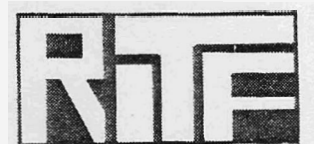


Appraisal of Bureau of Land Management Responses to
Range Improvement Task Force Public Comments on
Grazing Environmental Impact Statements



Cooperative Extension Service
Range Improvement Task Force



APPRAISAL OF BUREAU OF LAND MANAGEMENT RESPONSES
TO RANGE IMPROVEMENT TASK FORCE PUBLIC COMMENTS
ON GRAZING ENVIRONMENTAL IMPACT STATEMENTS

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INTRODUCTION

Three final grazing environmental impact statements (ES) were published by the Bureau of Land Management (BLM) in New Mexico by the fall of 1979. Each final statement was preceded by a preliminary draft statement, a request for public comment, public hearings, and some by a response by the BLM to the written comments.

The Range Improvement Task Force (RITF) of New Mexico State University responded as a group and presented its comments at the public hearings on the East Socorro and East Roswell draft environmental statements. How well public comments by the RITF are being incorporated into final statement is evaluated in this report. Evaluation procedures were to: a) examine each comment made by RITF, b) determine what in the draft ES gave rise to the comment, c) examine the response to the comment by BLM, d) evaluate the adequacy of the response in view of the original comment and draft ES information, and e) determine if, in fact, the final ES adequately reflected the changes suggested in a) and acceded to in c).

The purpose of this report is to make an oversight appraisal of the impact and overall value of responding to requests by a federal agency

for public comment on preliminary program proposals or draft ES statements. Comments made by the RITF are of a technical or scientific multi-disciplinary nature, rather than of an informal single point of view. As such, when a particular comment dealt with facts, the final draft should conform to these facts. On the other hand, the BLM should have some discretion in accepting or rejecting comments that avoided informal opinion.

This report was divided into two major sections concerning the final East Socorro ES and the final East Roswell ES. Each major section was subdivided into a) general comments, b) specific comments if included in the RITF's public statement, and c) appraisal of the adequacy of changes suggested in the final ES's, all by major disciplines of range science, watershed science, wildlife science, and economics.

The audiences for this report primarily include ranchers and others interested in public land problems, and agency officials preparing grazing environmental impact statements.

EAST SOCORRO ENVIRONMENTAL STATEMENT

Range Science

The major area of RITF comment on the East Socorro draft ES was related to range management. Comments addressed vegetation typing and mapping, field methodology and calculations, grazing systems, and other specific problems.

Many of the RITF comments related to vegetation typing and mapping, field methodology, calculations involved, and concern for how the inventory and analysis were actually conducted. In many instances, the description of field methodology was unclear and could not be determined from the

text. Additionally, the RITF pointed out several inconsistencies in table and figures, and inappropriate terminology. The BLM addressed and corrected most of these editorial comments and added, where appropriate, definitions for certain terms.

The choice of the ocular reconnaissance method to determine stocking rate was questioned by the RITF, but no response was given. The RITF questioned the use of this method as the basis for stocking rate adjustments when "trial" stocking rates have been placed on allotments for many years. The Socorro District has since recognized the weakness of this approach and has initiated more intensive range monitoring programs. The use of monitoring programs was not discussed in the ES.

The RITF had few comments on field procedures for collection of data during the range survey. However, several pointed questions were raised as to how the data were used to determine range condition and to calculate carrying capacities. The methodology described for calculation of carrying capacity in the draft ES did not seem to be correct. The response supported the method in the final ES but it was later learned, during a review of the procedure with a BLM range conservationist, that the procedure described was in fact different from the one actually employed. The final ES does not describe the correct procedure used by the BLM to determine carrying capacity.

Comments by the RITF on choice of grazing systems and specifically the need for building in flexibility in moving dates were not adequately addressed. The BLM did concede that the period of time for moving was a starting point; thus, there may be a recognition of the need for flexibility in the future.

