

FOREST SERVICE'S ROADLESS AREA RULEMAKING

HEARING
BEFORE THE
SUBCOMMITTEE ON
FORESTS AND PUBLIC LAND MANAGEMENT
OF THE
COMMITTEE ON
ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

ONE HUNDRED SEVENTH CONGRESS

FIRST SESSION

TO CONDUCT OVERSIGHT ON THE ENERGY IMPLICATIONS OF THE
FOREST SERVICE'S ROADLESS AREA RULEMAKING

APRIL 26, 2001



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FOREST SERVICE'S ROADLESS AREA RULEMAKING

THURSDAY, APRIL 26, 2001

U.S. SENATE,
SUBCOMMITTEE ON
FORESTS AND PUBLIC LAND MANAGEMENT,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, DC.

The subcommittee met, pursuant to notice, at 2 p.m. in room SD-366, Dirksen Senate Office Building, Hon. Larry E. Craig presiding.

OPENING STATEMENT OF HON. LARRY E. CRAIG, U.S. SENATOR FROM IDAHO

Senator CRAIG. Good afternoon, everyone. The Subcommittee on Forests and Public Lands will convene this afternoon. The subcommittee will hear testimony on the energy implications of the roadless area rule promulgated by the Clinton administration on January 12.

During the development of this rule, the energy implications of the proposal received little note and less concern. In retrospect, this was a significant oversight in light of today's developing energy crisis.

As a result of a December 14 document request conducted jointly by the House of Representatives, we have learned that senior Clinton administration officials met with environmental group representatives on December 1 to discuss data from the Department of Energy and others on the rule's energy impacts. No official record of that meeting exists.

However, today we will hear testimony from DOE on those data and about how they were treated in the rulemaking process. This testimony will add to the growing record demonstrating the inadequacy of this rule.

I had originally planned with this hearing to initiate a Congressional Review Act evaluation of the roadless area rule. However, I am no longer convinced that this rulemaking will survive the U.S. court system long enough for Congress to act one way or another.

To date, the rule has spawned eight different lawsuits in three separate judicial circuits. Litigants, including communities, county governments, Indian tribe interest groups, and four States represented by the Democrat and Republican governors and attorney generals.

Based upon public statements by other governors and local officials and interest groups, more suits will be forthcoming in the

near future. Soon the roster of Federal judges reviewing the rule will be sufficient to fill positions of a baseball lineup card, with a few judges left over.

By that time, PETA will be leading demonstrations protesting all of the innocent animals sacrificed in making the briefcases for all the lawyers filing motions in these cases. And that of course says nothing of the trees that are being mowed down in the creation of the necessary paperwork both in the courts and through the U.S. Postal Service. A bit tongue in cheek, but a reality of the process.

Earlier this week the *Sacramento Bee* reported that last year more than 160 million environmental group pitches swirled through the U.S. Postal Service, according to figures provided by major organizations. That's enough envelopes, stationery, decals, bumper stickers, calendars, and personal address labels to circle the earth more than two and a half times.

The courts have not been particularly kind on this effort so far. On April 5, U.S. District Court Judge Edward Lodge held that the rule constituted an obvious violation of the National Environmental Policy Act. The judge wrote that because of the hurried nature of this process, the Forest Service was not well informed enough to present a coherent proposal or meaningful dialogue, and the end result was predetermined.

Justice hurried on a proposal of this magnitude is justice denied. That was a quote of Judge Lodge. The other legal challenges cited violations of other statutes beyond NEPA, I suspect based upon the record of four oversight hearings by this subcommittee that the courts will find additional legal infirmities.

Now, some may argue that the Government's defense of this rule was insufficiently robust to properly defend its obvious worthy content. However, by granting standing to environmental group intervenors, Judge Lodge heard all of the arguments available to defend the rule and he expressly rejected each one of them. Others will suggest that an appeal to the 9th Circuit will remedy this judicial malady. Perhaps an appeal will be taken, however the 9th Circuit has developed an extensive body of case law supporting the integrity of the NEPA process.

The appeal of Judge Lodge's decision will require appellants, perhaps the same litigants who helped create much of the precedent to now argue against its application.

That could prove a bit awkward for even the most intellectually flexible legal minds. Meanwhile, cases will proceed in other circuits. The judicial bottom line so far is indelible. By spending less time on a national rulemaking affecting 58 million acres than it normally would spend on an environmental evaluation of an individual medium-sized project on a single national forest.

The Clinton administration broke the law. The court has given the Government until May 4 to suggest a remedy. Now it will be left to this administration and this Congress to decide how best to go forward from here. I hope that we can get back to a previously honored process of evaluating roadless areas on a forest by forest and a State-by-State basis for their potential for inclusion into the National Wilderness System, and then act legislatively on that potential.

It is a remarkable fact that the Clinton administration in its 8-year tenure did not send a single national forest wilderness proposal to Congress. It is also beyond dispute that the Clinton administration had the worst record of any administration since the passage of the 1964 Wilderness Act for securing statutory wilderness designation.

I, for one, would like to reverse this sad trend. I invite my colleagues from both sides of the aisle to join with us in that endeavor. I think the only sound and proper way is to evaluate these important lands on a case by case, forest by forest basis.

With that, let me turn to the ranking member of the full committee who has joined us this afternoon, Senator Bingaman.

[A prepared statement from Senator Cantwell follows:]

PREPARED STATEMENT OF HON. MARIA CANTWELL, U.S. SENATOR FROM WASHINGTON

Mr. Chairman, I would like to thank you for holding this hearing on the Roadless Rule. This rule, which simply precludes new road construction on 58 million acres of public land—will result in the preservation of open space for recreational uses including mountain biking and snowmobiling. It will protect watersheds that are sources of clean drinking water for present and future generations. And it will keep intact pristine habitat for fish and wildlife.

We have been through major technological changes in this country, and one of the consequences of this wireless revolution is that people can now live and work anywhere that they wish. Business no longer ties people to urban areas. But what we've gained in mobility, we've lost in open space. With the pace of development of open space and cropland doubling over the past ten years, preservation of publicly owned open space becomes more important and more valuable. America's "wide-open spaces" are quickly disappearing and cannot be recovered.

I support the Roadless Rule, and the long-term view it takes on the preservation of national forests for future generations. It is a reasoned approach, particularly given that the Forest Service already has 380,000 miles of roads on Forest Service property and that most of these roads are in disrepair. In fact, the Forest Service has an \$8.4 billion road maintenance backlog.

I am confident that competing uses for public lands could be better managed if we focus on improving the condition of existing roads on the millions of acres of forest lands that remain open to road building and leasing for timber, oil, gas and coal.

The Roadless Rule is the result of a massive three-year effort by the Forest Service and the Department of Agriculture. The rulemaking process included over 600 public meetings and the receipt and review of 1.6 million public comments in three separate stages of the process.

The comments that were received and given due consideration include the estimates of resources in Roadless areas submitted by the Department of Energy that we are discussing today. In the state of Washington alone, 60,000 people submitted comments and over 96 percent of the comments supported the rule. The Roadless Rule does not change the natural environment. What it does is leave nature alone. Leaving nature alone places different requirements on the Forest Service in preparing an Environmental Impact Statement than does development which makes sense if the point is to protect our open spaces and remaining natural resources. I believe that the EIS the Forest Service prepared meets and surpasses the legal requirements.

I am extremely concerned by reports in today's *Washington Post* that the White House has instructed the Department of Justice lawyers to find a way to "set aside" this regulation until the Administration can produce a less restrictive rule or eliminate it altogether. I find this particularly troubling given Attorney General Ashcroft's commitment to me in his confirmation hearing that he would defend any rule that has the force and effect of law, as this rule does.

I completely respect the right of the Bush Administration to disagree with the Rule, and to explore options to modify or even to repeal the rule. But let us be clear—this is a final rule. It has been published in the Federal Register and it is subject to judicial review. Any attempt to alter this rule must be accomplished through a process that complies with the Administrative Procedures Act and provides an opportunity for notice and comment. The point of the Administrative Procedures Act is to make government provide good justifications for its policies—to open

government decision making to public scrutiny—and to ensure that views on all sides of an issue are heard.

And because this rule is a reasonable policy that sets forth justified rationales for protecting a portion of our national forests, I believe that the Administration faces serious hurdles in successfully repealing this rule.

If the Administration chooses to modify this rule, it must not do so by procedural maneuvering—by issuing further extensions or stays—or by non-defense of a valid rule in the hope of favorable judicial intervention.

Yet, that is exactly the sort of maneuvering that the Administration appears to be contemplating. That is contrary to the Attorney General's commitment to me, and it is contrary to sensible balancing of energy needs and preservation of open space. This Rule is a well-considered policy and it should be allowed to take effect on May 12.

**STATEMENT OF HON. JEFF BINGAMAN, U.S. SENATOR
FROM NEW MEXICO**

Senator BINGAMAN. Thank you very much. I welcome the witnesses and appreciate the chance to hear the testimony. I do think it would be very useful to have a record and clarify what this rule which is now being reviewed actually does in the way of restricting development or use of our public lands and what it does not do. My impression is that there's substantial misconception out there about that, and so I think that would be useful.

I would be interested in hearing from the Forest Service as to the justification they believe exists for continuation of the rule, and the impact that it will have on our individual States and on oil and gas production and on mining activity as well. I think those are issues that are very valid and clearly ones that I think we need to know more about, thank you.

Senator CRAIG. Thank you, Senator. Let me now turn to Senator Akaka, do you have any opening statement.

**STATEMENT OF HON. DANIEL K. AKAKA, U.S. SENATOR
FROM HAWAII**

Senator AKAKA. Thank you very much, Mr. Chairman, for calling this hearing and giving us an opportunity to hear from the Department of Energy and the Department of Agriculture in the mining and petroleum industry, and wilderness groups regarding the implications of the U.S. Forest Service's roadless area rules.

Some of you may be aware that Hawaii and the Native Hawaiian culture are strongly linked to the natural world around us. For centuries we have lived on Pacific islands interdependently with the world around us, the land and the ocean.

The State of Hawaii has an extensive forest reserve system, additional areas which are designated as natural area reserves, State wilderness preserves and even private reserves. Although we do not have national forests in Hawaii, the State of Hawaii is playing its part in reserving areas for native ecosystems of trees and animals.

The Forest Service's roadless area initiative has identified areas in national forests that should remain roadless. However, we should all remember that under this rule a roadless area does not mean it is not useful to humans. There are already exceptions to the rule for existing leases, treaty rights, and human health and safety.

Roadless areas are useful as harbors for wildlife, filters and producers of clean water, and areas where humans can hunt, fish, and hike. In other words, the roadless policy doesn't mean that we can't use national forests.

The Forest Service has stated that the total oil and gas production from the entire National Forest System (not just roadless areas) is currently about .4 percent of the current national production. It further estimates that resources in roadless areas may be only about half of that figure which puts it at less than .2 percent of the total oil and gas production.

This appears to be a small amount of oil and gas, in inaccessible areas with no roads, which may not be economically recoverable, depending on future market prices. These resources, even if opened tomorrow, are unlikely to be available for up to 10 years or more. Opening roadless areas will not help our short-term energy crisis.

The recent study contracted by the U.S. Department of Energy argues that the USFS underestimated the energy resources in roadless areas. The study was based on a sample of States used public and proprietary data not available for replication and made questionable assumptions about the distribution of the resources. All studies have inherent weaknesses, but I wish I had more confidence in this quickly completed study.

I am not convinced that we should overturn the roadless policy on such speculative information. The question we need to ask is whether the amount of oil and gas resources in roadless areas is greater and or more compelling than available oil and gas resources elsewhere.

There are Bureau of Land Management lands, offshore reserves, national forest areas outside of roadless areas, State lands and private lands. Given the information I have seen so far, it makes no sense to open roadless areas for such a small percentage of overall resources that could be available.

I want to thank you, Mr. Chairman for this opportunity to make a statement, and I look forward to this hearing.

Senator CRAIG. Now, let me turn to our colleague from Wyoming, Senator Craig Thomas.

**STATEMENT OF HON. CRAIG THOMAS, U.S. SENATOR
FROM WYOMING**

Senator THOMAS. Thank you, Mr. Chairman. I appreciate your holding this hearing. I have to run to another confirmation hearing in a few minutes but I do want to thank you for this and I subscribe to what you said in your opening statement. I would like to specifically mention my friend Greg Schaefer who will be here testifying from Wyoming and to welcome him here.

I just would like to say that I think what we're talking about here in the broader sense is access. Access to resources, access to public lands, access to, you know, some people have tried to paint the picture that if you have access you suddenly are going to ruin the resource. It doesn't need to be that way and there's a great deal of evidence that it's not. You can have access and you can utilize the resources without doing irreparable damage.

Furthermore, and this is a little outside the function here, I suppose, on energy but I'll tell you what. I've heard from all kinds of

folks who say, look, I want access to my public lands, to my forest, disabled veterans, lots of people. That doesn't mean you have to have roads everywhere, obviously. But there ought to be a process that's more workable than this one and it seems to me it ought to go with the forest plan so that people have some input and do things.

I happened to go to a number of these meetings that were held by the Department on roadless areas, and I can tell you, that at the time they were doing it, the chief talked a lot about having all these meetings, no one even really knew what they were talking about, not even the forest people on the ground had a real idea of what the rule meant or what it was to mean. And so all of those hearings, many of them did not have a great deal of substance.

I do think we need to look at it. I think we need to come up with some reasonable solution and I appreciate you're having this hearing, sir.

Senator CRAIG. Thank you, Senator. Now let me turn to the ranking member of the subcommittee, Senator Ron Wyden.

**STATEMENT OF HON. RON WYDEN, U.S. SENATOR
FROM OREGON**

Senator WYDEN. Thank you, Mr. Chairman. I very much appreciate the chance to be here if only for a few minutes. This early in the session we shouldn't have all these things going on simultaneously. But I'm going to be in and out and I appreciate the chance to make a brief opening statement.

Mr. Chairman, as you know, from the beginning of this debate I've made it clear that I would support significant additions in terms of roadless protection because protecting additional unspoiled areas can produce gains for fish runs, habitat and watershed quality that very often outweigh the benefits of commercial development on those lands.

At the same time, as you and I have talked about, I strongly support the multiple use concept and I feel that you should not evaluate roadless rules in a vacuum, which was why our county payments legislation was so important. It begins to show that you can have an approach that protects treasures and at the same time is sensitive to local economics.

I haven't had a chance to look at your opening statement in depth, Mr. Chairman, but I want to say that the comment that I see in your statement on page 5 really is very encouraging to me, and I would like us to look at trying to work, as we did in the county payments area, on this idea of trying to evaluate roadless areas on a forest by forest and State-by-State basis for potential inclusion in the National Wilderness System and then move forward, as you suggest, legislatively.

I think that's a very constructive idea. I think we showed in the county payments debate that we could get away from the kinds of issues that are polarizing. You and I have talked about my concerns about the Forest Service when energy production experts say that the Forest Service is responsible for producing only about .4 percent of our national energy production. We get into a pretty polarized situation with that debate comparing energy production and the environment.

Your suggestion in your prepared remarks about how to start looking at this national wilderness system in a constructive way is something that I am very interested in and I want to make it clear as the ranking member of this subcommittee that I look forward to working with you on it and appreciate you're making the suggestion.

Senator CRAIG. Well, Ron, thank you very much. As you know, if this committee, either the full committee or the subcommittee and all of its members get ample opportunity to examine the forest, either on a State-by-State, system by system or forest by forest basis, and we bring the experts before us based on the knowledge that's available and we analyze the given areas, then we can make choices.

If there is a potential gas reserve, we can decide whether it ought to be set aside or left accessible, and that is the kind of conscious, open decision making we ought to be about instead of broad sweeping areas that have not had that opportunity of examination and the kind of detailed work that really is the responsibility of the authorizing committee of the kind that you and I are involved in here. And so I appreciate those comments.

Let us turn to our panelists today and we thank you all for being with us. I'm going to ask, panel one, first of all, William Hochheiser, Manager, Oil and Gas Environmental Research Office of Fossil Energy, U.S. Department of Energy in Washington, D.C. to testify and he is accompanied by Jeffrey Eppink of Advanced Resources International of Arlington, Virginia who also has testimony, and so we will start with you, Mr. Hochheiser.

Just a moment. Before you get started, the chairman of the full committee has just arrived and we will ask him if he has any opening comments before we turn to the panel. Senator Murkowski.

**STATEMENT OF HON. FRANK H. MURKOWSKI, U.S. SENATOR
FROM ALASKA**

The CHAIRMAN. You're very kind, Mr. Chairman. I do appreciate the accommodation. I will try to be brief because I know the witnesses have been with us for some time. But I join with you in expressing my concerns over what I consider a very cavalier treatment of national energy needs in the roadless rulemaking, the natural gas, the low sulfur coal, phosphate reserves, these are put off limits through rulemaking and I look forward to the testimony today with regard to those.

As we look at our energy policy or lack of energy policy, it's not much of a point to point fingers. The question is how do we go ahead from here. But I think in the case of the roadless rule, in the midst of what the court has already criticized as a "hurried process".

If there's a responsibility for reviewing the decision to put permanently off limits significant energy resources, and this was a little more than a passing note, if you would, in the rush to preconceive judgment. There's absolutely no question in my mind about that. I think that is wrong. I think it is a disservice to every—both elderly and low-income citizen of the United States concerned about the spiralling energy costs.

