Bryant-Taylor Allotment - # 0857
Byrant-Stastny Allotment - # 0856
Warlow Allotment - # 0831
Rangeland Health Standards Assessments (RHSA)

The view looking southwest from the extreme south end of the Bryant-Taylor Allotment (#0857 – T40S, R12E, Section 26) showing Mt. Shasta in the background and the farming areas of the Klamath Basin near Merrill in the middle ground. (Picture taken June 20th, 2006).

Introduction/Background

The Bryant-Taylor (B-Taylor), Bryant-Stastny (B-Stastny), and Warlow allotments all lie in close proximity to one another, all lying in the central/south "half" of Bryant Mountain about 10 miles southeast of Bonanza, Oregon. Invariably, the closeness of these allotments leads to the overlapping of Ecological Site Inventory (ESI) information. In addition, the plant communities and ecological condition, grazing use, and other physical and ecological attributes of the allotments are very similar. Due to these similarities, all three of these allotments are considered together in this Assessment, though the allotment specific details are for the most part kept separate.

The **Bryant-Taylor Allotment (# 0857)** is comprised of four widely separated BLM parcels which are very fragmented and mixed in with Jeld-Wen lands, which are leased by the BLM lessee (Biaggi). It is listed in the Klamath Falls ROD/RMP as 1,080 acres in size; the ESI tallied acres indicated 1,005 acres.

The **Bryant-Stastny Allotment (# 0856)** is another small Bryant Mountain allotment that is grazed in common with larger amounts of private lands. It is one contiguous parcel and not fragmented like the other two assessed allotments. B-Stastny is listed in the Klamath Falls ROD/RMP as 440

acres in size; the ESI tallied acres indicated 439 acres. This allotment adjoins the Bryant-Taylor Allotment on the extreme north end.

The **Warlow Allotment (#0831)** is another fragmented Bryant Mountain allotment that is grazed in common with larger amounts of private lands leased primarily from Jeld-Wen by the same lessee as B-Taylor (Biaggi). It is comprised of essentially five different parcels in the area from Captain Jack to Long Lake to Warlow Meadow. The allotment is listed in the Klamath Falls ROD/RMP as 460 acres in size, and the ESI tallied acres indicated 517.6 acres.

The base property for the Brant-Taylor Allotment is owned by Jeld-Wen Timber and Ranches, and leased to Biaggi (Swan Lake Feeders) under a continuing series of three year base property leases. The oldest actual grazing lease in the grazing file dates back to March 28, 1994 to Swan Lake Feeders, Inc. A NEPA Compliance Record for a Transfer of a grazing lease (for allotments 0831 and 0895) stated that as of 1994, the B-Taylor allotment was an "unallocated parcel that was applied for using the Jeld-Wen property as the base property".

The Bryant-Stastny Allotment recognized base property is owned by Edwin Stastny. The oldest grazing lease in the grazing file dates back to April 10, 1989. The base property was sold by Jerry and Leslie LeQuieu on January 10, 1974 to Stastny, and Stastny applied for the grazing lease on January 14, 1974. Loveness held the grazing lease for this allotment prior to Stastny.

The Warlow Allotment recognized base property is owned by Jeld-Wen Timber and Ranches as well, and leased to Biaggi under a continuing series of three year base property leases. The oldest actual grazing lease in the grazing file dates back to March 28, 1994 to Biaggi.

One observation common to all of Bryant Mountain is that the area's vegetative composition is very jumbled and variable both naturally and artificially. The area is naturally a mix of different ecological sites due to the varying slopes, aspects, and soil depths which allow an array of different ecological sites to express themselves in fairly close proximity. It is also a fragmented landscape with lots of private lands intermingled with (and usually unfenced from) BLM lands. Another factor adding to the ecological complexity of the area is that much of it has been undergoing active juniper control over the past few years (apparently with more to come).

All three allotments are licensed and grazed each year. The grazing details are discussed by allotment below:

Bryant-Taylor: The current grazing lease for this allotment is for 13 cattle from 5/1 to 10/15 (72 AUM's). The suggested grazing season of use listed in the KFRA ROD/RMP is 4/15-9/30, and seems odd as this allotment is located high on Bryant Mountain, and making the season of use earlier (as suggested in the ROD/RMP) would not be wise as vegetation and conditions are more favorable later rather than earlier in the season. As mentioned previously, Biaggi leases from Jeld-Wen, who owns the recognized base property which is highly intermingled with the BLM.

Bryant-Stastny: The current grazing lease for this allotment is for 10 cattle from 5/10 to 9/30 (71 AUM's). The season of use listed in the KFRA ROD/RMP suggests 5/15 to 9/30 (70 AUM's), which is an ever so slightly earlier turnout than the suggestion in the RMP, and the difference of one AUM is most likely the result of the calculating the average. Edwin Stastny is the permittee for this grazing lease.

Warlow: The current grazing lease for this allotment is for 15 cattle from 5/10 to 9/30 (50 AUM's). The season of use listed in the KFRA ROD/RMP is from 5/1-9/30, slightly earlier turnout and longer use than the current season. Biaggi is the permittee for the grazing lease.

Due to their low priority status, these three allotments have had no rangeland monitoring information collected on them. Ecological Site Inventories (ESI) were completed on the allotments during the summer of 2006. This Assessment is largely based on an evaluation of the ESI information, supplemented with the limited other existing resource information, to determine if current livestock grazing management is meeting the Standards for Rangeland Health and LUP objectives.

The B-Taylor allotment had one "Identified Resource Conflict/Concern" noted in the ROD/RMP (Appendix H, page H-44) which will be addressed implicitly or explicitly by one or more of the 5 Standards in this Assessment. The conflict/concern and related "Management Objective" is as follows:

Identified Resources Conflicts/Concerns	**Management Objectives**
Potential for grazing/recreation conflicts within the allotment.	Grazing management should consider recreation concerns.

The B-Stastny allotment had no "Identified Resource Conflicts/Concerns".

