

# Chapter 2 – Alternatives

## **INTRODUCTION**

Chapter 2 describes and compares three options developed in detail for management of livestock grazing on the Brock C&H allotment: the Proposed Action (Alternative 1), Current Management, also known as “No Action” (Alternative 2) and No Grazing (Alternative 3). These alternatives were designed to address or resolve the relevant issues identified through public involvement and cause/effect analysis. A team of resource specialists (Interdisciplinary Team) developed these alternatives within the framework of the Forest Plan and applicable laws. This chapter is divided into the following sections:

- Alternative Development Process which includes a description of each alternative considered.
- Alternatives Considered but Not Developed in Detail
- Comparison of Alternatives

## **RANGE OF ALTERNATIVES**

The alternatives for this project were designed to express a range of possible actions. The interdisciplinary team developed the range of alternatives and mitigation measures presented in this chapter, based on the Purpose and Need and the major issues described in Chapter 1.

An adequate range of alternatives is one that fully meets the Purpose and Need and addresses the major issues. An alternative to the Proposed Action must: (1) address one or more major issues; and (2) meet the Purpose and Need. An action alternative that does not meet both criteria may be eliminated from detailed study.

Other influences on the development of alternatives included: Forest Plan goals and objectives, Forest Plan standards and guidelines, consultation requirements under the Endangered Species Act, and other federal and state laws and regulations. Considering these influences, the interdisciplinary team developed alternatives that address a range of treatments, management requirements, mitigations, and effects on resources.

## **ALTERNATIVES CONSIDERED IN DETAIL**

### **ALTERNATIVE 1: PROPOSED ACTION**

#### **Livestock Management**

This alternative would authorize domestic livestock grazing for 81 cow/calf pairs in two pastures with mixed landownership in the Brock C&H allotment and update the 1978 Allotment Management Plan. Grazing would be authorized for 77 days between June 10 and October 15<sup>th</sup> for a maximum of 205 Head Months (HM) annually. A HM is one month’s use and occupancy of the range by one animal over 6 months of age with disregard for offspring and daily feed or forage requirements. (FSH 2209.21) Annual Operating Instructions (AOI) would be issued each year to implement the updated Allotment Management Plan. The AOI requirements would include maintenance requirements for allotment improvements including 8 constructed ponds, a spring-fed trough, and 8.5 miles of allotment fences as assigned, similar to current requirements.

Table 2-1 describes permitted annual livestock numbers and days within the allotment. The actual number of days can vary within the June 10 to October 15 dates, depending on forage utilization in key areas, weather and forage conditions but use would not occur outside those dates, nor exceed a total of 205 head months. Table 2-2 displays the actual distribution of grazing use on the allotment.

**Table 2-1. Alternative 1. Proposed Permitted Use.**

Brock Allotment	Cow/calf	Season of Use*		Head Months
		On Date	Off Date	
Term Grazing Permit	65	6/10	8/25	164
Private Land Permit	16	6/10	8/25	41

\*Actual dates of use may vary but use would be limited to a maximum of 77 days within the 6/10 to 8/25 authorized season.

**Table 2-2 – Proposed Distribution of Grazing Use**

Pasture			Maximum Days in Unit*	Head Months
	Acres	c/c		
Transitory (FS)	599	81 (includes the 16 pair from private land permit)	39	104
Pearson (FS)	328	48	38	60
Pearson (Private)	295	33	38	41

#### Adaptive Management

- Authorized time for 81 cow/calf pair for 77 days can occur anytime between June 10 and October 15.
- Authorized numbers may be reduced and days on the allotment may be increased but in combination will not exceed a maximum of 208 head months of use between June 10 and October 15. Any increases in stocking must ensure progress towards allotment objectives is being maintained and standards are being met.
- Management strategies such as deferment, rest or high intensity-short duration grazing may be used.
- If forest treatments lead to increased forage capacity and allotment objectives and annual standards are being met, the district ranger may temporarily increase capacity up to, but not to exceed, 310 Head Months. This will allow for up to a maximum of 81 cow/calf pairs between the dates of June 10 to October 15.
- The upper reach of Fry Creek north of Forest Road 480 has a high incidence of bank alteration. A variety of management tactics may be used within the first 5 years, to ensure that streambank alteration will not exceed 20 percent as recorded for pre-season grazing. Those tactics may include but are not limited to riding, salting or fence construction. If a fence is constructed, it would be located along Fry Creek from Forest Road 480 north for one half mile on Forest Service land. No additional fence would be constructed on private land without permission of the landowner.

