

VI. EVALUATION OF ALTERNATIVES

Evaluation criteria identified in Section III were selected based on professional evaluation of the public's response to criteria published in the draft environmental statement. Criteria have been given a degree of importance based on that input and have been applied sequentially to develop the proposed action. The previous section analyzed effects of implementing 10 DES alternatives and the proposed action. Analysis has remained objective to express potential effects associated with allocation of roadless areas. Decisionmaking can and must begin with analysis of probable impacts but must go beyond pure objectivity to a more subjective evaluation of how important the impacts might be.

The importance of various factors associated with the alternative approaches must be evaluated prior to identification of the Department of Agriculture selected alternative. This section of the environmental statement provides the necessary evaluation, utilizing finalized decision criteria found in Section III. Since alternative A does not allocate any roadless areas, it will not appear in this evaluation.

RPA Targets. Maintaining the ability to meet RPA targets for both wilderness and nonwilderness has been identified as a primary criterion to be met in allocating RARE II roadless areas. As pointed out in the previous section of this statement, various alternative approaches meet or exceed the 2015 wilderness, developed recreation, dispersed recreation, and grazing targets. Some alternatives fall short of these targets. 1985 programmed sawtimber targets are not met by most approaches. The following table indicates percent accomplishment of the target and a ranking factor for determining which alternative, overall, best meets the RPA targets. A rank of 10 is assigned if the target is met or exceeded, 9 is assigned if it accomplishes 90 to 99 percent of the target, 8 if 80 to 89 percent, etc. Ties with overall rankings were broken by summing displayed percentages.

Alt.	Wilderness		Timber		Dev. Rec.		Disp. Rec.		Grazing		Total	Rank
	Pct.	Rank	Pct.	Rank	Pct.	Rank	Pct.	Rank	Pct.	Rank		
B	0	0	104	10	671	10	155	10	134	10	40	9
C	100	10	91	9	670	10	153	10	131	10	49	2
D	131	10	91	9	668	10	154	10	131	10	49	1
E	38	3	100	10	580	10	149	10	130	10	43	8
F	59	5	96	9	570	10	148	10	128	10	44	7
G	146	10	87	8	530	10	142	10	123	10	48	4
H	110	10	83	8	427	10	141	10	125	10	48	5
I	229	10	74	7	413	10	139	10	123	10	47	6
J	690	10	0	0	0	0	107	10	89	8	28	10
PA	168	10	83	8	874	10	218	10	126	10	48	3

Commodity Outputs - Community Stability. Continued flow of resource or commodity outputs and maintenance of community stability were identified as important criteria for evaluation of roadless areas. Resource outputs, except minerals and energy, have been described under the previous heading dealing with meeting RPA targets. Potential impacts on mineral and energy resources must be displayed to complete evaluation of commodity outputs. In addition, development opportunity ratings (DORS) and effects on local communities must also be evaluated.

The following table rank orders impacts upon the mineral and energy resource by assuming roadless areas recommended for wilderness foreclose potential to utilize the resource. Areas allocated to nonwilderness and further planning are assumed to remain available for utilization. Due to changes in total number of areas and mineral ranking procedure from the time the draft statement was filed with alternatives B through J and this final evaluation, it became necessary to employ an index to evaluate relative impacts of the alternatives.

The index has been calculated using the following method:

- Step 1. For hardrock minerals, add number of areas with both a 100 and 81-99 rating for those allocated to wilderness in each alternative. Add number of areas with both a 100 and 81-99 rating for those allocated to nonwilderness and further planning. Divide the sum for those in nonwilderness and further planning by the sum of those in wilderness. This produces a hardrock mineral index for each alternative.
- Step 2. Repeat the process for ratings of geothermal, oil and gas, uranium, and coal. The result, including step 1, will be five indices for each alternative.
- Step 3. Add the five indices and divide by five for an average mineral and energy index for each alternative.
- Step 4. An index cannot be calculated for alternatives B and J since all potential would be realized in B and it is assumed none will be realized in alternative J. For ranking purposes, B is number 1 and J is ranked 10.

Alternative	Index	Rank
B	-	1
C	10.79	3
D	8.96	4
E	11.98	2
F	8.43	5
G	4.09	8
H	5.59	7
I	3.15	9
J	-	10
PA	5.89	6

Development opportunity ratings (DORS) have been calculated for each roadless area. As mentioned previously, ratings range from 0 to 15 and express relative per acre economic potential for development of nonwilderness resources. The system is similar to a benefit-cost ratio with the higher number representing most economically feasible development. An average DORS rating has been calculated for all roadless areas allocated to nonwilderness for each alternative. It has also been calculated for those proposed as wilderness. Dividing the average for nonwilderness by the average for wilderness produces an index where higher numbers represent or imply a cost effective allocation of roadless areas.