Nevertheless, I think it is indicative of a denial in this country of our energy policies as they apply to the increased demand and the declining supply. I think energy development decisions should be made on a case by case basis with thorough environmental analysis based on sound science and not emotion.

That's why I hope we will shortly see the administration review this matter and, you know, it's been pointed out to me that sometimes a public policy has to reach the point of high comedy or satire before we can get any sense of perspective to make intelligent decisions.

I think the issue has probably now reached the point where we're seeing comedians, I think 2 weeks ago Dennis Miller commented and I quote, "that every other vehicle in this country is a Lincoln Navigator with an Earth First bumper sticker."

Now, I don't think you can blame George W. Bush for not being able to let you have it both ways. But we do have a problem here and as a consequence I think that the procedure of how we go ahead and review the final record of decision is paramount in addressing a portion of this. There's no summary of the meetings in the Forest Service rulemaking document as the Administrative Procedures Act requires. Consequently, some of those ex parte contracts between previous administration officials and environmental groups. After the close of the public comment period and after the final EIS was published represents, I think, another statutory violation which the courts will undoubtedly be asked to review.

But in the meantime, many people in this country are going to suffer as a consequence of the time delay, and that is unfortunate. You know, interestingly, the same week that Judge Lodge was overturning the roadless rule, Judge James Singleton in anchorage was throwing out the claim administration's 1999 plan for the Tongass National Forest.

To give you some idea of the complexity of this, this plan had been developed over 10 years, and \$13 million, had been expended for the plan. But what good is the plan? Obviously, it's been revised. It's never had an opportunity to work. Now Judge Singleton ruled against the administration, the Clinton Tongass plan in part because Undersecretary Lyons violated the law by having ex parte contracts with parties affected by his review of the plan.

This thing has just gone, it's ridiculous. You have to focus in on the objective behind this and in this harvesting of the national forest, you have to get the Sierra club credit. They come out and say it. The rest of it is subterfuge.

You know, I visited southeastern Alaska in the last couple weeks and on-ground social and economic impacts of the decision are devastating. I held a town hall meeting in Ketchikan and had grown men crying because they felt that they had done everything possible to ensure the continuity of the small timber industry we have left.

But they couldn't get the timber. Now, out of a 17 million acre forest the proposal was to allow 4 percent, and now that's tied up in litigation. Now if we don't do something about it, it isn't going to be done, Mr. Chairman.

And that's why I commend you in re-addressing this matter and the severity of it and the realization that what have we taken? 21

trillion cubic feet of gas on lands that are affected by this Federal roadless withdrawal, taken them off limits for the benefit of the consumer in the United States. I think that's irresponsible. I wish some of the folks that were responsible for it were here to explain it to us. Thank you.

Senator CRAIG. Well, Mr. Chairman thank you very much. Now we will turn to our panelists and we thank you gentlemen for your patience. Let me turn first of all to William Hochheiser. Again, Manager of Oil and Gas, Environmental Research Office, Fossil Energy, U.S. Department of Energy.

STATEMENT OF H. WILLIAM HOCHHEISER, MANAGER, OIL AND GAS ENVIRONMENTAL RESEARCH, OFFICE OF FOSSIL ENERGY, DEPARTMENT OF ENERGY

Mr. HOCHHEISER. Thank you, Mr. Chairman for the opportunity to speak today on the Department of Energy's work regarding the impacts of the Forest Service roadless area conservation rule-making on the development of oil and natural gas and coal resources.

On October 12, 2000, staff of the Department of Energy's Office of Fossil Energy met with DOE's Deputy Secretary, T.J. Glauthier, concerning the impacts of the roadless rule on the exploration and production of oil, natural gas, and coal resources.

He requested that our office conduct an analysis of these potential impacts and we tasked Advanced Resources International, ARI, under an existing support contract to perform an oil and gas analysis. And additionally I gathered information on the coal impacts.

ARI completed its analysis of technically recoverable oil and gas resources under the inventoried roadless areas in mid-November and they presented it to a meeting convened by the Office of Management and Budget on November 20, 2000.

Attending that meeting were representatives from the Forest Service, the Council on Environmental Quality, OMB and DOE. Jeff Eppink, sitting here to my right from ARI is going to present the details of that analysis in separate testimony, but I will just summarize the results. Between 3.5 and 23.1 trillion cubic feet or Tcf of technically recoverable natural gas are estimated to underlie the roadless areas in the Rocky Mountain region.

The mean estimate within that range is 11.3 Tcf of gas. Between 120 million and 1.2 billion barrels of technically recoverable oil are estimated to underlie the same roadless areas with a mean estimate of 550 million barrels. Now, comparing these estimates with the National Petroleum Council natural gas study from December 1999, the roadless rule could add 9.4 Tcf of gas to the resource they estimated to be off limits to the development in the Rocky Mountain region. That is a 32 percent increase.

Perhaps most importantly, it is estimated that 83 percent of the affected gas, that's 9.3 Tcf, 83 percent is located under 2.7 million acres of roadless area. That's 5 percent of the 58 and a half million acres covered by the roadless rule. So 83 percent of the gas could be found under 5 percent of the area.

As a result of questions during and following the November 20 meeting, DOE further tasked ARI to estimate how much of the technically recoverable gas would be economically recoverable and

to estimate how technology advances might affect the amount of technically recoverable gas. The results were delivered on November 30.

Basing their methodology on the NPC study, Advanced Resources estimated that 7.7 to 8.5 trillion cubic feet of gas, that's 68 to 75 percent of the technically recoverable estimate, would be economic at prices of three to four dollars per thousand cubic feet. Additionally, they calculated that advances in technology would increase the mean technically recoverable gas from 11.3 up to 13.5 Tcf by 2015.

Now with regard to the impacts on coal, I gathered information from mining companies from the Forest Service Minerals Group and electric utilities and my results were written in a white paper dated November 30 that I forwarded to the Forest Service and to OMB.

In summary, I estimated that in Colorado and Utah the roadless rule could make at least 500 million tons of high quality economic coal inaccessible. This coal would have a value of \$7 to \$10 billion dollars.

In western Colorado, three active coal mines are hemmed in by roadless areas. These mines currently produce 16 million tons per year of bituminous, high Btu, low sulfur coal. In general, the impact on each of these three mines would be to preclude operators from extending operations into currently unmined areas. As portions of the seams are mined, normal practice would be to expand the mining operations to sustain production. Hence, if this cannot be done production from the existing areas would eventually decline and these mines would be forced to close prematurely.

In central Utah, three tracts in the roadless areas could contain 185 tons of economic coal worth 2.8 to 3.7 billion dollars. One of these tracts is adjacent to an operating coal mine which needs these resources for future expansion. This mine produces 6 million tons per year and employs 252 people with an annual payroll of over \$19 million.

The Forest Service added the results of the analysis to the text of the mineral section of the regulatory impact analysis and to the summary table of the rule's costs and benefits. The revised appendix described the DOE analysis and included additional information we provided on the growing oil and gas activity in the Rocky Mountain region.

After review of this information, the Forest Service concluded that the additional information provided by the Department of Energy did not change the magnitude of the effects as disclosed in their final environmental impact statement.

DOE believes that the amount of resources potentially impacted by the roadless rule could be significant. With U.S. demand for natural gas projected to grow significantly in the next 15 to 20 years according to Energy Information Administration, the National Petroleum Council and others, interest for development of natural gas resources on Federal lands will increase. Thank you, and I'll be happy to answer any questions.

Senator CRAIG. Thank you very much, now let me turn to Jeffrey Eppink, advanced resource international and your relationship to DOE was a contractor.

Mr. EPPINK. That's correct.

Senator CRAIG. To study and supply information.

Mr. EPPINK. That's correct.

Senator CRAIG. Please proceed.

STATEMENT OF JEFFREY EPPINK, VICE PRESIDENT, ADVANCED RESOURCES INTERNATIONAL, INC., ARLINGTON, VA

Mr. EPPINK. Good afternoon, Chairman Craig and members of the committee. My name is Jeffrey Eppink, I'm a vice president with Advanced Resources International, an energy consulting firm based in Arlington, Virginia. At Advanced Resources we have conducted a number of oil and gas resource assessments in recent years. I participated in the National Petroleum Council's 1999 study on natural gas and I'm currently conducting a major study on the impacts of leasing stipulations upon natural gas resources, which I'll elaborate upon later.

Today, I'd like to present an analysis that we conducted last fall concerning undiscovered oil and gas resources associated with the then-proposed Forest Service inventoried roadless areas. We performed the study for the Department of Energy as a task under a multi-year technical and analytical support contract to the Department.

I will first discuss briefly how this study was conducted, present conclusions, and then briefly mention additional similar studies that we are conducting.

The roadless study was comprehensive and a map will be put up. The Rocky Mountain region that it covers, New Mexico to Montana plus a portion of North Dakota contains a vast majority of oil and gas on Federal lands. In the analysis we inventoried the so-called inventoried roadless areas which are shown in red on the map. These areas without which road access would effectively prohibit oil and gas resource development.

Within the roadless areas we also discounted areas of high slope which are shown in dark red on the map. These are areas of mountain tops, ridges, and similar features which we assumed to be less prospective because they would be locations where it's physically difficult to site a drill rig or because they represent difficult geologic settings for oil and gas to occur.

We used resource estimates from several expert groups in the analysis, all of which are publicly available. The vast majority of resource play data was taken from the USGS 1995 national assessment. For a few selected plays where analysis had been conducted subsequent to the 1995 assessment, we supplemented the USGS data with resource estimates conducted by ourselves, the Utah Geological Survey and the potential gas committee and industry group.

The areas of occurrence of resources in the analysis are defined by the intersection of the resource plays with the roadless areas. Estimates of high, low, and mean technically recoverable oil and gas resources were made.

High estimates have low probability for occurring. Conversely, low estimates have a high probability for occurring. Technically recoverable resources are those that are recoverable using current technology. The results show that the roadless areas contain a

range of three to 23 Tcf of natural gas with a mean value of 11 Tcf, at minor amounts to over 1 billion barrels of oil with a mean value of 550 million barrels of oil.

Further in the analysis we examined the issue of access using guidelines established in the 1999 NPC study. We determined that for the mean natural gas resources in the Rocky Mountains, 7 Tcf of resources presently under standard lease terms will become subject to access restrictions. You can see this on the chart where in the pre-roadless conditions we have 7 Tcf of under standard lease terms, that moves to the closed development column with the implementation of the roadless rule.

Further, the implementation of the roadless areas will raise natural gas resources close to development estimated by the NPC at 29 Tcf to 38 Tcf, an increase of 32 percent.

To examine the economic impacts for eliminating access to these technically recoverable resources, we also provided a cursory examination of economically recoverable natural gas resources. Based on the mean resource values and prices of three and four dollars an MCF, about 68 to 75 percent of the technically recoverable gas can be recovered economically, representing \$23 to \$34 billion of economic activity.

We also estimate that the nine largest resource plays in the study area comprise about 83 percent of the total impacted resources. We determined that these nine plays represent less than 5 percent of all roadless areas nationwide, a robust conclusion from policy analysis point of view. And you can see that on the map here where the plays are in the bright colors, the roadless areas are in the red, the green, by the way, is areas where there are oil and gas resources of one kind or another, according to USGS.

I mentioned earlier that we're conducting ongoing resource studies. As a follow up to the 1999 NPC study we are currently conducting a major study of the cumulative impacts upon undiscovered natural gas resources of leasing stipulations. We are conducting that study on a detailed township by township basis. The study we are now just concluding covers southern Wyoming and northwestern Colorado, the greater Green River basin.

We will next be examining the Uinta-Piceance Basin in Utah and Colorado. The studies are being conducted for the Department of Energy and we'd be happy to share those results with you when they are available.

I appreciate this opportunity to present our roadless analysis to you and would be glad to answer any questions. I might add that the analysis can be found on the Internet at the website listed in the written statement. Thank you.

Senator CRAIG. Mr. Eppink, thank you, very much. We've just been joined by Senator Cantwell. Do you have an opening statement you would like to make before we proceed?

Senator CANTWELL. Thank you, Mr. Chairman. Perhaps when we get to questions I'll have some comments.

Senator CRAIG. That is certainly fine. Thank you. So we will now turn to Randy Phillips, Deputy Chief of Programs and Legislation for the U.S. Forest Service. He's accompanied by Larry Gadt, Director of Minerals and Geology Management, U.S. Forest Service.

STATEMENT OF RANDLE G. PHILLIPS, DEPUTY CHIEF FOR PROGRAMS AND LEGISLATION, U.S. FOREST SERVICE, ACCOMPANIED BY LARRY GADT, DIRECTOR FOR MINERALS AND GEOLOGY MANAGEMENT

Mr. PHILLIPS. Thank you, Mr. Chairman. It's nice to see you again and be in front of this committee. And thank you for the opportunity to talk about the roadless rule. With your permission, I'll summarize my comments and ask the full text be submitted for the record.

Mr. Chairman, on January 20 of this year, the assistant to the President and White House Chief of Staff issued a memorandum to agencies requesting that all new rules and regulations not yet in effect be delayed for 60 days to give the administration time to review those rules.

In accordance with that direction, the Secretary delayed the effective date of the roadless area conservation final rule from March 13 to May 12 of this year. Now because the roadless rule is currently under review by the Department of Agriculture and because of litigation, my comments today will be limited to the effects documented in the final EIS and the final regulatory impact analysis that was prepared in conjunction with the final rule.

In brief, the roadless rule would generally prohibit road construction and reconstruction in inventoried roadless areas on 58.5 million acres of national forest and grasslands. The prohibition of road construction and reconstruction is anticipated to have some impact on leaseable energy minerals. The final rule would not affect road construction and reconstruction providing access to and development within existing mineral lease boundaries or access needed for existing rights such as private or State-owned mineral deposits.

The prohibitions would likely prevent expansion of existing mineral lease areas into adjacent inventoried roadless areas or exploration and development of new mineral leases except in situations where development can be done without road construction.

In 1998, over 75 million tons of coal produced from Federal leases on national forest lands accounted for about 7 percent of total national production and about 22 percent of production from Federal leases. The final roadless rule could affect exploration for or development of known coal reserves on approximately 61,000 acres not currently leased in inventoried roadless areas. These reserves are estimated at between 237 million and 1.3 billion tons of coal near or adjacent to active mines.

In addition, there are over 2.5 million acres of inventoried roadless areas with varying levels of potential to obtain coal resources suitable for commercial development. There are also other coal resources in inventoried roadless areas, however the extent of the resource is not known.

The mining of coal from inventoried roadless areas is not extensive, but there are active mines on the Grand Mesa, Uncompahgre, Gunnison National Forests in Colorado and the Manti-Lasal National Forest in Utah. On the Grand mesa, Uncompahgre, Gunnison, Arch Coal is interested in expansion into a contiguous inventoried roadless area. Although the mine is an underground operation, expansion may require road access for exploration and development drilling and construction of ventilation shafts. If production

cannot be expanded into inventoried roadless areas, the mine could close within 2 to 5 years when current reserves are exhausted. Potential effects from closure of this mine could include the loss of 361 direct jobs, and affect 2,119 total jobs.

Currently, over 6 million acres of National Forest System land is under lease for oil and gas. This includes approximately 759,000 acres of inventoried roadless areas considered to have high potential for oil and gas leasing.

The areas currently under lease will not be materially affected by the roadless rule. Near the completion of the roadless area, conservation, FEIS, the Department of Energy raised additional concerns about the potential impacts on production of coal, oil and gas resources if the final roadless rule did not allow road building in support of exploration and development of these leaseable minerals.

The Forest Service evaluated the information provided by the Department in accordance with agency procedures. The agency concluded that there was no change in the magnitude of the effects as disclosed in the FEIS. The Forest Service included the DOE information in the regulatory impact analysis that accompanied the final rule.

Using information from the Department of Energy, an estimated mean 11.3 trillion cubic feet of natural gas and 550 million barrels of oil could potentially underlie inventoried roadless areas. They also estimate that between 63 percent and 78 percent of these potential reserves may be economically recoverable.

DOE estimates that historically about one-third of the oil in place at known reservoirs is recovered. Department of Energy also estimates that about 2.7 million acres of inventoried roadless areas contain about 83 percent of the natural gas resource in inventoried roadless areas. There's nothing in the final roadless rule that would prohibit construction of new power lines or oil and gas lines in inventoried roadless areas. However, having to construct these facilities without the use of roads would generally increase the construction and maintenance costs.

In summary, while the roadless rule does not impact existing mineral leases and outstanding rights, it could impact expansion of existing leases and exploration and development of new mineral leases on National Forest System lands that require road construction or reconstruction in inventoried roadless areas. Outside of known reserves such as active coal mines in Colorado, the actual impacts can only be estimated.

However, in those identified communities with a history of mining dependence, prevention of existing mining expansion due to the roadless rule could likely have a significant impact. This concludes my statement. I'd be happy to answer any questions, Mr. Chairman.

