Mr. Chairman, Ranking member, members of the committee, thank you for inviting me to testify here today, in support of H.R. 1975, the Northern Rockies Ecosystem Protection Act.

My name is Michael Garrity. I am the Executive Director of the Alliance for the Wild Rockies, a non-profit environmental group based in Helena, MT. I am also a Ph.D. candidate in Economics at the University of Utah and I taught economics at the University of Utah from 1992-1998.

The proposed Northern Rockies Ecosystem Protection Act (NREPA) will save a least \$245 million dollars over ten years and is the most cost-effective means of protecting endangered species in the northern Rockies. In addition to restoring watersheds and saving the taxpayers money, NREPA creates more than 2300 high paying jobs for the region.

NREPA saves taxpayers money by prohibiting road building and logging in roadless areas designated as wilderness. Logging areas NREPA would protect at levels desired by the U.S. Forest Service would result in a net loss to U.S. taxpayers of approximately \$375 million over the next ten-years (see Tables I-V). Furthermore, this figure understates the loss because it does not include the millions of dollars in maintenance expenses that logging roads incur. In central Idaho alone, the federal government spends millions repairing roads damaged by landslides. The Forest Service estimated that logging caused eighty- percent of these slides.

NREPA produces more jobs because of the habitat restoration work associated with the wildland recovery areas. The costs of this work will be approximately \$130 million over ten years (see Table VI). This cost is \$245 million less than the \$375 million net projected loss for logging these areas. Removing the roads and restoring the recovery areas will save the federal government tens of millions of dollars in reduced road maintenance expenses which would help reduce the \$8 billion back log of road maintenance needs in our National Forests.

The Forest Service in a 2000 report titled Water and the Forest Service found that water originating from lands that NREPA would protect has a value of at least \$1 billion. It makes no economic sense to lose hundreds of millions of dollars on logging that harms the most valuable commodity our forests produce, water.

Since the total savings associated with this alternative are much greater than the total costs, a conservative estimate of the net savings would be at least \$245 million (see Table VII).

NREPA saves taxpayers millions of dollars, creates 900 more jobs, provides maximum protection for grizzly bear and other endangered species habitat, shortens the total time

frame for endangered species recovery and improves the economic viability of the northern Rockies states.

The Northern Rockies Ecosystem Protection Act (NREPA) creates jobs. People live and work in the Northern Rockies because of its natural beauty. The question of jobs versus the environment is a false one. These states would actually end up with more jobs if these lands were left in their natural state. It will directly create 2338 jobs by obliterating environmentally destructive roads. Only 1400 jobs will be lost in the wood products industry when these unique wildlands are preserved. NREPA will indirectly create thousands of more jobs by preserving a pristine environment, the economic base of the Northern Rockies' states.

These states' current economic vitality is dependent on their high quality natural environment, not declining extractive industries. Further damage to these pristine areas will threaten the economic future of these states.

Using Forest Service data, Professor Thomas Power, the former Chairman of the Economics Department at the University of Montana, estimated 1400 jobs would be lost if we preserve these roadless lands as wilderness. If we log all of this land today 1400 people would be employed for one year. But the loss of 1400 jobs could be made up in less than three weeks with normal job growth (Power). The job loss is small because most of these roadless lands are not suited for timber production. The trees are too small and too few. Moreover, the number of timber jobs will continue to decline with technological advancement and the diminishing supply of trees. Capital intensive technology is the main cause of the fall in timber related employment, not lack of trees. Employment in the wood products industry in Montana peaked in 1979 when 11,606 employees cut and milled 1 billion board feet of timber. In 1989, the timber industry harvested a record amount of timber, almost 1.3 billion board feet, but only 9,315 people were employed. In 2006, 926 million board feet was cut and milled by 3,524 people. In the last 27 years employment has decrease 70% while timber production has only decreased 7%.

The data the Forest Service used in projecting job loss is from 1972. They estimate that for every one million board feet of timber cut 9 jobs will be created for one year. If current data is used only 1.5 to 2 jobs will be created for every million board feet logged. The number varies depending on how the wood is processed.