Alternative	Average DORS Nonwilderness		Average DORS Wilderness	Index	Rank
B	5.22	D	-	-	-
C	5.38	I	4.94	1.089	4
D	5.22	V	5.22	1.000	7
E	5.24	I	5.07	1.033	5
F	5.39	D	4.91	1.097	3
G	5.23	E	5.20	1.006	6
H	5.28	D	4.41	1.197	2
I	5.13		5.42	0.946	8
J	-	B	5.22	-	-
PA	5.45	Y	4.40	1.239	1

Effects on local communities and/or industries may be identified as allocation of roadless areas to wilderness produces potential job losses in specific sectors. An analysis has been completed that identifies projected employment loss with the allocation in each alternative. The following table indicates number of roadless areas allocated to wilderness that will affect local community stability.

Alternative	Number of Areas	Rank
B	0	1
C	11	5
D	13	6
E	5	3
F	7	4
G	21	8
H	16	7
I	40	9
J	108	10
PA	3	2

Specific communities or areas potentially impacted by the proposed action would be Clearwater County Idaho, the area involving Truth or Consequences and Magdalena New Mexico, and Sigurd, Utah. They are discussed further in appropriate appendices. Identification of dependent communities has been made and documented at Forest Service Regional Offices.

National Issues. Five national issues have been identified throughout this process - inflation, balance of payments, returns to the Treasury, employment, and housing starts. Alternative B has the least impact on these issues as commodity potential available if all areas are allocated to nonwilderness could be realized. Alternative J represents the other extreme as all areas are proposed for wilderness, assuming none of the potential would be achieved.

Alternatives between the B and J extremes, including the proposed action would have little or no significant effect on these issues. The range of inflation for all commodities may vary 1 to 2 percent. Balance of trade would not be appreciably altered. Returns to the Treasury could potentially be reduced in a range from 0.5 to 3 percent. Employment would change from the national perspective around 0.09 percent. Housing starts are affected more by mortgage money availability than by material gains or losses through roadless area allocation.

It does not make much difference in development of a proposed action which alternative, other than B or J, is selected. National impacts are minimal. But, reductions in receipts and returns to the Treasury, along with employment and other issues, can become a very important local factor if a majority of the impact takes place in a relatively small area.

WARS. A desire to add high quality roadless areas to the National Wilderness Preservation System was one of the criteria identified for allocating roadless areas. Quality can be measured by the Wilderness Attribute Rating System (WARS). The system has been discussed on page 21 of this statement and ratings have been assigned to each roadless area. The average attribute rating for roadless areas allocated to wilderness has been determined for each alternative. Higher average ratings for wilderness within an alternative indicate that alternative is providing higher quality additions to the Wilderness System. The following table indicates the average WARS score for roadless areas allocated to wilderness in each alternative. Rankings are from highest to lowest average score.

Alternative	Average WARS for Wilderness Allocations	Rank
B	0	10
C	18.25	9
D	21.25	2
E	20.00	5
F	19.11	7
G	19.25	6
H	20.57	4
I	20.64	3
J	18.48	8
PA	21.90	1

Grasslands. National Grassland roadless areas will not normally be allocated to wilderness according to criteria utilized in RARE II decisionmaking. Exceptions are made if a Grassland area is the only one that can fill a particular

characteristic target. Alternative approaches, with the exception of B, have allocated varying numbers of National Grassland areas to wilderness. To meet the criterion, alternatives allocating the least number to wilderness are ranked highest. The following table depicts overall rank.

Alternative	Total Areas to Wilderness	Rank
B	0	1
C	1	2
D	2	3
E	7	7
F	7	7
G	10	9
H	2	3
I	3	5
J	22	10
PA	3	5

Three areas, one in each of the following states, allocated to wilderness by the proposed action are discussed in Colorado, New Mexico, and North Dakota appendices to this statement.

Diversity. Diversity within the National Wilderness Preservation System is measured by achievement of planning targets for characteristics of landform, ecosystem, wildlife, and accessibility representations. (A complete discussion of these characteristics begins on page 28.) Achievement of diversity targets is one of seven primary criteria to be used in decisionmaking. The following table has combined landform, ecosystem, and wildlife target achievement and displayed that achievement by both total numbers represented and percent accomplishment. Accessibility/distribution is shown by percent of target achievement. Overall diversity rank is portrayed in the last column.