[The prepared statement of Mr. Phillips follows:]

PREPARED STATEMENT OF RANDLE G. PHILLIPS, DEPUTY CHIEF FOR PROGRAMS AND LEGISLATION, U.S. FOREST SERVICE

Mr. Chairman and members of the subcommittee: Thank you for the opportunity to appear before you today to talk about the potential impacts of the roadless rule on energy mineral leasing from National Forest System lands. I am Randy Phillips, Deputy Chief for Programs and Legislation, and with me today is Larry Gadt, Direc-

tor for Minerals and Geology Management of the Forest Service. I am here today to discuss with you the effects of the roadless rule based on the analysis in the Roadless Area Conservation Final Environmental Impact Statement (FEIS) that was released on November 9, 2000 and the final rule that was published on January 12, 2001.

As you know, on January 20, 2001, the Assistant to the President and White House Chief of Staff issued a memorandum to agencies requesting that all new rules and regulations not yet in effect be delayed 60-days to give the Administration time to review the rules. In accordance with that direction, the Secretary delayed the effective date of the Roadless Area Conservation final rule from March 13, 2001, until May 12, 2001.

The roadless rule is currently under review by the Department of Agriculture, so my comments today will be limited to the effects documented in the FEIS and the final regulatory impact analysis that was prepared in conjunction with the final rule.

In brief, the roadless rule would generally prohibit road construction and reconstruction in inventoried roadless areas (IRAs) on 58.5 million acres of national forests and grasslands. The prohibition of road construction and reconstruction is anticipated to have some impact on leasable energy minerals. The final rule would not affect road construction and reconstruction providing access to and development within existing mineral lease boundaries or access needed for existing rights, such as private or State owned mineral deposits. The prohibitions would likely prevent expansion of existing mineral lease areas into adjacent inventoried roadless areas or exploration and development of new mineral leases except in situations where development can be done without road construction.

Before I talk about the impacts of the rule on energy mineral leasing, I first want to briefly discuss energy mineral leasing on National Forest System lands.

BACKGROUND

Leasable mineral resources are those mineral resources that can be explored for and developed under one of several mineral-leasing acts. They include energy resources such as oil, gas, coal, and geothermal.

Exploration and development of oil, gas, coal, and geothermal resources are discretionary activities, meaning that leasing of them may or may not be allowed. The Bureau of Land Management (BLM) has the authority to lease minerals on National Forest System lands; however, they may only be leased subject to Forest Service concurrence.

Environmental impact statements are generally prepared before the issuance of mineral leases in inventoried roadless areas. The effects of any future lease exploration or development are also addressed in subsequent environmental analysis.

EFFECTS OF THE ROADLESS RULE

Locatable mineral access is a right granted by statute and therefore not materially affected by the subject to the road prohibition. Saleable minerals are subject to the road prohibition, and therefore eliminated as a permissible activity within inventoried roadless. However, the economic effect of eliminating saleable minerals is insignificant because saleable minerals (sand, gravel, limestone for aggregate, etc.) are not economic unless very close to market due to haul costs, therefore there is a minimal amount of this activity in roadless.

For leasable energy minerals, the road prohibition would not materially affect road construction and reconstruction providing access to and development within existing lease boundaries, even if those leases are extended beyond their current termination dates. However, the road prohibition would likely prevent expansion of existing mineral lease areas into adjacent inventoried roadless areas. In many cases, such expansion is more economically advantageous to the operator than developing new deposits.

Where reserves are known to occur in inventoried roadless areas, the road prohibition is likely to preclude future development, except in situations where development can occur without road construction. The economic impacts of precluding development of an area depends on a variety of external factors that would lead to development including market prices, transportation, access, plus other factors such as the availability of alternate resources in areas that may be available for leasing (either on other National Forest System lands or on other ownerships). Since mineral deposits tend to be concentrated in some geographic areas, it is likely that the impacts on mining jobs and income would also be concentrated in a few areas. The most immediate economic effects are associated with current proposals to expand existing leases into adjacent inventoried roadless areas for phosphate and coal mining.

Coal

In 1998, over 75 million tons of coal produced from Federal leases on National Forest System land accounted for almost 7 percent of total national production, and about 22 percent of production from Federal leases.

The final roadless rule could affect exploration for or development of known coal reserves on approximately 61,200 acres not currently leased in inventoried roadless areas. These reserves are estimated at between 237 million and 1.3 billion tons of coal near or adjacent to active mines. In addition, there are over 2.5 million acres of inventoried roadless areas with varying levels of potential to contain coal resources suitable for commercial development.

Some of these reserves or resources would likely be developed within the next 5 years if offered for lease. There may also be other coal resources in inventoried roadless areas. However, the extent of the resource is not known and there is no demonstrated industry interest in these.

The mining of coal from inventoried roadless areas is not extensive, but there are active mines on the Grand Mesa, Uncompahgre and Gunnison National Forests (GMUG) in Colorado and the Manti-Lasal National Forests in Utah.

On the GMUG, Arch Coal is interested in expansion into a contiguous inventoried roadless area. Although the mine is an underground operation, expansion may require road access for exploration and development drilling, and construction of ventilation shafts. The mine currently produces about 7 million tons per year. If production cannot be expanded into inventoried roadless areas, the mine could close within two to five years, when current reserves are exhausted. Potential effects from closure of this mine could include the loss of 361 direct jobs and affect 2,119 total jobs.

Two other operating mines adjacent to roadless areas on the GMUG could also be affected. Data was not available on when current reserves may be depleted for these mines, but together the two mines produce about 9 million tons per year and employ 368 people. If future expansion of these operations is precluded by the road prohibition, and no alternative sources of production are economically attractive, then these mines could be closed after current reserves under lease are mined.

There are also three tracts with known recoverable coal reserves on the Manti-Lasal National Forest that currently are not under lease. Two of the potential tracts have relatively small recoverable reserves, but the third tract has an estimated 135 million tons of recoverable reserves, of which 50 million tons is within inventoried roadless areas. Included in the recoverable reserve estimate are about 22 million tons of recoverable reserves owned by the State of Utah. Access to coal owned by the State of Utah would be guaranteed, as would access to any privately held rights. This tract would require development facilities in an inventoried roadless area, which may preclude development of the rest of the tract once the State's portion of the reserve is extracted.

Oil and Gas

Federal leases are an important source of oil and gas production, but most of the production is from off-shore leases. Production from national forests and grasslands currently accounts for only 0.4 percent of total U.S. oil and gas production. However, interest may increase in response to increasing prices and demands. Although much of the increased development is expected to be off-shore, a number of national forests and grasslands either have current leases, or have applications for permits to explore for natural gas.

Currently over 6 million acres of National Forest System land is under lease for oil and gas. This includes approximately 759,000 acres of inventoried roadless areas considered to have high oil and gas potential under lease. The areas currently under lease will not be materially affected by the roadless rule.

Near the completion of the Roadless Area Conservation FEIS, the Department of Energy (DOE) raised additional concerns about the potential impacts on production of coal, oil, and gas resources if the final roadless rule did not allow road building in support of exploration and development of these leasable minerals. After being informed about these concerns, the Forest Service evaluated the information provided by DOE, in accordance with agency procedures under the National Environmental Policy Act for new information. After careful review of the information provided, the agency concluded that there was no change in the magnitude of the effects as disclosed in the FEIS. The Forest Service included the DOE information in the regulatory impact analysis that accompanied the final rule.

Department of Energy, undertook an analysis that focused on the potential impacts to undiscovered oil and gas resources in the two U.S. Geological Survey (USGS)-defined Rocky Mountain regions. Overlaying USGS oil and gas "play" areas on Forest Service maps of IRAs, DOE estimated the acres of IRAs in each of the play areas. (A play is a USGS-designated area with common geologic characteristics

that have potential to produce oil or natural gas.) The calculations of oil and gas resources that are estimated to occur beneath inventoried roadless areas are tied to these acreage estimates.

Using information from the Department of Energy, an estimated (mean) 11.3 trillion cubic feet of natural gas and 550 million barrels of oil could potentially underlie inventoried roadless areas. (Estimates range from 3.5 trillion cubic feet to 23.1 trillion cubic feet of natural gas and from 119 million barrels to 1,212 million barrel of oil.) They also estimate that between 63 percent and 78 percent of these potential reserves may be economically recoverable. DOE estimates that historically about one-third of the oil-in-place of know reservoirs is recovered. At the assumed prices (\$3-4 per Mcf), the value of the economic activity for these natural gas resources would range from \$23 to \$34 billion dollars, which would be realized over a number of years.

In addition, on the Los Padres National Forest in California the prohibition of road construction or reconstruction in inventoried roadless areas could affect exploration and possible development of five high potential oil and gas areas and preclude possible future development of up to an estimated 21.4 million barrels of oil.

Based on DOE's figures of total undiscovered resources within the 208 Rocky Mountain play areas examined, estimated resources beneath IRAs account for about 3 percent of undiscovered gas and almost 7 percent of undiscovered oil resources in these play areas. DOE estimates that 2.7 million acres of inventoried roadless acres contain 83 percent (9.3 trillion cubic feet) of the natural gas resource in all inventoried roadless areas. Based on information from the National Petroleum Council this is less than 1 percent of the nation's natural gas resources.

If exploration and development did occur, it would be 5 to 10 years before any production is likely because oil and gas leasing is typically a lengthy process. The value would not be realized in the near future and any production would be spread over multiple years in the future. It is unlikely that exploration in IRAs would be a high priority because of issues independent of the Roadless Area Conservation Rule, such as access limited by rugged terrain, low probability of occurrence of oil and gas resources, distance to markets, and potential restrictions of other environmental laws.

Transmission Lines

There is nothing in the final roadless rule that would prohibit construction of new power lines or oil and gas lines in inventoried roadless areas. However, having to construct these facilities without the use of roads would generally increase the construction and maintenance costs.

Hydropower and Geothermal Energy

The roadless rule FEIS also did not identify any impacts to existing or proposed hydropower or geothermal energy projects.

SUMMARY

While the roadless rule does not impact existing mineral leases and outstanding rights it could impact expansion of existing leases and exploration and development of new mineral leases on National Forest System lands that require road construction or reconstruction in inventoried roadless areas.

Outside of known reserves such as the active coal mines in Colorado, the actual impacts can only be estimated. However, in those identified communities with a history of mining dependence, prevention of existing mining expansion due to the roadless rule could likely have a significant impact.

Predicting the impact on undiscovered resources is difficult since it is unknown how much of these potential reserves are actually underneath inventoried roadless areas or how much of the reserves will be economically recoverable in the future, or what future prices will be.

It is reasonable to assume, under the current demand conditions, that there will be increased interest for development of natural gas resources on Federal lands and elsewhere. However, while it is unlikely that inventoried roadless areas would be a significant contributor at current prices, since exploration in inventoried roadless areas may not be a high priority because of existing rugged terrain and access issues independent of the roadless rule, at higher market prices development of gas resources on Federal lands could increase.

This concludes my statement. I would be happy to answer any questions.

Senator CRAIG. Mr. Phillips, thank you very much. Mr. Gant, do you have any additional comments to add?

Mr. GANT. No, I do not.

Senator CRAIG. If not, let us use the 5 minute rule on questioning rounds, so we can move through this and have all of us participate. Mr. Hochheiser, in your testimony you indicated that on October 12, 2000, the DOE's Office of Fossil Energy met with Deputy Secretary T.J. Glauthier concerning the impact of the roadless rule on the exploration and development of oil, gas, and coal resources. Prior to that time had anyone at the Forest Service or the Secretary of Energy's office or anywhere else in the Executive branch for that matter asked the Office of Fossil Energy for such an analysis?

Mr. HOCHHEISER. No, they did not.

Senator CRAIG. So the first request for this analysis came on October 2, 2000. That would be after the President's announcement of October 1999 that he was going to set aside these 58 million acres of land; is that correct?

Mr. HOCHHEISER. Yes, it is.

Senator CRAIG. Approximately a year later.

Mr. HOCHHEISER. Yes.

Senator CRAIG. And that would have also been after the December 1999 speech by the then Secretary Dan Glickman at the national summit on private land conservation where he announced that road building would be prohibited on pristine national forest lands, would it not?

Mr. HOCHHEISER. Yes.

Senator CRAIG. That would also be after the State of the Union speech in January 2000 in which the President took credit for already protecting these areas, is that not correct?

Mr. HOCHHEISER. That's correct.

Senator CRAIG. And of course that would have been well after the May 2000 remarks by then Vice President Gore that there would be no more destructive development, destructive development, new road building, or timber sales in the roadless areas of the national forest, would it not be?

Mr. HOCHHEISER. Yes, sir.

Senator CRAIG. So really in perspective and notwithstanding the quality of your analysis, there was no reason for you to believe that you would have any appreciable impact on the course of the rule-making, was there?

Mr. HOCHHEISER. Well, whether we would have an impact, I think would be determined by people making policy decisions. We were asked to provide the analysis and we have provided the analysis. Of course, I imagine I'm disappointed when our analysis doesn't result in an impact.

Senator CRAIG. The Forest Service did respond to your analysis in a January 5, 2000 letter to OMB. Would you go through their major points and give us your thoughts you may have? Mr. Eppink can assist you if you would like, and then we will let the Forest Service respond to that, if you would please.

Mr. HOCHHEISER. Well, I would just hit some high points given the time limit, but one issue raised was that our analysis, our maps were at a very gross level and not fine enough to make the kind of estimates that we did, and that the play boundaries that Jeff described were only approximate within 1 to 5 miles.

First of all, we only made estimates to the nearest 100 billion cubic feet which is a fairly gross level and if you wanted to round it to the nearest trillion cubic feet it would still be 11 Tcf, which we think is significant. The play boundaries are probably good within one to two miles, given the ability to map rocks. And the major point here is that we find that most of the inventoried roadless areas are wholly within the play boundaries. In doing a computer analysis we found only 8 percent of the IRAs were within five miles of a boundary, so that would introduce less than a 10 percent uncertainty to the analysis.

They also brought up the fact that we assumed homogenous distribution of resources within each play, and that's very true with two significant exceptions. But first of all we did look at 116 plays within that Rocky Mountain region, so that's a fairly good level of detail. The assumption of homogenous resources is within those plays.

Now, there are two large unconventional resource plays, gas plays where we did not assume homogenous distribution because ARI had done a lot of research for us in those plays, and we have in those cases, and those are two of the top nine plays we talked about, in those cases we have detail down to the township level. A township is 6 by 6 mile square.

They also quoted the National Petroleum Council in saying that the majority of gas resources are going to be found in the basinal areas rather than at the edges and that the forest lands are only at the edges of the basin. We think our analysis is consistent with that because the Forest Service also pointed out that only 3 percent of the Rocky Mountain gas resources was found to be within the IRAs, the roadless areas. So that's consistent with saying most of, the majority of the resource is in the basinal areas. We found 3 percent in the roadless areas. And we also, they also said that the oil and gas resources are not evenly distributed and that's, of course, true. But in doing that they pointed out that the current activity, the current well drilling is not in the roadless areas.

I hope you don't mind if I share with you that when I asked a Forest Service minerals expert in the field about that, he said that was akin to telling a timber company that they should go and cut timber where they did last year. They should do it next year where they did last year because that's where they found the trees last year.

And I don't mean to be flip but the fact is that this future resource is not necessarily found where the current wells are. I mean if that were true we'd still all be drilling in Pennsylvania.

Some of the undrilled areas in the roadless areas are expected to have very high potential, according to geologists, and maybe I could let—Jeff is a geologist so maybe he could comment on that.

Mr. EPPINK. I think some of the areas do have some very good potential. I'd just like to say the one issue is this assumption of homogeneity of the resources that we used. I think in most plays we did make that assumption and given the state of knowledge, that's an appropriate assumption. But I think we definitely, within the vertical column of a given area we captured numerous plays so that we are capturing the geological variety that underlies it and that we're looking at undiscovered resource, and I just want to amplify

the point that Bill made that you don't look for undiscovered resources in discovered fields. That's reserves growth and that's a totally separate issue.

Mr. HOCHHEISER. Just a couple of more points. In economically recoverable resources, the Forest Service pointed out that this production wouldn't take place for probably 5 to 10 years. We don't think that's a reason to obviate the value of those resources. And they state that the 11 Tcf would only be 6 months of production. I feel that's a specious argument. The country needs all the natural gas resources it can get. And the 11 Tcf or whatever is eventually found would be produced over probably a 20 to 30 year period and be a significant part of our supply during that period.

And as Jeff said, I just want to point out that we only looked at undiscovered resources so current production would be in addition to the resources that we have, that we've been talking about. And Federal lands are an increasingly important part of our oil and gas production domestically. I think especially in the Rocky Mountains that that's going to continue.

Senator CRAIG. Thank you very much. Let me turn to Senator Bingaman.

Senator BINGAMAN. Thank you very much. Let me just be sure that I understand correctly what the import of this is, this inventoried roadless area rule. As I understand it, any existing leases in these areas were exempt from the rule, is that right?

Mr. PHILLIPS. That is correct.

Senator BINGAMAN. And as I also understand it, these so-called inventoried roadless areas had been available for drilling or for obtaining permits or for lease applications for decades, am I right about that? It is not as though this land had been locked up prior to the issuance of this rule, am I right about that or not?

Mr. PHILLIPS. That is correct, some of those leases, however, may have had some stipulations placed on them for some other concerns but not with regard to roadless.

Senator BINGAMAN. So that to the extent that any company felt there was a recoverable resource there, that was economical to recover, they were in a position to go ahead and drill for that or explore for that or make application to lease that area up until the issuance of this roadless rule, am I right about that? Yes, Mr. Eppink.

