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Forest Service

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Record of Decision

North End Sheep Allotment

Walla Walla Ranger District
Umatilla National Forest
Union, Wallowa, and Umatilla Counties, Oregon

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Record of Decision

1. Introduction

This Record of Decision (ROD) documents my decision to select an alternative from the North End Sheep Allotment Final Environmental Impact Statement (FEIS). This ROD was developed according to requirements of the National Environmental Policy Act (NEPA), the Council of Environmental Quality's implementing regulations (40 CFR 1500-1508), U. S. Department of Agriculture NEPA regulations (7 CFR part 1b), Forest Service NEPA regulations (36 CFR 220), and Forest Service policy in Forest Service Manual 1950 and Forest Service Handbook 1909.15.

This Record of Decision contains a brief summary of the environmental analysis completed for this project, as well as the rationale for selecting the alternative I have chosen to implement. It also contains certain findings required by various laws and regulations, and information concerning the rights to administrative review of this decision. The North End Sheep Allotment FEIS is incorporated by reference in this decision document and is attached as a separate volume.

Throughout the FEIS and this document, domestic sheep may be referred to as permitted sheep, permitted domestic sheep, livestock, permitted animals, or permitted numbers. The individuals associated with the term grazing permit may be referred to as the 'permittee". Rocky Mountain bighorn sheep may be referred to as wild sheep or bighorn sheep.

2. Background

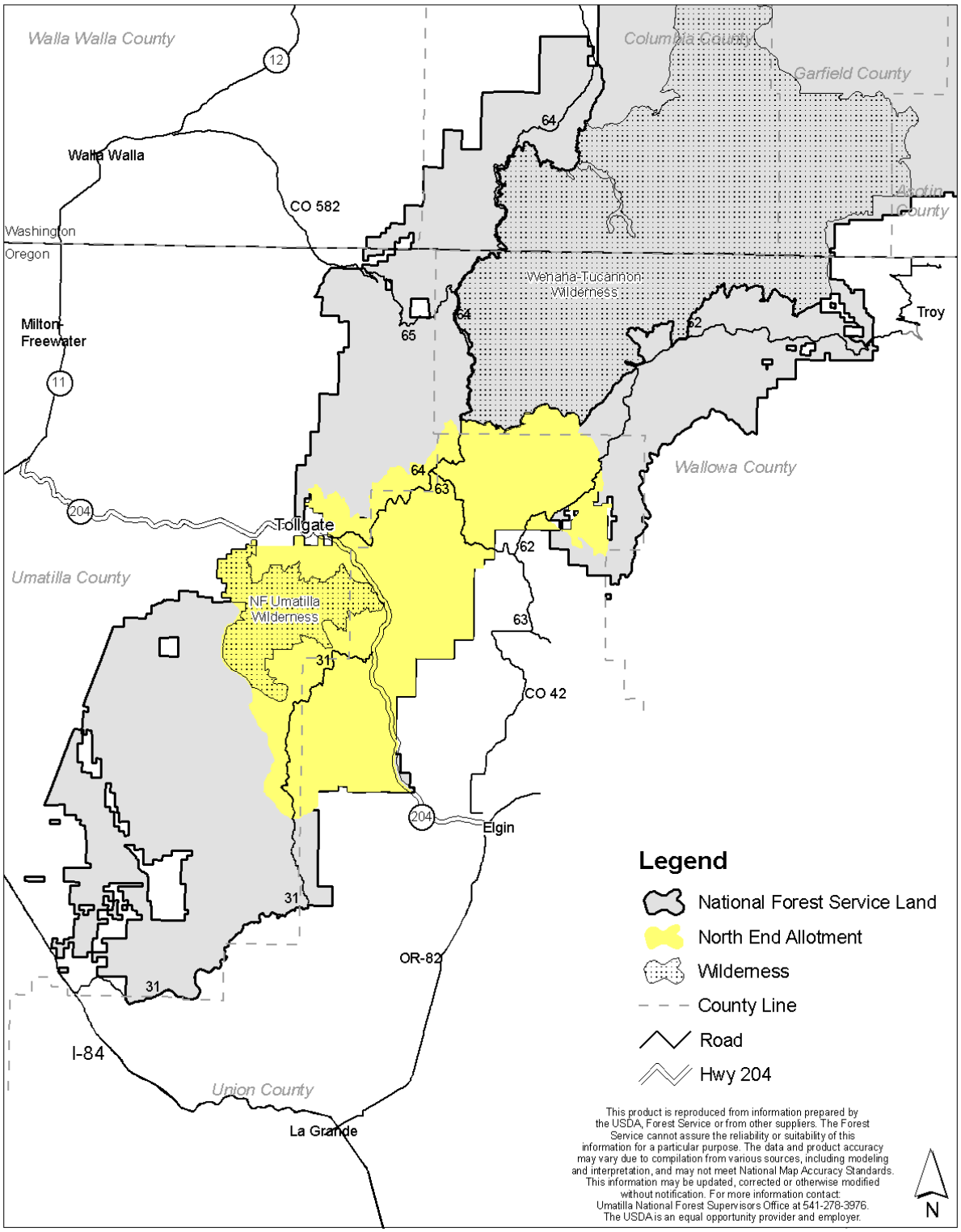
Analysis Area and Scope
The North End Allotment covers roughly 132,000 acres of National Forest and interspersed private land northwest of Elgin, Oregon in Umatilla, Union, and Wallowa Counties. Figure 1 shows the analysis area in context with local communities.

The large size of the allotment makes for a diverse array of mountain uplands and plateaus dissected by large canyons. Approximately 75 percent of the allotment is covered by mixed conifer forest, with many previously harvested areas that have created transitory range for livestock. Permitted sheep primarily graze on grassy ridges, rolling upland hills, and in transitory range created by timber harvest.

Over the past 25 years, the permittee has typically grazed up to 3,962 sheep in 4 bands. Each band grazed in a designated area of the allotment. This allowed a rest-rotation grazing system with large areas rested each year. This system has resulted in overall improving conditions on the allotment. Utilization monitoring has shown that the management of the North End Allotment has consistently met Forest Plan utilization standards.

The scope of this analysis was limited to evaluating the appropriate management of permitted livestock grazing, given considerations of rangeland conditions and other Forest Plan goals and objectives. The proposed action was to continue to permit 3,962 sheep on 101,000 acres of the allotment. This allowed for domestic sheep to graze no closer than 8 miles from the Wenaha herd of Rocky Mountain bighorn sheep.

Figure 1. North End Allotment Vicinity Map



In Forest Service Region 6, Rocky Mountain bighorn sheep are not listed as Threatened, Endangered, or Sensitive. However, the National Forest Management Act as well as the Umatilla Land and Resource Management Plan, as amended (herafter referred to as the Forest Plan) require that habitat be provided for native wildlife species, while also providing for multiple uses such as recreation, range, and timber.

Extensive scientific literature supports a relationship between disease in bighorn sheep and contact with domestic sheep. The literature includes both circumstantial evidence as well as controlled experiments where healthy bighorn sheep exposed to domestic sheep displayed high mortality rates. Large scale die-offs have been documented throughout Canada and the U.S., most often attributed to bacterial pneumonia in combination with other stressors. Domestic sheep are carriers of the pathogens that cause pneumonia in wild sheep. Pages 34-37 of the FEIS provide more information about this subject.

The bighorn sheep herd nearest the North End Allotment continues to be affected by a pneumonia epidemic that occurred 15 years ago. There is widespread support in the scientific community to keep domestic sheep and bighorn sheep separated until additional research provides other solutions.