BLM responses to specific comments concerning range management in the draft ES were mixed. It seems several RITF comments were either misunderstood or ignored. The lack of reference to Public Rangelands Improvement Act of 1978 was commented upon by RITF members at the public hearing and in written comments on the draft ES. However, no response or reference is given in the final ES to this important law.

Of the 27 responses by the BLM to RITF specific comments, 19 adequately addressed the question at hand. Eleven specific comments that deserved a reply were ignored. In summary, comments provided by the RITF did serve to strengthen the East Socorro ES. Many BLM responses, however, were weak and evaded the central points of the questions asked. In general, BLM responses in this ES were not very satisfactory.

Watershed Science

Watershed responses to the proposed action and the alternatives in the East Socorro ES dealt largely with a Pacific Southwest Inter-Agency Committee (PSIAC) method for sediment yield and empirical methods for streamflow data. Both groups of methods have partial or invalid features and give only gross estimates of the variables. Certainly, these methods do not give the precise information needed for the specific decisions that were made in the ES. Many of the fallacies of these methods were included in the RITF's comments on the preliminary draft statement. The final statement largely ignored the criticisms and suggestions.

The final ES responses claimed that "this method was not used to develop exact values of sediment production, but rather to indicate relative ranges of value changes, as dictated by varying conditions." However, table A-21 gives very specific values such as a watershed having

a total PSIAC Factor Rating of 18 yielding 0.145 acre-feet of sediment per square mile each year. The impacts on water-related resources were not adequately measured or described.

Wildlife Science

In the draft East Socorro ES, it was noted forage allocations to antelope did not reflect updated BLM forage consumption rates, determined by Anderson and Benton in 1978. Updated forage consumption rates were provided to all field officials in Memorandum No. DSC-79-66 from the Director. The BLM responded that when the forage decisions are issued, the forage consumption rates for antelopes suggested in the Memorandum would be used to determine the deductions for AUMs for antelope. Yet, the old conversion factor of five antelope to one cow, and not the updated conversion rate, was used in the final ES.

The draft statement indicated that antelope must go under or through a fence. The comment was made that on rare occasions antelopes have been observed jumping over fences. The BLM responded that literature indicated that antelope in most circumstances negotiate fences by going under or through. The final environmental statement was changed to read "-- antelope usually go under or through a fence --", which adequately addressed the comment.

The draft statement stated that deer numbers in the environmental statement area appeared not to be impacted by livestock grazing. However, cattle numbers were reduced by a ratio of one cow for five deer, as if there were total dietary overlap. A comment was made that the literature indicated that competition between deer and cattle for areas and diets do overlap to a varying extent, dependent upon available vegetation and season. However, cattle and deer seldom compete for 100 percent of the

same plant species on particular areas. The BLM responded to this comment by stating that the range survey determined the AUMs available on both suitable and unsuitable ranges. The wildlife AUMs were subtracted proportionately from AUMs on both suitable and unsuitable range. The forage competition does not overlap 100 percent. However, the percentage of diet overlap of big game and cattle is unknown on the ES area. Without the diet overlap data, forage is allocated to wildlife on the assumption of 100 percent overlap according to the DSC information Memo No. 79-66. The response adequately explains the reasoning used by the BLM to reduce livestock numbers at the 100 percent overlap rate.

Economics

Statements were submitted to the BLM that the tool of Benefit-Cost (B/C) Analysis must be qualified, and benefits from wildlife, watershed, recreation, and livestock production must all be made comparable. This common index would allow aggregation. The methodology of this aggregation must be presented for the credibility of the B/C ratio to be ascertained; without this, the B/C ratio is indefensible and meaningless. The BLM made no effort to correct this deficiency, implying a lack of expertise in the proper usage of the B/C tool in economic analysis.

Inclusion of state and private land into the base for acreage adjustment for the non-Allotment Management Plans (AMP's) is entirely without justification, and this was stated in the public open house. Inclusion of state and private lands obscures the real reductions on BLM lands. When only BLM lands are considered, the percentage reduction is actually 30 percent and not the stated 21 percent. No change from the draft statement to the final statement was noted.