Mr. EPPINK. I think you're entirely correct but your key word there is economic. We've experienced a gas bubble for the last 12 to 15 years which has now popped. Gas prices have substantially changed and during that time it's up to the individual companies, but it may or may not have been economic to pursue those resources.

Senator BINGAMAN. So your thought is that since the price of gas is now substantially higher than it has been for the last 10 or 15 years, that there are areas that now would be attractive for exploration and development?

Mr. EPPINK. All other things being equal, that's correct.

Senator BINGAMAN. I'm a little concerned, I guess, about the estimates, Mr. Eppink that you've come up with here, because there's such an enormous range that you deal with. For example, on gas you say that there's somewhere between 3.5 and 23.1 trillion cubic

feet, so it's either 3.5 or it's 7 times that. That seems like a very large range of estimate. Is that a normal thing to estimate that kind of a range?

Mr. EPPINK. Yes, it is. If you look at it, most of the data is driven by the USGS resources estimates and if you look at given plays within the USGS national assessment you see ranges like that.

Senator BINGAMAN. Why wasn't USGS requested to do this work?

Mr. HOCHHEISER. I think it was they don't do this kind of geographic information system analysis which consisted of having to get the digitized maps from Forest Service and overlay them with the resource assessment, both in the interest of time and we had a very short time to do this, and because the surface types of analysis are not done by USGS, just the resource assessment work. We use their numbers principally but they were not available to do that.

Senator BINGAMAN. Do you know if they support these conclusions or generally do or want to disassociate themselves from them?

Mr. HOCHHEISER. I don't think they have a position that I know of. Probably because we didn't exclusively use USGS numbers they wouldn't wholly support the analysis because they would only support their own numbers. And just to comment on one of your previous questions, just to say that in the Forest Service impact analysis, in their letter to Mr. Spotila they do note that there are, some of the roadless areas are currently unavailable for leasing so not all of them are available to the companies.

Senator BINGAMAN. Some of those were unavailable before the issuance of the roadless area initiative?

Mr. HOCHHEISER. Yes.

Senator BINGAMAN. So the figures you're giving us here are not the figures for what has been made unavailable by the roadless rule?

Mr. HOCHHEISER. They are figures for, as I said, we would say that of the 11 Tcf, about 9 would be made unavailable by the roadless rule and the other two were already unavailable.

Senator BINGAMAN. They were unavailable. This article in the paper this morning caught my eye. I don't know how accurate it is. I just would ask any of you if you have any information about it. It says the White House has instructed the Justice Department to research ways to scuttle the Clinton's administration's regulation protecting 60 million acres of national forest from logging and road building, sources said yesterday. That the reference they make, do any of you know if that is a valid statement.

Mr. PHILLIPS. I'm not aware of any instructions like that.

Senator BINGAMAN. Anybody else?

Mr. HOCHHEISER. I don't know about that, sir.

Senator BINGAMAN. I'll stop with that, Mr. Chairman.

Senator CRAIG. Jeff, thank you. Let me turn to the chairman.

The CHAIRMAN. Thank you very much. I'm curious, Mr. Phillips, relative to the latter part of your extended statement and you indicate under transmission lines, and I quote, "there is nothing in the final roadless rule that would prohibit construction of any new power lines or oil or gas lines in inventoried roadless areas." Are

you familiar with the Intertie proposal in southeastern Alaska from Ketchikan roughly to Wrangell?

Mr. PHILLIPS. I am aware of that, probably not as much as you are, but, yes I am aware of that.

The CHAIRMAN. In your opinion, would the transmission line be allowed under this order or disallowed or can you enlighten us a little bit on the status of the case from Judge Singleton that, in the Tongass has challenged, if you will, the inadequacy of the Forest Service in not considering extended wilderness in their evaluation.

Mr. PHILLIPS. I guess the best way to answer that is if the transmission line required physical road construction, then it probably wouldn't be able to do that.

The CHAIRMAN. Well, who makes that decision, is it Forest Service? I mean, you've got to have access to put in transmission. It's not intended to be a road for the purpose of a road. It may be a road for purpose of putting in a transmission line. What's your criteria?

Mr. PHILLIPS. Well, we have definitions for what constitutes a road.

The CHAIRMAN. Can you build a transmission line without a road?

Mr. PHILLIPS. In some places I think you can.

The CHAIRMAN. Can you in southeastern?

Mr. PHILLIPS. Some places I've been in southeastern Alaska it would be very difficult.

The CHAIRMAN. Could you get that material for the record? I mean this right-of-way has been approved by the Forest Service and I'm not knowledgeable on whether it assumed a road. But since it was approved, I would assume you'd have access to some extent.

Mr. PHILLIPS. Let me respond for the record on that, if I may.

The CHAIRMAN. Mr. Phillips, I want to talk to you for a few minutes about a meeting and I would ask that you look in some detail. You'd better hold that up a little higher it's a little low. This is a group of bureaucrats that went to a meeting in December 2000, I discussed that, I think Senator Craig discussed it, but the blow up chart you see before you is a list of the meeting's attendees, and looking at the handwriting it suggests that at least one person, John Spotila at OMB kept this record, and apparently his colleagues at OMB including Wes Warren wanted to make sure he was there so he registered a second time to make sure his presence was noted.

I don't know the significance of that, but nevertheless, it's a rather curious effort to be recognized. Now I want to make sure that this December 1 meeting occurred after the final environmental impact statement was published, is that correct?

Mr. PHILLIPS. The final environmental impact statement was published November 17, 2000.

The CHAIRMAN. So this meeting occurred then December 1, 2000.

Mr. PHILLIPS. That would be after November, yes, sir.

The CHAIRMAN. Now, the meeting did involve a discussion of the Tongass National Forest because documents presented to us include a number of letters urging the administration to modify the

final environmental impact statement to immediately include the Tongass; is that correct?

Mr. PHILLIPS. I'm not aware of that. I haven't seen those documents, sir.

The CHAIRMAN. Do you have access to those documents?

Mr. PHILLIPS. The staff advises me we don't have access to them.

The CHAIRMAN. Well, can you advise us where those documents might be? We happen to have the documents, and we'd be happy to give them to you. We got them from you.

Mr. PHILLIPS. I don't think those came from the Forest Service.

The CHAIRMAN. Well, they came from OMB, I'm sure you can get them from OMB. Do you want our documents that we got from OMB?

Mr. PHILLIPS. We'll try to get them from OMB. If we can't we'll call staff and see if we can—

The CHAIRMAN. Well, the purpose here is to simply highlight and share, I guess, and the process that's been going on here for some time, it's subterfuge. These documents are available to us and my contention is this meeting obviously involved a portion of the Tongass National Forest. Would you acknowledge that this meeting involved the Tongass?

Mr. PHILLIPS. I really don't know if it involved the Tongass.

The CHAIRMAN. I would like to have you then respond after you've seen these documents to that question, fair enough?

Mr. PHILLIPS. Fair enough.

The CHAIRMAN. We asked for and were told there is not a summary of that meeting in the Forest Service public docket for this ruling and I gather from my previous question that's correct, you don't have a record.

And a little further along the line, as a general matter was the Forest Service in the habit of including summaries of meetings such as this in the public common docket.

Mr. PHILLIPS. Yes.

The CHAIRMAN. So this was an exception to the rule, evidently, that you don't have it?

Mr. PHILLIPS. It might be. Again, I need to look at the documents and then we'll respond to you.

The CHAIRMAN. Is there some other method we could find out what was said at this meeting about the Tongass, are there personal notes or diaries, e-mails, phone logs which might show what was said at that meeting?

Mr. PHILLIPS. We can do further checking. We'd be happy to do that for you.

The CHAIRMAN. Do you know of anybody or is there anybody that could enlighten us, that is here, relative to where we might find some information regarding those documents?

Mr. PHILLIPS. The staff have informed me they don't have any.

The CHAIRMAN. Did they know where any are?

Mr. PHILLIPS. No.

The CHAIRMAN. Do you know anyone who might have knowledge of those documents?

Mr. PHILLIPS. Personally, no, I don't.

The CHAIRMAN. Isn't it rather unusual that it's a policy to have some documentation and in this case there isn't any?

Mr. PHILLIPS. Normally. Depending on who's attending a meeting, somebody usually keeps notes, but I don't know what happened in this case.

The CHAIRMAN. Well they kept notes there who was in attendance, they can't seem to find out what went on. Well, I think I've made my point. Clearly there's been a pattern here that has occurred under the previous administration that I think is inexcusable, and the public has a right to have some idea of what's going on when people's livelihood is affected. And I think you share that, and the reality is, these decisions were made on the basis of a clear objective which was to terminate harvesting in the national forest, and the easiest place to start was the largest of all our national forests and that is the Tongass.

Less than one tenth of one percent of the commercial timber has ever been cut in that forest. So when I respond to my constituents, they look to me for some relief. When I try and get information relative to how and what happened, there's no record of the meeting.

Well, hopefully, Mr. Chairman, you can give me a call when that material comes in.

Senator CRAIG. Thank you, Mr. Chairman. Now let me turn to Senator Cantwell.

Senator CANTWELL. Thank you, Mr. Chairman, for holding this hearing on the roadless rule and thank you to this panel and the one that follows for testifying today. The roadless area rule was a result of a massive 3-year effort by the Forest Service and Department of Agriculture. The rulemaking process included over 600 public meetings and received review of 1.6 million comments. This process also included information submitted by the Department of Energy that we are discussing today, about which I have a few questions.

But first I want to point out that in the State of Washington alone over 60,000 people submitted comments with over 96 percent of those comments supporting the rule. So like Senator Bingaman, I was concerned when I read the *Washington Post* this morning, and albeit not all attributable to sources, that the White House has instructed the Department of Justice lawyers to find a way to "set aside" this regulation until the administration can proceed with a less restrictive rule, or eliminate the rule entirely.

I want to make it very clear that this is a rule. It has been published in the Federal Register. It's subject to judicial review and any attempt to alter the rule must be accomplished through a process that complies with the Administrative Procedures Act, and provides opportunity for notice and comment.

The Administrative Procedures Act is designed to make government provide good justification for its policies. That's why the APA was established, to open up government decision making to public scrutiny. And so obviously you are here to talk about that process as it related to the agencies that you are involved with.

If the Bush administration wants to disagree with the rule, which I think they're totally entitled to do, then they have to go through the same APA procedures and notification and comment process.

So my questions pertain to the information that was provided. I want to start with Mr. Eppink's comments about the process, and

I just want to make sure . . . am I correct that DOE submitted its study to the Forest Service during the rulemaking process, and that the Forest Service essentially agreed with the DOE analysis, because estimates that the Forest Service had made about resources were similar?

Mr. EPPINK. We presented the analysis just before Thanksgiving and I'm not sure of the timing of the rulemaking period. And as to whether they agreed with it, they certainly saw the merit of the analysis and I can tell by follow up questions that they had, I wrote the economic analysis and a couple of other memos subsequent to the meeting just before Thanksgiving. So there was a lot of interest in the analysis and what the meaning of the analysis was.

Senator CANTWELL. So they had this same information and they took that into consideration?

Mr. EPPINK. I can only assume so.

Senator CANTWELL. I don't know if you want to answer this or others do. In the assessments that DOE provided, you're making some assumptions about the distribution of resources in the roadless areas and in adjacent areas, right? It's not as if the resource maps are so precise, so we're making some assumptions here.

For the estimates that you provided, such as 11.3 trillion cubic feet of natural gas, what kind of supply are we talking about, in terms of length of time?

Mr. EPPINK. In terms of the time it would take the industry to develop that.

Senator CANTWELL. No, usage—how long would it take?

Mr. EPPINK. To use 11 Tcf?

Senator CANTWELL. How does that compare to our other resources?

Mr. EPPINK. It's about a half a year's supply.

Senator CANTWELL. A half a year's supply for?

Mr. EPPINK. The U.S. nationally.

Senator CANTWELL. A half of a year's supply for the U.S. nationally.

Mr. EPPINK. Yes. It equates that number. I'm not sure it's fruitful to couch it in those terms.

Senator CANTWELL. Well, of course we are making assumptions about the supply distribution, first of all, and then we have to consider the economics of extracting it, but you're saying that if we had that source, it would be somewhere around—

Mr. EPPINK. I made an assessment of undiscovered resource. That's different than supply. Supply implies that the industry has gone out and developed it and it's economic and they bring it to market.

Senator CANTWELL. But that would be if everything worked out.

Mr. EPPINK. If everything worked out I estimate probably 75 percent of the technically recovered would be recovered economically over a period of about 20 years.

Senator CANTWELL. But the supply of it would be a very narrow window.

Mr. EPPINK. I think of the amount that would be produced in a given year would be 11 Tcf divided by 20. It's hard to do math when you're up here.

Senator CANTWELL. But if the total amount was half a year's supply, then you're looking at spreading it over 20 years . . .

Mr. EPPINK. It would be one 20th each year.

Senator CANTWELL. And then secondly, am I right, from your testimony that 80 percent of the potential natural gas reserves in the roadless areas are concentrated in 5 percent of the roadless areas?

Mr. EPPINK. Yes.

Senator CANTWELL. In the Rockies basically.

Mr. EPPINK. Most of that resource is in the Rockies.

Senator CANTWELL. How difficult is extraction there?

Mr. EPPINK. Relative to other areas?

Senator CANTWELL. Yes.

Mr. EPPINK. I would say for the roadless areas in particular it's more difficult than other areas, but not as difficult as some. To give you an example, the overthrust belt in Wyoming which is very robust play, there were 300 wells that were drilled in play before they figured out the play. And now it's drilled quite frequently.

The same sort of thing could happen in the Montana fold belt were discoveries to be made. So it would, it's complex geologically, don't get me wrong. But it's, given technologies, 3D seismic, and that sort of thing, imaging techniques have gotten better, so the ability of the industry to actually turn these undiscovered resources into supply is probably quite good.

Senator CANTWELL. Thank you. I know my time has expired, Mr. Chairman, but I will have further questions that I will submit, or ask in a second round.

Senator CRAIG. Thank you. As I turn to my colleague from Wyoming let me submit two documents for the record. This is an analysis of the comments in the comment period involved in the roadless area review of approximately 1.1 million public comments on the draft proposal. About 70 or 97 percent were post cards and form letters, observed to be most likely the result of an orchestrated campaign. In fact, of the 1.1 million comments 800,000 of them were form letters delivered by an environmental consortium on the final day of the comment period.

On the other hand, detailed comments from governmental entities included States and localities wrote 62 percent against the proposal.

Senator CRAIG. Also I had asked the Washington Legal Foundation to do an analysis of administrations and their support of processes, proposals, and rulemaking. They've drawn this conclusion I found quite interesting, and I'll submit this for the record.

Based on our review of reported decisions, it appears that the Clinton administration on at least 13 occasions refused to defend resource management decisions of its predecessors, choosing to accept an injunction or a remand from a U.S. District Court rather than to defend those decisions in a U.S. Court of Appeals.

On at least 28 other occasions, the Clinton administration refused to defend its own resource management decisions in a court of appeal after receiving an injunction or a remand from a U.S. District Court.

On these 41 occasions, the Clinton administration chose to abandon rather than defend timber sales, grazing allotments, mining approvals, and wildlife management decisions that were carefully made by professional resource managers. The Clinton administration defended efforts, defense efforts in the Supreme Court were even worse. Apart from the district court losses that it refused to defend, the Clinton administration lost over 20 resource management cases in U.S. Courts of Appeal after winning in the District Court. More than half of these losses were in the Ninth Circuit Court of Appeals, the appellate court, with the highest reversal rate of 90 percent in the Supreme Court. Yet, in the 8 years of offices the Clinton administration asked the Supreme Court to review and advise resource management decisions by a court of appeals just once.

I think it's an interesting comparative record and probably if we look at other administrations, we might find a similar pattern.

With that I turn to my colleague from Wyoming.

Senator THOMAS. Mr. Chairman, since I missed the questions, I won't go into it, but I might have one that reflects your last comment. The assumption is I don't know how many millions of acres are involved to get those 11 trillion feet, I wonder how many acres of surface would be disrupted to do that. Have you dealt with that?

Mr. HOCHHEISER. I'm trying to remember back to the analysis, I think the total amount, there were 116, 116 plays that had some potential and I think they involved around 14 million acres, if I remember. Is not that right? But what we found was that over 80 percent of that resource was concentrated on 2.7 million acres.

Senator THOMAS. I think that is the point. As we move forward in the use of multiple use I think we are finding, are we not, techniques to have less surface disruption to obtain most of this available resources?

Mr. HOCHHEISER. Those 2.7 million acres are the gross amount that is underlain by that resource. In fact the footprint for developing it would be much smaller because you would have well pads that would probably have multiple wells and directional drilling and so on.

Senator THOMAS. Thank you, I will pass then, Mr. Chairman.

Senator CRAIG. Thank you, Senator Thomas. Mr. Hochheiser, the coal resource is particularly troubling to me. We are end users of this coal resource and how easy would it be for them to find alternatives when we look at this analysis?

Mr. HOCHHEISER. Well, what I found is the coal in the Colorado and Utah lands that were talked about by the Forest Service is a unique coal in that it is a high Btu, bituminous coal and low sulfur, about half a percent sulfur.