Purpose and Need Summary
The purpose of this action is to authorize domestic sheep grazing in a manner that is consistent with the Forest Plan. Providing forage for permitted domestic livestock is desirable in this area to satisfy Forest Plan, Forest Service policy, and Congressional intent which will be described in further detail under section 4 – Decision Rationale.

Because the allotment is near occupied and unoccupied Rocky Mountain bighorn sheep habitat, there is a need to effectively keep permitted domestic sheep separated from these areas.

There is also a need to maintain management flexibility such that grazing use and administration is economically and environmentally feasible.

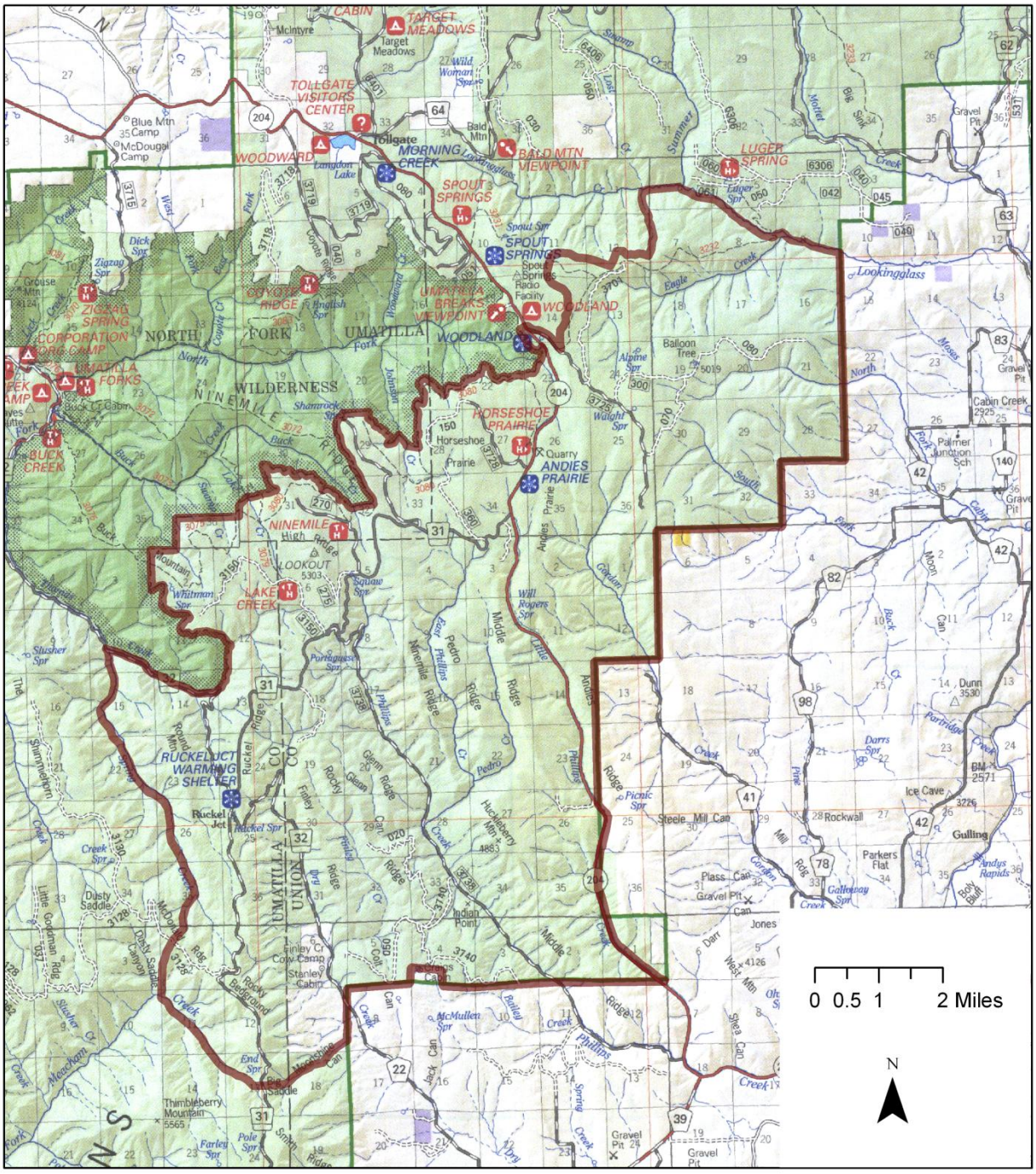
3. Decision

Based on my review of the North End Sheep Allotment Final Environmental Impact Statement (FEIS), I have decided to implement Alternative 4, which changes the allotment boundary and authorizes the grazing of up to 2,000 sheep (Figure 2).

A detailed description of Alternative 4 is contained in Chapter 2 of the FEIS, page 12. The decision also includes the management requirements and monitoring measures listed in Chapter 2, pages 18-26 and provided in Appendix 1 to this ROD.

This alternative was selected after considering how it meets the purpose and need for action, how it addresses the key issues, the trade-off of environmental effects identified in the FEIS, and its responsiveness to public comments received on the Draft Environmental Impact Statement. The rationale for my decision is included below.

Figure 2. North End Allotment FEIS Alternative 4.



4. Decision Rationale

Purpose and Need

The purpose of this action is to authorize domestic sheep grazing in a manner that is consistent with the Forest Plan, as amended. Providing forage for permitted domestic livestock is proposed in this allotment because of the following:

- Where consistent with other multiple use goals and objectives, there is Congressional intent to allow livestock grazing on suitable lands (Multiple-Use Sustained-Yield Act of 1960; Wilderness Act of 1964; Forest and Rangeland Renewable Resources Planning Act of 1974; Federal Land Policy and Management Act of 1976; and National Forest Management Act of 1976).

- It is Forest Service policy to make forage available to qualified livestock operators from lands suitable for livestock grazing consistent with land management plans (36 CFR §222.2 (c); and Forest Service Manual [FSM] 2203.1).

- The Umatilla Forest Plan, which directs the management of lands contained within this Analysis Area, has as one of its goals to manage the forage resources while providing for forage productivity and making suitable range available for livestock grazing (Forest Plan, p. 4-63).

The present Allotment Management Plan was completed in 1986, prior to the signing of the Forest Plan in 1990. There is an overall need to analyze the possible effects of grazing in order to create a new Allotment Management Plan that is reflective of current laws, regulations, and new information.

Part of the allotment is near occupied Rocky Mountain bighorn sheep range. There is a need to effectively separate permitted domestic sheep from bighorn sheep. ***Effective separation*** is defined as spatial and/or temporal separation between wild sheep and domestic sheep or goats, resulting in (at most) a minimal risk of potential respiratory disease transmission (WAFWA 2010). This can be achieved through a combination of factors including maintaining separation distance appropriate for the terrain, managing livestock properly, and coordinating closely with the state wildlife agency.

There is also a need to maintain management flexibility such that grazing use is economically and environmentally feasible.

Alternative comparison

Alternative 4, the selected alternative, best meets the stated purpose and need for action by:

- Allowing livestock grazing on the North End Allotment

- Maintaining management flexibility by limiting grazing to an area within the historic boundary of the allotment and keeping stocking rates at an appropriate level for the area

- Providing for multiple use benefits while also contributing to bighorn sheep sustainability
- Providing management requirements to protect various other resources

Alternatives 1 and 2 were not selected because they did not provide adequate, effective separation between grazing domestic sheep and the existing and potential bighorn sheep herd areas.

Alternative 3 was not selected because it would open an area up for grazing that has not been grazed in over 40 years and would add complexity to the allotment management. For example, watering sites would need to be developed and there would be road access issues.

Alternative 5, the no-grazing alternative, does not make forage available for livestock grazing. Although it is the environmentally preferred alternative (see page 15 of this ROD), it does not meet the purpose of and need for action, and the alternative was not selected.

