Draft

Potential Wallowa County Economic Impacts of the Reduction or Elimination of Cattle Grazing in the Joseph Creek Rangeland Analysis Area (JCRAA)

Bruce Sorte, OSU Agricultural & Resource Economics Department
John Williams, OSU Extension Service

Issue

A pending lawsuit that seeks to reduce or eliminate grazing in the Joseph Creek Rangeland Analysis Area (JCRAA) has the potential to negatively impact the Wallowa County economy. This paper estimates the potential economic impacts of the reduced availability of public grazing land that may follow from the lawsuit. We describe the contribution of grazing to the Wallowa economy, project possible business reactions to the reduced grazing options, and suggest some ways to mitigate at least the short run impacts. This analysis is brief and relies on estimates made by parties affected by the decisions. It has been reviewed by parties that are not affected by the decisions.

Wallowa County Economy

Wallowa County has a $280 million economy that depends about equally for a third of its economy on natural resource based production (e.g. cattle ranching and wood products), a third on tourism/second homeowners/retirees (e.g. retail sales and construction), and a third on all other goods and services businesses (e.g. bronze foundries). Wallowa County's real average earnings per job have slightly declined over the last 30 years while the U.S. and Oregon average earnings per job have increased. Wallowa County's real average earnings per job are 52% of the national average and 58% of the Oregon average.[1]

Reducing the land available for grazing can cause ranchers to reduce herd sizes, use rangeland that could have been used to grow their operations to offset this loss, or terminate their operations. There are two main concerns related to any economic shock, how it affects individual producers and consumers and how it affects the general health of the economy and community. The two concerns are closely linked. In this case, individual producers will experience lost income by selling cattle prior to the cattle reaching their optimum weight and/or experience much higher costs of purchasing feed or pasture and the producers will lose a major portion of their capital investment as they liquidate their breeding stock, which have been developed in many cases over generations. Our estimate of the short run individual losses of producers is $1.3 million dollars. A detailed summary of the losses is included in companion report *The Local Monetary Costs of the Wallowa-Whitman National Forest in Wallowa County, Oregon to Cattle Grazing* by John Williams, OSU Extension Service, as Attachment 1.

[1]Smith, Gary 2006. WSU Northwest Income Indicators Page (1969-2004 data). http://niip.wsu.edu/oregon/load.NiipReport.

This report focuses on the county-wide economic impacts of reduced grazing in the JCRAA. While individual producers will experience reduced revenue due to higher costs and selling cattle before they are ready, the Wallowa County economy, in the short run will actually experience an increase in cattle sales revenue as a one time impact of the breeding stock being sold is added to the normal cattle sales, albeit at a lower weight. Also in the short run, if some ranchers sell their ranches for residential development, there could be an increase in the construction industry.

Whether or not the increase in construction will benefit builders and suppliers in Wallowa County is uncertain. Builders may perceive the increased construction as temporary so may not permanently increase their capacity. To the extent local businesses are not expanded, at least a portion of the construction work will be awarded to contractors from outside the county. Ranches sold for residential development are likely to be sold as 160+ acre parcels to people who visit intermittently. So, there will not be very many new homes and at best their longer term economic impacts will be very similar to a small increase in tourism. Any continuing economic benefits from that type of residential development to the county may be quite modest. If future owners lease out their land, it is not expected to be for cattle ranching. There may be some hay production that takes place.

In the long term, the decline in ranching will reduce the whole economy. There are conflicting opinions about the ability of a natural resource based economy to restructure enough to overcome this type of shock. A good deal of speculation has been expressed as natural resource based industries have contracted in rural areas of the West. The speculation suggests that other industries can be recruited to replace the natural resource based industries. There are very few successful examples of this happening. Typically, the recruited industries have lower wage scales (e.g. tourism related service industries) than the natural resource industry that was lost and they often leave when a less expensive source of labor can be found (e.g. call centers).

Most recently this type of speculation has been tested in Oregon’s timber industry where harvests on public lands were reduced from their 1980’s levels by more than 60%. Numerous alternative industries were suggested to mitigate the negative impacts of the reduced logging and mill closures on rural economies. Projections of recovery from losses in the timber industry and the ability to retrain workers for the new industries were far too optimistic.[2] If average earnings per job and income source comparative data are considered in relation to Oregon and U.S. indices, rural Oregon has never recovered from the recession and policy decisions of the 1980’s. When a natural resource based industry like cattle ranching declines, the local economy contracts and is likely to stay smaller.

[2]Helvoigt, Ted L., Darius M. Adams, and Art L. Ayre 2003. “Employment Transitions in Oregon’s Wood Products Sector: During the 1990’s.” *Journal of Forestry* (June 2003): 42-46.