The Warlow allotment had one "Identified Resource Conflict/Concern" noted in the ROD/RMP (Appendix H, page H-30) which will also be addressed implicitly or explicitly by one or more of the 5 Standards in this Assessment. The conflict/concern and related "Management Objective" is as follows:

Identified Resources Conflicts/Concerns	**Management Objectives**
Riparian or aquatic habitat is in less than good habitat condition.	Maintain and improve riparian or aquatic habitat in good or better habitat condition.

All three allotments were ranked as "C" category allotments. Categorization of grazing allotments has been required by Bureau policy since the early 1980's in order to direct limited manpower and funding to resource problem areas that are most in need of it and where the probability of success is good. A brief summary of the allotment specific categorization efforts follows as it is indicative of the relative resource concerns on this allotment – past and present. ("I" or "Improve" allotments have the highest priority resource concerns, "M" or "Maintain" allotments are moderate to low priority; and "C" or "Custodial" allotments are the lowest resource priority, usually due to small size and/or lack of ability to make significant change. See the ROD/RMP Appendix H, pages H-69-70 for further information on the allotment categorization - "Selective Management" – process.)

1982 Ranking (**Bryant-Taylor**)

 # 1 – Range Condition: Satisfactory ("M" ranking)
 # 2 – Forage Production Potential: Low potential and present production is near potential ("C" ranking)
 # 3 – Resource Use Conflicts: Limited conflicts or controversy may exist ("C" ranking)
 # 4 – Economic Returns: No opportunity for positive economic returns or no developments proposed ("C" ranking)
 # 5 – Present Management: Satisfactory or is only logical practice ("C" ranking)

1982 Ranking (**Bryant Stastny**)
 # 1 – Range Condition: Satisfactory ("M" ranking)
 # 2 – Forage Production Potential: Potential is moderate to high & present production near potential ("M" ranking)
 # 3 – Resource Use Conflicts: Limited conflicts or controversy may exist ("C" ranking)
 # 4 – Economic Returns: No opportunity for positive economic returns or no developments proposed ("C" ranking)
 # 5 – Present Management: Satisfactory or only logical practice ("C" ranking)

1982 Ranking (**Warlow**)
 # 1 – Range Condition: Unsatisfactory ("I" ranking)
 # 2 – Forage Production Potential: Potential is moderate to high & present production near potential ("M" ranking)
 # 3 – Resource Use Conflicts: Limited conflicts or controversy may exist ("C" ranking)
 # 4 – Economic Returns: No opportunity for positive economic returns or no developments proposed ("C" ranking)
 # 5 – Present Management: Satisfactory or is only logical practice ("C" ranking)

Although the Warlow allotment did rank "I" or "improve" for Range condition, the allotment was recommended to be ranked as category "C" since the "amount of public land was so small to private land". Also, three of the five categories were judged to be "C".

Because of the continued lack of significant problems or resource concerns, and/or ability to effect real change, all three allotments were carried forward to the "C" management category during the RMP process in the early 1990's and are so listed in the 1995 KFRA ROD/RMP.

Additional Assessment Process Notes
Bureau policy and direction articulates a preference that RHSA's be done at the watershed scale, unless "compelling" reasons dictate a different assessment boundary. Watershed analysis has been completed for the KFRA's Westside and recently for the entire Gerber Block. Since no other watershed analyses are currently planned for the remaining portions of the KFRA, the un-assessed allotments will be assessed individually. Since grazing management – and changes to such – must be effected physically at the allotment level and administratively at the permit/lease level, some type of evaluation and assessment at an allotment scale is appropriate and usually unavoidable. Typically, cattle use stops/begins at an allotment boundary fence. This assessment process is also in accordance with current direction and policy guidance, including the recently issued Rangeland Health Standards Handbook (H-4180-1).

Some of the information discussed under one Standard may be discussed under one (or more) of the other Standards. This is partially due to the same monitoring or observational information is discussed in the first Standard because the allotment is upland in nature and the first Standard on upland functionality makes a convenient location for most of the analysis.

The condition or degree of function of an area in relation to the Standards and its trend toward or away from a Standard is determined through the use of reliable and scientifically sound indicators – known as "Indicators of Rangeland Health". The H-4180-1 Handbook defines an "indicator" as: "*Components of a system whose Characteristics (presence or absence, quantity, distribution) are used as an index of an attribute (e.g. rangeland health attribute) that are too difficult, inconvenient, or expensive to measure*". Though the Handbook encourages the use of "…*dissimilar indicators*…" for each Standard, there is rarely enough information available to have unique indicators for each of the five Standards. Examples of

indicators can include ecological condition ratings, plant cover and productivity, different erosional attributes, and many other potential ones. In this Assessment area there has been little historical grazing related information collected due to its low priority status. Thus, there are very few quantitative and qualitative indicators that can be used for the Standards assessment, outside of the recent ESI information. The indicators and studies used are explained in the assessment that follows. (Note: The brief description of the Standard in bold, is quoted from the approved *"Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands Administered by the Bureau of Land Management in the States of Oregon and Washington – August 12, 1997"*.)

The "Guidelines for Livestock Grazing Management" comprise a set of concepts to consider when evaluating the current or proposed grazing management of an area against the five Standards. To quote the 4180 Handbook, a "guideline" is: "*A practice, method, or technique used to ensure that standards can be met or that significant progress can be made toward meeting the standard. Guidelines are tools such as grazing systems, vegetative treatments, or improvement projects that help managers achieve standards. Guidelines may be adapted or modified when monitoring or other information indicates the guideline is not effective, or a better means of achieving the applicable standard becomes appropriate.*" The actual Oregon/Washington Guidelines for Livestock Grazing Management are included with this assessment, for informational purposed, as Appendix 1.

* * *

STANDARD 1 – WATERSHED FUNCTION – UPLANDS

(Upland soils exhibit infiltration and permeability rates, moisture storage and stability that are appropriate to soil, climate, and land form.)