How issues were considered and taken into account

Alternative 4 was selected because it is the most responsive alternative to comments received on the DEIS. The individual comments and responses are contained in Appendix C of the FEIS. The comments represented a wide variety of viewpoints on the preferred alternative. Some comments stated that the preferred alternative was too restrictive on livestock grazing operations while other comments stated that the preferred alternative did not contain enough restrictions on livestock grazing operations. All of the comments were considered in the decision.

Two key issues were identified from public comments and resource specialist information regarding the proposed action. The two key issues were 1) bighorn sheep and 2) management feasibility. A summary of alternatives developed to address the key issues is provided below on page 11.

- **Key Issue 1 – Bighorn Sheep**

Alternative 4 includes authorizing domestic sheep grazing on the North End Allotment and addresses the issue of potential bighorn sheep and domestic sheep interaction. The Wenaha bighorn sheep herd is located to the northeast of the North End Allotment in the Grande Ronde River and Wenaha River canyons. While the land directly affected by the North End allotment does not contain enough rugged escape terrain to support a bighorn sheep herd, the proximity of the allotment to the Wenaha bighorn sheep herd and other high quality bighorn sheep habitat could lead to disease transmission.

The effect of domestic livestock diseases on bighorn sheep is well documented, and disease continues to threaten bighorn herds in areas where bighorns and domestic sheep and goats have an opportunity to interact. The Wenaha bighorn sheep herd experienced a major herd die-off in 1995 and 1996. Since that time, lamb survival has been very low, which has been primarily attributed to lingering herd pneumonia. Refer to FEIS pages 33-35 for more details.

This decision considers the professional judgment and input from experienced biologists who have worked with bighorn sheep issues for over 20 years and know this area well. Alternative 4 addresses the bighorn sheep issue more thoroughly than the other alternatives by providing the greatest separation distance between the allotment and both the Wenaha herd and the South Fork Walla Walla bighorn sheep habitat. Alternative 4 provides a separation distance of 12 air miles from the Wenaha bighorn sheep herd, and 9 air miles from the South Fork Walla Walla bighorn sheep habitat.

This decision also adopts proactive management requirements that will help to maintain effective separation. Management requirements will be discussed by the Forest Service and the permittee during annual meetings and will be utilized each year. These are outlined on pages 20-27 of the FEIS. Key requirements for the protection of bighorn sheep are summarized below:

- A deterence, detection, and response protocol will be developed, which outlines agency and permittee responsibilities if bighorn sheep are seen near domestic sheep herds, or if domestic sheep are separated from the permitted area. The plan will be annually reviewed and updated.

- The permittee will be required to mark all sheep in such a way that allows for easy identification of ownership.

- The permittee will count the number of sheep turned onto the allotment and the number of sheep taken off the allotment. If sheep are unaccounted for when leaving the allotment, the permittee will notify the Forest Service immediately and make a concerted effort to locate the animals.

- A herder is required to be with permitted sheep at all times, and be supplied with an effective means of communication such that incidents can be reported promptly.

- If the permittee or herder observes any interaction between wild and domestic sheep or sees any wild bighorn sheep within the permitted area, it is the herder's and the permittee's responsibility to immediately notify the Forest Service.

- If the herder and/or permittee are aware of or are notified that stray domestic sheep are outside the permitted area, the permittee or their agent will respond immediately and make best efforts to find and retrieve them, and notify the Forest Service within 24 hours.

In summary, the decision to continue domestic sheep grazing and to reduce the size of the North End Allotment is expected to result in a low likelihood and manageable risk of contact between bighorn sheep and domestic sheep. This decision considered current bighorn sheep population characteristics, site-specific habitat conditions, separation distances, best available science, and input from experienced biologists to make an informed range management decision.

- **Key Issue 2 – Management Feasibility**

The decision to implement Alternative 4 considered the issues associated with changing the allotment boundary and the resulting economic impacts. This alternative would result in a

smaller grazing operation on the allotment. Although Alternative 4 reduces the number of sheep on the allotment, a livestock operation of 2,000 ewe/lamb pairs would be permitted.

Alternative 4 was selected because it provides for a level of livestock grazing that will maintain satisfactory range conditions. Based upon past and current rangeland health surveys and information, rangeland conditions within the North End Allotment are considered to be in satisfactory condition, and Alternative 4 is designed to perpetuate satisfactory rangeland conditions while also maintaining and/or improving other values and benefits. Alternative 4 authorizes a similar stocking level as the current grazing authorizations.

While Alternatives 1, 2, or 3 would also provide for permitted livestock grazing opportunities, Alternative 4 was selected because it provides the best mix of range management and economic factors while also responding to the need to separate permitted domestic sheep from Rocky Mountain bighorn sheep.

Environmental Effects

This decision considered the balance of environmental effects presented in Chapter 3 of the FEIS. All of the alternatives were consistent with applicable laws such as the Endangered Species Act and Clean Water Act.

Alternative 5 is the environmentally preferable alternative as described on Page 15 of this decision, and shows a clear difference in impacts on the biological and physical environment from the other alternatives. However, it was not selected in part because of potential adverse social and economic impacts.

Alternative 5 also does not address Forest Plan direction to make available for livestock grazing the forage that is surplus to the needs of plants, soil, and wildlife. There is a demand for use of this surplus forage, and not offering it for livestock utilization would be inconsistent with management direction.

As described throughout Chapter 3 of the FEIS, managing environmental effects within the sideboards of Forest Plan standards and guidelines would be more readily achieved under Alternative 4 than under Alternatives 1, 2, and 3. In general, the environmental effects associated with Alternative 4 are less than for Alternatives 1, 2, and 3 because the allotment is smaller and less ground would be affected. Refer to Chapter 3 of the FEIS.

Alternative 4 outlines a more successful approach for managing livestock grazing consistent with the forest plan goal to provide habitat for all native wildlife species.

All alternatives provide additional space between the allotment and the bighorn sheep habitat, but Alternative 4 provides the best chance for a sustainable bighorn sheep population in this area. The differences among Alternatives for effects on bighorn sheep are outlined on pages 42-52 of the FEIS.

Cumulative effects

In making this decision, I considered cumulative effects. During the public comment period, I received letters that raised a concern about potential bighorn sheep – domestic sheep contact off forest. Activities that occur on private lands are outside my control. By implementing Alternative 4, I believe we can successfully maintain effective separation on Forest Service lands so that our actions will not add to the risk of contact off forest.

Under Alternative 4, employment and income associated with permitted sheep will be less than the current levels. It is expected that two seasonal sheep herding jobs would no longer be needed. There could potentially be a 50 percent reduction in lamb sale revenue, grazing fees collected, and county payments per year. Refer to Table 2 on page 13 of this ROD.

The increasing popularity of nature-based tourism and the demand for the bighorn sheep hunting experience suggest that the role of a stable or increasing bighorn sheep population in the local recreation economies could remain stable or increase.

The North End Sheep Allotment FEIS documents the analysis and conclusions upon which this decision is based.

5. Public Involvement

Comments on the DEIS made by individuals and organizations are individually addressed in Appendix C of the FEIS. The perspective and individual points in these comments were considered by the interdisciplinary team. For specific information on how comments were addressed, refer to Appendix C.

Comments on the DEIS were received from the permittee through individual meetings and during the comment period. This decision also acknowledges that permit actions can be appealed by permittees under administrative appeal processes described in 36 CFR 251. Since the permittee is the party who will ensure the success of the operation, their input was carefully considered.