Indirect income multipliers developed for the BLM by the Southwest Research and Development Company should have been made more explicit; the BLM did incorporate their usage properly.

The contention was made that "because the smaller ranches are less dependent on income derived from ranching, they would be less affected by a reduction in grazing use." This clearly is misleading; off-ranch income is typically obtained to supplement ranch income that has proven to be insufficient to meet desired needs. The marginal value of those incremental dollars from the last animal unit (AU) is at least as high to the rancher with a subsistence or small enterprise as it is to the rancher with a larger enterprise. This is obviously double jeopardy. A small operator has to obtain supplementary income and because he obtains the supplementary income, he can obviously afford a larger reduction. This demonstrates the Catch-22 syndrome.

The assumption questioned on page A-47 was not addressed. Data and monitoring are needed to document this crucial contention; utilization data are new. If the BLM does not have this information, then more detailed analysis is necessary before radical changes and reduction can be supported.

The references used in A-50, table A-10 were not further researched, supported, or refuted; all that was done was to eliminate a few of the outliers. This does not lead to increased credibility for the contention of increased vegetation production response.

The extrapolations of A-88 did, in fact, change the efficiency of the operation -- the contractor indicated that he also cautioned against the problems of linear extrapolation over a potentially nonlinear range.

The real problem occurs because the budgets are average information for the particular ranch size category — it is theoretically unjustifiable to extrapolate to different size categories. The original data must be reassessed and reaggregated to the different size classes. **Simple** extrapolation reduces the credibility to the unacceptable range.

In total, the economic input supplied to the BLM in a constructive manner was not adequately considered. Reasons for such dismissal of comments designed to strengthen the analysis are unknown. If the BLM is attempting to work with academia and ranchers, such dismissals must be eliminated before the BLM can attain the stature of a credible management agency.

EAST ROSWELL ENVIRONMENTAL STATEMENT

Range Science

Range Improvement Task Force comments to the East Roswell ES dealt specifically with range inventory methods and a proposed brush control program. Additional comments were provided on proposed grazing management systems and other range improvements.

BLM responses to comments corresponded to portions of the RITF analysis that were underlined by the BLM. Often, a single response was used to address several specific questions (i.e. response 78-4), which did not adequately deal with the question. As an example, an underlined comment concerning the value of reporting forage production data without indicating the variation associated about a mean was not addressed. The BLM responded to only a portion of the underlined paragraph, which actually evaded the central question. That is, there is variability associated with any field-collected data, and this variability should be reported.

In this instance, either the specific points throughout the paragraph should have been addressed separately, or only those parts related to the response should have been underlined.

A proposed brush control program received major emphasis in the East Roswell ES as a tool for improving forage conditions. Three specific questions concerning funding of the brush control program were not responded to. The RITF felt these questions were extremely important, because without adequate funding the proposed action is meaningless. The BLM did respond that if funding were not available, then one of the alternatives or a combination of the alternatives would then be selected.

Herbicides recommended for use in the brush control program are, as was pointed out by the RITF, not approved for use on New Mexico rangelands. The BLM acknowledged this and recognized that another brush control alternative may be necessary if labels are not approved. Other RITF comments on the brush control program concerning grazing deferment, integrating with other range improvements and cooperating with the permittee were adequately responded to.

RITF comments on proposed grazing systems addressed the necessary time requirements for rest treatments to meet the physiological requirements of forage plants. Questions raised were difficult, and definitive answers may not be possible. The BLM response recognized the need to monitor closely any grazing program that may be adopted. Further, the development of a grazing system in consultation with the rancher will enhance the possibility of a workable program.

From the total of 39 specific page-by-page comments, seven resulted in some change or correction in the ES. Two specific comments were

unanswered. In summary, while many RITF comments related to range management were not always answered or given a satisfactory response, there were some direct and perhaps indirect benefits from public input to this document.