Economic Effects

While in the short term, the impacts of reduced grazing will be varied, the long term impacts will be negative and persist. The primary impact of removing grazing leases in the JCRAA will be a reduced production of 1,800 – 4,200 cattle in Wallowa County. If only the cattle which are dependent on the JCRAA grazing are sold and not replaced, the reduction will be approximately 1,800 cattle. If the reduction causes ranchers' business operations to lose the economies of scale to at least break even, they may sell all their cattle and go out of business. This worst case scenario reduction would mean 4,200 fewer cattle would be produced in Wallowa County each year.

To project these losses throughout the county's economy, we used an IMPLAN (*IM*pact *PLAN*ning) input-output model of the Wallowa County economy to estimate the negative impacts to all the other affected economic sectors in the county. The economic effects are summarized in Table 1. The three types of effects are noted; 1) direct effects or sales by ranchers, 2) indirect effects or sales by suppliers, and 3) induced effects or household expenditures of income received while working in the ranching or supplier industries. The effects are further categorized by; 1) output or total sales, 2) value added or income changes, and 3) employment or full and part-time jobs. These effects are significant and we are not aware of any options to replace this reduction of a basic industry in Wallowa County that have a reasonable chance of offsetting the breadth or depth of this economic shock.

Table 1. Estimated Economic Effects of Reducing Wallowa County Cattle Production by reducing 1,800 to 4,200 Mother Cows

	Direct Effects	*Indirect Effects*	*Induced Effects*	*Total Effects*
Output	**$1,258,600 - $2,936,733**	**$780,088 - $1,820,206**	**$67,716 - $158,003**	**$2,106,404 - $4,914,942**
Value-Added	**$124,898 - $291,428**	**$333,620 - $778,448**	**$43,681 - $101,922**	**$502,199 - $1,171,798**
Employment Full & Part-Time Jobs	**20 - 47**	**11 - 25**	**1 - 2**	**32 - 74**

Options to Reduce the Negative Economic Impacts

There are some ways that this economic disruption could be lessened both in the short and long runs through timing when the grazing restrictions go into effect. It would be helpful, if any grazing adjustments could be done in the winter with six months advance notice. In addition, providing alternative grazing rights on public land, at least for five to ten years, would provide the ranchers and community a chance to adjust more smoothly to the economic shock. Addressing the concerns related to grazing in terms of restoration programs supported by the public agency and provided by the ranchers, as has been done in many other areas, can significantly reduce the negative economic impacts.

Summary

Wallowa County has adapted to repeated economic shocks to its natural resource based industries over the last 25 years. To some extent, the baby boomers' recreational expenditures on tourism, second homes and now retirement have partially cushioned some of those shocks. The current levels of recreational spending in real dollars are not likely to continue indefinitely.

Cattle ranching has been an important stabilizing and basic sector of Wallowa County's economy through the decline of the timber industry. It may help the County weather the eventual slowing or decline of the recreation industry.

Advanced notice of major changes in public policy like reducing grazing permits is essential to allow private producers and communities to adapt to changes in production options and capacity. Finding a way to meet both conservation and production goals on issues like cattle grazing is "a" if not "the" critical variable in determining the long term economic viability of the Wallowa County economy.

Attachment 1

The Local Monetary Costs of the Wallowa-Whitman National Forest in Wallowa County, Oregon to Cattle Grazing

John Williams, Oregon State University Extension Service

Frederick W. Obermiller*, Oregon State University

This analysis was done in response to the potential injunction requested by the Center for Tribal Water Advocacy in July 2006 which could remove all grazing from National Forest lands in the county, particularly those permittees under the Joseph Creek Allotment Management Plan (AMP). It is intended to discuss several of the key findings in layman's terms. A copy of the complete analysis is available from the Wallowa County Extension office, 668 NW First Street, Enterprise, OR. (541) 426-3143.

The analysis is for the cattle grazing in the Joseph Creek AMP area of the Wallowa-Whitman National Forest in Wallowa County. It is based on information received from the Forest Service and a group of local permittees. This study estimates the private producer impacts of reduced availability of public grazing land and is combined with the county-wide economic impacts which are summarized in ***Potential Wallowa County Economic Impacts of the Reduction or Elimination of Cattle Grazing in the Joseph Creek Rangeland Analysis Area (JCRAA)*** **by Bruce Sorte, OSU Extension Economist and John Williams, OSU Wallowa County Extension Staff Chair.**

Following are the facts and assumptions the analysis is based on:

It is estimated that 4,200 cattle are owned by the 12 permittee holders of active Forest grazing permits in the Joseph Creek AMP area. There are approximately 2,100 cows from these permittees that spend time on the Wallowa Whitman Forest at some time during the year. During the month of August (when the gathering would occur) there are approximately 2,100 cattle on the permits.