The North End Allotment lies within areas ceded to the Unites States government by the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) and Nez Perce Tribe. Government to government and staff to staff communications were maintained throughout the analysis process. The Umatilla Forest acknowledges its responsibility to address the reserved rights of hunting, fishing, gathering, and the pasturing of cattle and horses. Alternative 4 emphasizes protection of those rights to a greater degree than the other alternatives by causing the least impact to bighorn sheep and other first foods.

Based on the comments received on the DEIS, Alternative 4 strikes a reasonable balance by addressing comments that are within the scope of the deciding officer's authority as well as being consistent with grazing management direction in the Forest Plan.

Scoping

Public scoping was initiated in April 2009 with the project's inclusion on the quarterly Schedule of Proposed Actions. On April 10, 2009, a letter describing the proposed action was mailed to 33 individuals, organizations, and agencies for their comment. These individuals and organizations included State and Federal resource management agencies,

special interest organizations, and the grazing permittee. A Notice of Intent to prepare an Environmental Impact Statement was published in the Federal Register on December 24, 2009.

Scoping efforts generated responses from five individuals, five organizations, two state agencies, one federal agency, and one Tribe. Responses are documented in nine letters, as well as several e-mails, telephone conversation records, and meeting notes. These documents are filed in the project record.

The permittee holding the grazing permit for this allotment was included throughout the analysis process. The permittee provided input for alternatives and site-specific grazing operations information.

Coordination with Oregon Department of Fish and Wildlife (ODFW) was conducted for this proposal through several informal meetings and telephone conversations.

Responses expressed a wide variety of opinions about the proposed action and information to be disclosed in the draft EIS. These comments were used to identify issues, alternatives to the proposed action, and the extent of environmental analysis necessary for making an informed decision. Information obtained from the scoping process is contained in the Project Record.

In addition to issues identified through public response, the Interdisciplinary Team considered potential issues not identified by the public. The Interdisciplinary Team considered these potential conflicts or issues, together with those identified during scoping, to determine whether it required development of an alternative to the proposed action, needed mitigation measures, or whether it was beyond the scope of this project.

Two Key Issues were identified. Key Issue 1, Bighorn Sheep, addresses the need to reduce the likelihood of contact between domestic and bighorn sheep. Key Issue 2, Management Feasibility, addresses the economic, operational, and administrative impacts associated with changing the allotment boundary. Many of the other concerns raised were addressed in the EIS by providing additional information. Pages 10-11 of the FEIS summarizes the scoping responses and describes how these concernes were addressed.

Comments on the DEIS

The Draft Environmental Impact Statement (DEIS) Notice of Availability was published in the Federal Register on February 8, 2011 and comments were accepted during a 45-day comment period.

A total of 14 letters, email, and phone calls were received: seven from individuals, two from state agencies, two from other federal agencies, one from the CTUIR tribe, and two from environmental organizations. One letter from a federal agency (Department of Interior) simply stated that they had no comments on the DEIS. All comments were considered by the interdisciplinary team and the District Ranger. The specific comments and our responses are provided in Appendix C.

Consultation with Tribes

Contacts with staff members of the Nez Perce Tribe and the CTUIR were made throughout the analysis process. A staff member from CTUIR attended meetings on May 13, 2008,

October 30 2008, December 1, 2008, and October 23, 2009. A staff member from the Nez Perce tribe attended meetings on December 1, 2008, and October 23, 2009. These meetings are supplemented by contacts through electronic mail and by telephone. Updates on the project status were also provided to tribal staff members at the yearly coordination meetings.

6. Alternatives Considered

Five alternatives were developed and analyzed in detail, including a "No Grazing Alternative." Four other alternatives were considered but not analyzed in detail. This provided a wide range of reasonable alternatives. For a more detailed description of Alternatives see pages 11-17 of the FEIS.

All of the alternatives described below include the following:

- Sheep grazing would occur through a rest rotation grazing system.
- Routing schedules would be designed each year to allow deferment and to rest areas within the allotment.
- Sheep would be routed through the allotment in separated bands of approximately 1,000 ewes and their lambs.
- Each band of sheep would be managed by a herder and dogs. This allows control of where the sheep graze and protects riparian and other sensitive areas.
- Existing corrals and water improvements would be used and maintained.
- Closed roads may be used by special permit to route sheep, access water sources, and for camps.

Alternative 1 represents the Proposed Action. Alternative 1 would authorize sheep grazing similar to levels that have been authorized in the most recent Annual Operating Instructions (AOI). The proposed action would establish a new allotment boundary and reduce the allotment size from 132,000 acres to 101,000 acres, and permit 3,962 ewe/lamb pairs in 4 bands to graze between from June 1st and October 9th.

Alternative 2 would authorize sheep grazing within an 81,500 acre allotment and permit 3,000 ewe/lamb pairs in 3 bands to graze between from June 1st and October 9th. Grazing would be limited to the area south of Lookingglass Creek. This alternative provides better separation of the allotment from the Wenaha bighorn sheep herd, and also allows for a rest rotation or deferred grazing system.

Alternative 3 would authorize sheep grazing within a 79,600 acre allotment and permit 3,000 ewe/lamb pairs in 3 bands to graze between from June 1st and October 9th. The allotment boundary would be moved to the wilderness line and would include a new area to the west of the allotment referred to in the FEIS as "the Goodman area". Grazing would be limited to the area south of Lookingglass Creek, and grazing would not occur in the North Fork Umatilla Wilderness.

This alternative addresses the need to separate domestic sheep from the Wenaha bighorn sheep, and in addition, addresses the issue raised about the bighorn sheep habitat near the South Fork Walla Walla River. Both the Wenaha and SFWW bighorn sheep habitat would be at least 9 miles from the edge of the allotment. The addition of the Goodman area would provide a new grazing area farther away from bighorn sheep habitat.

Alternative 4 would authorize sheep grazing within a 52,600 acre allotment and permit 2,000 ewe/lamb pairs to graze between June 1st and October 9th. This alternative also moves the allotment boundary to the wilderness line, but unlike Alternative 3, does not include the grazing in the Goodman area.

Grazing would be limited to the area south of Lookingglass Creek, and grazing would not occur in the North Fork Umatilla Wilderness Area. Both the Wenaha and SFWW bighorn sheep habitat would be at least 9 miles from the edge of the allotment. This alternative was developed to give decision makers and the public a range of alternatives to compare the effects with and without the Goodman area.

Alternative 5 represents the 'no grazing' alternative. Under this alternative, the Term Grazing Permit would be canceled upon implementation of the decision .

Management Requirements and Monitoring

All practicable means to avoid or minimize environmental harm from the alternative selected have been adopted (40 CFR 1505.2(c)). Management requirements and monitoring actions were developed and apply to all action alternatives, including the selected alternative. There are listed in the FEIS on pages 18-26, and are also included as Appendix 1 to this ROD.

Alternatives Considered but Not Analyzed in Detail

Four alternatives were considered in response to comments received during public scoping. These alternatives were considered but not analyzed in detail because they either did not meet the purpose of and need for action, or did not address the key issues.

1. Keep entire allotment as described in the 1986 Allotment Management Plan. This alternative was not analyzed in detail because it did not meet the stated purpose and need to effectively separate domestic sheep from bighorn sheep.

2. Convert the allotment to cattle grazing. This alternative was not analyzed in detail because it would not meet the purpose and need because management feasibility would be greatly reduced. It would be costly to plan and administer a cattle allotment and it would be costly to build fences and cattle guards. In addition, cattle grazing would likely result in negative impacts to other resources.

3. Use the Proposed Action boundary, but reduce the number of livestock. This did not meet the purpose and need to effectively separate domestic sheep from bighorn sheep.

4. Limit allotment to areas south and west of Highway 204. This alternative was not developed in detail because although it meets the purpose and need, it would only address the Wenaha bighorn sheep herd, and would not provide enough separation from the South Fork Walla Walla bighorn habitat.