- If after five years, bank stability recovery still does not meet Forest Plan objectives, for satisfactory riparian condition, stream bank alteration standards may be modified to 10 percent.
- As part of the strategy to improve tufted hairgrass communities associated with false hellebore and coneflower encroachment, managers will defer use in the Transitory Pasture until tufted hairgrass goes to seed. This period usually occurs once soil moisture reaches field capacity (when soils have dried sufficiently) in those areas where false hellebore and coneflower are competing with tufted hairgrass in Fry Meadow. Annual ocular or physical soil sampling will occur to assure these conditions are met prior to stocking.

## ALTERNATIVE 2: CURRENT MANAGEMENT

### Livestock Management

The Brock allotment consists of 1,222 acres, which is broken down into two pastures; Transitory and Pearson. The allotment is located in Union County within the Umatilla National Forest with one permittee. The grazing system is currently a fixed rotation with the Transitory pasture grazed first every year. Season of use on the allotment is from June 10 to October 15 with 81 cow/calf pairs (65 cow/calf pairs Term Grazing Permit, 16 cow/calf pairs Private Land Permit) for a total of 310 Head Months annually. The current Allotment Management Plan (AMP) was completed in 1978.

The Forest Service has issued two separate permits for grazing use on the Brock Allotment where use is averaged in the permitting process. A Term Grazing Permit is issued to authorize grazing on National Forest System lands and a Term Private Land Grazing Permit is issued for private lands with grazing rights waived to the government. Table 2-3 below describes permitted annual livestock numbers and days within the allotment but the actual number of days can vary depending on utilization in key areas, weather and forage conditions. The authorized head months are reflective of the respective use on private and National Forest System lands. Over the entire allotment there are 1,222 acres, 927 acres of which are on National Forest System lands and 295 acres are located on private lands. The term grazing permit and the term private land grazing permit together reflect aggregated grazing use on the entire allotment, since the Transitory Pasture is entirely National Forest System land and the Pearson Pasture is 53% National Forest System land and 47 percent private land. Table 2-4 displays how the grazing use is allocated between pastures and ownerships. With the dates authorized, cattle are typically using the allotment for 128 days each year.

**Table 2-3. Alternative 2-3. Current Permitted Use.**

Brock Allotment	cow/calf pairs	Season of Use		Head Months
		On Date	Off Date	
Term Grazing Permit	65	6/10	10/15	273
Term Private Land Permit	16	6/10	10/15	67

**Table 2-4 – Current Distribution of Grazing Use**

Pasture	Acres	cow/calf pairs	Days in Unit	Head Months
Transitory (FS)	599	81*	67	178
Pearson (FS)	328	48	61	96
Pearson (Private)	295	33	61	66

\*The 16 cow/calf pairs belonging to the Term Private Land Grazing permit are considered part of the 81 cow/calf pairs listed for the Transitory Unit.

The Brock allotment currently operates under functional Annual Operating Instructions (AOI) which have incorporated utilization and other management standards and guidelines from the Umatilla National Forest’s Land and Resource Management Plan (LRMP) since 1990, when the Forest Plan was signed. The AOI requirements include maintenance of allotment improvements including 8 constructed ponds, a spring-fed trough, and 8.5 miles of allotment fences as assigned.

## MONITORING AND OTHER ACTIVITIES COMMON TO BOTH ACTION ALTERNATIVES

### Design Criteria and Management Requirements

Range improvements assigned to the permittee would be maintained to standard (fences, ponds).