> The primary information to be used in evaluating this Standard is the information from a recent Ecological Site Inventory and the general ESI related observations; miscellaneous information and observational notes from the grazing files; and the professional judgment of BLM personnel who have worked in the area for many years. The indicators that this information helps address are: plant cover, litter, composition, production, age class, and community structure; level of erosion and overland flow, and apparent trend. Some of these indicators are implicitly addressed with the ecological condition rating and others with the variety of ESI related observations (e.g. SSF, OAT).

Ecological Site Inventory (ESI):

An ESI was completed for the B-Taylor, B-Stastny, and Warlow allotments together during the late summer of 2006 by Bill Lindsey. The details and observations of this survey were documented in notes entitled *Central Bryant Mountain Allotments Ecological Site Inventory* dated *"Summer 2006"*. The ESI resulted in the preparation of an assortment of "Rangeland Inventory – Ecological Status Worksheets" covering about 25 different Site Write-up Areas or SWA's. A SWA is a distinct zone of vegetation that is relatively homogeneous within the SWA, but different than the other SWA's.

The following is a summary of the ESI information which is keyed to the SWA numbers on the ESI maps located in the B-Taylor, B-Stastny, and Warlow ESI files. All of the referenced ecological sites are in MLRA (Major Land Resource Area) 021X – *Klamath and Shasta Valleys and Basins*. The pertinent ecological sites, which were created by and are administered by the NRCS, are found on-line at this URL: http://esis.sc.egov.usda.gov/Welcome/pgReportLocation.aspx A copy of a KFRA specific (slightly modified for local conditions) 021X ecological site guide is located in the KFRA office in the "range" area. This modified guide is what was used to do the actual condition

ratings. The site number is noted on the "*Rangeland Inventory – Ecological Status Worksheets*" found in the KFE Allotment/ESI file. (See the KFE's ESI / allotment file for more information).

Bryant-Taylor (0857) Allotment

SWA#	SWA%	Ecological Site Name	Worksheet #	Acres	Condition	Trend
BT1	30	*Shrubby Loam 16-20"*	BL-05-09	15	PNC	Down*
	70	*Pine-Mahogany-Fescue 16-20"*	BL-05-12	35	PNC	Down*
BT2	100	*Juniper Claypan 12-16"*	BL-06-01	72	PNC	Static
BT3	100	*Shrubby Loam 16-20"*	BL-05-09	16	PNC	Down*
BT4	100	*Mahogany Rockland 10-20"*	BL-06-02	14	PNC	Up
BT5	100	*Shrubby Loam 16-20"*	BL-06-03	152	Late	Static
BT6	40	*Shallow Stony 10-20"*	BL-06-05	21.2	PNC	Up
	60	*Juniper Claypan 16-20"*	BL-05-18	31.8	PNC	Up
BT7	100	*Shrubby Loam 16-20"*	BL-06-04	102	Late	Down*
BT8	15	*North Slope 14-18"*	BL-05-05	21.4	Late	Static
	35	*Mahogany Rockland 10-20"*	BL-05-11	50	Late	Static
	50	*Pine-Mahogany-Fescue 16-20"*	BL-05-13	71.4	Mid	Static
BT9	100	*Pine-Mahogany-Fescue 16-20"*	BL-05-14	14	PNC	Up
BT10	100	*Mahogany Rockland 10-20"*	BL-06-06	66	Early**	Up**
BT11	100	*Shallow Stony 10-20"*	BL-06-05	22	PNC	Up
BT12	100	*Ephemeral Lakebed*	BL-05-19	25	PNC	Static
BT13	45	*Pine-Fir-Sedge 18-30"*	BL-05-20	66.2	PNC	Up
	30	*Pine-Sedge-Fescue 16-24"*	BL-05-17	44.1	Late	Up
	20	*Pine-Mahogany-Fescue 16-20"*	BL-05-13	29.4	Mid	Static
	5	*Juniper Claypan 16-20"*	BL-05-02	7.5	PNC	Up

SWA's carried into **#0857** from neighboring allotments:

SWA#	SWA%	Ecological Site Name	Worksheet #	Acres	Condition	Trend
W4	30	*Pine Sedge Fescue 16-24"*	BL-05-15	21.3	Mid	Up
	30	*Pine Sedge Fescue 16-24"*	BL-05-17	21.3	Late	Up
	30	*Pine-Fir-Sedge 18-30"*	BL-05-20	21.3	PNC	Up
	10	*Pine-Mahogany-Fescue 16-20"*	BL-05-13	7.1	Mid	Static
W5	30	*Juniper claypan 16-20"*	BL-05-02	3.3	PNC	Up
	70	*Shallow Stony 10-20"*	BL-06-05	7.7	PNC	Up
S2	40	*Shrubby Loam 16-20"*	BL-05-01	18.8	Late	Static*
	35	*Mahogany Rockland 10-20"*	BL-05-11	16.5	Late	Static
	25	*Pine-Mahogany-Fescue 16-20"*	BL-05-16	11.7	Late	Down*

* The observed apparent trend for these areas was actually determined to be static/upward, though with the juniper invasion it must be considered as trending slowly downwards.

** SWA BT-10 is the cleared transmission line "swath" and rates out as early seral because of the regular clearing and the seeding to exotic perennial grass species. If the seeded grasses were counted it would be late seral and should be considered such from a functional point of view.