Comparison of Alternatives

Tables 1 through 4 compare the alternatives considered in detail. The "1986 allotment boundary" column represents the configuration of the allotment since 1986, and the typical number of sheep grazed. These figures are provided to clearly demonstrate the changes proposed in each of the alternatives. It is not an alternative analyzed in detail.

Table 1. Comparison of Alternatives

Alternative	1986 allotment boundary	Alternative				
		1	2	3	4	5
Allotment size (acres)	132,000	101,000	81,500	79,600	52,600	0
Ewe / lamb pairs	3,962	3,962	3,000	3,000	2,000	0
Number of bands	4	4	3	3	2	0

Table 2. Key Indicator: Management Feasibility: Economic indicators

Alternative	1986 allotment boundary	Alternative				
		1	2	3	4	5
Revenue	$385,899	$385,899	$292,200	$292,200	$194,800	0
Grazing Fees to U.S. Treasury	$7,012	$7,012	$5,309	$5,309	$3,539	0
County payments (25 %)	$1,753	$1,753	$1,327	$1,327	$885	0
Jobs	5.1	5.1	3.9	3.9	2.5	0
Percent reduction for all of the above	-	0 %	24 %	24 %	50 %	100 %

Table 3. Key Indicator: Management Feasibility: Operations and Administration Indicators

Alternative	1986 allotment boundary	**Alternative**				
		1	**2**	**3**	**4**	**5**
Stocking Rate (acres /SHM)	5.1	5.8	6.2	6.1	6.0	0
Herd route management challenges	Low	Moderate	Moderate	High	Moderate	NA
Access and grazing management challenges	No	No	No	Yes	No	NA
Increased monitoring needs	No	Yes	Yes	Yes	Yes	NA
Water development costs	0	0	0	$50,000 or less	0	0

Table 4. Key indicator: Bighorn Sheep: separation distance and separation effectiveness.

Alternative	1986 allotment boundary*	**Alternative**				
		1	**2**	**3**	**4**	**5**
Separation distance between allotment boundary and Wenaha bighorn sheep (air miles)	1	8	10.5	12	12	NA
Separation effectiveness between North End permitted sheep and Wenaha bighorn sheep	Low	Moderate	High	High	High	NA
Separation distance between allotment boundary and SFWW bighorn sheep habitat (air miles)	1	1	4	9	9	NA
Separation effectiveness between North End permitted sheep and potential SFWW bighorn sheep	Low	Low	Low to Moderate	High	High	NA

7. The Environmentally Preferable Alternative

In this decision, the selected alternative is described and rationale is given for its selection. It is also required by law that one or more environmentally preferable alternatives be disclosed [40 CFR 1505.2(b)]. The environmentally preferable alternative is not necessarily the alternative that will be implemented and it does not have to meet the underlying need for the project. It does, however, have to cause the least damage to the biological and physical environment and best protect, preserve, and enhance historical, cultural, and natural resources (Title I, Section 101, NEPA as amended).

In the case of the North End Allotment, Alternative 5, no grazing, is the environmentally preferable alternative because: Alternative 5 does not authorize livestock grazing and therefore the influence of livestock on the biological and physical environment and historical, cultural, and natural resources would be eliminated. As previously noted, however, Alternative 5 does not meet the purpose of and need for action. All other alternatives would authorize livestock grazing, and thus would result in livestock-induced effects upon the biological and physical environment and upon historical, cultural, and natural resources. Refer to effects on the environment described in Chapter 3 of the FEIS.

8. Findings Required by Other Laws, Regulations, and Orders

National Forest Management Act

The Forest Plan guides all natural resource management activities through the establishment of Forest-wide and Area-specific standards and guidelines. The analysis summarized in Chapter 3 of the FEIS and the analysis contained in the Project Record address (1) the NFMA management requirements of resource protection, riparian areas, soil and water, and diversity and (2) compliance with the Forest-wide and Area-specific standards and guidelines of the Forest Plan.

These analyses demonstrate that the North End Allotment is found to be consistent with the requirements of the NFMA and the goals, objectives, standards and guidelines of the Forest Plan. Therefore, based on the effects analysis contained in Chapter 3 of the FEIS, and the data in the Project Record, implementation of Alternative 4 is found to be consistent with Management Direction for the Forest Plan.

Endangered Species Act

As determined in the Biological Assessment for the North End Allotment, implementation of Alternative 4 is not likely to adversely affect any listed fish species or their designated critical habitats. This includes Snake River and Middle-Columbia River steelhead, Snake River spring/summer run Chinook salmon, and bull trout.

Potential effects are minimized through protection measures adopted for allotments containing listed fish habitat. Specific measures are listed in Chapter 2 of the FEIS under Management Requirements. The use of herding, management of grazing routes, use of developed water sources, and designated stream crossing areas keep sheep away from perennial streams. Refer to pages 114-126 of the FEIS for further information.

The U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) concur with these determinations. A letter of concurrence dated February 23, 2011 was received from USFWS, and a letter of concurrence dated March 2, 2011 was received from NMFS.

With respect to all other fish, plant, and wildlife species, a determination of No Effect was made for all other species listed as Threatened or Endangered. Refer to pages 84, 95-102, 127-130, and 137 of the FEIS for further rationale behind these determinations.

Based on the process followed in making determinations of effect and consulting with USFWS and NMFS on these effects, implementation of Alternative 4 is found to be consistent with Section 7 of the Endangered Species Act.

Clean Water Act

The Clean Water Act provides direction "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters". To carry out this law, the State of Oregon has established state water quality standards for factors such as water temperature, sedimentation, habitat modification and pH, and an anti-degradation policy to protect water quality conditions. Under the anti-degradation policy in Section 303(d), water bodies that do not meet water quality standards are designated as "water quality limited".

Best Management Practices and Management Requirements listed in Chapter 2 of the FEIS would ensure the protection of water quality. The topography of the allotment, management of grazing routes, use of developed water sources, and designated stream crossing areas keep sheep away from perennial streams. There would be no additional effect to the parameters for which certain streams were placed on the 303(d) list. Therefore, as indicated in the FEIS page 138, Alternative 4 is consistent with the Clean Water Act.

National Historic Preservation Act

The Oregon State Historic Preservation Office (SHPO) has been consulted concerning proposed activities in the North End Allotment. Within 30 days, SHPO is obligated to respond if it does not concur with a submitted determination. No such responses were received, indicating SHPO concurrence with the No Adverse Effect determination. Section 106 of the National Historic Preservation Act has been completed for this project.

Civil Rights, Women, and Minorities

Adverse effects on civil rights, women and minorities are not expected from implementing Alternative 4, as addressed on page 140 of the FEIS. To the greatest extent possible, all populations have been provided the opportunity to comment before decisions are rendered on proposals and activities affecting human health or the environment. The activities in this decision will not have a direct or indirect negative effect on minority or low-income populations.

Environmental Justice

Executive Order 12898 directs each Federal agency to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and

activities on minority populations and low-income populations. This order is accompanied by a memorandum, emphasizing the need to consider these types of effects during NEPA analysis. Where Forest Service proposals have the potential to disproportionately adversely affect minority or low-income populations, these effects must be considered and disclosed (and mitigated to the degree possible) through the NEPA analysis and documentation. Effects on the human environment from implementation of Alternative 4 are expected to be similar for all human populations, regardless of nationality, gender, race, or income (refer to Page 140 of the FEIS). Therefore, Alternative 4 is found to be consistent with Executive Order 12898.