If the cattle are removed (2,100 head) 1,460 of those that graze during some part of the year on the Forest would have to be liquidated before winter. The other 640 would require additional feed for approximately three months but only in 2006.

Number of Permittees:	12
Number of total Cattle owned by dependent ranches	4,200
Number of Cattle that spend time on Forest during the year	2,100
Number of Cattle on Joseph Creek federal land in Aug 2006	2,100
Number of Cattle sold due to loss of federal grazing land use	1,460

Gathering and Marketing

Since the gathering of the cattle would occur during the haying and harvest season additional labor would be required ($21,000). There would be additional trucking costs for the liquidation of the breeding stock ($3,150). There is also additional pasture or hay cost for the cattle removed but not sold, immediately $118,580. Total additional operating costs are $283,604. (Table 1).

*This study is based on the methodology and format originally developed by Fred Obermiller in the 1990 report – The Local Monetary Costs of the Wallowa Whitman National Forest in Wallowa County, Oregon to Cattle Grazing.

Table 1. One-Time-Only (CY 2006) Projected Financial Costs to the Federal Land Dependent Subsector in Wallowa County, Oregon Due to Forced Sale of Livestock Potentially Removed from Wallowa-Whitman National Forest Grazing Allotments*

PRELIMINARY AND SUBJECT TO CORRECTION

Forced Additional Herd Liquidation Cash Costs (dollars)	
Labor and Marketing Costs	
Gathering 2,100 Head of Stock prior to late fall, 2006[1]	$21,000
Trucking Liquidation Herd (1460 Cows and 58 Bulls) to Market[2]	$3,150
Total Additional Labor and Marketing Costs	$24,150
Additional Pasture and Hay Costs for Retained Stock	
Cow-Calf Pairs between August 1 and November 1, 2006[3]	$112,100
Retained Bulls between August 1 and November 1, 2006[4]	$6,480
Total Additional Pasture and Hay Costs	$118,580
Additional Calf Death Loss[5]	$37,422
Additional Income Taxes[6]	
Federal	$76,443
State	$27,009
Total Additional Income Taxes	$103,452
Total Additional Operating Costs	$283,604
Forced Additional Herd Liquidation Account Costs (dollars)	
Additional Losses in Sale of Liquidated Stock	
Bred Cows [7]	$805,770
Herd Bulls [8]	$75,400
Underweight Calves Sold as Weaners in 2006[9]	$178,677
Total Additional Stock Liquidation Value Losses	$1,059,847
Total 2006 loss to Producers	*$1,343,451*

1 Additional labor costs are for hired hands at $10.00 per head gathered. Of the hired hands 30% are local (Wallowa County) and the remaining 70% are nonlocal (nearby counties and states).

2 Additional trucking costs are for the forced sale of breeding stock, above and over costs normally experienced due to routine sales of calves and culls. These trucking to sales market costs are estimated to be $4.50 per head. It is estimated that 20% of the truckers

would be local (Wallowa County) and the remaining 80% would be nonlocal (nearby counties and states)

[3] Pasture rental and/or hay purchase at $20.00 per pair per month or $40/month for Hay for 2,100 pairs (all in Wallowa County).

[4] Pasture rental and/or hay purchase at $30.00 per bull per month or $40/month for Hay for 200 bulls (all in Wallowa County).

[5] Represents a 3% death loss on a total calf crop prematurely removed from the Wallowa-Whitman numbering 2,100 (95% of the cows removed are assumed to have calf at side), or 57 head weighing 550 lbs. and valued at $660 per head ($1.20 /lb.).

[6] The net income was calculated taking the premature sales; cows - $537,180 + bulls - $52,200 = $589,380 minus the extraordinary costs; gathering and trucking - $24,150, pasture and hay - $118,580 and calf death loss - $37,422. The net additional income in 2006 is $409,228. A 6.6% tax rate is used in calculating additional Oregon income taxes due for CY 2006, and a 20% marginal rate is applied to CY 2006 Federal income taxes due for net additional receipts from the 2006 forced herd liquidation.

[7] Cull cows are estimated to weigh 1,050 lbs. and are sold for $0.40 per pound (1,279 head). The bred cow price is the prevailing market price in Wallowa County at this time. All sales are assumed to be made to out-of-county buyers.

[8] Assumes an average selling weight of 1,800 pounds and price of $0.50/lb. (58 head). Herd bulls purchased @ $2200 in 2005. All sales are assumed to be made to out-of-county buyers.

[9] Assumes an average selling weight of 350 lbs. and selling price of $1.20/lb. (1585 Head). All sales are assumed to be made to out-of-county buyers.