Senator CRAIG. You are saying that from a clean coal basis this is the best coal available potentially.

Mr. HOCHHEISER. Very clean coal and what I've found was that it is actually shipped to the East and used by the eastern electric utilities as a major part of their compliance strategy with the Clean Air Act. In fact, if that, and I talked to for instance a manager at the Tennessee Valley Authority who said they rely on using that coal, mixing with other coals to meet their sulfur emissions targets. And if they did not have that coal, they would either have

to use a high Btu, higher sulfur coal and do some emissions trading which would be on the order of one to seven dollars a ton equivalent for the coal, or use a low Btu, low sulfur coal, in which case they would have to derate their plants because of the higher volume of coal that would be needed or the same volume of coal would contain less energy. They would have to derate their plants by about 20 percent.

So that was the impact on the utility users of the coal that I found.

Senator CRAIG. Thank you. Mr. Eppink, your testimony suggests that 5 percent of the inventoried roadless areas involved 80 percent of the potential energy resources that are at issue in the disagreement between the Department of Energy and the Forest Service over the impact of the rule.

Mr. EPPINK. That is correct.

Senator CRAIG. Does that suggest to you that a more studied, case by case approach dealing with the roadless area matter might have reduced significantly the energy implications of this rule without dramatically changing the amount of acreage that was protected?

Mr. EPPINK. I think that is very clear, yes.

Senator CRAIG. I mean, that is also my general conclusion in looking at your findings, that if we had been allowed to analyze this in a constructive manner, we could have exempted those areas of high potential, or potential, and still have protected a substantial chunk of property.

Mr. EPPINK. I think that is correct. We do a number of these analyses and I think this is one where, from the implication, from the analysis it was fairly clear that if you dealt with just a small amount of the areas that were being considered you would affect a very large amount of the resource. And as these sorts of analyses go, that is pretty robust.

Senator CRAIG. Did you evaluate the secondary impacts on the roadless rule such as pipeline access across roadless areas?

Mr. EPPINK. No, we did not.

Senator CRAIG. Well, let me turn to the Forest Service. Mr. Phillips, in former director Dombeck's letter dated January 5, 2001 to John Spotila of OMB, he said after the final EIS was published, two additional coal mines that would be affected by the roadless rule were identified. How did the Forest Service overlook the existence of two coal mines on national forest lands?

Mr. PHILLIPS. The two mines that I think you may be referring to there are the two in Colorado which we did not receive information for in order to reflect the economic impacts to those operations. So I am not sure that we overlooked them. They did not submit the information that we needed to do the evaluation of the impacts.

Senator CRAIG. Does the Forest Service not keep records of coal mining operations located on Forest Service lands?

Mr. PHILLIPS. We do our best. Yes, we do.

Senator CRAIG. The answer is yes.

Mr. PHILLIPS. The answer is yes.

Senator CRAIG. And still throughout this process of over a year until it was finalized, it was not realized that two coal mines had been missed.

Mr. PHILLIPS. Well, it was realized that they were there, I think, but we did not have the job-related impacts associated with that, I believe is the case.

Senator CRAIG. If the Forest Service did not know these mines existed—or does now I guess—how could it in good faith maintain it had done a comprehensive environmental impact analysis and meaningful initial regulatory flexibility analysis as required by the Regulatory Flexibility Act?

Mr. PHILLIPS. In completing that and in response to Mr. Eppink's, actually, his question on whether or not we, how we used the additional information that was brought forward into the final regulatory impact analysis, we went with the information we had. I believe the total employment effects for coal alone were about \$89 million.

Senator CRAIG. Okay, did you believe that it is within the spirit and legal requirements of NEPA, RFA, and APA to publish a proposed rule and a draft environmental impact statement when the regulatory agency does not know who the rule would affect?

Mr. PHILLIPS. I believe it was felt that the impacts were adequately—well, let me say this, let me back up a minute. That is actually a legal issue, an issue in litigation. I would prefer not to get into speculating on that.

Senator CRAIG. All right. We will leave it at that. I appreciate the reality of that situation. With that let me turn once again to Senator Cantwell. And Senator take as much time as you want with this panel. I am going to step out for a moment.

Senator CANTWELL. Mr. Chairman, I was going to in light of the fact that we have a second panel, I was going to submit whatever additional questions I have since we have had quite a bit of discussion about what has been collected and documented, and we are going back and forth on when and where, what was submitted and how it was reviewed.

But if you like, Mr. Chairman, I would be happy to submit those and go to the next panel and have them testify.

Senator CRAIG. Fine. I tell you, I am going to have to make a phone call and I am going to start the next panel and let you work down through it for the record and then I will be able to step back in.

Senator CANTWELL. Thank you.

Senator CRAIG. Gentlemen, thank you very much, any additional questions will be submitted to you, Senator Cantwell has some and I will probably have some also, but we thank you very much for your time here.

Gentlemen, thank you very much for coming this afternoon to provide testimony on this most important issue. Let us start with Dr. Peter Morton of the Wilderness Society, Denver Colorado. Dr. Morton, welcome before the committee.

STATEMENT OF PETER A. MORTON, Ph.D., RESOURCE ECONOMIST, ECOLOGY AND ECONOMICS RESEARCH DEPT., THE WILDERNESS SOCIETY

Dr. MORTON. Thank you, Mr. Chairman. I am Pete Morton, a natural resource economist in the research department of the Wilderness Society. We are a 200,000 member national conservation

group founded by Aldo Leopold, Bob Marshall, and other visionaries. We focus specifically on public land issues and I appreciate the opportunity to testify today. As you know the Wilderness Area Conservation Rule conserves approximately 58 million acres of the public estate managed by the Forest Service. Conserving these roadless wild lands will provide multiple uses, multiple goods and services and multiple economic benefits for current and future generations. Fishing, hunting, hiking, mountain biking, skiing, rafting, camping are just some of the multiple activities allowed in these areas, and these activities are very important to the economies of the Western United States.

I would like to include for the record a letter from the Ecological Society of America, the world's premier society of professional ecologists underscoring the scientific justification for the wilderness area conservation rule. With regards to energy, while gas is a clean burning rich fuel for the future, the drilling for gas generates significant ecological threats centered mostly on water. As a result of drilling, aquifers are drained, water tables are lowered, drinking water wells dry up, water quality is threatened and you have sediment loads discharged into streams which damage fisheries.

If there is one thing more valuable than oil and gas in the arid West it is water. Other problems from exploiting energy resources include erosion from roads and landslides. In Colorado alone over 1 million acres of Forest Service roadless areas have high risk for landslides that dump tons of sediments into streams. All of these impacts carry price tags but they are almost never captured in cost benefit analysis. Such costs need to be considered especially since roadless watersheds provide clean water for hundreds of downstream communities and thousands of affected citizens. A more detailed discussion of these costs are included in my written testimony.

I would like now to turn to the Wilderness Society's analysis of oil and gas in roadless areas in six Western States. Using GIS intersection analysis of oil and gas plays with roadless areas, we estimate that roadless areas in these States contain only four-tenths of one percent of the Nation's oil resources and six-tenths of one percent of the Nation's gas resources. These numbers were estimated using USGS data. These are the technically recoverable resources, which drop significantly when financial and economic factors are considered.

Our most recent GIS analysis of Colorado highlights the small role that roadless areas play in oil and gas development. If you look at the map on the right, in the gray are all the acres in Colorado with oil and gas potential. The yellow indicates roadless areas with oil and gas potential, while the blue indicates roadless areas without oil and gas potential. As shown on the map, a majority of the roadless areas have no oil and gas potential. Roadless areas with oil and gas potential account for approximately 3 percent of the total acres in Colorado with oil and gas potential, a small amount.

With respect to the actual amounts of the Roadless Area Conservation Rule, currently 759,000 acres of the roadless areas with high oil and gas potential are already under lease and will not be impacted by the roadless rule. The remaining land, much of which

is on steep slopes, has been available for leasing for 60 or 70 years with little or no interest from the industry.

We have a second map which shows roadless areas combined with the coverage of oil and gas leases. What is interesting about this map, we have both wilderness areas and roadless areas, and what is significant is the important role that the roadless areas play in terms of ecological connectivity between the a lot of the well-known roadless areas in Colorado. Also it shows that only 2 percent of the roadless areas in Colorado are under lease, reinforcing the lack of interest in these areas from the oil and gas industries. Copies of these maps will be submitted for the record.

It is also important to note that 41 percent of the roadless areas already had management prescriptions developed through the normal planning process with local and national input that prohibit road construction. As such, when examining the impact of the roadless rule we should focus only on the 59 percent of the roadless areas where management prescriptions were actually changed.

When all these factors are considered, the potential negative impacts from the roadless rule are much, much less than have been estimated by the oil and gas industry. And as importantly, when estimating economic impacts, it is proper to examine the net impacts of the rule, fully accounting for the benefits. While economics should not drive public land management, when the net impacts are considered we agree with the conclusion of the Forest Service that the benefits of the Roadless Area Conservation Rule far outweigh the cost.

And finally with respect to the current spike in energy prices, the quantity of oil and gas in the national forest roadless areas are small, relatively, and will have absolutely no impact on energy prices in the global market. In addition the undiscovered oil and gas resources in roadless areas cannot be added to current production for at least 5 to 10 years.

The already discovered gas reserves and expected growth in those reserves account for 42 percent of U.S. on-shore gas supplies. It is these resources, the financially feasible gas resources in and around already discovered reserves that have the potential to impact short-term energy prices, not the hypothetical, unknown small quantities of undiscovered gas resources in roadless wild lands far from existing pipelines. Thank you.

[The prepared statement of Dr. Morton follows:]

PREPARED STATEMENT OF PETER A. MORTON, PH.D., RESOURCE ECONOMIST,
ECOLOGY AND ECONOMICS RESEARCH DEPT., THE WILDERNESS SOCIETY

I am Dr. Peter Morton, Resource Economist in the Ecology and Economics Research Department for The Wilderness Society, a 200,000-member national conservation group that focuses on public land issues. I appreciate the opportunity to testify today regarding potential effects of oil and gas resource development in national forest roadless areas.

The Forest Service Roadless Area Conservation Rule has raised concerns by some over the economic impact of prohibiting road construction on domestic energy supplies. The environmental impact statement for the rule presents a good overview of the rule's potential effects on oil and gas development, including some detailed information on reasonably foreseeable development activities. The objective of this testimony is to evaluate the impacts—both positive and negative—of the Roadless Area Conservation Rule to provide decision-makers with additional information relevant to the current debate.

ECONOMIC IMPACTS FROM THE ROADLESS RULE

The Roadless Area Conservation Rule conserves approximately 58.5 million acres of the public estate managed by the U.S. Forest Service. Conserving these roadless areas will provide for multiple uses, multiple goods and services, and multiple economic benefits for current and future generations. Roadless areas provide multiple backcountry recreation opportunities (fishing, hunting, birdwatching, mountain biking, hiking, skiing, horseback riding, rafting, etc.) represent critical habitat for fish and wildlife—including threatened and endangered species, provide the scenic backdrop for motorized and non-motorized visitors outside roadless areas, generate ecosystem services such as carbon sequestration, natural pest control and watershed protection for local communities, and preserve the option of protecting additional wilderness for future generations. A letter from the Ecological Society of America (Attachment 1), the world's premier society of professional ecologists, underscores the scientific justification for the Roadless Area Conservation Rule.

Although roadless wildlands are highly valued by society, without formal markets, the benefits of wildland conservation are difficult to quantify in economic terms. As a result, non-market wildland benefits are typically under-produced by private landowners responding to market signals. This is a serious shortcoming as certain functions of nature, although they have no market value and their benefits are only partially understood, are necessary to keep America's market economy running. Public lands can help correct market failures by sustaining roadless wildlands that cannot survive the market forces driving private land use decisions. The failure of markets to protect roadless area benefits provides the economic justification for implementing the roadless rule.

The record number of public comments received by the Forest Service in support of the roadless policy provides empirical recognition and support for the multiple uses and benefits generated from roadless area conservation. While no quantitative estimate of the benefits of the rule was provided in the Roadless EIS, the Forest Service believes the benefits of the rule outweigh the costs (USDA Forest Service 2001, Regulatory Impact Analysis). In a more sophisticated analysis, Loomis and Richardson (2000) estimated that in their current, unroaded condition, Forest Service roadless wildlands in the lower 48 states can be expected to provide almost \$600 million in recreation benefits each year, more than \$280 million in passive use values, and nearly 24,000 jobs. The authors also estimated annual benefits from roadless area ecosystem services to include between \$490 million and \$1 billion worth of carbon sequestration services as well as \$490 million in waste treatment services. Estimating the net impacts of the roadless rule should fully account for the benefits of conserving roadless areas as well as the potential costs with respect to the decline in quality and quantity of the other multiple uses generated by the public estate as a result of exploiting energy resources.

THE ECOLOGICAL FOOTPRINT OF OIL AND GAS EXPLORATION AND DRILLING

Oil and gas drilling operations leave behind a large footprint on the landscape—a footprint that extends well beyond the several-acre drilling sites. Beginning with exploratory activities, large trucks with seismic surveying equipment criss-cross the landscape using a crude system of roads designed for lowering the financial costs of gathering geophysical information with at times little consideration for wetlands, storm water runoff or critical habitat. Exploratory drilling operations then require more large trucks with drill rigs using a network of constructed roads to access drill sites. If the exploratory well is determined to have no potential for production, the well is plugged, but the landscape scars remain. Depending on the agency with oversight, there is typically little enforcement or monitoring of environmental regulations. In addition, no surety bonds are required for restoration or clean up.

If the well has potential for production, the well is cased with pipe and cemented (in an attempt to prevent oil and gas from seeping into nearby aquifers), and the drilling rig is replaced by a well head. Electric or gas powered motors are used to power the pumps that collect the gas at each well and to power the series of 24-hour compressor stations that pressurize gas for pipeline transport from the wells to customers in distant markets (WORC 1999). Many drill sites also involve the construction of sediment ponds and retention reservoirs to collect storm water drainage and store the ground water brought to the surface as a result of the drilling and extraction operation—the latter process is called dewatering. Injection wells are sometimes used to dispose of the water produced and to enhance oil and gas recovery—an action that may necessitate additional drilling of a few to hundreds of injection wells throughout the field (Gauthier-Warinner 2000). The ecological footprint not only extends across the forest and range landscape, it also penetrates to shallow aquifers as well as aquifers thousands of feet below the earth's surface.

WATER AND THE UNCOUNTED COSTS FROM OIL AND GAS EXTRACTION

The major uncounted environmental cost associated with oil and gas drilling concerns water. National Forest roadless areas provide important watershed protection services for downstream communities, services that are negatively impacted by oil and gas drilling. In the lower 48 states, 55% of the watersheds that contain IRAs provide water to downstream facilities that treat and distribute drinking water to the public (LaFayette 2000, Watershed Health Specialist Report).

Greatly increased drilling activity for coal bed methane is having profound real life impacts on many families and communities in the West and illustrates well some of these impacts. In order to “release” the methane gas from coal beds, enormous amounts of ground water must be pumped from coal aquifers to the surface. The water discharged on the surface comes from shallow and deep aquifers containing saline-sodic water. The total amount of water produced from individual coalbed gas wells is generally much higher than that from other types of oil and gas wells (USGS 1995). Coal bed methane wells in Wyoming and Colorado discharge between 20,000 to 40,000 gallons per day per well, onto the ground surface (Darin 2000). The disposal of the water produced with coalbed gas not only affects the economics of development, but also poses serious environmental concerns. Water disposal can vary from inexpensive methods, such as discharge into streams, to more costly alternatives, such as underground injection and surface discharge after water treatment.

The amount of water discharged from CBM wells in Wyoming has skyrocketed in recent years, increasing from approximately 98 million gallons (300 acre feet) per year in 1992, to 5.5 billion gallons (17,000 acre feet) per year in 1999 (Wyoming State Engineer’s Office cited in Darin 2000). The discharging of 17,000 acre feet of water in the arid west is wasteful in the short-term (generally an acre-foot of water will supply a family of four for one year), and has potentially devastating economic impacts for affected communities in the long-term. Dewatering of deep aquifers may upset the hydrologic balance, eliminating or reducing the availability of this water for future agricultural and domestic uses, as well recharge for shallow aquifers and surface water.

The discharge of ground water can deplete freshwater aquifers, lower the water table, and dry up the drinking water wells of homeowners and agricultural users. Monitoring of wells maintained by the BLM in the Powder River Basin, Wyoming already indicates a drop in the coal aquifer of over 200 feet (WORR 1999). The short-term economic costs include drilling new, deeper wells for current and future homeowners, ranchers and farmers, assuming successful wells can be found and/or the costs of relocating families to new homesites. If the freshwater aquifers do not fully re-charge, the long-term economic costs to affected landowners, homeowners, communities, and states across the west could be severe, including the foregone opportunity (option value) to use aquifer water in the future.

The water discharged from oil and gas wells is highly saline with a very high sodium absorption ratio (SAR)—a ratio that affects how water interacts with soil. Water with a high SAR can permanently change chemical composition of soils, reducing soil, air and water permeability and thereby decreasing native plant and irrigated crop productivity. Test results from water discharged from CBM wells from 3 sites in Wyoming all revealed SARs exceeding a level that could result in a 30-40% decrease in plant productivity (Powder River Basin Resource Council 2000).

