THE ECONOMIC IMPACT OF PROPOSED LIVESTOCK GRAZING REDUCTIONS ON A STANLEY BASIN C&H ALLOTMENT PERMITTEE

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The Sawtooth National Recreation Area Stanley Basin C&H Allotment Management Plan Draft Environmental Impact Statement (DEIS) was nearly devoid of economic analysis of proposed alternatives. In an effort to provide USDA/Forest Service personnel with economic impact information concerning the proposed action, a project was recently undertaken by the University of Idaho Extension System. This project involved an analysis of an individual permittee's financial situation and was undertaken using a computerized financial analysis package known as FINPACK (Hawkins, etal. 1987). The base situation (financial and physical resources of the ranch as it is currently being operated) was developed and compared with management options in dealing with the proposed action. This paper provides a summary of the results of this analysis and uses this as a basis for estimating community economic impacts. Comments concerning economic analysis shortcomings of the DEIS are also included.

Procedure

The process involved the permittee developing financial information and production records concerning the current ranch operation. This information was input by the permittee into the FINPACK program. Alternative management strategies were developed based upon the number of cattle the ranch could run on privately-owned pasture and raised hay production. The impact on costs and returns of alternative management were compared with the current situation of the ranch operating with the permit. The permittee, in consultation with University range specialists and county agricultural agents, provided estimates of the number of cattle he could run given the level of reduction proposed in the DEIS.

Two separate scenarios were prepared with regard to market prices and asset value of ranches. These were the long-term average prices of $75 per hundredweight for steer calves and $65 per hundredweight for heifer calves, with ranch assets valued at $1,000 per AU. The higher current price situation was also included as a separate scenario. This included $95 per hundredweight prices for steers and $90 heifers, with ranch assets valued at $1,500 per AU.

After the intial FINPACK runs were completed, adjustments were made to the records based upon inventories and production experience. This validation process resulted in the alternative presented here.

Once the permittee-level impacts on revenue and expenses were estimated, efforts were also made to estimate the economic impacts on the economy of Custer County. This approach is summarized in the second section of this paper.

In addition, a review of the minutes and materials from meetings of the the Salmon River Coordinating Committee was undertaken. Several economic factors worthy of presentation to decision makers were derived through this effort and are summarized in the final section of this paper.

Given the confidential nature of the financial and production information of the subject permittee, efforts are made to maintain anonymity to the permittee. No details concerning total number of cattle that the permittee operates, financial factors specific to the operation, nor specifics on where, how or when adjustments will be made are presented in this paper. Adjustments to the base herd and the impacts on gross revenue and expenses are presented, as well as the impact on asset and liability values and net worth. Because of the individual scope of the analysis and the unique combination of financial and production resources available to Stanley Basin Association members, no attempt is made to expand the impacts to the other 6 permittees in the association. Printouts and data will be made available to USFS personnel, if approved by the permittee.

Permittee Impacts

Background

The proposed reduction in grazing preference in the Stanley Basin C&H Allotment made several options apparent to the permittee. First, they could continue to run on the allotment with one third of the number of cattle that they currently graze. However, due to the distance from Challis, the possibility of increased riding and the same fees for an association rider, this would not be a viable option for this permittee.

Second, the operation could discontinue grazing in Stanley Basin, and lease private pasture and feed additional hay to provide the forage lost due to the proposed action. This option would maintain herd numbers at current levels. Due to the fact that private forage resources are limited in Custer County, this option was not seriously considered.

Third, the operation could cut back cow numbers to a level that could be carried on deeded land in the Challis area.

Given the financial resources and productive capacity of the deeded land, this was the option selected and used as the basis for further analysis.

Balance Sheet Impacts

Based upon the production and existing acreage of privately-owned pasture and known carrying capacities of these lands, it was estimated that 157 head of cattle would have to be sold. This would allow the remaining animals to be carried on deeded land during the period when grazing in Stanley usually occurs.