Fewer jobs are created now than 30 years ago because of advances in technology. One person can cut in an hour what a two-person crew could cut in a day twenty years ago. With today's technology only 560 timber industry jobs would be lost if we preserve these lands as wilderness. If we cut all of these lands today 560 people would be employed for one year. We can expect further technological advancements in the future. Employment in the timber industry will continue to decline.

NREPA proposes nearly one million acres as National Recovery areas. 6,556 miles of roads would be closed and restored and fish and wildlife returned. These activities would employ people. The Forest Service estimates it costs an average of \$10,000 to totally

obliterate a mile of road in the Northern Rockies. Obliterating 10,000 miles of roads would create approximately 625 jobs for heavy equipment operators. And these are good jobs that could be spread out far into the 21st century. Heavy equipment operators earn approximately \$25 per hour. The employment created by this method will greatly ease the transition from a timber-based economy. The money to pay for this could come from ending timber subsidies. In the last ten years, the Forest Service has lost over \$2 billion on its timber program. In addition, the General Accounting Office (GAO, 2003) reported "the Forest Service has not been able to provide to Congress and the public with a clear understanding of what its 30,000 employees accomplish with the approximately \$5 billion it received every year."

The justification for this corporate welfare is job creation. NREPA can produce more quality jobs and do so without destroying the west's major resource.

It is also argued that when we build roads we create something economically valuable but when we destroy roads we only make the mountains beautiful. In actuality, when we build roads we create a liability. Ninety per cent of the increase in silt from logging comes from roads. Roads contribute sedimentation to streams for an indefinite period. The road cut creates soil conditions that do not stabilize over time (Richard Hauer, PhD Flathead Lake Biological Station, personal interview). "Instream sedimentation

deposited in the stream bottom decreases the success rate of egg hatching and fry development by impeding water flow through the gravels in which the eggs undergo early development" (Final Report, Montana Environmental Quality Council, December 1988).

The bull trout was recently listed as an endangered species. Logging harms these fish as well. Sediment originating from logging and logging roads can reduce embryo survival of bull trout and westslope cutthroat trout and decrease the available pools used for rearing bull trout. Bull trout are selective in the streams they choose. They only spawn in twenty-eight streams of the hundreds available in the Flathead Lake water basin (Weaver, Fraley).

In central Idaho erosion rate along roads was 750 times greater than in undisturbed areas. The silt fills spawning pools and has led to population declines in fish such as bull trout, salmon and westslope cutthroat trout (Noss). Salmon population supports 60,000 jobs and a billion dollar industry. The federal government is spending millions of dollars trying to save these fish. It would be more cost effective to deal with one of the sources of the problem which is logging and the soil erosion it causes as the National Forest Management Act mandates.

Lacy, 2001 examines the importance of soils for ecosystem functioning and points out the failure of most regulatory mechanisms to adequately address the soils issue. From the Abstract:

Soil is a critical component to nearly every ecosystem in the world, sustaining life in a variety of ways—from production of biomass to filtering, buffering and transformation of water and nutrients. While there are dozens of federal environmental laws protecting and addressing a wide range of natural resources and

issues of environmental quality, there is a significant gap in the protection of the soil resource. Despite the critical importance of maintaining healthy and sustaining soils, conservation of the soil resource on public lands is generally relegated to a diminished land management priority. Countless activities, including livestock grazing, recreation, road building, logging, and mining, degrade soils on public lands. This article examines the roots of soil law in the United States and the handful of soil-related provisions buried in various public land and natural resource laws, finding that the lack of a public lands soil law leaves the soil resource under protected and exposed to significant harm. To remedy this regulatory gap, this article sketches the framework for a positive public lands soil protection law. This article concludes that because soils are critically important building blocks for nearly every ecosystem on earth, an holistic approach to natural resources protection requires that soils be protected to avoid undermining much of the legal protection afforded to other natural resources.