Bryant-Stastny (0856) Allotment

SWA #	SWA %	Ecological Site Name	Worksheet #	Acres	Condition	Trend
S1	100	*Shrubby Loam 16-20"*	BL-06-09	25	Late	Static**
S2	40	*Shrubby Loam 16-20"*	BL-05-01	95.2	Late	Static*
	35	*Mahogany Rockland 10-20"*	BL-05-11	83.3	Late	Static
	25	*Pine-Mahogany-Fescue 16-20"*	BL-05-16	59.5	Late	Down*

SWA's carried into **#0856** from neighboring allotments:

SWA #	SWA %	Ecological Site Name	Worksheet #	Acres	Condition	Trend
BT10	100	*Mahogany Rockland 10-20"*	BL-06-06	11	Early**	Up**
BT11	100	*Shallow Stony 10-20"*	BL-06-05	12	PNC	Up
BT12	100	*Ephemeral Lakebed*	BL-05-19	8	PNC	Static
BT13	45	*Pine-Fir-Sedge 18-30"*	BL-05-20	9	PNC	Up
	30	*Pine-Sedge-Fescue 16-24"*	BL-05-17	6	Late	Up
	20	*Pine-Mahogany-Fescue 16-20"*	BL-05-13	4	Mid	Static
	5	*Juniper Claypan 16-20"*	BL-05-02	1	PNC	Up
W4	30	*Pine-Sedge-Fescue 16'24"*	BL-05-15	37.5	Mid	Up
	30	*Pine-Sedge-Fescue 16'24"*	BL-05-17	37.5	Late	Up
	30	*Pine-Fir-Sedge 18'20"*	BL-05-20	37.5	PNC	Up
	10	*Pine-Mahogany-Fescue 16-20"*	BL-05-13	12.5	Mid	Static

* The observed apparent trend for these areas was actually determined to be static/upward, though with the juniper invasion it must be considered as trending slowly downwards.

** SWA BT-10 is the "north slope" cleared transmission line "swath" and rates out as early seral because of the regular clearing and the seeding to exotic perennial grass species. If the seeded grasses were counted it would be late seral and should be considered such from a functional point of view. SWA S-1 is the "south slope" version of BT-10 and is covered by write-up BL-06-09.

Warlow (0831) Allotment

SWA #	SWA %	Ecological Site Name	Worksheet #	Acres	Condition	Trend
W1	100	*Dry Meadow*	BL-06-07	5	Late	Static
W2	100	*Shrubby Loam 16-20"*	BL-06-08	52	Late	Down*
W3	100	*Ephemeral Lakebed*	BL-05-19	23	PNC	Static
W4	30	*Pine-Sedge-Fescue 16-24"*	BL-05-15	26.4	Mid	Up
	30	*Pine-Sedge-Fescue 16-24"*	BL-05-17	26.4	Late	Up
	30	*Pine-Fir-Sedge 18-30"*	BL-05-20	26.4	PNC	Up
	10	*Pine-Mahogany-Fescue 16-20"*	BL-05-13	8.8	Mid	Static
W5	30	*Juniper Claypan 16-20"*	BL-05-02	14.7	PNC	Up
	70	*Shallow Stony 10-20"*	BL-06-05	34.3	PNC	Up
W6	45	*Pine-Mahogany-Fescue 16-20"*	BL-05-16	28.8	Late	Down*
	45	*Pine-Sedge-Fescue 16-24"*	BL-05-17	28.8	Late	Up
	10	*Pine-Fir-Sedge 18-30"*	BL-05-20	6.4	PNC	Up
W7	40	*Pine-Mahogany-Fescue 16-20"*	BL-05-16	24	Late	Down*
	60	*Shrubby Loam 16-20"*	BL-06-08	36	Late	Down*
W8	100	*Ephemeral Lakebed*	BL-05-19	16.6	PNC	Static
W9	10	*Pine-Mahogany-Fescue 16-20"*	BL-05-16	3.8	Late	Down*
	90	*Shrubby Loam 16-20"*	BL-06-08	34.2	Late	Down*
W10	40	*Juniper Claypan 16-20"*	BL-05-18	26	PNC	Up
	60	*Shallow Stony 10-20"*	BL-06-05	39	PNC	Up

SWA's carried into **#0831** from neighboring allotments:

BT12	100	*Ephemeral Lakebed*	BL-05-19	14	PNC	Static
BT13	45	*Pine-Fir-Sedge 18-30"*	BL-05-20	19.4	PNC	Up
	30	*Pine-Sedge-Fescue 16-24"*	BL-05-17	12.9	Late	Up
	20	*Pine-Mahogany-Fescue 16-20"*	BL-05-13	8.6	Mid	Static
	5	*Juniper Claypan 16-20"*	BL-05-02	2.1	PNC	Up

* The observed apparent trend for these areas was actually determined to be static/upward, though with the juniper invasion it must be considered as trending slowly downwards.

The overall condition of the **Bryant-Taylor Allotment** by condition class and weighted by acres (1,005 acres total) is summarized in the following table (Note: The ESI calculated acres were 1,005, which is less than the 1,080 listed in the RMP):

Condition	Acres	Percent of Allotment
PNC	**372**	**37 %**
Late Seral	**437.8**	**44%**
Mid Seral	**129.2**	**13%**
Early Seral	**66**	**6%**

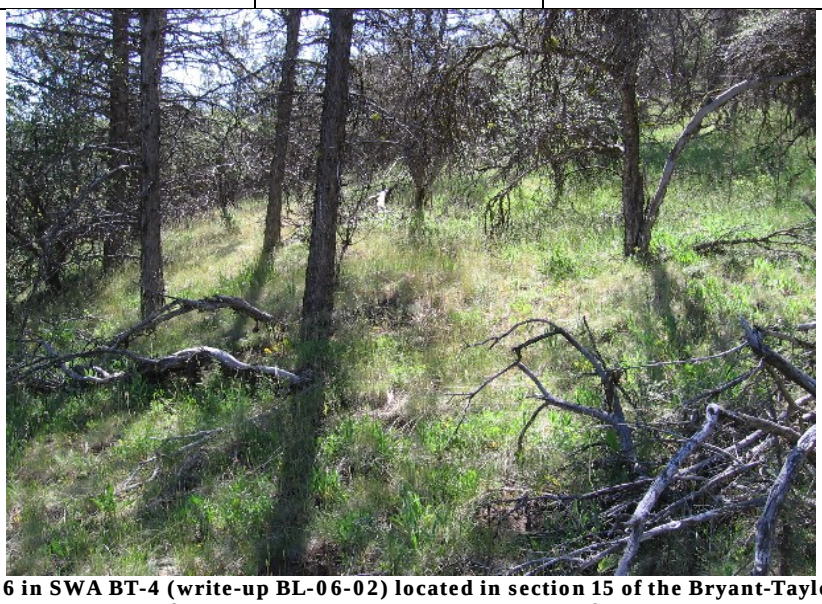

Photo taken 6/20/06 in SWA BT-4 (write-up BL-06-02) located in section 15 of the Bryant-Taylor allotment. Understory is dominated by Idaho fescue and a large growing bluegrass of some kind, with bluebunch wheatgrass also abundant.