Long-term Price Scenario (Conservative): The sale of the cattle will generate immediate income above current levels of sales of calves and cull livestock. Given the present cattle market it is estimated that this will generate $78,500 in revenue ($500 per cow). It was felt that the most appropriate use of these funds was the retirement of long term debt on the ranch. Since the cattle are carried as intermediate assets on the balance sheet, and long term debt is a liability, the net result of this sale is as follows: (Assets minus Liabilities equals Net Worth)

Reduce Intermediate Assets	$78,500
Reduce Long Term Debt	$78,500
Change in Net Worth	0

However, in the long run, the action will result in a negative impact on ranch assets and consequently, net worth. Ranches in the Intermountain West are listed and sold on the basis of animal units (AU) of carrying capacity. Current real estate market listings and sales reports in Idaho indicate ranches selling for between $750 and $2,000 per AU of ranch carrying capacity. It was felt that given this range and existing market conditions in the Challis area, a logical ranch value would be $1,000 per AU. Given this value and the reduction in ranch carrying capacity due to the Stanley Basin proposed action, the value of ranch assets and net worth would decline by $157,000.

It should be noted that the value of grazing permits (whether recognized by USFS or not) has not been included in this analysis. These permit values have been capitalized into the value of most ranches which use public lands and may be included in the asset value of the subject ranch mentioned above. For a complete discussion on the history of permit value and basis for them, see Gardner (1962) and Rimbey (1989).

Current Price Scenario (High): As no changes were made in the value of cattle sold, the sale will result in $78,500 of revenue being generated. However, the increase in the value

of ranch assets from $1,000 per AU to $1,500 per AU results in ranch asset value and net worth declining by $235,500.

Annual Revenue and Expenses Impacts

Long-term Price Scenario (Conservative): With the reduction in the number of cows that the ranch can support, annual revenue and operating costs would be expected to decline. On an annual basis revenue from the sale of calves and cull cows and bulls is expected to decline by $40,000. This assumes a declining long term market trend for beef, with calves selling for an average price of $65 per hundredweight and calf weaning weights averaging slightly above 500 pounds. The current calf market is running in the $90 to $100 per hundredweight range.

With the decline in cow numbers operating expenses are also expected to fall. Veterinary expenses, feed, livestock supplies, marketing, fuel, repairs, hired labor, and interest on operating capital would all be expected to decline. Results from the FINPACK analysis indicate annual long run cash operating expenses would decline by $35,000. The net impact on ranch net profit would be a decline of about $4,300 per year, as a result of the proposed reduction.

Current Price Scenario (High): Under the higher prices mentioned earlier, the impacts on gross revenue and net profit will be greater than in the conservative estimates. Gross revenue will decline by $58,000 per year. There will be little or no change in cash operating expenses from the levels mentioned above, and net profit will decline by $21,500 per year.

Area Economic Impacts

The reductions in gross revenue and operating expenses will also impact the economy of Custer County. Cattle producers spend money within the local and regional economies for many of their operating expenses. Purchased feed, veterinary expenses, marketing and trucking expenses, hired labor, taxes, insurance, utilities, interest expenses, machinery and vehicle purchases and others are examples of expenses associated with Custer County livestock production. Many of these items are spent in the local area. The direct spending from the livestock producer will generate income, and eventually respending by other businesses in the local area.

This spending and respending within a local economy is known as the multiplier effect. The reductions in gross output from the subject ranch will be felt in other sectors of the Custer County economy. Although no input-output research is available that is specific to Custer County, several have

been undertaken in other counties within Idaho. A primary data collection model was developed in Blaine County, a "neighbor" to the south, in 1980. Results from this model (Long and Meyer, 1982) indicate an output multiplier of 2.16 (with households) for the Livestock Agriculture sector of the economy. Realizing the limitations of this data in an application to Custer County, it is felt that an output multiplier of 1.5 to 2.0 would be most appropriate, with a conservative estimate of 1.6 used in this analysis. With the estimates of reductions of $35,000 (long-term price scenario) and $58,000 (current price scenario) in gross revenue, the impact on the Custer County economy would be between $56,000 and $93,000 per year. This is strictly the impact of the one livestock permittee. The revenue resulting from the sale of cattle and calves in Custer County was $8.9 million during 1987 (U.S. Dept. of Commerce, 1989).