Watershed Science

The East Roswell ES also used the PSIAC method and defended its use as follows: "It is an accepted method used by many professional organizations." Unfortunately, the ES failed to identify the professional organizations and the uses for which the method has been accepted. The quoted statement is, therefore, merely a distractor. This ES also claimed that the PSIAC method was correlated and field-tested on 21 watersheds in the western United States. However, close examination of the reference that was given in the ES reveals that the method was not truly verified with the correlation. The ES response disparaged other methods of predicting sediment yield, such as the Universal Soil Loss Equation (USLE). This reflects a lack of understanding of the USLE within the ES. The USLE uses factors similar to those used in the PSIAC method, but the USLE is much more detailed, quantitative, and complete. Contrary to the claims of the ES, the USLE can be used on areas greater than 40 acres. Furthermore, any single method used by the BLM on large, extensive areas should be expected to introduce a great element of error.

In summary, surface water quality and erosion for the ES areas were essentially not evaluated.

Wildlife Science

The specific objective stated in the East Roswell ES was to provide a stable base for the livestock industry. It further stated that this objective was to provide for the improvement, development, and rehabili-

tation of the public land to the benefit of livestock grazing over the long-run consistent with environmental and economic constraints and with the concept of multiple use and sustained yields. The question was asked whether these statements, as written in the purposes and objectives section, actually were based on a multiple-use concept. BLM responded that the purposes and objectives section reflects livestock grazing objectives developed with a multiple-use concept, and that objectives for other uses were not included because the environmental statement is concerned with livestock grazing. Wildlife and resource objectives that can be obtained through livestock grazing management were also included. The BLM's response helped explain the objectives of the ES and adequately addressed the question.

The draft statement noted that approximately 3,500 acres to be included in the prairie chicken enclosures were in poor to fair conditions. It was recommended that vegetation manipulation should be considered within this enclosures to increase their effectiveness for prairie chickens. The BLM responded that, as a result of the analysis of the proposed action, some form of brush control may be identified as necessary within the enclosures to reduce the density of brush species. This option was available under the "Livestock Forage Maximization" alternative and would be considered before a final decision could be made. **Additionally, it** was noted in the draft that 164 tanks consisting of 82 acres would remain unprotected. The BLM responded that an inclusion of enclosure of a small part of every dirt tank was proposed in the MFP Step 1 portion of the planning system. **Fencing a small portion of all 164 tanks would improve**

aquatic habitat and is a consideration under the "Enhancement of Other Resources Value Alternatives." The BLM response to the comments was adequate.

The ES stated that by the year 2000, 3,114 AUMs will be allocated for wildlife, compared with 2,893 AUMs currently available for wildlife. During that same period, 168,000 AUMs of current forage will have increased to 367,442 AUMs for livestock. **Forage allocation to wildlife will have** dropped to 0.8 percent of the total forage available. The question was asked why had the percentage of forage allocation to wildlife been reduced to half by the year 2000. The BLM responded that the forage production is expected to exceed the rate of increase in big game populations, so proportionately, less forage will be allocated to big game. Forage allocations were made for existing numbers of big game. **Potential increases** would be provided for or through consideration of proper use, since it is determined that forage allocations will not be a limiting factor in herd expansions. Numbers should increase only as other limiting factors are mitigated. This response by the BLM, if realized, would be adequate.

The draft ES proposed to manipulate vegetation to reduce brush species, thus increasing big game — specifically antelope. The question was asked whether an increase in antelope hunting permits will compensate for a decrease in deer, coyotes, dove, and quail hunting. BLM's response was that the increase in antelope hunting permits will not decrease opportunities for deer, coyote, dove, and quail hunting. An increase of 200 deer can be expected by the year 2000. Also, the New Mexico Department of Game and Fish predictions for the deer and antelope harvest are based on management unit descriptions and include areas not included in the ES.

Reductions in hunting opportunities for quail, doves, coyotes, bobcats, and rabbits are not anticipated. **The text has been changed to reflect** this information. Brush kill rates of 40 percent should not reduce populations of these species. The BLM's response addressed the question and the final ES text reflects the changes.