The overall condition of the **Bryant-Stastny Allotment** by condition class and weighted by acres (439 acres total) is summarized in the following table (Note: The ESI calculated acres were 439, which is slightly less than the 440 acres listed in the RMP):

Condition	Acres	Percent of Allotment
PNC	**67.5**	**15%**
Late Seral	**306.5**	**70%**
Mid Seral	**54**	**12%**
Early Seral	**11**	**3%**

Photo taken 8/1/06 in SWA S-2 (write-up BL-05-11) located in the Bryant-Stastny allotment. This is a Mahogany Rockland site, located on the steep west facing rim and partially on the top "plateau."

The overall condition of the **Warlow Allotment** by condition class and weighted by acres (517.6 acres total) is summarized in the following table (Note: The ESI calculated acres were 517.6, which is more than the 460 acres listed in the RMP):

Condition	Acres	Percent of Allotment
PNC	221.9	43%
Late Seral	251.9	49%
Mid Seral	43.8	8%
Early Seral	0	0%

Photo taken 7/25/06 in SWA W-3 (write-up BL-05-19) located in the Warlow allotment. This is a typical spikerush community in PNC condition.

As the information in the tables above show, the area is in overall good to excellent condition with 81% of Bryant-Taylor, 85% of Bryant-Stastny, and 92% of Warlow classifying as late seral to PNC. The ESI process assesses the present conditions against other ecological site descriptions, or ecological reference areas. These areas exhibit ecological processes that are functioning within a

normal range of variability and plant communities that possess adequate resistance to and resiliency from most disturbances. Bureau policy does not require a reference area to which you compare these sites to be pristine, or historically unused or relict areas. In other words, the areas are allowed to exhibit a small percentage of invasive/undesirable species, and still be considered functional.

The elevated conditions found on the large majority of all three allotments strongly indicate that the overall area is within appropriate ecological site description parameters for functionality relative to the three major attributes of rangeland health – *Soil/Site Stability, Hydrologic Function,* and *Integrity of the Biotic Community*. A proper vegetation management objective for each of the allotments would be to at least maintain the current conditions ratings in the areas that are late seral or PNC. (See the "*Management Recommendations*" section later in this document.)

All of the recorded early/mid seral vegetation found within the allotments has been significantly disturbed by activities other than grazing sometime in the past. The only early seral area in the B-Taylor and B-Stastny allotments was located in SWA BT10 and rated out as early due to being in the regularly cleared and seeded powerline swath. If the seeded exotic perennial grass species (which would physically contribute towards proper functioning conditions) were included in the ESI rating, the area would rate as late seral.

The areas that rated out as mid-seral were areas that have either been burned in the past, or have reduced shrub and grass components due to juniper invasion. Many of the areas in these three allotments are in need of juniper reduction/removal. However, utilization (or more particularly utilization that entails yarding/dragging of whole trees) would most likely ecologically set back the areas that are in mid-seral condition.

The downward trend ratings assigned to areas of the B-Taylor, B-Stastny, and Warlow allotments are due to the ever increasing amounts of juniper in those SWA's. The encroachment of juniper in these areas has led to a decrease in the shrub composition on these sites, as well as other native species like perennial bunchgrasses. These areas are in need of treatment if the downwards trends are to be reversed. (See the "*Management Recommendations* section later in this document.)

Other Monitoring/Observational Information

No other monitoring information has apparently ever been collected on these allotments due to their relatively low priority; thus the utility or even necessity of doing the ESI which was discussed above. During that survey, two additional resource condition observations are made at each write-up area – trend (Observed Apparent Trend or OAT) and soil erosion (Soil Surface Factor or SSF).

Bryant-Taylor Allotment: The OAT for the 19 pertinent worksheets indicated eight upward trend areas, seven static (or not apparent) areas, and four downward trend areas. The significant amount of upward trending sites indicates that the area is improving in condition. The four downward trend areas actually had an OAT of static/upward, but with the juniper invasion factored in it had to be considered as slowly downward. Also, all of the downward trend areas rated as either late-seral or PNC. These areas are in need of juniper treatment. Complimenting the condition ratings, the SSF ratings for B-Taylor were all within the "stable" erosion condition class.

Bryant-Stastny Allotment: The OAT for the 12 pertinent worksheets indicated six upward trend areas, five static (or not apparent) trend areas, and one downward trend area. The one downward trend area in this allotment also had an OAT that was determined to be static/upward, but with the

juniper invasion it must be considered slowly downward. Complimenting the condition ratings, the SSF ratings for B-Stastny were all within the "stable" erosion condition class.

Warlow Allotment: The OAT for the 12 pertinent worksheets indicated six upward trend areas, three static (or not apparent) trend areas, and three downward trend areas. As with the B-Taylor, and B-Stastny allotments, the OAT in the downward trend areas were determined to be static/upward, but the juniper invasion it must be considered downward. The SSF rating for Warlow were all within the "stable" to "slight" erosion condition classes.

Forage Allocation & Use History:

Based on a review of the older grazing files, the section 15 grazing lands in the old Lost River Resource Area (which is now a large part of the current KFRA) were converted from acres based to AUM based leasing in 1968-1970. (The section 15 lands are essentially all the KFRA administered lands outside of the Gerber Block – Oregon Grazing District #1.) These section 15 lands were usually converted at the ratio of 7 to 10 acres equaling one AUM, e.g. a 100 acre lease of BLM land would be leased at 10-14 AUM's. These conversions were not based on any type of specific range survey or monitoring information, but were instead converted based on allotment acreage and an estimate of the forage capabilities of the area. Given the elevation and climatic regime of our area (13"-18" precipitation) and the vegetation communities that this precipitation can support, a rating of 7-10 acres per AUM can be an acceptable maximum allocation though in many areas a lower rating (more acres per AUM) is warranted if topography, condition, or other factors limit the availability or usability of forage. Unfortunately, no specific information on past forage capacities was found for any of these Assessment allotments.

