

(3) An average cost share rate of 65 percent on any practice;

(4) National Priority targeting that implies lower cost share rates (55 percent) for practices linked to grazing, wind erosion, and wildlife habitats (since the benefits computed for the latter two do not match the specifications in the rule for air quality and at-risk species);

(5) Fund allocation that varies as a function of cost-share (practice/benefit categories with higher priorities are the ones with higher cost share rates); and

(6) A spatial evaluation process focusing on environmentally sensitive areas such as impaired watersheds that improves benefits by 10 percent in all categories except grazing.

(7) Performance incentive for efficient implementation of EQIP.

The new EQIP program in the final rule has a substantial beneficial effect on the environment compared to continuation of the 1996 program. A total of 96 million acres of agricultural land will be treated over the six years of the program with the final rule, compared to 41 million acres under the 1996 program. This includes 70.3 million acres of cropland, 15.5 million acres of grazing land (pasture and rangeland), and 10.3 million acres for wildlife habitat improvement. Resource treatment increases compared to the 1996 rules include an additional 2.9 million acres for sheet and rill water erosion (USLE) reduction, 3.5 million acres for wind erosion, 14.7 million acres for non-waste nutrient management, 22.0 million acres for net irrigation water reduction, 6.2 million

acres for grazing productivity, and 5.5 million acres for wildlife habitat will occur on the landscape. Also, an additional, 31,000 animal feeding operations (5.6 million animal units) will be treated under the final rule, as compared to continuing the 1996 program, excluding CAFO treatments (34,000 animal feeding operations) and 11.4 million animal units if the CAFOs are included. Also, compared to the 1996 rules, an additional 12.8 million animal units and 39,468 animal feeding operations will be treated, and water induced soil loss from agricultural land will decrease by 24.5 million tons/year.

The Table below shows the costs and benefits (in \$ million) of the final rule compared to the NOFA and the 1996 program.

	1996 EQIP with \$200 mil- lion per year 2002–2007	Rules and funding accord- ing to the 2002 legislation and NOFA		Final EQIP rule	
		Include CAFO ben- efits & costs ^b	Exclude CAFO ben- efits & costs ^c	Include CAFO ben- efits & costs ^b	Exclude CAFO ben- efits & costs ^c
Benefits:					
Animal Waste Management (Total) ^a	322	3,608	1,928	4,085	2,405
By Operation Size Class (AUs):					
>1000 ^b	0	1,680	0	1,680	0
500–1000	142	705	705	871	871
300–500	98	620	620	773	773
<300	82	602	602	761	761
Land Treatment Total	2,444	4,284	4,284	5,828	5,828
USLE Reductions	640	827	827	1,243	1,243
Grazing Improvement	671	934	934	1,078	1,078
Irrigation Improvement/Water Savings	716	1,803	1,803	2,519	2,519
Wind Erosion Reductions	115	156	156	198	198
Non-waste Nutrient Management	167	320	320	482	482
Wildlife	135	244	244	309	309
Benefits from non-analyzed practices ^d	587	1,005	791	1,263	1,049
Grand Total Benefits	3,353	8,897	7,003	11,176	9,282
Costs:					
EQIP Funds	978	4,480	3,917	4,480	3,917
Grand Total Costs ^e	2,374	6,600	5,673	7,620	6,626
Benefit Cost (BC) Ratios	1.4	1.3	1.2	1.5	1.4
Net Benefits (Benefits—Total Costs)	979	2,296	1,329	3,555	2,656

^a Assumes 7.5 percent of EQIP funds for each small livestock class in "Old" and 12.5 percent for each class in "New".

^b Benefits and costs of treating large CAFO benefits and costs are accounted for, even though the benefits are attributable to the EPA CAFO rule rather than EQIP.

^c Benefits and Costs of large CAFOs not accounted for.

^d Assumes that benefits per EQIP dollar for practices not assigned to a benefit category are on average the same as the practices analyzed.

^e Total costs are calculated based on 74 percent of EQIP funds for cost sharing and 26 percent of EQIP funds for Technical Assistance (TA). Note that the costs here are not the sum of costs from analysis of individual benefit categories, since that would involve double counting. Total costs include both the EQIP funding as well as producers' cost-share.

Conclusions

As described in the above paragraphs, implementation of the final rule will generate significant environmental and economic benefits. The final rule benefit cost ratio is equal to the 1996 rule when

the costs and benefits of CAFOs are excluded and is slightly higher when the costs and benefits of CAFOs are included. The final rule has higher net benefits than the NOFA because of the prioritization based on natural resource concerns.

This benefit cost analysis represents a comprehensive study of alternative ways to implement the new EQIP authorities contained in the 2002 farm bill. The best available data, including selected data on EQIP experiences, and economic and natural resource effects