The rise of an "ecosystem approach" in environmental and natural resources law is one of the most significant aspects of the continuing evolution of this area of law and policy. One writer has observed that there is a

fundamental change occurring in the field of environmental protection, from a narrow focus on individual sources of harm to a more holistic focus on entire ecosystems, including the multiple human sources of harm within ecosystems, and the complex social context of laws, political boundaries, and economic institutions in which those sources exist.<sup>1</sup>

As federal agencies focus increasingly on addressing environmental protection from an holistic perspective under the current regime of environmental laws, a significant gap remains in the federal statutory scheme: protection of soils as a discrete and important natural resource. Because soils are essential building blocks at the core of nearly every ecosystem on earth, and because soils are critical to the health of so many other natural resources—including, at the broadest level, water, air, and vegetation—they should be protected at a level at least as significant as other natural resources. Federal soil law (such as it is) is woefully inadequate as it currently stands. It is a missing link in the effort to protect the natural world at a meaningful and effective ecosystem level.

... This analysis concludes that the lack of a public lands soil law leaves the soil resource under-protected and exposed to significant harm, and emasculates the environmental protections afforded to other natural resources.

<sup>&</sup>lt;sup>1</sup>Michael M. Wenig, How "Total" Are "Total Maximum Daily Loads"?—Legal Issues Regarding the Scope of Watershed-Based Pollution Control Under the Clean Water Act, 12 TUL. ENVTL. L.J. 87, 89 (1998). There are, however, major questions to ask of what exactly is the focus of "ecosystem management" in some agency plans—the ecosystem or the management? See, e.g. Michael C. Blumm, Sacrificing The Salmon: A Legal And Policy History Of The Decline Of Columbia Basin Salmon (2000) (forthcoming) (manuscript at 359–63, on file with author).

The Northern Rockies Ecosystem Protection Act will help protect soils by protecting roadless areas from logging and road building and restoring areas where have been damaged by logging and road building.

The Forest Service closes many roads after logging in an area has ended. But the simple closing of these roads does not mean an end to their maintenance costs. The Forest Service spends between \$300 and \$500 per mile for minimum road maintenance. The Forest Service estimates that it is more cost efficient to obliterate a road if it is not going to be used for the next 20 years. By obliterating these roads up to \$5 million in normal annual maintenance cost would be saved. The minimum maintenance does not take into account floods. Flood damage to roads runs in excess of a million dollars a decade per ranger district. This is due to maintenance costs alone. It does not take into account the tremendous environmental damage roads cause.

Elk population directly declines with road density. Two miles of roads per square mile leads to a 50 percent reduction in the elk population and six miles of roads per square mile eradicates virtually all elk in that area (Noss). The hunting of elk brings in a billion dollars a year into Montana every year and creates more jobs than logging according to the Montana Department of Fish Wildlife and Parks. The continued destruction of these lands will directly harm the hunting industry. Roads also increase poaching. The majority of poaching occurs from roads because they offer easy access into previously remote areas.

Grizzly bears avoid roads by an average distance of one half mile (Noss). This leads to a tremendous reduction in their habitat. But costs are more than just what the market measures. We can not replace animals when they become extinct. Professor John Craighead believes additional road construction will mean the end of the grizzly bear in the continental United States.

This is not a jobs versus the environment scenario. NREPA will protect the environment, create jobs, and save the taxpayers money. The trade-off is between permanently damaging the environment for the sake of a few hundred temporary jobs in the timber industry at the expense of destroying the Northern Rockies economic base, its natural landscape, and the thousands of jobs it attracts to the region every year.

TABLE I
Northern Rockies Ecosystem Protection Act
Savings in reduction from logging
Region I \$81,347,230

Region I National Forests	Average Loss Per thousand board feet (MBF)	Amount allowed to sell per decade (ASQ) in million board feet (MBBF)	% of ASQfrom lands NREPA would protect	Regeneration Costs	Savings from logging under NREPA first decade
Beaverhead	\$143.64	173	8.1%	\$64,407	\$2,077,234
Bitterroot	\$186.32	100	28.3%	\$243,699	\$5,516,555
Clearwater	\$86.66	550	7.5%	\$325,322	\$3,900,047
Deerlodge	\$143.64	230	10.9%	\$472,801	\$2,038,477
Flathead	\$121.79	536	12.5%	\$390,955	\$8,550,885
Gallatin	\$183.93	100	67%	\$496,412	\$12,819,722
Helena	\$136.50	150	9.3%	\$51,433	\$1,955,608
Idaho Panhandle	\$50.81	800	10%	\$1,200,841	\$5,265,641
Kootenai	\$71.67	1200	1.5%	\$180,682	\$1,470,742
Lewis and Clark	\$81.79	121	4.4%	\$70,842	\$506,292
Lolo	\$86.66	1070	1.9%	\$104,869	\$1,766,643
Nez Perce	\$83.26	1380	30%	\$1,009,744	\$35,479,384
Total Savings from Region I					\$81,347,230 ======