Wetlands and Floodplains

Executive Order 11990 requires that government agencies take action to minimize the destruction, loss, or degradation of wetlands. Executive Order 11988 requires government agencies to take actions that reduce the risk of loss due to floods, to minimize the impact of floods on human health and welfare, and to restore and preserve the natural and beneficial values served by floodplains.

Effects to wetlands and floodplains are avoided by managing vegetation utilization and maintaining the integrity of channels. Riparian areas such as seeps, springs, and other wet habitats exist within the North End Allotment and would be incidentally grazed by livestock. Sheep herding and management requirements in Alternative 4 will minimize the effects of grazing on wetlands and floodplains (refer to pages 111-113 and page 139 of the FEIS. Therefore, Alternative 4 is found to be consistent with Executive Order 11988.

9. Administrative Appeals

This decision is subject to administrative appeal under two separate appeal regulations, 36 CFR 215 and 36 CFR 251. Appeal regulations 36 CFR 251 are available only to the current holder of the permit for grazing on the North End Sheep Allotment; all others must file under appeal regulations contained in 36 CFR 215.

<u>Project Appeal Regulations 36 CFR 215</u>

Appeals filed under 36 CFR 215 must be fully consistent with 36 CFR 215.14, "Appeal Content."

Appeals must be filed with the Appeal Deciding Officer: Kevin Martin, Forest Supervisor, Umatilla National Forest, USDA Forest Service, ATTN: Appeals Office, PO Box 3623, Portland, Oregon 97208-3623.

Appeals may be submitted by regular mail, fax, email, hand-delivery, or express delivery. Appeals submitted via regular mail must be sent to the address in the previous paragraph and be postmarked by the last day of the appeal filing period.

The location for hand-delivery or express delivery services is: 333 SW 1st Ave, Portland, OR. The office business hours for those submitting appeals via hand-delivered or express delivery services are: 7:45 am to 4:30 pm Monday through Friday, excluding holidays.

Appeals submitted by fax must be sent to fax number: 503-808-2339.

Appeals submitted via email must be submitted by email to: **appeals-pacificnorthwest-umatilla@fs.fed.us**. Emailed appeals must be in a format as an email message, or an attachment to an email message in one of the following formats: plain text (.txt); rich text format (.rtf); MS Word© (.doc); or portable document format (.pdf).

Electronic appeals must be submitted as part of the actual e-mail message, or as an attachment in Microsoft Word, rich text format, or portable document format only. E-mails submitted to e-mail addresses other than the one listed above or in other formats than those listed or containing viruses will be rejected. Only individuals or organizations who submitted comments or otherwise expressed interest during the comment period may appeal.

Appeals may be hand-delivered to the above address during regular business hours of 7:45 A.M. and 4:30 P.M., Monday through Friday, except legal holidays. The appeal must be postmarked or delivered within 45 days of the date the legal notice for this decision appears in the *East Oregonian* newspaper.

The publication date of the legal notice in the *East Oregonian* is the exclusive means for calculating the time to file an appeal, and those wishing to appeal should not rely on dates or timeframes provided by any other source.

Special Use Appeal Regulations 36 CFR 251

The permit holder for the North End Allotment is also entitled to appeal under 36 CFR 251, which is the normal appeal process available for agency actions taken with respect to permitted activities. Permittees are entitled to appeal this decision under the 215 procedures or under the 251 procedures, but not both.

Notices of appeal filed under 36 CFR 251 must be fully consistent with 36 CFR 251.90, "Content of Notice of Appeal." The notice of appeal must be filed with Kevin D. Martin, Forest Supervisor, as described in the previous paragraph. In addition a simultaneous copy of the notice of appeal must be filed with Kent Connaughton, Regional Forester, to the address of USDA Forest Service, Pacific Northwest Region, Attention Appeals Office, PO Box 3623, Portland, OR 97208-3623. Again, the appeal must be postmarked or delivered within 45 days of the date the legal notice for this decision appears in the *East Oregonian* newspaper.

Implementation

If no appeals are filed within the 45-day appeal filing time period, implementation of the decision may occur on, but not before, the 5th business day after the close of the appeal filing period (36 CFR 215.9(a)).

If any appeals are filed, and the Forest Service decision is upheld, implementation may occur on, but not before, the 15th business day following the date of the last appeal disposition (36 CFR 215.9(b)).

10. Contact Information

For additional information on the FEIS and ROD, please contact Holly Harris, Interdisciplinary Team Leader, Walla Walla Ranger District, 1415 West Rose St., Walla Walla, WA 99362; Telephone (509-522-6267); or: Kimpton Cooper, Environmental Coordinator, Walla Walla Ranger District, 1415 West Rose St., Walla Walla, WA 99362; Telephone (509) 522-6009.

The EIS, ROD, and supporting documents are available for inspection during regular business hours (Monday through Friday, 7:45 A.M. to 4:30 P.M) at the Walla Walla Ranger District. The FEIS and ROD are also posted on the Umatilla National Forest website at: http://www.fs.fed.us/nepa/fs-usda-pop.php/?project=28354 .

11. Signature and Date

I have been delegated the authority and I am the Responsible Official for the decisions outlined in this ROD. Note that in many cases this ROD summarized information described more completely in the accompanying FEIS. For more detailed information, please refer to the FEIS and its associated project administrative record.

MICHAEL L. RASSBACH
Walla Walla District Ranger
Umatilla National Forest

Aug 24, 2011
Date

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North End Allotment Management Requirements

Management requirements apply to all action alternatives and will be incorporated into the Allotment Management Plan. These requirements are generally over and above the Forest Plan requirements.

General Management of livestock

Salting

- Salt will be located in areas such as old road beds or bare rock sites. Salting will be done from a container, and no salt is to remain at the site after the sheep have moved on.

Livestock Bedding

- Noon and overnight bed grounds should be used only once, except for densely timbered or rocky areas. Livestock will not normally be bedded in areas of dedicated old growth. Bedding should not occur on slopes greater than 30 percent, or on canyon edges or rims.
- Sheep will not be bedded within 300 feet of streams, seeps, and developed or undeveloped springs.

Herder Camps

- Camps will be placed at least 300 feet from live water, including undeveloped springs and seeps.
- Camps will be kept clean and garbage packed out.
- All fires built for any purpose by the permittee and/or herder will not be left unattended and will be completely extinguished. Each camp must be equipped with a serviceable shovel and ax. During periods the Forest has enacted fire restrictions, these restrictions will be followed.

Sick and Dead Livestock

- Producers/permittees should take appropriate measures to prevent turnout of sick or diseased domestic sheep. Sick or diseased animals should be removed or otherwise eliminated as soon as possible after their recognition.

- Dead livestock located on Forest Service administered lands and within 300 feet from any water source or designated roads, trails, or recreation sites will be promptly removed and properly disposed.

Working dogs

- Working dogs will be under the herder's control and must be non-threatening to people working or recreating on the forest.
- The Forest Service will post information about sheep herder working dogs at high public use areas in the allotment.

Stray management

- The permittee will count the number of sheep turned onto the allotment and the number of sheep taken off the allotment. If sheep are unaccounted for when leaving

the allotment, the permittee will notify the Forest Service immediately and make a concerted effort to locate the animals.

- The permittee will be required to mark all sheep in such a way that allows for easy identification of ownership.
- A herder is required to be with sheep at all times.
- The permittee will provide herders with an effective means of communication such that incidents can be reported promptly.
- If the herder and/or permittee are aware of or are notified that stray domestic sheep are outside the permitted area, the permittee or their agent will respond immediately and make best efforts to find and retrieve them, and notify the Forest Service within 24 hours.
- If the herder observes domestic sheep straying or notices that sheep are missing from the herd, he will call the permittee immediately, and the herder and or permittee will notify the Forest Service.
- The permittee is expected to make arrangements for retrieval of strays if he/she cannot be present, no more than 24 hours after discovery. The permittee will notify the Forest Service if delays occur.

