organizations, academic institutions, and non-governmental organizations that have an interest in domestic sheep and goats and wild sheep on public lands. The BLM also is committed to fulfilling its trust responsibilities to tribes including consultation pursuant to Secretarial Order 3317, when applicable. The BLM will seek partnerships that provide services, technical expertise, and support so that the BLM and partner organizations can accomplish mutually-compatible goals and objectives for the management of domestic sheep and goats to sustain wild sheep on public lands. The BLM also acknowledges and honors the Memoranda of Understanding between the BLM and other organizations regarding wild sheep and habitat management.

Glossary of Terms

This glossary is provided for the convenience of the reader and the terms are defined for the purpose of this manual only.

-A-

Authorized: the BLM approved activity (including grazing by domestic sheep or goats) on BLM lands.

Authorization (regarding domestic sheep or goats): permit, lease, exchange-of-use, or other permission to graze, trail or otherwise move domestic sheep or goats on lands administered and managed by the Bureau of Land Management.

-D-

Domestic sheep or goats: Domestic sheep (*Ovis aries*) or goats (*Capra hircus*) refer to all sheep and goats authorized, including recreational activities, and those unpermitted on lands administered and managed by the Bureau of Land Management (BLM lands).

-E-

Effective separation: Spatial or temporal separation between wild sheep and domestic sheep or goats, resulting in minimal risk of contact and subsequent transmission of respiratory disease between animal groups (WAFWA 2012).

-R-

Risk assessment: A quantitative and qualitative evaluation of the potential for contact between wild sheep and domestic sheep or goats measured in probability and rate of potential contact.

-S-

Separation response plan: A plan that includes the process, protocols, and timelines for management actions and communications when intervention is needed to respond to observed or reported interaction of wild sheep with domestic sheep or goats. Plans should be developed cooperatively between the BLM, permittees/lessees, state wildlife agencies, tribes, and other affected federal agencies.

Sustainable: The term is synonymous with the term “sustained yield” as defined by the Federal Land Policy and Management Act of 1976, as amended (43 U.S.C. §1701 *et seq.*). The term means the achievement and maintenance in perpetuity of a high level annual or regular periodic output of the various renewable resources of the public lands consistent with multiple use.

-W-

Wild sheep: Wild sheep refers to all wild sheep (*Ovis canadensis* and *Ovis dalli*).