The ES stated that there are between 350 and 400 prairie dog towns in the ES area. It further stated that the range of these towns is not extensive, because of past control programs. This implies that few prairie dogs are found in the area. **However, a recent questionnaire** survey within Lea County elicited 167 returns, with 77 responses indicating prairie dogs were present on a minimum of 12,880 acres of state and private lands. The comment was made that the ES indirectly affects private and state lands; therefore, it should include this information and emphasize that prairie dogs may be considered a problem within the ES area. The BLM responded that most of the surveyed ranches probably lie outside the Roswell Grazing District. This is where the BLM charges for the amount of forage consumed on isolated tracts and does not actively supervise livestock use. The proposed action would have negligible effects on these areas, and additionally, none of these prairie dog towns are on public land and thus were not described in the ES. The response by the BLM did not address the issue of conflict between livestock and prairie dogs nor did it change the statement that present towns are not in serious conflict with grazing programs. Since prairie dog towns are a problem on the state and private land, they may soon be, if not already, a problem on the public land that is intermingled with state and private lands.

Economics

The problem of inconsistent units of measurement was identified. The contractor used one unit of measurement in reporting costs, receipts and returns, while the draft and final ES used another. **The BLM response** to this problem dealt with a completely different problem, one of projecting impacts from the ES area to a much larger area. Subsequently, however, the measurement problem was addressed and/or corrected in the final ES.

The market impacts of grazing permit reductions were estimated by the BLM to be \$1,000 per animal unit. A comment was made that there were secondary losses on the remaining AUs of approximately \$200 per AU, as well as some impacts on the ease with which affected ranches could be sold. The BLM response and final ES were to retain the \$1,000 level because "ranch sale records on file in the BLM New Mexico State Office indicate that the per unit values have been static or increasing over the past few years." So far as the statement goes, it partly conforms to an independent study of public grazing values. **It does not conform to** private grazing values. However, the difficulty with this discussion is that a) the loss in value of retained AUs was not included in the wealth-capital change, b) investment values on which returns were measured were left unchanged, c) the reduced salability of the ranch was ignored, and d) only one value was used for the wealth-capital value of an AU regardless of land ownership status.

The comment was made that it was inappropriate to conduct the entire document analysis in the ES area and then shift to the southwestern area and indicate that the economic impacts were insignificant. In the final ES, additional statements were added so that the local eastern impacts were described as well as the impacts in the larger southwestern area.

The observation was made that the draft ES contained only summary statements on economic impacts. The BLM response was that Chapter 3 described in detail the economic impacts that were summarized in Chapter 6. The materials in Chapter 3 of both the draft and final ES were still summarizations of data that are available only in the contractor report. For example, what was involved in livestock sales of \$7,565 in terms of numbers of animal sold by ages and sex, weights by ages and sex, and prices per hundredweight? Neither perquisites nor other ranch receipts were identified as a part of income or receipts. A single number was given for operating costs. There are at least 30 identifiable costs on ranches in southeastern New Mexico that can be organized into at least seven major cost groups. All that was included in both ES's was a single average "operating cost" for each ranch size. There simply was still insufficient data to determine, for example, if the cost changes were valid.

A request was made that sampling procedures used for ranch selections and interviews be described. The BLM response dealt with an earlier area identification problem. Apparently this request was not included in the final ES.

The use of the term "special study region" apparently was deleted in the final ES at the request of RITF. This cleared up some confusion between "study area", "special study area", and "Southeastern region" with the latter being defined as Chaves, Eddy and Lea counties.

Several comments were made about a lack of sampling numbers and identification of averages in the contractor report. The BLM response was that the contractor support document was being revised. **These revised data** were not included either in the draft or final ES and, therefore,

had no impacts on the eventual accuracy of the final ES distributed to the public.