Bryant-Taylor Allotment: Grazing history for this allotment is limited at best. The lessee's file (Biaggi) indicates that this allotment has had 50 AUM's licensed to it since 1994. The grazing lease is held by Jeld-Wen Timber and Ranches, who leases to Biaggi. Several hundred head of cattle are grazed in the area of which the B-Taylor and Warlow allotments are a relatively small part of. These cattle are allowed via the larger private land grazing lease from Jeld-Wen and the neighboring Harpold Canyon allotment

Utilization on this allotment as observed during ESI in 2006 indicates slight to light use in certain areas, to no utilization at all. Given the relatively high ecological condition rating and the generally upward apparent trend, it can be assumed that the current grazing practices are appropriate.

Bryant-Stastny Allotment: Grazing history for this allotment is limited. The lessee's file (Stastny) indicates that this allotment has had 71 AUM's since 1982.

Utilization on this allotment as observed during the ESI in 2006 indicates slight to light use in most of the allotment. There was one area of heavy use in SWA S1 that occurred due to being in the powerline swath, which is easily accessible by cattle, and also has a road running through it. Given the relatively high ecological condition rating and the generally upward apparent trend, it can be assumed that the current grazing practices are appropriate.

Warlow Allotment: Grazing history for this allotment is limited. The lessee's file (also Biaggi) indicates that this allotment has had 72 AUM's each year since 1994. The grazing lease is held by Jeld-Wen Timber and Ranches, who leases to Biaggi.

Utilization on this allotment as observed during the ESI in 2006 was overall slight to light in a few areas. There were a few areas that showed high moderate to low heavy use, most likely due to the proximity of water, flat topography, and abundant grass. Although these areas did exhibit heavier utilization, they seem to be holding their own judging from the elevated conditions (late-seral to PNC). Given the relatively high ecological condition rating and generally upward apparent trend, it can be assumed that the current grazing practices are appropriate.

Determination: ***This Standard is currently being met.***
Recent ESI and other observational information indicate that current conditions on the BLM administered lands are dominantly good to excellent and quite appropriate for fully meeting this Standard. The only current condition issues on these allotments are related to juniper encroachment, juniper density increases, or treatment of these juniper invaded areas. In the last few years, a large portion of BLM lands on Bryant Mountain have been treated (i.e. sheared, piled, and burned). Although in the short term this disturbance results in an increase of annual grasses and forbs, in the long term the removal of the juniper should lead to better ecological conditions, which is evidenced in the general upward trend of the allotment. In some areas of the Bryant-Taylor, Bryant-Stastny, and Warlow allotments, the juniper encroachment is hindering the ecological status by crowding out desirable species and increasing the amount of bare ground. Despite the fact that overall these allotments rated out as predominately late seral to PNC, they are in need of juniper treatment or inevitably the trend will shift downward. (See the "*Management Recommendations*" section.)

STANDARD 2 – WATERSHED FUNCTION – RIPARIAN/WETLAND AREAS

(Riparian-wetland areas are in properly functioning physical condition appropriate to soil, climate, and land form.)

The primary information, monitoring, and indicators to be used in evaluating this Standard are those listed under Standard 1.

There are a couple of Riparian/wetland areas on BLM administered lands within the B-Taylor and Warlow allotments that are the result of artificial watering holes or catchments. They are listed below with details about their status (which is limited at best):

B-Taylor:

Plum Spring: This area is located in T 40 S, R 12 E, section 13. Reportedly, there is a spring located in the north parcel of the B-Taylor allotment in SWA BT-6. During ESI (and also in past attempts) the spring was not located, but it does exist as individuals in the past have located it, and there is limited livestock trailing in the general area where it is thought to be located. It is not shown on the topographical maps. The surrounding area is in good to excellent condition located on a mid-slope bench that does have some limited sign of cattle use which appeared to be trailing to the spring.

Captain Jack Lake: This area is located in T 40 S, R 12 and 13 E, sections 24 and 19. This is listed as SWA BT-12, and is a classic spikerush (*Eleocharis*) vegetation community that is in great shape. Cattle use was evident around the perimeter of the meadow and it was still very wet at the time the area was ESI'd.

Warlow:

Warlow Meadow: A small portion of this meadow is on BLM administered lands, located in T 40 S, R 13 E, section 30. The area is listed in SWA W-7, and was noted as having moderate to slight cattle use in some areas, to just trailing use in other areas. The site rated as late-seral, but had a downward trend rating due to juniper encroachment.

Long Lake: A tiny portion of Long Lake reservoir is on BLM lands located in T 40 S, R 13, E, sections 19, 20, and 29. Since the majority of this water body is on private land leased from Jeld-Wen, there is little management that can be implemented by BLM. The portions of the allotment surrounding the reservoir rated as late-seral to PNC.

Lone Pine Reservoir: This area is located in T 40 S, R 13 E, section 19. This is listed as SWA W-3, and was noted as being a typical spikerush community in PNC condition. There was still standing water in the reservoir, and according to the ESI notes the area is in good to excellent condition.

There are numerous ephemeral drainages in both allotments which have little in the way of riparian characteristics and only flow during late winter or early spring runoff for short periods. All three allotments appear to be functioning from a hydrological perspective as they should and there are no known present resource problem areas related to livestock grazing.

Determination: ***This Standard is currently being met.***

Given the good to excellent ecological conditions and the general observation that there appears to be no riparian or wetland problem areas, this Standard must be considered met.

STANDARD 3 – ECOLOGICAL PROCESSES

(Healthy, productive, and diverse plant and animal populations and communities appropriate to soil, climate, and land form are supported by ecological processes of nutrient cycling, energy flow, and the hydrologic cycle.)