Wildlife

- Troughs will be installed with escapement ramps to reduce potential mortality to bats and other species.
- The herder and/or permittee will report any interactions with wolves and follow appropriate procedures as outlined in the Wolf Management Plan (ODFW 2010).
- If a wolf den or rendezvous site is located in the allotment, the Forest Service will determine if seasonal restrictions or other requirements are necessary. Because these sites difficult to locate and can change from year to year, this will need to be assessed on an ongoing basis.
- The use of temporary electric fencing will be allowed at overnight bed grounds in order to deter predators. Options include steel posts, fiberglass stays, or metal panels.
- A deterrence, detection and response protocol will be developed and reviewed annually which outlines agency and permittee responsibilities if bighorn sheep are seen near domestic sheep herds, or if domestic sheep are separated from the permitted area.
- The Forest Service will provide identification materials written in both English and Spanish to assist herders with identification of bighorn sheep, which includes phone numbers for both the Forest Service and ODFW.

- If the permittee or herder observes any interaction between wild and domestic sheep or sees any wild bighorn sheep within the permitted area, it is the herder's and the permittee's responsibility to immediately notify the Forest Service.

- The Forest Service will confer with ODFW regarding the need to locate, capture, or remove bighorn sheep.

- The Forest Service will post advisory signs at campgrounds, trailheads and other high-use recreational areas to educate visitors about sheep in the area and the need to report stray domestic sheep or observations of bighorn sheep.

Range Improvements

Maintenance of existing ponds and spring developments

- Water rights and uses will be assessed as developed water sources are maintained, rebuilt, and developed.

- Berms and dams will be reconstructed and maintained as needed to prevent leakage, downstream erosion, and minimize the risk of failure.

- Adequate spillways shall be developed and maintained to allow the safe release of water out of the pond. If needed, spillways will be hardened to ensure that down cutting does not occur.

- Ponds will be kept clean of logs and will be cleaned out when silted in.

- Permittees shall notify the USFS if a pond is leaking.

- Spring boxes will be kept clean to ensure that water flows freely from the spring box.

- Where no spring box exists, one will be installed or perforated pipe will be used.

- The fence around the water source will be maintained to prevent livestock from trampling the spring source. If no fence has been installed, one will be constructed or other methods will be used to protect the source (logs, bury, herding, etc).

- Leaks in the pipe will be fixed and lines will be checked to ensure they are free of air locks.

- The trough will be kept level and cleaned out to prevent water from overflowing.

- The overflow shall be maintained to ensure the excess water flows through the overflow pipe and off site (usually back to original water course).

- Leaks in troughs will be fixed or new troughs will be installed.

- Troughs will be installed with escapement ramps to reduce potential mortality to bats and other species.

New spring developments

- New developments are not needed unless Alternative 3 is selected and the Goodman area is added to the allotment. Specific locations have not been identified; therefore any new developments will be addressed in a separate NEPA document prior to implementation.

- The spring source will be collected into a spring box or perforated pipe. If a spring box is used, gravel will be placed behind and in the spring box to act as a filter.

- The spring box will be buried or fenced to protect the spring source from animal trampling.

- The spring will be piped from the box or perforated pipe some distance away from the source to a trough or series of troughs to prevent livestock concentration near the source. The pipe shall be buried deep enough to protect it from animals as well as from freezing.

- An adequate overflow will be installed from the troughs to drain excess water away from the troughs. The overflow pipe shall be directed back to the original water course.

Water Quality

See Term Grazing Permit for terms and conditions associated with livestock administration on the North End Allotment. Best Management Practices (Ref: November 1988 PNW publication titled General Water Quality Best Management Practices) and corresponding mitigation measures include:

<u>Best Management Practice, Range Management (RM)-2</u>: Soil and water resources will be protected through management of livestock numbers and season of use.

- Permission to turn out must be obtained from the Forest Officer at least five (5) days in advance. Livestock entry onto the allotment or into a specific pasture will not be permitted until:
    - Soils are dry enough to prevent damage
    - Key plant species are ready to withstand grazing.

- The off-date for a pasture is when stock will be fully out of the pasture, or in the case of the last pasture in the rotation, fully off the Forest. It may be necessary to begin gathering early or hire additional help to achieve this.

- If implementation standards are reached on key areas prior to the scheduled move/turn off date, livestock will be required to move to the next pasture or off the Forest earlier than scheduled.

- Livestock numbers, season of use, and movement may be adjusted each year through the Annual Operating Instructions to allow for resource management needs.

- Adjustments to livestock numbers, season of use, and movement may also be made during implementation to respond to resource conditions that develop as the season

progresses. These conditions may include: drought, wildfire, achievement of key plant species utilization levels, stubble height, etc. The type of mitigation used will be determined by the Forest Officer in charge, based on the degree of the problem and its cause. If mitigation activities do not achieve desired results, additional action will be taken (for example, reductions in stocking or season of use in subsequent years).

- Best Management Practice RM-3: Preclude concentration of stock in areas that are sensitive to concentrated use and/or preclude prolonged use of an area which will result in loss of vegetative cover and soil compaction or damage to seeps and springs.
  - In no case will salt be placed closer than ¼-mile to streams, springs, or other wetlands without prior approval.

- Best Management Practice RM-4: Safeguard water quality under sustained forage production and manage forage harvest by livestock and wildlife.

  - Forage resources will be allocated on a pasture-specific basis to meet basic plant and soil needs as a first priority. Forage production above basic resource needs will be available to wildlife and permitted livestock. See Table 6 in the Monitoring section below.

  - Management activities will be designed and implemented to retain sufficient ground vegetation and organic matter to maintain long-term soil and site productivity.

Fish Habitat

The following Forest Plan standards (PACFISH) associated with livestock grazing apply to all Riparian Habitat Conservation Areas (RHCAs) and activities outside of RHCAs that will degrade them:

- Grazing Management (GM)-1: Modify grazing practices (e.g. season, stocking, access to riparian areas) that retard or prevent attainment of Riparian Management Objectives, or are likely to adversely affect listed anadromous fish. Suspend grazing if adjusted practices are not effective in meeting Riparian Management Objectives and avoiding adverse effects on listed anadromous fish.

- GM-2: Locate new livestock handling and/or management facilities outside of RHCAs. For existing livestock handling facilities inside RHCAs, assure that facilities do not prevent attainment of Riparian Management Objectives or adversely affect listed anadromous fish. Relocate or close facilities where these objectives cannot be achieved.

- GM-3: Limit livestock trailing, bedding, salting, loading, watering, and other handling efforts to those areas and times that will not retard or prevent attainment of Riparian Management Objectives or adversely affect listed anadromous fish.

- Grazing will not be authorized within 300 feet (PACFISH buffer) either side of streams with steelhead, Chinook or bull trout populations except at designated crossings as described below.

- Sheep will not bed within RHCAs of streams, springs, or other wet areas.

  - Protect stream channel crossings by reviewing designated crossings to ensure there are no conflicts with fish, fish habitat, or bank stability. Select crossings that are dry during season of use, and have stable, naturally rocky banks. Road crossings will be used where available.

  - Forest Plan riparian utilization standards will be followed. See Table 6 in the Monitoring section below.

Steelhead and Critical Habitats (spring-spawning species)

- Sheep will not be authorized to graze within 300 ft. of stream reaches that are used by steelhead except at crossings.
- Sheep will not be allowed to cross those stream reaches that are used by steelhead for spawning until after July 15th except at road crossings (where a bridge or culverts are present) or above perennial flow.