The capital depreciation cost was moved in the final ES so that a net cash ranch income could be reported in the budgets as well as net ranch income. This movement of capital depreciation in the budgeting procedure had no effect on net returns or percentage of return on investment. The basic problem raised was that capital depreciation was excessive in the budgets. The capital depreciation reported in the final ES budgets were compared to data recently available dealing with cattle ranches in the same year and in the same area. The average values by ranch sizes reported by BLM were as follows (with the recently available data in parenthesis): Small commercial ranches, \$9,506 (\$4,355); Medium commercial, \$20,412 (\$6,568); and Large commercial, \$41,962 (\$11,183). The independent study included realistic useful lives of improvements, vehicles, and machinery, and straight-line depreciation based on useful life and the difference between replacement cost and salvage value, while recognizing cost economies of scale. By inflating the depreciation costs from 118 to 275 percent, BLM reported smaller returns and percentage of returns on investments. When these return measures were reduced, the total impacts of changes in the livestock industry because of the proposed action or alternatives were understated. At least, the accounting procedural change of reporting net cash ranch income in the final ES was an improvement over the procedure in the draft ES of reporting only returns.

A comment was made that calving percentages, sale weights, death losses and prices received were held constant on each size of ranch. With the possible exception of prices received, these measurements of receipts were not the same on different sizes of ranches. The BLM response

indicated the contractor report was being revised. An examination of the draft and final ES indicated that the livestock sales per ranch were unchanged -- an obvious impossibility if calving percentages and weights were changed. Further, the livestock sales of all ranches was changed from the draft ES to the final ES. This was accomplished, however, by changing the numbers of ranches in each size class from one document to the other. The draft ES included data for all ranches, including those that were unaffected by grazing cuts (referred to in the draft ES as non-specific ranches). This terminology was the basis for a later comment.

A question was asked as to the basis for the statement that the proposed action would have no significant impacts on the families of workers in industries economically tied to range livestock production. The BLM response was that an input-output model was used and is on file in the Roswell District Office. Nevertheless, the final ES statement was revised to indicate workers would be indirectly affected, but the effects on the regional economy would be relatively insignificant -- a satisfactory revision.

The economic contractor measured impacts on 100 affected ranches, the draft ES on a total of 152 specific (affected) and non-specific (non-affected) ranches. The final ES was revised to conform with the contractor report and data were included in the ES only for the 100 affected ranches. This cleared up some difficulty in tracing numbers through the analysis.

Regarding ASCS cost-sharing, the BLM response was to "see comment 64-5", which was not available in the documents received by RITF. However, appropriateness of the comment (that ASCS cost-sharing for range improvements was mentioned because this has been a source of funds in the past)

was not considered satisfactory. The RITF comment was that it was inappropriate, based on recent and probable future rather than past events. The comment that incidence of investment and maintenance costs for the improvements planned in the proposed action and some alternatives were not included in either a) the draft ES, or b) the BLM response was not dealt with by BLM in the final ES.

The comment was made that the ES suggestion of ranchers diverting cropland to livestock forage production was not economically feasible. This was answered in the BLM response with the comment that the draft ES discussion was one of alternatives rather than suggestions. **Regardless** of whether the cropland diversion was a suggestion or alternative, no analyses were made to determine if this alternative or suggestion were feasible. A new alternative was included in the final ES. This alternative was that subsistence and small-size commercial ranch operators might combine their private lands with those of adjacent larger ranches, to **achieve some scale efficiencies**. This alternative ignores rancher and ranch management situations that would make combinations unacceptable, including problems with the breeding program, feeding program, financing, private property attitudes, and way of life values that mitigate against combinations. **This "alternative" is probably less feasible than the** cropland alternatives in that the combining private lands involves social as well as economic barriers.

Neither the comment that a) smaller ranches with most dependence on public permits and lowest returns were receiving the lowest grazing cuts, nor the BLM response that b) no analysis was made to determine why stocking rates were less on these ranches, adequately addresses the problem. Rather, the speculation was made by BLM that the difference may be due to a combination of factors. To avoid the implication that the reductions

were related to ranch size, this analyses should have been made. In addition, was the BLM statement correct that "amounts of reduction would not indicate levels of condition"? Economically or biologically, the statement is not logical.

The comment was made that comparisons could not be made between sales or returns before and after a change because the "before" involved data for 152 ranches, and the "after", data for 100 ranches. In the final ES, the before and after data were reported for 100 ranches, making percentage change calculations possible.

No response was made to the request for a table of comparisons between short-run or long-run major resource components. All values reported were for the long-run, or the year 2000.