The forage utilization standards and management objectives in Tables 2-5 and 2-6 are drawn respectively from the Forest Plan and from interdisciplinary team recommendations to achieve project-specific resource objectives.

**Table 2-5. Forest Plan forage utilization standards on the Brock C&H Allotment.**

	Allowable percent use on annual growth				
	Riparian Grass and forbs	Upland Shrub	Grass and Forbs		Shrub
			Forested	Grasslands	
<b>Satisfactory Conditions</b>	45%	40%	45%	55%	45%
<b>Unsatisfactory Conditions</b>	35%	30%	35%*	35%*	30%*

\*These standards will be used if vegetative or soil conditions are trending downward or are otherwise determined to be unsatisfactory as defined by the Forest Plan (definitions in Appendix J).

**Table 2-6. Stubble Height Implementation Monitoring Objectives (developed to proactively meet project-specific resource objectives.)**

Stream	Measure	Grass and Forbs		
		Greenline	Trigger Monitoring*	
			Sink	Terrace
All Creeks	Median stubble height	5 in.	6 in.	6 in.

\* trigger monitoring is used to determine when use is approaching objectives, so that action can be taken to ensure implementation objectives are met.

### Control and prevention of invasive plants

The design features identified below serve to minimize the effects of management activities on the introduction and spread of invasive plants. Effectiveness of implementing these measures is considered to be high for this project because they have been used successfully for projects on the Umatilla National Forest. Past Forest Plan monitoring and annual evaluation reports have documented the effectiveness of these measures.

Common vectors in spreading weeds in this area include: vehicles, big game animals, livestock; and human activities associated with camping, hunting, and logging.

These activities apply prior to, during, and post activity such as turning out cows and herding them for removal.

1. Noxious weed sites will be treated consistent with the 1995 Umatilla National Forest noxious weed decision notice and consistent with the 2005 Region 6 Invasive Plant ROD that amended the Umatilla Forest Plan in March 2006.
2. Maps attached to the Annual Operating Instructions will show currently inventoried invasive plant infestations as a means of aiding in avoidance and/or monitoring.
3. The permittee will notify the Forest Service contact when new invasive plant infestations are found. If the permittee is not familiar with the invasive plant species in the area, the permittee will seek identification aids from the Forest Service.
4. Noxious weed-free straw and mulch will be used for all projects conducted or authorized by the Forest Service on National Forest System Lands. If State certified straw and/or mulch is not available, individual forests should require sources certified to be weed free using the North American Weed Free Forage Program standards, or a similar certification process.
5. Only pelletized or certified weed free feed will be used on all National Forest System lands. If state certified weed free feed is not available, the Forests will require feed certified to be weed free using North American Weed Free Forage Program standards or a similar certification process. Weed-free areas will be chosen for project staging areas such as loading and unloading livestock, livestock and packhorse corrals, and trailheads.
6. All soils disturbed by project activities will be revegetated with certified "noxious weed free" native seed

### Implementation Monitoring

To assure that direction, mitigations and constraints are met, certain conditions on the ground are to be monitored and evaluated. Key Areas are located by pasture in suitable and capable rangeland where excessive forage utilization first becomes evident or in areas where forage utilization may be causing resource conflicts (such as riparian areas). Utilization levels at these monitoring sites represent utilization for the entire pasture, small areas within the allotments that have unavoidable livestock concentrations such as salt licks, and water developments are not designated as key areas.

Existing Key Areas will be retained. Any new key areas would be established with participation by IDT members and in consultation with the permittee. The need for new key areas would be triggered by observation of new grazing patterns that render existing key areas less effective at evaluating actual use.

Utilization monitoring would occur in areas actually used by livestock. Livestock would be moved based on whichever key area reaches allowable use first, regardless of the number of key areas available for use.