The primary information, monitoring, and indicators to be used in evaluating this Standard are those listed under Standard 1.

Since all three allotments are upland in nature, the analysis and information previously listed under Standard 1 is the basis for the determination under this Standard. The 2006 ESI found that outside the recently juniper treated areas, areas with juniper encroachment, and the powerline swath which runs through both the B-Taylor and B-Stastny allotments, these allotments classified as dominantly (81%+) late seral or PNC, and exhibited relatively low evidence of erosion. In the few areas with mid-early seral ratings (only 13% or less for the three allotments), the ecological conditions are generally good with predominantly stable to upward trends. These high ecological conditions are considered as reliable indicators of proper functionality for all the processes noted in the Standard description above.

One further ecological issue needs some discussion: western juniper (*Juniperus occidentalis*) and its place in the ecosystem of this area. Most portions of the Klamath Basin, above the valley floor and below about 5500', have been experiencing varying degrees of the "juniper problem." This includes juniper encroachment into vegetation communities – particularly big sagebrush and bitterbrush –

that previously had limited juniper and significant density increases in areas where juniper was and should be present, though in lesser quantity (see picture below). Though a native plant, in the absence of fire (a function of increased suppression and grazing related fine fuels reduction) and with the catalyst of heavy livestock grazing in the past reducing shrub and grass competition, juniper can increase to the point that the vegetation community is almost a juniper monoculture. This results in diminished habitat capabilities for most native wildlife species, dramatically reduced forage production for all grazing animals, and frequently an environment conducive to the invasion of undesirable exotic plants.

Photo above taken 6/20/06 in SWA BT-4 (write-up BL-05-09) located in the B-Taylor allotment. It is a juniper invaded Shrubby Loam site that rates out well due to a good grass understory, but is sorely in need of juniper removal.

On the B-Taylor Allotment especially, and to a degree on the B-Stastny and Warlow allotments, juniper encroachment has been an ever increasing problem with many areas having juniper densities well in excess of historic levels as defined by the ecological site descriptions. This is particularly true in the *Shrubby Loam* 16-20", *Mahogany Rockland* 10-20", and *Pine Mahogany Fescue* 16-20" ecological sites. Fortunately, many of these areas are scheduled to be treated (sheared, piled, and burned with some yarding utilization also tentatively planned) in the near future. Even though the BLM lands are currently in good to excellent ecological condition, many plant communities are nearing the stage where juniper will begin to crowd out the more desired understory species.

Determination: ***This Standard is currently being met.***

As with the determination for the first Standard, the current high ecological state of vegetation communities on the allotment strongly indicates that Standard 3 is fully met. See Standard 1 for the data, evaluation, and determination information that is pertinent to this Standard. The juniper encroachment issue looms as a future problem on the B-Taylor, B-Stastny, and Warlow allotments, but is being aggressively pursued as a fuels reduction issue throughout the KFRA although funding for such appears to be waning. Since these areas with the encroachment problem are in good ecological condition, if they are treated they should be able to recover and surpass pre-treatment conditions fairly quickly (if not utilization yarded) as evidenced by areas in surrounding allotments such as Harpold Canyon that have been sheared approximately three to four years ago, and are already recovering. Livestock grazing at the currently permitted levels would be considered appropriate in maintaining current and predicted future conditions. (See the "*Management Recommendations*" section.)

STANDARD 4 – WATER QUALITY

(Surface water and groundwater quality, influenced by agency actions, complies with State water quality standards.)

There are only a few permanent surface waters located within the allotment (discussed under Standard 2) and no listed quality impaired waters within or closely adjacent to these allotments. Since the vegetation communities on the BLM administered lands are functional, the grazing of the allotments is thought to be a non-issue in the overall water quality concerns of the area.

Determination: ***This Standard is currently being met (or is not applicable).***
There are no listed water bodies in these allotments and the current grazing management on BLM administered lands is not contributing to off-site water quality problems. Given the dominant good to excellent overall ecological conditions and the lack of significant riparian or wetland areas this standard must be considered met.

STANDARD 5 – NATIVE, T&E, and LOCALLY IMPORTANT SPECIES

(Habitats support healthy, productive, and diverse populations and communities of native plants and animals (including special status species and species of local importance) appropriate to soil, climate, and land form.)

The primary information, monitoring, and indicators to be used in evaluating this Standard are those listed under Standard 1.

Animals: The only special status species of note is the recent nesting of a bald eagle near McCoy Spring in the Warlow allotment. Overall, the good to excellent vegetation conditions (Standard 1) indicate that habitat conditions for all present wildlife species are good. The planned juniper control activities will also enhance future conditions for all wildlife by restoring more "correct" ecological conditions over the next few decades, though of course, juniper will again begin to make inroads at some point in the future. The importance of the BLM lands in this area is due to their positioning as "islands" of wild lands in and adjacent to a "sea" of variably developed and altered private lands.

The juniper encroachment issue discussed under Standard 3 must be considered a wildlife habitat issue of ever increasing importance, and is very close to being critical in certain areas, where the trend is downward due to the encroachment.

Plants: The majority of these allotments were surveyed for botanical resources in 2003. The 40 acres piece in T40S R12E Section 14 was surveyed in 2005. Only the 80 acre parcel in T40S R12E Section 15 has not been surveyed for botanical resources. No populations of special status plant species were found as a result of these surveys.

Numerous populations of noxious weed species were found as a result of the above surveys. Noxious weed species included leafy spurge (*Euphorbia esula*), Scotch thistle (*Onopordium acanthium*), and Canada thistle (*Cirsium arvense*). Musk thistle (*Carduus nutans*) also was documented in the areas adjacent to these three allotments. Noxious weed populations were most numerous on or adjacent to the power line right-of-way and roads.

Leafy spurge was the most abundant noxious weed species. Large concentrations of this species occur in section 24 (17 sites). The largest of these sites occupy 4,800 square meters and 10,000 square meters which support 96,000 and 200,000 plants respectively. Another large population occurs in the SE of the SW of section 25 where several thousand plants are adjacent to the road and riparian area.