Table 2. Projected Perpetual Revenue Losses in the Wallowa County, Oregon, Federal Land Ranching Subsector Assuming Elimination of Grazing Privileges on the Wallowa-Whitman National Forest *

PRELIMINARY AND SUBJECT TO CORRECTION

Carrying Capacity (head)	
Number of Brood Cows[10] and Herd Bulls	
Cows on Local Ranches with Grazing Permits	4,200
Cows Grazed on JCAMP Permits	2,100
Cows from Grazing permits retained on private land	300
Net Cow Displacement if JCAMP Permits Withdrawn	*1,800*
Bulls on Local Ranches with Grazing Permits[11]	168
Bulls Grazed on Permits	84
Bulls Needed if Permits Withdrawn	96
Net Bull Displacement if Permits Withdrawn	*72*
Number of Calves Available for Sale	
From Cows Currently Grazed on JCAMP Permits[12]	1,995
From Cows Retained if Permits Withdrawn[13]	285
Net Calf Displacement if Permits Withdrawn	*1,710*
Annual Value of Foregone Cattle Sales (dollars)	
Displaced Calves (@ $660/head)[14]	1,128,600
Displaced Cull Cows (@ $530/head)[15]	113,400
Displaced Cull Bulls (@ $900/head)[16]	16,200
Total	1,258,600
Present Value of Foregone Cattle Sales (dollars) for 25 years	
At 6% Discount Rate	$17.05 million
At 8% Discount Rate	$14.51 million

[10] Cows include yearling replacement heifers usually retained on base property.

[11] Assumes a 25:1 cow-to-bull ratio.

[12] Assumes a 95% weaning rate relative to cow exposure. Two permittees are taking nonuse. This year, would assume return of additional 500 calves in future.

[13] Assumes a 95% weaning rate relative to cow exposure.

[14] Assumes average selling weight of 550 lbs. at $1.20/lb.

[15] Assumes an average selling weight of 1050 lbs. at $0.40/lb. and a 15% culling rate.

[16] Assumes a 1,800 lb. selling weight at $0.50/lb. and a 25% culling rate.

Stock Liquidation

The sale of the cows and bulls which would usually be sold as breeding stock will be as hamburger culls, which is at a much lower price than breeding stock. In addition, the sale of the calves when they are lighter would reduce ranch revenues in 2006. The loss due these sales is $1,059,847.

Moving the livestock from the high mountains down to the dryer, hotter private land in the heat of the summer will increase death loss in the calves. This is estimated at an additional 3% death loss. (Table 1)

Total costs 2006

The total additional cost of gathering and marketing those cattle sold, and the feed cost of those cattle retained is $142,730. The stock liquidation value loss and increased death loss of removing cattle from the public lands is $1,097,269. The additional income tax estimates is $103,452. All these direct costs and lost revenues are incurred in 2006 (Table 1) and total $1,343,451.

Long term costs

The future foregone Wallowa county cattle sales is based on the reduced carrying capacity of permittees (by 1,800 head) and the expected reduction in weaning rate due to the loss of high mountain pastures during the heat of the summer. This annual loss of $1,258,600 would persist at least as long as the JCAMP area of the National Forest remained closed to cattle grazing. (Table 2)

Perpetual Impacts

The effects of reduced overall cattle capacity, due to loss of grazing privileges on the JCAMP, were evaluated in two stages. The first stage is the temporary or one time only adjustments of gathering, cattle sales and the associated economic activity. During this time there are both increased spending and revenue, however, the increase in revenue is much lower than it normally would be if the cattle were allowed to mature in the fall and if breeding stock could be sold at full value.

The second stage is that time after the liquidation expenditures had ceased and the economy would remain at a reduced level of activity. This analysis has not projected the extent to which the permittees could offset their long term income losses from the reduced sales. These ranchers are over 50 years old and while they may ranch well into their 70's, the likelihood that they would retrain for other occupations is low. Many of the permittees would be expected to retire early on a much reduced income or attempt to continue to ranch a much smaller operation that would not supply an adequate income.

During the first period (through 2006) the federal land dependent ranches would lose roughly $111,954 in additional costs and gross sales per ranch. The local per capita personal income for each Wallowa County resident would decrease on the average $61. Also during this first period the local gross economic activity would fall by $1.84 million in sales.

During the second period (after 2006) the federal land dependent ranches would lose roughly $104,883 in annual gross sales per ranch. The local per capita personal income for all of Wallowa County residents would decrease $70. The local gross economic activity for all of Wallowa County would fall by $2.1 million.

Miscellaneous

There are many things that are of economic importance that were not included in this analysis. Two of these of major importance are:

The cattle that would be sold are the genetic base that these producers have spent considerable time and money developing. They are cattle familiar with the county and know where the water holes, salt licks, and gates are placed. This not only makes the ranchers ability to manage easier it also improves distribution of livestock and aids in proper watershed management.

The fact that many of these ranchers will not be able to survive with the reduced carrying capacity will force some of them out of business is not analyzed. While some properties may be combined, some current ranchers may be permanently dislocated.