Streambank greenline stubble height would not be less than 5 inches if riparian areas are classified as satisfactory or would not be less than 6 inches if riparian areas are classified as unsatisfactory based on bank stability and wetland obligate species composition along the greenline. Adaptive management measures described above, are considered part of the monitoring plan.

### Effectiveness Monitoring Common to Both Action Alternatives

Currently there are two long term monitoring sites located on the allotment, one in each pasture. The Parker 3-Step is a quantitative method long used in the Forest Service for rangeland monitoring. The second method, Indicators of Rangeland Health is a more recently developed qualitative method. This method provides managers with good communication tools to use in combination with other quantitative monitoring. Both methods over time will give an indication of condition and trend in the meadows and upland portions of the allotment.

**Parker 3-Step:** Parker 3-step transects were established in 1980 in the Pearson pasture and most recently read in 2007. The data collected in 2007 was compared to data collected in 1979 using similar methodology.

**Indicators of Rangeland Health Assessment** monitoring protocols were first applied in the Transitory Pasture in November 2008. The results identified areas of the allotment that were not represented by the previous monitoring methods.

## **MONITORING UNIQUE TO ALTERNATIVE 1**

Additional implementation and effectiveness monitoring will be performed to address significant issues that may not be as well addressed by the implementation and effectiveness methods common to both action alternatives, specifically the significant issue of streambank instability and meadow condition.

**Multiple Indicator Monitoring-**Areas of concern have been identified in the allotment, based on undesirable vegetative changes in species composition, which are further described in Chapter 3. If those sites do not show an improving trend toward objectives described below within desired timeframes, management will not allow further undesirable alteration or expansion of the site.

- Multiple Indicator Monitoring (MIM) will be used in addition to other monitoring methods, to assess both annual and longterm rangeland indicators to monitor progress in resolving these issues. MIM incorporates the U.S. Fish and Wildlife Service (U.S. F&WS) National wetlands indicator status for species. All plants are assigned a numeric value between 0 and 100 where 100 is given to obligate wetland status.

The U.S. F&WS wetland indicators are:

- Obligatory Wetland (OBL): A species that almost always occurs under natural conditions in wetlands (estimated probability greater than 99%). Wetland indicator values from 92-100.
- Facultative Wetland (FACW): A species that usually occurs in wetlands (estimated probability 67% - 66%). Wetland indicator values from 67 – 83.
- Facultative (FAC): A species that is equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%). Wetland indicator value from 42-58.
- Facultative Upland (FACU): A species that usually occurs in non-wetlands (estimated probability 67%-99%), but is occasionally found in wetlands (estimated 1%-33%). Wetland indicator value from 17-33.

**Implementation False Hellebore Monitoring:** \_As part of the strategy to improve tufted hairgrass communities (FACW species) associated with false hellebore (OBL) encroachment, livestock will be held off the Transitory Pasture until tufted hairgrass has gone to seed. This usually occurs once soil moisture reaches field capacity. Annual ocular or physical soil sampling will occur to assure these conditions are met prior to stocking.

## **ALTERNATIVE 3 – NO DOMESTIC LIVESTOCK GRAZING (NO GRAZING)**

This alternative responds to the Forest Service policy of providing a no grazing alternative. Under this alternative, domestic livestock grazing on the Brock C&H Allotment would not be authorized and a Term Grazing Permit would not be issued upon implementation of the decision.

One water trough and springbox on the allotment in Transitory pasture, would be removed. Fences under federal ownership would be removed, but fences under private ownership would remain unless removed by the landowner. Existing ponds would remain in place for wildlife but would not be maintained for livestock use (see map of improvements in Appendix.)

## **ALTERNATIVES CONSIDERED BUT NOT DEVELOPED IN DETAIL**

Two additional alternatives were considered by the team in consultation with the District Ranger but were not analyzed in detail. The first was to expand the size of the allotment by adding a portion of the adjacent North End Sheep Allotment which is being reassessed due to the possible need to create a seven-mile buffer between domestic sheep bands and bighorn sheep in the Grande Ronde River canyon. The alternative was not developed in detail because the sheep allotment analysis is not ripe for decision.