Bull Trout and Chinook salmon and Critical Habitats (fall-spawning species)

- Sheep will not be authorized to graze within 300 ft. of stream reaches that are used by bull trout or Chinook salmon except at crossings.
- Sheep will not be allowed to cross those stream reaches that are used by bull trout or Chinook salmon for spawning after August 15th except at road crossings (where a bridge or culverts are present) or above perennial flow.

  [Steelhead, bull trout, and/or Chinook salmon habitat occurs on the following streams: Lookingglass, Little Lookingglass, Swamp, Mottet, Eagle, Spring, Buck, Johnson, Woodward, Lick, Ryan, Shimmiehorn, Spring, Summer, Cabin, SF Cabin, Gordon, Phillips, East Phillips, Little Phillips, Dry, Creeks, Thomas, Bear, and NF Meacham creeks; Boston Canyon; Umatilla River, SF Umatilla River, NF Umatilla River, and SF Walla Walla River.]

Heritage resources

- The appropriate level of compliance with National Historic Preservation Act (NHPA), Section 106 must be completed before maintenance of existing and development of new improvements.

Special Management Areas

- Sheep will not graze on special Botanical Areas as described in the Special Interest Management Area in the Forest Plan (p. 4-131), which include Farr Meadow (50 acres), Ruckle Junction (5 acres), Shimmiehorn Canyon (140 acres), and Woodward Campground (15 acres).

- Sheep will be routed around all viewpoint special interest areas as described in the Special Interest Management Area in the Forest Plan, which include Bald Mountain, Gray Rock, Lookout Mountain, and Umatilla Breaks. None of the alternatives propose grazing near Lookout Mountain.

- Sheep will normally be routed around all developed recreation areas. The following recreation sites are included in the Developed Recreation Management Area of the Forest Plan (p. 4-117): Beaver Marsh, Buck Creek, Umatilla Forks, Corporation, Jubilee Lake, Woodland, Woodward, Mottet, Spout Springs, Tollgate, and Target Meadows. In some cases, sheep may be routed near developed recreation sites but will not be allowed to stay for an extended period of time. Sheep may be authorized to graze the Spout Springs ski area to maintain desired vegetative conditions.

- Livestock will be managed within wilderness areas to minimize impacts on the wilderness environment and to minimize potential conflict with other users of the area. For example, high use areas such as trailheads will be avoided, and sheep will be routed away from or around people using the area.

Sensitive Plant Areas

- Livestock will not be allowed in Lookingglass Creek and the slopes immediately above it to protect *Rorippa columbiae.*

- Livestock will not be allowed in the *Carex cordillerana* area near Umatilla Forks.

- Livestock use will be monitored near the *Carex vernacula* area in the Middle Ridge pasture and appropriate measures will be taken to exclude sheep where necessary.

Invasive Plants

- The Allotment Management Plan map will show current, inventoried noxious weed infestations to be avoided and/or monitored.

- Locations of infestations shall be discussed with the permittee during annual meetings to prevent spread of these sites. Permittee will be given identification information about noxious weeds during annual meetings with the Forest Service.

- The permittee should inform the Forest Service of infestations on the allotment.

- Vehicles used in managing livestock on the allotment shall be cleaned of any weed transporting material such as hay, mud, or seeds prior to entering Forest Service lands.

- All hay used on USFS land shall be certified weed free.

- Any seeding for restoration purposes will utilize certified weed-free seed.

- Native plant materials are the first choice in re-vegetation for restoration and rehabilitation where timely natural regeneration of the native plant community is not likely to occur. Non-native, noninvasive plant species may be used in any of the following situations: 1) when needed in emergency conditions to protect basic resource values (e.g., soil stability, water quality and to help prevent the establishment of invasive species), 2) as an interim, non-persistent measure designed to aid in the reestablishment of native plants, 3) if native plant materials are not available, or 4) in permanently altered plant communities. Under no circumstances will nonnative invasive plant species be used for re-vegetation.

North End Allotment Monitoring Requirements

The following monitoring would occur as part of implementing grazing in the North End Allotment. These standards and monitoring methods have proven to be effective on the Umatilla National Forest and supported by the Forest Plan, past monitoring, permit administration, and long term monitoring data.

Forest Plan Utilization Standards
The Umatilla Forest Plan identifies utilization standards to assure continued maintenance or improvement of vegetation and soils. Maximum utilization standards have been set for both riparian and upland vegetative communities depending on range condition (Satisfactory or Unsatisfactory) (Table 6). Utilization of grass and forbs are measured by percent weight of forage remaining, while shrubs are measured by annual growth remaining. These utilization standards are maximum levels of use, regardless of which animal species uses the forage or browse. The standard reached first will be the most restrictive and livestock will be removed prior to that standard being exceeded. If standards do not maintain the desired conditions, a more restrictive standard will be prescribed as part of the adaptive management process.

Table 6. Allowable grazing utilization standards.

Measure	Upland			Riparian	
	Grass and Forbs		Shrub	Grass and Forbs	Shrub
	Forested	Grassland			
Satisfactory	**45%**	**55%**	**40%**	**45%**	**45%**
Unsatisfactory	**35%**	**35%**	**30%**	**35%**	**30%**

The Forest Service range manager assesses utilization during and after grazing. Monitoring of riparian vegetation occurs in areas that are representative of the associated pasture. The monitoring areas are locations where forage utilization would first become evident, or where utilization would lead to unacceptable resource conditions. Upland monitoring may be conducted by the permittee, with visual inspections by the Forest Service range manager. If the range manager visually identifies an area of concern, more intensive measurements are taken.

Height/weight curves for many rangeland plant species have been converted to utilization measures to provide a quick, reasonable estimate of the level of grazing that could be sustained, while still allowing plants to store carbohydrates for seasonal growth and persistence.

Interagency Implementation Monitoring

Implementation monitoring is required on grazing allotments to meet the terms of the 1998 PACFISH/INFISH Biological Opinions. This monitoring will occur at Designated Monitoring Areas (DMA) along streams within each pasture. Monitoring will occur on herbaceous vegetation (stubble height or % utilization), bank alteration, and utilization of woody vegetation. This monitoring will occur on the greenline. Designated Monitoring Areas may be moved to different locations based on resource conditions. If there is not an appropriate monitoring area within a management unit, a DMA will not be established.

Effectiveness Monitoring
Effectiveness monitoring, or long term monitoring, is used to determine the trend of riparian and upland vegetation as they relate to livestock grazing activities in the North End Allotment. Described below is the effectiveness monitoring plan for the North End Allotment.

Upland Habitats
Two Condition and Trend (C&T) Clusters were established in 1993 have been monitored to determine the trend of vegetation and soil conditions on the allotment. These C&Ts would continue to be monitored approximately every 10 years by the Forest Service. Trend evaluation would be used to help determine if livestock grazing on the allotment is allowing maintenance of or movement towards desired vegetation conditions (Forest Plan Goal). Other monitoring protocols may be used to help determine vegetation condition and trend.

Riparian Habitats
The majority of the riparian habitats within the allotment will not be grazed. Compliance checks will occur to ensure that sheep are not accessing streams with fish populations (RHCAs). Riparian monitoring/assessments may occur in the headwaters of streams or in small isolated meadows to determine the condititon of plant communtities and the condition of undeveloped seeps and springs. Adjustments in routing schedules may occur based on these assessments.

Maintenance of developed water sources and their management is intended to protect spring and seep integrity, to prevent damage to wet soil, and to control erosion and sedimentation from watering sources. Effectiveness of these BMPs will be monitored at selected developed sources each year of grazing.

Other Implementation Monitoring
Implementation of BMPs identified for developed water source maintenance and management will occur each year of grazing.

Monitoring results since 1992 are detailed in the Range Report.