Alternative	Landform, Ecosystem, Wildlife Achievement		Accessibility Distribution	Rank
	No.	Pct.	Pct.	
B	0	0	0	10
C	36	59	75	8
D	39	64	66	8
E	54	89	76	6
F	60	98	87	3
G	61	100	91	2
H	40	66	80	7
I	47	77	82	5
J	61	100	96	1
PA	55	92	88	4

Public Agreement. Alternatives may be judged to be congruent with or in conflict with public response received on the draft environmental statement. A Congruence/Conflict Index was applied to each alternative by first giving each roadless area a numeric value related to public preference for the allocation made by the alternative. The value will be 3 if there is strong public preference (85-100 percent), 2 if moderate (71-84 percent), and 1 if there is slight public preference (61-70 percent). Each value will be positive if the alternative allocates the area to a category preferred by public response and negative if it does not. The Congruence/Conflict Index (C/CI) is the algebraic average of the values (add all values and divide by number of areas). The following table indicates the Congruence/Conflict Index for each alternative. High positive numbers indicate the most congruence and negative numbers indicate conflicts with the proposed allocation.

Alternative	C/CI	Rank
B	.3997	4
C	-.0434	8
D	-.0629	9
E	.4594	3
F	.0788	5
G	.4815	2
H	.5369	1
I	-.0371	7
J	-.8277	10
TPA	.0416	6

National Ranking. Alternative approaches can now be ranked one against another to determine which one best meets primary criteria used for RARE II decisionmaking. The accompanying table uses six of seven criteria and their previously developed ranking (national issues were not ranked since variations between alternatives were virtually indistinguishable) to develop a total overall ranking. Minerals and energy, DORS, and affected community rankings are combined for commodity/community stability rank. Summing entries for each of six factors permits assignment of an overall, national rank for all alternatives.

The proposed action best meets decision criteria established for evaluation of alternative approaches. Although it does not consistently rank highest for all criteria, it enjoys, in total, a wide margin over other alternatives. This represents evaluation of the alternatives against the seven identified decision criteria. There were six additional criteria identified by public response as being important and other factors that have been employed in development of a proposed action. They are discussed and evaluated next.

Overall Ranking of Alternatives
Against the Decision Criteria

Alternative	RPA	Commodity/Community Stability				WARS	N.G.	Diversity	C/CI	Sum	Rank
		M&E	DORS	Com.	Total						
B	9	(1)	(-)	(1)	1	10	1	10	4	35	8
C	2	(3)	(4)	(5)	4	9	2	8	8	33	6
D	1	(4)	(7)	(6)	7	2	3	8	9	30	3
E	8	(2)	(5)	(3)	3	5	7	6	3	32	4
F	7	(5)	(3)	(4)	4	7	7	3	5	33	6
G	4	(8)	(6)	(8)	9	6	9	2	2	32	4
H	5	(7)	(2)	(7)	6	4	3	7	1	26	2
I	6	(9)	(8)	(9)	10	3	5	5	7	36	9
J	10	(10)	(-)	(10)	8	8	10	1	10	47	10
PA	3	(6)	(1)	(2)	2	1	5	4	6	21	1

Additional Criteria. Two supplementary criteria addressed the issue of considering existing or proposed wildernesses and contributions other Federal agencies can make in creating a well-rounded Wilderness System. Selection of roadless areas to be recommended for wilderness has fully considered the existing NWPS. Areas have been added when those additions will enhance the Wilderness System. Other areas have been proposed for wilderness to establish more appropriate boundaries to existing wildernesses. Roadless areas have been allocated to further planning to comport with planning efforts on adjacent land managed by other Federal agencies. This action retains wilderness values on National Forest System lands pending outcome of other agency classification. This is essential since the public does not normally recognize administrative boundaries when viewing a specific wilderness resource.

Existing wilderness study areas resulting from the original RARE effort were also recognized in development of the proposal. These areas were previously identified as having wilderness qualities that should be studied further for potential classification. Additional areas have been added and others have subsequently been classified as wilderness resulting in approximately 9.4 million acres that may be identified as RARE I wilderness study areas. RARE II has recommended over 15 million acres for wilderness, including many study areas.

Two remaining supplemental criteria dealt with a need to maintain opportunity to develop and utilize snow related recreation and consider development opportunity costs when allocating roadless areas. Potential down-hill ski facilities and other one-of-a-kind areas for snowmobiling use have usually been allocated to nonwilderness or further planning to retain this unique opportunity. With few exceptions, when wilderness values greatly exceed winter sports potential, opportunity for snow related development has been retained. The second criteria for consideration of development opportunity costs is an integral part of decision making. It has been displayed as the DORS rating on page 89 of this evaluation.

Further Evaluation. The proposed action has so far emerged as the "best" alternative for allocation of RARE II inventoried roadless areas. It ranks highest when evaluated against decision criteria. It has been developed in response to public input received on the draft environmental statement. It meets the need for more quality wilderness while providing for a continuous flow of other nonwilderness values. It improves distribution throughout the National Wilderness Preservation System by proposing wilderness in states that have not had designated areas. It improves diversity within the System by increasing representations of landform, ecosystem, and wildlife characteristics. Evaluation of alternatives B through J and the proposed action indicates the PA should be the Department of Agriculture selected alternative for allocation of RARE II roadless areas.