The second alternative was to incorporate pasture use deferral into the allotment management plan, which would enable Brock allotment acres to be added to a landscape scale fuels management plan and allow portions of the allotment to be managed periodically for fuels reduction through mechanical methods or prescribed fire. This alternative was not developed in detail because the fuels specialist did not see fuels management as a driving issue for the allotment.

## **MANAGEMENT OBJECTIVES**

To achieve compliance with Forestwide and Management Area-specific Forest Plan direction and based on key resource issues described below, the Interdisciplinary Team with concurrence from the District Ranger, developed the following management objectives for the Brock Allotment:

- Stabilize grass and forb vegetation in meadow and upland (afforested) sites. Decrease the occurrence of cone flower and false hellebore and increase hairgrass in Fry Meadows and in dry and wet meadows to the south. Increase the health and vigor of native grasses and forbs where possible and increase the health and vigor of introduced forage grasses where the current community has transitioned to a new stable condition, by increasing the presence of palatable vegetation and decreasing the presence of unpalatable species. Develop and sustain multi stage hardwood (aspen and cottonwood) communities. Manage livestock use in aspen stands to promote aspen suckering and sucker survival, to ensure long-term viability of the clones.
- Manage for riparian/aquatic health to include vegetative diversity, vigor, structure, and composition of riparian communities, streambank stability and structure.
- Streambank stability will be managed to trend toward 80 percent stability at the allotment-scale.

- Greenline vegetation composition will be maintained or demonstrate a trend toward increased presence of streambank-stabilizing hydric vegetative species based on site potential. The objective for streambank stabilization would be to see an increase in native sedge communities that are dominated by wetland Obligate (OBL) or Facultative Wetland (FACW) Species with good to excellent bank stabilization capabilities.

## **COMPARISON OF ALTERNATIVES**

Table 2-7 provides a comparison of the Proposed Action and the two alternatives relative to the Purpose, Need and Issues and summarizes the environmental effects relative to significant issues, which are fully analyzed and disclosed in Chapter 4.

**Table 2-7 - Comparison of Alternatives Responsiveness to the Purpose, Need and Issues<sup>1</sup>**

		<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>
Manage forage in satisfactory condition (P/N)		Yes	Yes	Yes
Making suitable range available for livestock grazing (P/N)		Yes	Yes	No
Manage Meadow condition – increase natives reduce early-seral (N/I)		Yes	No	Yes
Manage Bank Stability – Bank Stability 80%/ Increase streambank vegetation (N/I).		Yes	No/Yes but slower than with other alternatives	Yes
Manage Upland condition – provide for upward trend. Increase native decrease non-native (N/I)		Yes	No	Yes
Total Acres Authorized (P/N)		927 Forest lands, 295 Private lands	Same as Alt 1	0
Provide flexibility to adjust to changes in weather, forage condition, or other circumstances (P/N/I)		Yes	No	NA
Stocking rates (N/I)	Head Months/ Stocking	205 HM (81 cow/calf pairs)	340 HM (81 cow/calf pairs)	0 HM
	Total days of use	77 days	128 days	0 days
Operational period (P/N/I)	Grazing season	June 10-October 15	June 10-October 15	0 days
Changes to Allotment Facilities (N/I)	Maintain spring box and trough	1	1	0
	Remove spring box and trough	0	0	1
	Maintain ponds	8	8	0
	Abandon ponds	0	0	8
	Construct new riparian fence	0.5-miles only if effectiveness monitoring supports need.	0	0
	Reconstruct fence	1	1	0
	Maintain fence	7.5 miles	7.5 miles	0
	Remove fence	0	0	8.5 miles

\*Fence removal would occur as funding becomes available.

<sup>1</sup> Letters following items in first column indicate whether alternative satisfies a Purpose, Need(s), and/or driving issue(s) described in the text above. P=Purpose, N=Need, I=Issue.