The discharge of tens of thousands of gallons of ground water transforms many streams that normally flow intermittently only during spring runoff or after storms into all-season streams (Powder River Basin Resource Council 2000). The influx of water has resulted in deep channel scouring, erosion, and increased sedimentation. Increased sedimentation in-streams can negatively impact native fisheries found in mainstream drainages with increased likelihood and financial costs from fishery restoration projects. The discharge of water into intermittent stream channels damages native flora and fauna not adapted to year-round water and promotes the spread of noxious weeds such as Scotch burr and Canadian thistle. The change in native vegetation composition, combined with the increase in noxious weeds, negatively impacts threatened and endangered species and other wildlife, as well as cattle. The loss of native species and the spread of noxious weeds across the west has enormous economic costs to the public and private interests.

The landscape is also impacted from the retaining ponds or reservoirs constructed to store the water discharged from the drilling operation. The constructed earthen dams and retaining ponds destroy additional habitat and introduce artificial structures to the landscape. Habitat and homes on property nearby reservoirs also have potential flood risk from structural failure of the poorly designed, quickly built retaining ponds and reservoirs during storm events, for example.

And finally, drilling for oil involves ecological risks and potential economic costs associated with blowouts—the catastrophic surge of the highly pressurized fluid from the drill hole that can cause fires, loss of life and property, and the potential contamination of surface drinking water sources. To reduce the number of blowouts, rotary drilling operations typically inject a fluid of drilling muds into the drill hole in order to lubricate and cool the drill bit. While reducing the number of blowouts, the drilling fluids themselves create a risk of contamination of adjacent freshwater aquifers (Gauthier-Warinner 2000).

THE UNCOUNTED COSTS FROM DRILL SITES, PIPELINE AND ROAD INFRASTRUCTURE

Exploiting the gas in unconventional, continuous-type deposits will require drilling a significant number of wells, as the distribution of these resources is not well understood. Based on existing technology, the USGS indicates that nationwide approximately 960,000 productive wells will be required to recover potential gas reserve additions of 300 trillion cubic feet. However, the habitat loss would not end there as extrapolation of present-day success ratios indicates that roughly 570,000 “dry” holes would have to be drilled in addition to the productive wells—for a total of 1,530,000 drilling sites on public and private lands. Based on an industry report in Alaska (cited in NPC 1999) while past drilling pads consumed about 65 acres of habitat, recent operations average less than 10 acres. If we assume 5 acres per drilling pad and 1,530,000 drill sites, exploitation of just the continuous-type gas deposits would consume approximately 7.7 million acres of habitat on public and private land across the nation. As noted by the USGS (<http://energy.usgs.gov/factsheets/GIS/gis.html>), “land-use planners are not in a good position to determine the societal impacts of the drilling (density) that would be necessary if these continuous reservoirs of (tight) gas were exploited.”

In order to bring gas to market, thousands of miles of pipeline must also be constructed—extending the impacts of gas drilling far from the actual drill site. There are currently more than 270,000 miles of gas transmission pipelines and another 952,000 miles of gas distribution lines. The National Petroleum Council (1999) projects a need to build 38,000 and 255,000 miles of additional transmission and distribution pipelines, respectively, by 2015.

Oil and gas exploration also requires roads that increase ecological costs and invite cross-country travel and habitat damage by ORVs. Oil and gas drilling often require daily vehicular trips to monitor and maintain wells and pipelines. The increased traffic disrupts wildlife, may result in more road kill, and diminishes quality of life for local residents. The linear deforestation associated with road construction degrades habitat and fragments travel corridors needed by wildlife species such as grizzly bears, wolves, and other large, wide-ranging predators. Roads become conduits for non-native species that displace native species resulting in significant mitigation costs for taxpayers. Roads, by providing access, increase the frequency of human-caused fires. Humans cause ninety percent of all wildfires in the national forests; more than half of those wildfires begin along roads. In addition, roads increase the damage to historical, cultural and archeological resources due to increased ease of access.

Roads increase sediment deposits in streams resulting in reductions in fish habitat productivity. In addition to keeping sediment from access roads and drill sites out of community water sources, roadless areas protect communities from mass wasting (e.g. landslides). Mass wasting from landslides and debris flows is a key source of sediment, particularly in western forests, and many of the roadless areas are at high risk from landslides. In Colorado and Wyoming, for example, over 1,146,000 and 645,000 acres of roadless areas, respectively, have high susceptibility to landslides (Table 3). While landslides are a natural process, management activities like road construction and logging accelerate the incidence of mass wasting by several orders of magnitude (Swanson 1971, Anderson and others 1976, Swanson and Swanson 1976, Sidle and others 1985, Swanson 1991). For example, a joint FS and BLM study in Oregon and Washington found that of 1,290 slides reviewed in 41 subwatersheds, 52% were related to roads, 31% to timber harvest, and 17% to natural forest (USDA Forest Service 1996 cited in LaFayette 2000, Watershed Specialist Report). The Forest Service concluded that the Roadless Area Conservation Rule “would have a considerable beneficial effect on water quality, particularly in Regions 1 and 4.” (the Northern Rockies)

Table 3.—NATIONAL FOREST ROADLESS AREAS WITH HIGH LANDSLIDE SUSCEPTIBILITY FOR SELECT STATES

State	Acres of roadless areas with high risk of landslides*	Percent of FS roadless areas with high susceptibility to landslides
Colorado	1,146,000	33
Wyoming	645,000	21
Montana	564,000	15
Utah	492,000	14

*NOTE: This is a conservative estimate of roadless acres classified as highly susceptible to landslides, as these totals did not consider the 21 million acres in roadless acres allocated to prescriptions that do NOT allow road construction and reconstruction, some of which have may high susceptibility to landslides (USDA FS Watershed Specialist Report 2000).

The uncounted economic costs from road construction for oil and gas drilling include increased ORV monitoring costs, increased frequency and costs of stream restoration projects, increased noxious weed mitigation costs, increased damage to archaeological sites and the decline in future benefits from visiting these sites, increased water treatment costs for downstream communities, and increased road maintenance and closure costs for taxpayers. On average, the annual maintenance cost of a mile of road is about \$1,500 per mile (USDA FS 1999). Each new mile of road added to the FS transportation system competes for limited road maintenance funding, as Congressional funding is less than 20% of the funding necessary to maintain the existing road infrastructure. One must seriously question the wisdom of building more roads when current roads can't be maintained, and each year's unmet maintenance needs increase the backlog as roads deteriorate and the costs of repairs increase over time.

Examples of the economic costs from energy exploitation are summarized in Table 4 and should be included as part of the discussion on the net impacts from the Roadless Areas Conservation Rule.¹ While many of these costs are difficult to estimate, academic and federal agency economists have made great advances in developing methods to value non-market costs and benefits. Included in the table are methods available for estimating the economic costs, to drive home the point that these costs are quantifiable and should be included in the economic calculus. Many heretofore-unquantifiable wildland benefits and costs are now quantifiable and available to agency officials responsible for developing the policies and procedures for guiding public land management. We therefore strongly encourage the USGS to internalize non-market costs into the cost functions used to estimate economically recoverable resources.

¹While the discussion and the economic costs included in Table 4 focus on oil and gas, coal mining has similar environmental impacts that should not be ignored. For example, coal mines cause subsidence (i.e. the settling of the earth after the coal is removed) that can result in landslides and damage to the hydrological function of streams, wetlands and groundwater wells. Even underground coal mines require roads on the surface in addition to a drilled ventilation system to release methane, a deadly greenhouse gas, directly from the mine into the atmosphere.

Table 4.—THE UNCOUNTED ECONOMIC COSTS OF MINING, OIL AND GAS EXTRACTION

Cost category	Description of potential cost	Methods for estimating cost
Direct Use	Decline in quality of recreation including hunting, fishing, hiking, biking, horseback riding.	Travel cost, contingent valuation surveys.
Community	Air, water and noise pollution negatively impacts quality of life for area residents with potential decline in the number of retirees and households with non-labor income, loss of educated workforce with negative impacts on non-recreation business. Decline in recreation visits and return visits negatively impact recreation businesses.	Surveys of residents and businesses. Averting expenditure methods for estimating costs of mitigating health and noise impacts. Change in recreation visitation, expenditures and business income. Documenting migration patterns.
Science	Oil and gas extraction in roadless areas reduces value of area for study of natural ecosystems and as an experimental control for adaptive ecosystem management.	Change in management costs, loss of information from natural studies foregone.
Off-site	Air, water and noise pollution affect quality of downstream and downwind recreation activities. Drilling rigs in viewsheds reduce quality of scenic landscapes, driving for pleasure and other recreation activities and negatively impacts adjacent property values. Groundwater discharged can negatively impacts adjacent habitat, property, and crop yields, while depleting aquifers and wells.	Contingent valuation surveys, hedonic pricing analysis of property values, preventive expenditures, well replacement costs, restoration and environmental mitigation costs, direct impact analysis of the change in crop yields and revenues.
Biodiversity	Air, water and noise pollution can negatively impact fish and wildlife species. Ground water discharged changes hydrological regimes with negative impacts on riparian areas and species. Road and drill site construction displaces and fragments wildlife habitat.	Replacement costs, restoration and environmental mitigation costs.
Ecosystem services	Discharging ground water negatively impacts aquiferrecharge and wetland water filtration services. Road and drill site construction increase erosion causing a decline in watershed protection services.	Change in productivity, replacement costs, increased water treatment costs, preventive expenditures.
Passive use	Roads, drilling and pipelines in roadless areas results in the decline in passive use benefits for natural environments.	Contingent valuation surveys, opportunity costs of not utilizing future information on the health, safety and environmental impacts of oil and gas drilling.

Adapted from Morton (2000)

PRELIMINARY ANALYSIS OF OIL AND GAS RESOURCES IN
NATIONAL FOREST ROADLESS AREAS

As indicated by the Forest Service in the EIS for roadless rule, it is very difficult to evaluate the reasonably foreseeable potential for oil and gas development in Inventoried Roadless Areas (IRAs). While significant energy resources underlie some IRAs, there has been very little interest in leasing or drilling in roadless areas or other national forest lands. It is wildly unrealistic to estimate the potential economic impacts of protecting IRAs based on total quantities of oil and gas resources in IRAs. That is like estimating timber industry impacts based on the total number of board feet of timber in IRAs—a pointless exercise that would result in a grossly inflated and inaccurate economic impact estimate. While the EIS does not include extensive data on oil and gas resources in IRAs, it presents a realistic picture of the overall economic effects of prohibiting roads.

As a starting point in evaluating economic effects, The Wilderness Society undertook an assessment of the energy potential of federal lands in general and roadless areas specifically. The assessment included a GIS analysis of the oil and gas resources in national forest roadless areas for 6 states in the Intermountain West. These 6 states were selected as they represent the states with major oil and gas plays and they have significant acreage of national forest IRAs. Following are some preliminary results; we expect to have final results later this spring.

Data

We obtained data from the USGS 1995 National Assessment of United States Oil and Gas Resources, which divides the U.S. into eight regions and subdivides those regions into 72 geologic provinces, with each province containing a number of individual plays. Plays are defined by the USGS as a set of known or postulated accumulations of oil or gas that share similar geologic, geographic and temporal properties. A separate GIS coverage for each of the 199 plays in the six western states (North Dakota, Wyoming, Montana, Colorado, Utah and New Mexico) was obtained from the USGS in ARCANFO export format (Weller 2001). These coverages define the boundaries of the oil and gas plays. The National Inventoried Roadless Areas (IRA) GIS coverage was downloaded in ARC/INFO export format from the USDA Forest Service Roadless Area Conservation website. This dataset contains all National Inventoried Roadless Areas (IRAs) for the lower 48 states.

Methods

A Geographic Information System (GIS) and ARC/INFO software were used to determine the area of overlap between IRAs and oil and gas plays. The IRA coverage was clipped to the boundary of each of the six states in the study area to create an IRA coverage for each state. The state IRA coverages were then intersected with each play that falls within that particular state to identify the IRAs that overlap with each play. Plays could not be appended into a single oil and gas play coverage, because different plays are located within different geologic formations, and therefore their geographic boundaries often overlap each other.

The results of the intersection analyses were then used to calculate the number of acres of each play that lie within IRAs, as well as the number of acres of each individual IRA that overlap with different plays. The total acres of each play were also determined in order to obtain the percent of each play that coincides with IRAs. In order to estimate technically recoverable oil and gas resources in IRAs we multiplied the percentages by the estimated oil and gas resources for each play, taken from the USGS 1995 Assessment. Economically recoverable resources within IRAs were then estimated using a model based on the financial cost functions and recovery rates developed by Attanasi (1998). Our estimates are based on the USGS mean value for each resource. USGS mean values represent the expected value and provide the best, unbiased estimate of oil and gas resources.

Results for Technically Recoverable Resources

The technically recoverable oil in national forest IRAs for the 6 states in the intermountain west are reported in Table 1. The technically recoverable resources are those that may be recovered using existing technology without regard to cost or profit. For this report, oil totals include both petroleum oil and gas liquids from discovered and undiscovered conventional and unconventional sources. The 754 million barrels of technically recoverable oil represent only four-tenths of one percent (0.4%) of the nation's oil resources. The technically recoverable gas in the ERAS in the 6 western states is reported in Table 2. The 8.7 trillion cubic feet (Tcf) of gas in IRAs represents six-tenths of one percent (0.6%) of the nation's gas resources.

Table 1.—MEAN ESTIMATES OF TECHNICALLY AND FINANCIALLY RECOVERABLE OIL IN INVENTORIED ROADLESS AREAS ON THE NATIONAL FORESTS

State	Technically recoverable oil (millions of barrels)	Technically recoverable oil as percent of U.S. oil resources (on and off-shore)	Financially recoverable oil at \$18/barrel (millions of barrels)	Financially recoverable oil at \$30/barrel (millions of barrels)
Montana	9	0.004	4	6
Wyoming	663	0.35	367	501
N. Dakota	13	0.007	1	3
Colorado	32	0.017	11	19
New Mexico	2	0.001	1	2
Utah	34	0.018	14	22
6-State Total	754	0.39	398	552

Results for Financially Recoverable Resources

The financially recoverable resources are that part of the technologically recoverable resources that can be recovered with a profit based on a cash flow analysis. In contrast, the economically recoverable resources are a smaller subset of the financially recoverable resources estimated once the non-market costs and benefits are internalized into the calculus. To be considered financially recoverable the market costs of gas recovery must be less than or equal to the gas price (Goerold 2001). When financial criteria are considered the oil and gas actually recoverable drops significantly (USGS 1998).² For the lower 48 states, only 38 and 39 percent of the technically recoverable undiscovered oil and gas, respectively, can be extracted profitably when oil is \$18 per barrel and gas is \$2 per mcf (thousand cubic feet). At \$30 per barrel and \$3.34 per mcf, two-thirds of the technically recoverable oil and gas is financially profitable to recover (Attanasi 1998).

Financial recovery rates are even less for unconventional oil and gas resources (continuous-type gas and coal bed gas) than for the conventional resources. For continuous-type gas, only 7 and 15 percent of the technically recoverable gas is financial to find, develop and produce at \$2/mcf and \$3.34/mcf, respectively (Attanasi 1998). For continuous-type oil accumulations at \$18 and \$30 per barrel, about 7 percent and 50 percent, respectively, of the technically recoverable oil is financially feasible to exploit (Attanasi 1998). For unconventional coal bed gas, about 30 percent of the technically feasible gas is financially recoverable at \$2 per mcf, while at \$3.34 per mcf, the financial portion increases to slightly more than 50 percent (Attanasi 1998).

The financially recoverable oil in ERAS on the national forests is shown in Table 1. Assuming oil prices of \$18 or \$30 per barrel, oil in the IRAs of these 6 states would meet total U.S. oil consumption for approximately 21 or 29 days, respectively (e.g. 552/18.92=29). When financial factors are considered, the quantity of gas available also drops dramatically (Table 2). At \$2 and \$3.34 per thousand cubic feet (mcf), the financially recoverable gas in these ERAS would meet total U.S. gas consumption for approximately 2 or 3 months, respectively.

²The results reported are based on USGS estimates of economically recoverable resources. For this analysis the term financially recoverable is used because the USGS cost functions exclude non-market costs and more closely resembles a financial analysis (see below for more discussion).

Table 2.—MEAN ESTIMATES OF TECHNICALLY AND FINANCIALLY RECOVERABLE GAS IN INVENTORIED ROADLESS AREAS ON THE NATIONAL FORESTS

State	Technically recoverable gas (trillion cubic ft.)	Technically recoverable as percent of U.S. gas resources (on and off-shore)	Gas financially recoverable at \$2/mcf (trillion cubic feet)	Gas financially recoverable at \$3.34/mcf (trillion cubic feet)
Montana	0.405	0.029	0.191	0.256
Wyoming	5.278	0.386	2.108	2.798
N. Dakota	0.125	0.009	0.006	0.013
Colorado	2.336	0.171	0.885	1.363
New Mexico	0.067	0.005	0.019	0.026
Utah	0.486	0.036	0.224	0.332
6-State Total	8.696	0.636	3.446	4.782

The financially recoverable totals reported above are based on USGS estimates of economically recoverable resources. The costs that the USGS uses in assessing the costs of oil and gas production include items such as the direct costs of exploration, development and production of gas. Not included in the USGS calculus are non-market costs such as the off-site ecological costs and cumulative negative environmental impacts that might result on a public resource such as a watershed (Goerold 2001). An economic analysis of benefits and costs must account for non-market benefits and costs, as well as those more readily observed and measured in market prices (Loomis and Walsh 1992; Pearse 1990). An economic analysis is conducted from the viewpoint of society, which should also be the viewpoint of politicians and managers of the public estate. In contrast, a financial analysis only examines costs and benefits as measured by market price; it is the viewpoint of private industry and is more concerned with profits or losses.