Assuming a ten year planning horizon for the Stanley Basin C&H Allotment Plan and a discount rate of 6 percent, the present value of the stream of lost revenue for this permittee can also be calculated. In terms of the conservative scenario, this amounts to slightly over $217,000 for the 10 year period ($35,000 per year for 10 years at 6 percent). Using the higher price scenario results in an estimate of $360,000 in lost revenue for the 10 year period ($58,000 for 10 years at 6 percent). If adjustments, financial conditions and herd size are similar for other six permittees within the Stanley Basin Association, the magnitude of this reduction is fairly substantial.

Economic Analysis from SRCC Proceedings

Several facts should also be presented in relation to the economic analysis (or, lack thereof) in the DEIS. First, the document makes very little mention of the Salmon River Coordinating Committee (SRCC). This group was composed of a fairly broad spectrum of interests dealing with the cattle/fish situation in Stanley. It met for a period of about 2 years (1986-1987) to attempt to derive management options to resolve conflicts. Individuals and agencies represented a range of interests from the permittees to the Sho-Ban Indian Tribe. A wide range of technical expertise came from the Environmental Protection Agency, Department of Transportation, Department of Fish and Game, USFS, University of Idaho and other agencies. Mention of the composition of this group and the alternatives derived through the process should be made in the DEIS.

Working groups were developed from the SRCC, addressing issues such as riparian area management, recreation, State Highway 21/75, unauthorized use, grazing management and special uses. The riparian work group took the lead and

developed a proposal that was presented to the entire membership of SRCC. Several of these are included in the DEIS. However, the consensus of this broad-based group was that if adjustments in livestock use were necessary, compensation for the loss of grazing permits was mandatory. Even though the USFS does not recognize permit value, this alternative was developed and considered by the group as the only practical means of minimizing conflicts. If the USFS chooses to ignore a consensus of a broad range of interests as represented by SRCC, costly conflicts and administrative appeals will occur before resolution of the Stanley Basin Allotment Plan takes place.

Clawson (1975) mentions several criteria that must be considered in any discussion of forest/range policy:

Physical and biological feasibility and consequences
Economic efficiency
Economic equity
Social acceptability
Operational Practicality

Economic efficiency (do benefits exceed costs?), equity (who gains? who loses? how much? and should the losers be compensated?) and social acceptability appear to be lacking in the DEIS. The SRCC document made an attempt to assess the efficiency question (B/C analysis), the equity issue (compensation for grazing rights lost) and the social acceptability question (through consensus of a broad-based group) in deriving a management alternative for the Stanley Basin Allotment. Even though the USFS does not recognize the value of grazing permits, this alternative should be presented in the DEIS.

Initial economic analysis undertaken during the winter of 1987 revealed that the present management situation had the second highest ratio of benefits to costs in the five alternatives considered (1.44:1). A full-fencing alternative (Alternative 2) had the highest B/C ratio at 1.52:1. The core area proposal (comparable to DEIS proposed action, but with compensation for permits) had a ratio of 1.22:1 (See Rimbey, 1989a).

Apparently changes were made in the values used, fish response functions and possibly other factors used in this analysis, between the time that it was presented to SRCC and the publication of the DEIS. At the very minimum, economic analysis in the DEIS should include the core area proposal with compensation for grazing losses, as specified in the management plan developed by SRCC. Specifics should also be provided on assumptions used in deriving benefit/cost ratios presented in the DEIS. What is the value of fish used in the analysis? What is the cost of grazing reductions? What are the impacts on the regional economy? Should the

"losers" be compensated? If so, how much? What is the net impact of increased recreational use of the area? How will the impending fuel crisis impact RVD projections? What is the impact on state and county government receipts? What is the impact on the local tax base and resulting tax revenue from the declining ranch values as illustrated in the case study presented here? What impact will this have on the provision of government services provided by Custer County?

Summary

The financial impact on a Stanley Basin C&H Allotment permittee indicates substantial losses in asset values and annual operating revenue as a result of adjusting his operation to the proposed action. The lost revenue stream associated with this reduction results in a loss of $200,000 to $330,000 over a ten year period. The impact on the local economy of this level of revenue loss also is quite dramatic. Changes are noted between economic analysis performed earlier in the planning process and those presented in the DEIS. Questions are also posed concerning their validity.

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