TABLE II
Northern Rockies Ecosystem Protection Act
Savings from reduction in logging
Region II \$4,335,434

Region II	Average	Amount	% of	Regeneration	Savings
National	Loss Per	allowed to	ASQfrom	Costs	from logging
Forests	thousand	sell per	lands		under
	board feet	decade	NREPA		NREPA first
	(MBF)	(ASQ) in	would		decade
		million	protect		
		board feet			
		(MBBF)			
Bighorn	\$89.42	149	15.4%	\$197,844	\$2,249,675
Shoshone	\$83.28	105	21.49%	\$170,736	\$2,085,759
Total					
Savings					\$4,335,434
from					=======
Region II					

TABLE III
Northern Rockies Ecosystem Protection Act
Savings from reduction in logging
Region III \$4,335,434

Region III National Forests	Average Loss Per thousand board feet (MBF)	Amount allowed to sell per decade (ASQ) in million board feet (MBBF)	% of ASQ from lands NREPA would protect	Regeneration Costs	Savings from logging under NREPA first decade
Boise	\$100.93	850	24%	\$16,534,036	\$37,534,036
Bridger-	\$81.56	117	45.3%	\$396,754	\$4,719,516
Teton					
Caribou	\$69.67	107	41%	\$359,093	\$3,415,516
Challis-	\$120	262	9.5%	\$294,553	\$3,281,353
Salmon					
Payette	\$69.30	809	30%	\$1,480,155	\$8,299,265
Sawtooth	\$50.42	75	9.9%	\$252,757	\$767,532
Targhee	\$69.67	660	40%	\$978,922	\$19,371,802
Total					
Savings					\$87,389,020
from					=======
Region III					

**TABLE IV** 

### Northern Rockies Ecosystem Protection Act Savings from reduction in logging Region IV \$4,335,434

Region IV National Forests	Average Loss Per thousand board feet (MBF)	Amount allowed to sell per decade (ASQ) in million board feet (MBBF)	% of ASQ from lands NREPA would protect	Regeneration Costs	Savings from logging under NREPA first decade
Colville	\$115.61	1707	24%	\$1,261,104	\$48,624,209
Malheur	\$171.12	2330	15%	\$3,635,299	\$63,441,739
Umatilla	\$104.03	3282	19%	\$1,869,578	\$66,740,605
Walow- Whtm	\$136.50	1440	11%	\$1,514,681	\$23,136,281
Total					
Savings					\$201,942,834
from					=======
Region IV					

# TABLE V Total saving to U.S. Treasury from not logging in areas protected by NREPA (First Decade)

(I list 2 cours)	
Region I	\$81,347,230
Region II	\$4,335,434
Region III	\$87,389,020
Region IV	\$201,942,834
Total	
	\$375,014,518
	========

# TABLE VI Jobs Created by Northern Rockies Ecosystem Protection Act Wildland Recovery Work

Jobs	Total Cost	Number of Jobs	Miles of Road Obliterated
Road obliteration	\$40,442,178	364	6566
Road Reclamation Jobs	\$6,839,680	83	
Forest Reclamation Jobs	\$82,523,880	1891	
Total	\$129,805,738	2338 JOBS	

## TABLE VII Northern Rockies Ecosystem Protection Act Fiscal Impact

		JOBS	Miles of Roads
			Obliterated
Savings from	\$375,014,518	Number of Jobs lost	
reduction in logging		due to reduction in	
See Table V		logging <1400>	
Cost of Wildland	<129,805,738>	Jobs created	6566
Recovery Work		2338	
Net Savings	<245,208,781>	<b>Net Jobs Created</b>	
		938	

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