The request for some qualification for using one year of economic data for projecting both short- and long-run economic results was answered by referring to a graph showing the amounts in the short- and long-run of forage, livestock allocation and big game allocations of forages. The BLM response and final ES obviously do not deal with the comment, although they may have had some other problem in mind when the graph was included.

Regarding the Summary, the \$8.5 million figure representing ranch wealth-capital position was retained in the final ES, despite the comment that the values of 65,774 AUMs, or 5,481 AUs in the contractor report multiplied by \$1,000 does not equal \$8.5 million. In the final ES, the reference to 65,774 AUMs was deleted as was the AU number. By using the reduction of 8,606 AUs on lands of all ownerships (table 3-7 in the final ES), in combination with a value of \$1,000 per AU, the ranch wealth-capital position change was actually understated. The value of a public grazing permit was approximately \$1,000 per AU in southeastern New Mexico in

1978. The value of private land sufficient to carry an animal unit was approximately \$2,600. The ranch capital investment value of state land sufficient to carry an animal unit was approximately one-third of the private land value. The wealth-capital impact should have been \$5.1 million for federal AU's and from \$3.0 to \$9.1 million for state and private AU's, depending on the proportion of state and private land that was included in the ranch. The \$8.5 million figure would be correct only if almost all private and state land in southeastern New Mexico were state-owned.

The item regarding the summary statement on ranch income changes in the short-run, which was referred to as a 50 percent decline, was deleted in the final ES. However, the \$1.5 million decline was retained. In the draft ES, this decline was projected for the "short-run", 1980-2000. In the final ES, this same decline of \$1.5 million was projected for the period 1981-1984. In other words, a \$1.5 million decline over a 20-year period in the draft ES was changed to the same amount of decline in a four-year period. No discussion in the BLM response nor the final ES was included for this change.

A portion of the employment impacts stated in the final ES summary was changed from the draft ES. No data were included from the Larry Adcock and Associates report or analysis other than the bottom line on employment. However, the summary statement in the final ES was consistent with the data in the chapter, which was not true in the draft ES.

In summary for the economic portion of this review of the East Roswell ES, about half of the comments that drew a BLM response eventually resulted in substantive changes in the final ES, about 40 percent resulted in little more than cosmetic changes in the final ES, and about 10 percent

were either misunderstood or changes were not made. With the single exception of revising the final ES so that the data dealt with only the 100 ranches that were subject to grazing adjustments, other comments that would have required major changes were mostly rejected. Suggested revision of examples included capital depreciation, the problem with livestock sales, and the request for details of operating costs. A major portion of the RITF comments that dealt with criticism of the economic portions of the Summary resulted in substantial revisions.

SUMMARY OF APPRAISALS

Public response to BLM draft and final environmental statements by the Range Improvement Task Force resulted in a variable action by BLM. Numerous comments were made by the RITF on the subject of range management. While attempts were made in the East Socorro materials to make responses, the central points of the questions being asked were frequently evaded. Responses were not very satisfactory. While many RITF comments were not always answered or given a satisfactory response in the East Roswell materials, it was concluded from a Range Science standpoint that there was some direct and perhaps indirect benefits from RITF input to the document.

Few comments were made by the RITF about watershed procedures and conclusions. In general, the BLM responses were generally unsatisfactory in this area. More detailed comments were made about the wildlife section of both the East Socorro and East Roswell environmental statements. Changes made as a result of the public comment by the RITF were satisfactory in both areas.

The economic portions of the two final environmental statements indicated that the BLM did attempt to respond to many RITF comments. The BLM made some revision to the final ES's, particularly when the data in the draft ES were either misinterpreted later in the same report, or difficulties occurred in relating the economic contractor report to the draft ES.

Overall, the main conclusion was that while it was worthwhile to make public comment on draft ES statements, in general the BLM reaction was to address directly only the less difficult issues. Responses to comments about the East Roswell ES were judged to be more comprehensive and satisfactory than those to the East Socorro ES. This is, perhaps, encouraging because the Roswell ES program followed the Socorro ES program.