The USGS economically recoverable analysis more closely resembles a financial analysis than an economic analysis. A more accurate estimate of the economically recoverable resources from a public perspective should include a full accounting of non-market costs. If economic analysis accounted for the uncounted, non-market costs discussed earlier, the quantities of oil and gas estimated to be economically recoverable would be much less than reported here.

ENERGY IMPACTS FROM THE ROADLESS AREA CONSERVATION RULE ARE MINIMAL

As discussed earlier, raw estimates of technically or financially recoverable oil and gas resources do not provide even a remotely accurate measure of the reasonably foreseeable economic effects of roadless area protection. For example, the roadless area conservation rule conserved approximately 58.5 million acres of public wildlands on the national forests. However, the roadless rule would not change management prescriptions on 24.2 million acres, representing 41% of the ERAS. There would be no impacts from the roadless rule on these acres as existing land management plan prescriptions already prohibit road construction (USDA Forest Service 2001). The policy discussion on impacts of the roadless rule should therefore focus on the 59% of the IRAs where management policy was actually changed as a result of the final rule.

Furthermore, the oil and gas industry has demonstrated little interest in exploiting potential energy resources in ERAS. Because of the downturn in the domestic oil and gas economy, the amount of National Forest System land under oil and gas lease dropped from about 35 million acres in the mid-1980s to 5.8 million acres in 1998 (USDA Forest Service 2000). The national forests are not a major supplier of gas. In 1999, the National Forest system produced about 0.4% of the nation's gas supply, with about half of that total coming from Little Missouri Grasslands (USDA Forest Service 2000). As such the impacts on current and reasonably foreseeable supply from a change in national forest management are minimal.

Most roadless areas have been available for leasing for decades. Extensive portions of the lands which the oil and gas industry believes have high potential are already under lease and therefore would not be affected by this rule. Currently, 759,000 acres of IRAs with high oil and gas potential are under lease (USDA Forest Service 2001). Most of these areas are within the Intermountain, Northern, and Rocky Mountain regions. Existing leases are not subject to the prohibitions. The roadless rule would have no effect on existing oil and gas leases. In fact, it provides

for future leasing, with roadbuilding, on lands currently under lease. This exception will reduce economic impacts on current operators, by avoiding the possibility of increasing the costs of production or precluding future development on the lease.

Public concerns and environmental safeguards for protecting sensitive lands and resources are also key factors limiting oil and gas development. The NPC (1999) estimates that standard leases govern gas drilling on 59% of Federal land in the Rocky Mountain region. Only 9 percent of the federal land in the region is actually off limits, while 32 percent is subject to lease stipulations design to protect the environment. For example, seasonal closures necessary to protect elk populations may slow down the rate of gas exploitation but protect the wildlife and other multiple-uses under which public land is managed. Such protection is warranted economically, as watershed protection, hunting, fishing and recreation generate significantly more economic benefits to all Americans, including affected residents and business in the Rocky Mountain Region, than oil and gas extraction. Legislative intent and public sentiment indicate that public lands should not be for the exclusive use of the oil and gas industries and that managers must attempt to balance the many uses that occur on public land. Leases with environmental protection stipulations help internalize the uncounted costs from oil and gas extraction by protecting other multiple uses enjoyed by the public.

With respect to energy prices, the quantities of financially recoverable oil and gas in IRAs are very small and will have no impact on energy prices that are set on the world market. Extracting or not extracting oil and gas in IRAs will have absolutely no impact on short-term energy prices since IRAs resources could not be added to current production for at least 5-10 years (USDA Forest Service 2001). In addition, a substantial amount of undiscovered, unconventional gas resources in the IRAs are categorized by the USGS as hypothetical resources and are associated with higher extraction costs than conventional resources. Producers have limited ability to exploit hypothetical sources within an expedient time frame. The hypothetical nature of much of the unconventional resource underscores the inability of IRA oil and gas resources to impact current energy prices.

The oil and gas resources that may affect energy prices already exist in discovered known reserves and in the growth of these reserves. Currently discovered reserves and expected reserves growth account for 42% of U.S. onshore gas supplies (USGS 1995). It is these resources, the financially feasible gas resources in and around the already discovered reserves, that have the potential to impact short-term energy prices—not the unknown and hypothetical, small quantities of undiscovered gas resources in roadless wildlands far from existing pipelines.

CONCLUSION

Based on our analysis, The Wilderness Society concludes that national forest IRAs likely hold a very small proportion of the nation's oil and gas resources, and drilling in IRAs is economically inefficient and will do nothing to reduce current energy prices for consumers.³ While economics should not be the driving force behind public policies, we agree with the Forest Service conclusion that IRAs should be protected from oil and gas drilling as the benefits of the Roadless Area Conservation Rule outweigh the costs. While The Wilderness Society also agrees that gas is the bridge fuel for the future, it is important to recognize that the extraction of gas, a cleaner burning fuel than coal, involves significant ecological and economic costs. It is important for the public to be aware if these costs and internalize them into their public land management and energy consumption decisions. The United States has less than 5 percent of the world's population but consumes 40% of the oil and 23% of the gas (USGS 2001). As such there is much we as a nation can do via investments in energy conservation and renewable energy to reduce our consumption, and the ecological and economic costs associated with our consumption levels (NRDC 2001).

We strongly support the Roadless Area Conservation Rule's prohibition on road construction for oil and gas development and other forms of resource extraction. At

³The impact of the Roadless Area Conservation Rule on the nation's coal resources, while not examined in detail here, is minimal. The U.S. has an estimated 1.7 trillion tons of coal, with an annual consumption rate of 1 billion tons per year. In fact, U.S. coal resources are so bountiful that just our financially recoverable discovered reserves (i.e. not including undiscovered resources) have enough coal to last more than 400 years at current consumption rates (Goerold 2001b). In addition, advances in fuel cell and solar technology—and the resulting price declines—will significantly “stretch” our supply of coal (and oil). This is especially true if continued government investments in solar and fuel cell technology have payoffs similar to that seen from past public investments in computer technology. Some economists believe that if investments in solar technology continue, solar energy alone will displace fossil fuels to a growing extent over the next 50 years (Chakravorty et al. 1997).

the same time, we believe the protection of roadless areas should not be used as an excuse to exacerbate the impacts of drilling for gas next to homes or private property where the families do not own the sub-surface mineral rights (i.e. split estate). We recommend a programmatic EIS on gas drilling where it is adversely affecting homeowners, ranchers, and communities. Such an approach is needed until adequate baseline conditions are firmly established and funding is obtained for long-term monitoring and mitigation to assess and minimize environmental impacts and long-term costs. Such a comprehensive approach is desperately needed in Wyoming where gas drilling, especially drilling for coal bed methane, is causing extreme damage to water supplies and other environmental values.

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Senator CRAIG. Thank you very much, Dr. Morton. Now let us turn to Rollin Sparrowe of Wildlife Management Institute here in Washington. Doctor?

**STATEMENT OF DR. ROLLIN D. SPAROWE, PRESIDENT,
WILDLIFE MANAGEMENT INSTITUTE**

Dr. SPAROWE. Thank you, Mr. Chairman. The Wildlife Management Institute is a nonprofit organization staffed by experienced professional wildlife managers dedicated to improving wildlife and habitat management in North America. As such we work extensively with the 50 States and the public land management agencies and a wide array of conservation groups ranging from environmental groups to hunter-conservationists. This large array of organizations, particularly the hunter-conservationists, do not seem to have been heard very loudly on this issue as we have begun to talk about both the roadless area issue and development of energy on the public lands.

The main concern, the attention of this committee is to the interaction between the roadless rule and energy development, and I am here to present a view that there is a strong interaction for wildlife and fisheries and their future in the interaction of the thought process that is going on right now.

I would like to mention that there have been 16 congressional hearings since February 28 on the need to extract energy from the public lands. A lot of it has mentioned the Northern Rockies as well as some other very celebrated issues, and very few of the testimonies that we have seen have looked at the renewable natural resources and how they fit into this.

The press accounts, the public statements, the testimony, and now the potential to look at possibly a rollback of roadless area rules causes us great concern. We hear from energy companies, the administration, and the Congress—many in the Congress—that we must remove restrictions on exploration, development and operations and open new areas, without specifying them, and without specifying which restrictions are of concern.

The implications for wildlife are profound and there is a lot of published data, some of which I have referred to in my testimony, and I would be happy to provide the committee with help in finding more of these or specific references if that will be useful. Important biological science drives our concerns. I have mentioned some things in the testimony about the impact of roads in general, regardless of why the roads are there, on elk and hunting and some important economic benefits of those kinds of things to local communities.

The fact is there are some profoundly important aspects of this whole access and roading issue that have not been in the dialogue for the past several years, let alone in recent weeks. Forest management must really look at road management to effectively steward the natural resources, and renewable natural resources. Too much access is not necessarily a good thing.

Our fisheries colleagues point out that roads profoundly affect streams, things like cutthroat in the Northern Rockies are especially affected and vulnerable to siltation and road building. In some cases roadless habitats seem to be the only thing standing in the way of listing under the Endangered Species Act for some of these fish populations, and thus loss of State and local control over the resource.

The fish and wildlife resources on national forests are highly valuable to local communities and to nonresidents who travel there to partake of them. World class hunting and fishing are still available to the public on remote areas of the national forests. I documented briefly the effects of roadless activity on—or roadless designation on outfitting and outdoor use in Montana, and mentioned some things that you hear commonly when you talk to local people, that in some cases half of the money that comes into stores and motels and local businesses comes in the fall during the hunting season. It is important to note that these are long-term substantial benefits that accrue regularly to local communities, only if their wildlife and habitats are secure.

Wildlife and fishery organizations want a seat at the table in these discussions. We are ready to help deal with the generalized

calls to open up these areas, once we know exactly where they are and exactly which resources are being dealt with. This cannot be effectively dealt with in a broad, sweeping basis at the national level.

Referring back to the 16 hearings that have been held and even the hearing today so far, there is extensive data being developed and paid for to demonstrate GIS-based, geographical information based extrapolations of where energy might be, but I have seen nothing that relates this to the extensive data that are available on fishery and wildlife resources, on endangered species distributions and on critical habitats for these animals.

I personally just jotted down knowledge of range-wide elk habitat assessments being done by the Rocky Mountain Elk Foundation, mule deer being done in cooperation between that organization and the Mule Deer Foundation, gap analysis on a State basis, State natural history survey data, the incredible maps of the Bureau of Land Management showing the overlay of endangered species with their land holdings. We would be pleased to help guide the committee to these data sources, should they be useful.

Finally, we suggest a reasonable platform with a series of ideas for consideration of energy development on public lands and suggest that a similar one be developed based on science for consideration of road decisions. It should start with a platform that roadless areas in general are roadless for a reason, and probably most of them should stay that way. We also have many in our community that are interested in testing what it means to manage within the current rules for these areas. Rather than continuing the dog fight in public, we would like to get on with the show and see what we can do. And if there are problems, maybe they can be worked out.

My final point on behalf of hunter conservation organizations and the hunters and anglers of America is that they do not want to see sportsmen's dollars have to pay for restoration of the same wildlife and fishery populations again. These were done once in the past 70 years with dollars from those people, and we think additional resources and thought ought to go into the future as these developments and road considerations occur.

[The prepared statement of Dr. Sparrowe follows:]

PREPARED STATEMENT OF DR. ROLLIN D. SPARROWE, PRESIDENT,
WILDLIFE MANAGEMENT INSTITUTE

Mr. Chairman: I am pleased to be here representing the Wildlife Management Institute, a nonprofit organization staffed by experienced professional wildlife managers, dedicated to the improvement of wildlife and habitat management in North America. While I speak only for the Institute, our role in wildlife affairs in this nation brings us in regular contact with the 50 state agencies and the federal land management agencies concerning every aspect of management of public lands and wildlife habitat. We are not experts on energy needs, but we have been deeply involved in tracking and commenting on proposed and ongoing development in Wyoming's Green River Basin and Red Desert. This experience serves as a contemporary laboratory for how accelerated energy development occurs in our society.

We work extensively with wildlife, fisheries and hunter/conservation organizations that have a variety of attitudes and concerns about road management on National Forests, the Roadless Rule, and needs for "hands-on" management as well as protection of National Forest lands, based on specific knowledge and expertise about individual geographical areas of particular importance to them. The groups we have talked to about the issues before the hearing range from the Rocky Mountain Elk Foundation and Mule Deer Foundation that each work range-wide for their species

of interest and its habitats, to Trout Unlimited that works to conserve, protect and restore North America's cold water fisheries and their watersheds. The Izaak Walton League of America represents grassroots hunters and anglers concerned with the quality of the environment and the ability to utilize fish and wildlife, and Wildlife Forever, a Minnesota-based National Conservation Organization whose members fund wildlife habitat management projects and conservation education. These specific organizations work together through the Theodore Roosevelt Conservation Alliance (TRCA). As we have previously explained to you Mr. Chairman, the TRCA is an alliance of these independent organizations working to engage hunters and anglers themselves in dialog about the future of their national forests.

These organizations and many others, including the National Wildlife Federation and The Wildlife Society, representing millions of conservationist, wildlife managers, hunters and anglers believe in careful, active management of National Forests, reasonable access to public lands, and balanced approaches to using renewable resources from those public lands. These groups understand the need to use non-renewable resources to meet the needs of the nation.

WHAT IS OUR MAIN CONCERN?

The most unifying concern among these and many other groups is that wildlife, fish and their habitats must be given strong consideration in the management of roads on National Forests and other public lands, and especially in decisions to extract energy resources from those lands. Studies of hunter attitudes in the states of the Northern Rockies reveal that solitude and expectations of seeing game are most important to them. Wildness and wild country are of increasing importance to Americans, and particularly to the hunting experience. Truly wild country is increasingly hard to find, and we want to preserve as much of it intact as we can.

The issues before this hearing today bring huge challenges to wildlife resources for the future. During the past several weeks press accounts, public statements about energy planning, and testimony in the House and Senate before other committees seem to have pitted wildlife against energy production. Statements have been made in testimony by industry that protections on winter range for big game herds are a "subsidy to hunting" that should be reevaluated by the American people, suggesting that they are paying higher energy prices because of it. Energy development means more roads that are created to satisfy the needs of producing energy, not to accommodate fish and wildlife or its management. We know that roads and their management are critical to fish and wildlife and that each development situation offers a specific biological challenge. Moreover we have observed closely how development is proceeding in the Green River Basin of Wyoming. It is for these reasons that we are deeply concerned about the broad generalizations that claim that our country "can accelerate energy development in an environmentally sound matter."

We hear from energy companies, the Administration, and many in the Congress that we must remove restrictions on exploration, development, and operations, and open new areas—without specifying which ones. If we add the consideration of removal of roadless status that would affect areas of high importance to wildlife, we do not have much confidence that such actions will proceed with greater thought and evaluation than some accuse the previous Administration of doing in establishing the Roadless Rule in the first place.

WHAT ARE SOME SPECIFIC IMPLICATIONS FOR WILDLIFE?

As an indication of how important decisions on roadless areas are, an overlay of elk summer range with roadless areas in the lower 48 states reveals that almost 70% of roadless areas are elk summer range. Winter range for elk includes 23% of the roadless areas in that same area. Some will be quick to point out that these are huge areas composed of millions of acres scattered through many states, and they can't all be absolutely critical to wildlife. While that is true, it equally extends to sweeping generalizations about removing restrictions and opening up areas without being specific about them. Some areas are simply so important that their entry will come at a high cost to wildlife, associated recreation, and to local communities that depend on them. A prime example of this with high fish and wildlife values is the decision by the Forest Service not to enter four areas of the Bridger/Teton National Forest in the Hoback Basin, Upper Green River, Union Pass, and Moccasin Basin of Wyoming.

Important biological science drives our concerns. Studies of elk, including work from Idaho and Oregon conclusively identifies how road existence and use affects vulnerability of bulls, herd composition, and structure of herds. Basically, if more than 3 miles of roads per section are open during elk hunting season, no bulls sur-

vive beyond 2.5 years of age. If roads are held to about half of that, survival age for bulls is doubled, and with no roads, survival age doubles again.

Reproduction and calf recruitment also are key points. Long-term studies in the Blue Mountains of Oregon reveal that if bull numbers remain low, bulls breed at an earlier age, and calf recruitment and survival is lower than is necessary to sustain a healthy herd. The general rule of thumb from a number of studies is that too many roads (greater than about 2.5 miles of road per section) reduce elk habitat effectiveness by 50%. What this means is that there are some profoundly important aspects to access and roading that go well beyond concerns that lands are being "locked up".