Determination: ***This Standard is currently being met.***
Standard 5 is considered fully met on all 3 allotments. See Standards 1, 2, and 3 for the data, evaluation, and determination information that is pertinent to this Standard. The primary indicators of proper wildlife/plant habitat functionality are the elevated ecological conditions, the limited grazing related problems, and the planned juniper control activities which will likely increase the ecological conditions of treated areas over the next five to ten years and beyond. (See the "*Management Recommendations*" section.)

Management Recommendations:

The good to excellent (late seral/PNC) ecological conditions on the majority of these three allotments strongly indicate that livestock grazing – as currently permitted – is compatible with resource conditions. The following specific management recommendations reflect the findings of this Assessment:

Management Common to all 3 Allotments:

1. The Klamath Falls Resource Area has a very proactive weed program which includes inventories and site treatments that consist of biological, chemical, and manual treatments. The treatment efforts are to contain weed sites, reduce population size, and eradicate weed sites where possible. This effort will continue to be pursued on these and all grazing allotments in the KFRA.

2. It is recommended that all of the BLM administered lands in all three allotments be retained in public ownership, i.e. not sold or exchanged. Currently, all of the lands in the allotments are listed as Zone 1, which is retention. Given these lands' high values for wildlife and grazing, it is recommended that they remain classified as Zone 1 in the upcoming RMP revision scheduled for completion in 2008.

3. It is recommended that the current lease defined grazing seasons of use continue to be implemented on all three allotments. The season of use for each of the three allotments as listed in the KFRA ROD/RMP is slightly earlier for each of the allotments when compared to the season of use found in the permittee's folders. Earlier turnout high on Bryant Mountain would not be logical, as weather conditions and availability of forage would not be as conducive to livestock use as a slightly later turnout.

Allotment Specific Recommendations:

B-Taylor Allotment: Grazing on this allotment is predominantly slight to light. The allotment is dominated (81%) by functional late seral/PNC vegetation communities. Given this, the allotment specific recommendations are as follows:

1. Due to the good conditions and relatively low priority status of the B-Taylor Allotment, the establishment of formal rangeland monitoring studies is not necessary in the foreseeable future. It is

recommended that the allotment receive use supervision every one or two years during or just after the grazing use to ensure that no significant grazing related resource problems are occurring.

2. Plant community objectives for B-Taylor:

- At least maintain indefinitely the current ecological condition rating for all of the different SWA's within the allotment as listed under the ESI section in Standard 1 (with the exception of early seral SWA BT-10, which is located in the power line swath that runs through this allotment, and we would want to improve over time).
- Reduce the young (<125 years old) juniper cover in areas where it is encroaching by at least 75% within the next 10-20 years. Much of this allotment is juniper invaded, including SWA's BT-1, 2, 3, 4, 7, and 8. These areas are now experiencing (or have the potential for) undesirable levels of juniper encroachment and should be treated. A downward trend for much of the allotment will be inevitable if juniper levels are not controlled in the near future.

B-Stastny Allotment: Grazing use of this allotment is relatively low and the condition of the allotment is dominated (85%) by late seral/PNC vegetation. Although the trend is largely upwards to static in most of the allotment, juniper encroachment most likely will cause a downward trend if not controlled in the near future. Given this, the allotment specific recommendations are as follows:

1. Due to the good conditions and relatively low priority status of the B-Stastny Allotment, the establishment of formal rangeland monitoring studies is not necessary in the foreseeable future. It is recommended that the allotment receive use supervision every one or two years during or just after the grazing use to ensure that no significant grazing related resource problems are occurring.

2. Plant community objective for B-Stastny:

- At least maintain the current ecological condition rating for all of the different SWA's within the allotment (with the exception of early seral SWA BT-10, which is located in the power line swath that also runs through this allotment, and we would want to improve over time), as listed under the ESI section in Standard 1.
- Reduce the young (<125 years old) juniper cover in areas where it is encroaching by at least 75% within the next 10-20 years. In particular, SWA S-2 is in need of treatment in this allotment.

Warlow Allotment: Grazing use of this allotment is also relatively low, and the condition of the allotment is dominated (92%) by late seral/PNC vegetation. Juniper encroachment will most likely cause a downward trend if it is not controlled on this allotment in the near future. Given this, the allotment specific recommendations are as follows:

1. Due to the good conditions and relatively low priority status of the Warlow Allotment, the establishment of formal rangeland monitoring studies is not necessary in the foreseeable future. It is recommended that the allotment receive use supervision every one or two years during or just after the grazing use to ensure that no significant grazing related resource problems are occurring.

2. Plant community objectives for Warlow:

- At least maintain the current ecological condition rating for all of the different SWA's within the allotment as listed under the ESI section in Standard 1.

- Reduce the young (<125 years old) juniper cover in areas where it is encroaching by at least 75% in the next 10-20 years. In particular, SWA's W-2, 6, 7, and 9. These areas are now experiencing (or have the potential for) undesirable levels of juniper encroachment and should be treated. A downward trend for much of the allotment will be inevitable if juniper levels are not controlled in the near future.

* * *

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Determination

(X) Existing grazing management practices and/or levels of grazing use on the Bryant-Taylor (#0857), Bryant Stastny (#0856), and Warlow (#0831) allotments promotes achievement or significant progress towards the Oregon Standards for Rangeland Health and conform with the Guidelines for Livestock Grazing Management (Appendix 1).

( ) Existing grazing management practices and/or levels of grazing use on the Bryant-Taylor (#0857), Bryant-Stastny (#0856), and Warlow (#0831) allotments will require modification or change prior to the next grazing season to promote achievement of the Oregon Standards for Rangeland Health and conform with the Guidelines for Livestock Grazing Management.

/s/ *Mike Bechdolt* (Acting Field Manager) 3/28/07

Field Manager, Klamath Falls Resource Area Date

Photo taken 7/25/06 in SWA BT-12. This is Captain Jack Lake itself, which is a classic spikerush (*Eleocharis*) vegetation community in PNC condition.