We could extend this discussion to a very sensitive species, the grizzly bear. There is abundant information that too much access leads to both avoidance of habitat by bears and a likelihood of greater negative interaction with people, contributing to consistently lower populations. In states that welcome repopulation of grizzly bears, the only hope of moving away from federal control under the Endangered Species Act is to effectively manage habitats resulting in bear populations that reach sustainable levels, and can be delisted. At that time, states will again be in control of bear management, but it won't ever happen if roads enter many of the remaining wild areas.

In the Upper Green River country in Wyoming, extensive timber cutting in the 1980's resulted in a latticework of roads largely left unmanaged. Lack of enforcement of road closures, and opposition to attempts to close roads has kept this unplanned access. The long-term result is an elk population that cannot rise to its numerical potential based on lack of security, and the hunting seasons and therefore hunting opportunity for the public continue at a reduced rate. That is, there are more restrictive seasons because there is too much access.

Mr. Chairman, we are confident that similar statistical data could be accumulated for your state of Idaho and for Wyoming, Utah and other states in the Northern Rockies that would be affected profoundly by any decision on roadless areas or acceleration of energy development.

My colleagues at Trout Unlimited have supplied several examples of Western roadless areas that are vital for trout and salmon resources as well as for big game. The following are a few examples from Montana National Forests:

- The South Fork of the Flathead River has perhaps the state's strongest populations of bull trout and westslope cutthroat trout. Most of the watershed is roadless (mainly in the Bob Marshall wilderness).
- The Blackfoot drainage has some of the healthiest populations of migratory bull and cutthroat trout in Montana. The three most important spawning tributaries for bull trout are Monture Creek, the North Fork and the Landers Fork. Large portions of these watersheds are roadless. Bull trout are uncommon in heavily roaded drainages of the Blackfoot drainage.
- Rock Creek is one of the most popular wild trout fisheries in the state. Approximately half of the watershed is roadless. Biologists have found that most of the important spawning and rearing areas for bull trout are in waters flowing through roadless areas such as the Quigg Peak and Stony Mountain areas.
- The majority of the remaining pure-strain native westslope cutthroats in the upper Missouri drainage, where these fish hang on by a thread, are in roadless areas found along the Rocky Mountain Front, in the Elkhorns, in the upper Big Hole watershed and in the roadless fragments found near the Continental Divide.

In these cases roadless habitats seem to be the only thing standing in the way of listing under the Endangered Species Act, and loss of state control of the resource.

EFFECTS ON HUNTING AND FISHING AND THE LOCAL ECONOMY

Fish and wildlife resources found on National Forests, such as those highlighted above, sustain hunting and fishing recreation that is extremely valuable to local economies. According to a 1999 report from the American Sportfishing Association, in 1996 fishing on the National Forests produced \$8.5 billion to the nation's economy. Hunting yielded \$6.1 billion. Much of this value comes from trout and salmon fishing, and big game hunting. Roadless area protection is tied to the long-term sustainability of these huge benefits.

Simply put, world class hunting and fishing are still available to the public in the remote areas of our National Forests and use trends show hunting and angling use rising at five percent per year nationwide. In some areas like California, hunting use of National Forests is doubling in eight years, while fishing use of Alaska's Tongass National Forest doubled in the last seven years. Further, if America's 50

million hunters and anglers double in numbers as the U.S. population doubles during this century, wild space open to the public will be at an absolute premium.

Rural towns in the Green River Basin of Wyoming tell us that half their annual income comes during hunting season to motels, restaurants, grocery stores and the like. Last year the Montana Wilderness Association published a booklet entitled *Wildland Outfitters: Contributions to Montana's Economy*, which outlines the value of wild areas to their business. According to that booklet Montana outfitters depend on roadless areas for over half of their total service days and over 107,000 service days were in roadless areas. The average wildland outfitter in Montana earned \$109,000 in 1998, 49% from hunting, 24% from stock/hiking trips, and 27% from other trips. Total income for wildland outfitting was \$33 million in 1998, employing over 2,881 people. Additionally 1,500 jobs were supported in other industries connected to wildland outfitting, with an industry impact of \$107 million. According to the Fish and Wildlife Service outdoor recreation survey, hunting and fishing and observing wildlife in Montana accounts for expenditures of \$290 million per year.

It is important to note that these are long-term, substantial benefits that accrue regularly to local communities only if wildlife and their habitats are secure. Local people will need to rely on wildlife and fish resources to sustain their local economy and culture long after energy development is gone.

WHAT DO WILDLIFE AND FISHERY ORGANIZATIONS WANT?

There is widespread concern that if roadless issues and accelerated energy development are to be revisited, that they be done with much more attention to detail and careful evaluation of costs and benefits than is evident in much of the recent dialogue. Importantly, organizations representing hunters and anglers have a lot to offer that has not yet been used by government or the Congress. The diverse array of wildlife and fishery organizations can provide evaluation and analysis of important resource values, and we are ready to help. The generalized calls to "open things up" must get back to reality and deal with specific, geographically identified areas that we can relate to.

While Congress and state legislatures often focus on the welfare of local hunters and anglers, and local communities, the role of nonresidents cannot be ignored. They are the funding engine of state wildlife programs in states like Wyoming and Idaho and Montana through their license purchases and expenditures in those towns. The biological, sociological, and economic costs and benefit of all the resources involved including fish and wildlife as long-term assets to local communities and to the rest of the people of the nation should be a part of the process.

We at the Institute suggest a reasonable platform for the consideration of energy development on public lands: (1) development and production of energy on public lands should be conducted with at least as much care as such development on private lands; (2) renewable resources such as mule deer and cutthroat trout require equal consideration under law along with mineral extraction; (3) scarce hunter and angler dollars from excise taxes should not have to pay to monitor the effects of development nor fund remedial action, but those tasks need to be done and paid for as a required cost of development and (4) where development occurs, it must be carefully authorized on a site by site basis with specific attention to the fish and wildlife resources.

Such a platform would avoid repeating the mistakes that many are upset about in recent sweeping designations of land uses. A comparable, science-based and business-like approach should be developed for consideration of road decisions. We believe it should begin on a platform that roadless areas are roadless for a reason—and most should remain that way.

A critical need for coping with these changes as they occur is for effective, science based monitoring to answer specific questions. Many of the potential effects of roading or accelerated energy development are subtle, long-term in nature, and difficult to measure. This results in a continuing standoff where wildlife managers say "look at all those roads and activities, they have to have an impact", and development interests say "look at those wildlife standing around the structures, they don't care at all". Our wildlife and fish resources cannot stand this impasse while development occurs.

The real question: is at what cost do wildlife and fish adapt to further intrusions on the landscape? The issue in most cases will not be that a single road or a single development should be blamed for its effects on wildlife. Our mule deer, elk, pronghorn and sage grouse have been affected by roads, fences, ranching and farming, towns, second home development and long-term reduction in habitat quality. Migratory herds in Wyoming live on the National Forest in summer where accelerated development would occur, and migrate over 100 miles to the sage desert where

accelerated development is already underway. Herds of elk that used to migrate even further from Jackson Hole to the sage deserts along the Green River can no longer do so because of those multiple influences. At some point the next new activity will be the one that leads to a potential irreversible reduction in the ability of some of these herds to survive—and certainly to sustain the current level of public use and local economic benefit.

In conclusion, a wide array of wildlife and fishery organizations and our hunters and anglers across America have a stake in the outcome of any decision to change roadless status or accelerate energy development. Most organizations with which we work would like to see the dialog on roads return to the complex task of management of the entire road system on National Forests. Many don't like the sweeping manner in which designations were made, but also think we should get on with the business of managing roads comprehensively rather than continuing to focus on confrontation. Many are interested in testing how and where management of forests for fire and wildlife and fish can occur within the current rules. We ask that all of this be considered carefully, with strong attention to fish and wildlife resources and science, and with careful balancing of costs and benefits for the tradeoffs to be involved. Whether maintaining an area roadless or opening it to development of this nature will have costs and benefits to wildlife, fish and people.

Senator CANTWELL. Thank you, Dr. Sparrowe, for your testimony. We are now going to hear from Greg Schaefer who is with the National Mining Association.

STATEMENT OF GREG SCHAEFER, DIRECTOR, EXTERNAL AFFAIRS, ARCH COAL INC., ON BEHALF OF THE NATIONAL MINING ASSOCIATION, WRIGHT, WY

Mr. SCHAEFER. Thank you. I am Greg Schaefer with the Arch Coal Company and I am here on behalf of the National Mining Association and Colorado, Wyoming, and Utah mining associations.

The Forest Service mineral policy which was developed in 1970 states: National forests and grasslands have an essential role in contributing to an adequate and stable supply of mineral and energy resources. This policy is as important today as the day it was written. The mineral and energy policy further states that the Forest Service require reclamation plans for all proposed surface disturbing activities to return the land to productive uses in accordance with land management goals.

One of the justifications for the roadless area rule itself was the backlog of maintenance costs and the need by the Forest Service to spend more money, but with regard to coal mining, keep clearly in mind that any road that we construct must be reclaimed at our expense to a condition at least as good as the pre-mining land condition.

The final rule stated this action was not designed to prohibit mining, it only prohibits road construction and reconstruction. Roads are needed even with an underground mining operation for such activities as exploration drilling, construction, maintenance of mine ventilation and for emergency situations. The inability to construct a road for these purposes is a de facto prohibition on mining.

California has drawn a great deal of attention over the past year. Currently the State of California is importing 25 percent of their electricity from other Western States. There are no major coal-fired powerplants in the State of California but coal-fired generated electricity still accounts for 20 percent of their total electricity consumption. Some of these sources include the Intermountain Power Project located in Utah which is owned by the city of Los Angeles and burns Utah coal. The Reid-Gardner unit number 4 in Nevada

burns Utah and Colorado coals. The Deseret G&T plant in Utah burns Utah coal. The Boardman plant in Oregon burns Utah, Colorado, and Wyoming coals. And there are various other sources going into California including a couple of Pacific Corp., coal-fired plants in Utah which is supplied by Utah coal.

Each of these powerplants obtains coal from mines that are either on or immediately adjacent to the new roadless areas. Switching to Colorado, the State of Colorado produces roughly between 25 and 30 million tons of low sulfur coal annually. Roughly 40 percent of this coal is used in the State and the remainder is exported to other States such as Kentucky, Illinois, Wisconsin, Michigan, Oregon, Minnesota, Texas, Iowa and Utah.

The North Fork Valley of Colorado which is shown on the map here produces between 50 and 60 percent of the total volume of Colorado coal and is the fastest growing region in Colorado. These underground mines employ about 700 people in rural Colorado with an annual payroll of about 50 million dollars. The Department of Energy reported that the West Elk mine requires access—do you want to point that out, Dave, where that is located—in the next 1 to 5 years of high quality coal resources that lie partially or entirely under roadless areas. Approximately 200 million tons of high quality coal would be put off limits, roughly a 35 to 40 year supply of coal for that mine, and the mine would be forced to close prematurely. As a result, the 100 million dollars of infrastructure already invested in this mine would be abandoned.

The Bowie mine, which is just to the north of that, is hemmed in on the north and west by roadless areas. These are the logical directions for expansion of this mine. The mining company estimates the roadless area would put 50 million tons of high quality coal off limits to the Bowie mine. The other mine, the Oxbow mine, acknowledges an impact but was unable to quantify the number of tons due to the lack of exploration data.

Switching to Utah the map shows that a significant portion of Utah's coal production, nearly 70 percent, is located in the Manti-La Sal National Forest and is either overlaying or adjacent to the roadless area boundary. Over half of Utah's coal production is used in generating plants within the State of Utah. Utah coal is also exported to Nevada, Missouri, Oregon, Illinois, Kentucky, Nebraska and to the Pacific Rim.

The State of Utah is unique among coal producing States in that it does not have an extensively developed rail system for many of their coal-fired powerplants. This means in most instances the Utah plants are reliant on local sources of coal. For example, the Hunter Power Plant which has no rail service is planning on a significant expansion to meet energy demands in Utah and other Western States such as California. As mentioned, the city of Los Angeles owns the Intermountain Power Project in Utah. This plant is also considering a significant expansion. The proposed powerplants and expansions in Utah could add as much as a 40 percent increase in in-State demand for Utah coal used in electricity generation.

As a result of this rule we are now facing a long-term impact to the coal supplies in Colorado and Utah. I am hoping that the Senate and Congress carefully looks at this impact to energy produc-

tion in the West and corrects the mistakes that have been made due to a lack of sufficient information. Thank you, again for the opportunity to speak today.

[The prepared statement of Mr. Schaefer follows:]

PREPARED STATEMENT OF GREG SCHAEFER, DIRECTOR, EXTERNAL AFFAIRS, ARCH COAL INC., ON BEHALF OF THE NATIONAL MINING ASSOCIATION, WRIGHT, WY

Good afternoon and thank you for the opportunity to speak to you today regarding the Roadless Area Final Rule. My name is Greg Schaefer and I am Director External Affairs Western Operations for Arch Coal, Inc. I am also here on behalf of the National Mining Association (NMA) as well as the Colorado, Utah and Wyoming Mining Associations. As background, Arch Coal is the second largest coal producer in the nation, producing about 112 million tons of high quality coal annually. We serve 149 power plants in 30 states. We currently have six operating coal mines in the western United States, four of which operate at least partially on National Forest Service lands.

At the outset let me say that the Forest Service, throughout the rulemaking process, stated the rule was not designed to prohibit mining, it would only prohibit the construction and reconstruction of roads. In fact the preamble to the rule states that “[m]ineral leasing activities not dependent on road construction such as “underground development, would not be affected by the prohibition.” This proposition was refuted in the record by a Department of Energy report (“Impact of the Roadless Initiative on Coal Resources” Bill Hochheiser, November 30, 2000) which provided, “[w]hile these resources are recovered using underground mines, roads are needed to build ventilation shafts and for safety.” Simply put, one must have roads for mineral exploration and development. This point was clearly made in the rulemaking record and obviously ignored by the rule’s authors.

IMPACTS ON ENERGY RESOURCES

The Forest Service has a stated policy regarding minerals on Forest Service Lands which provides:

“The Federal Government’s policy for minerals resource management is expressed in the Mining and Minerals Policy Act of 1970—. . . foster and encourage private enterprise in the development of economically sound and stable industries, and in the orderly and economic development of domestic resources to help assure satisfaction of industrial, security, and environmental needs. Within this context, the national forests and grasslands have an essential role in contributing to an adequate and stable supply of mineral and energy resources while continuing to sustain the land’s productivity for other uses and its capability to support biodiversity goals.”

This policy is as important today as it was on the day it was written. Coal and mineral resources from Forest Service lands are vital to supplying electricity at a reasonable price and in an environmentally sound manner. The mineral policy also states that the Forest Service “require reclamation plans for all surface-disturbing activities to return the land to productive uses consistent with the ecological capability of the area and in accordance with land management goals.” This policy is consistent with state and federal laws and regulations governing coal mining activities.

As I will describe in more depth later in this testimony, the Forest Service proposed and promulgated the Roadless Area Conservation Rule without sufficient information to perform an adequate analysis of the rule’s impact on coal production from Forest Service lands. Only after the abbreviated 69-day comment period closed did it become clear what areas would be affected and to what degree. When this information became available to the Forest Service, it was glossed over or completely ignored in the Final Environmental Impact Statement (FEIS), the final rule and its preamble.

Due to the lack of detailed information, the Department significantly underestimated the rule’s impact on energy supplies in the western United States. The preamble to the final rule shows the extent to which the Department has gone to try and minimize the impact of the rule. Faced with the additional information that we provided, the Forest Service concluded:

“Moreover, it seems likely that even if resources do underlie inventoried roadless areas, they would be among the last areas entered for exploration and development . . . the agency has determined that the information does

not materially alter the environmental analysis disclosed in the FEIS and does not constitute significant new circumstances or information relevant to environmental concerns bearing on the rulemaking effort.”

The fallacy of this statement can be seen on the attached maps. The additional coal resources needed to keep the West Elk Mine alive would be among the first areas entered for exploration and development—not among the last.

The Department also downplayed the significance of National Forest Service lands as a source of high quality, low sulfur coal. In the preamble to the final rule it stated:

“The FEIS described the coal production from NFS lands as accounting for about 7% of national production in 1999.”

This statement implies that tightening up access simply will not have much impact on energy production from National Forest Service lands. However, last year our Black Thunder Mine in Wyoming alone produced over 60 million tons of coal, which represents over 5% of national production by itself. The Black Thunder Mine is located in the Powder River Basin of Wyoming and is located on the Thunder Basin National Grasslands which is managed by the National Forest Service. In speaking with Forest Service personnel, it was learned that they do not have a good method of estimating coal production from National Forest Service lands. A quick survey of some of producers on the Thunder Basin National Grasslands revealed that these few mines in Wyoming accounted for 8-10% of national coal production. This completely ignores coal production from National Forest Service lands in Colorado and Utah. If accurate data were used, the percentage of national coal production from National Forest Service Lands could very likely be 15-20%, which is a very significant percentage.

In the justification for limiting access to high quality coal reserves on National Forest Service lands, which ultimately leads to phasing out the existing mining operations, the Department concluded:

“Overall, the U.S. has abundant coal reserves. Also, alternative sources of low-sulfur coal do exist, concentrated in the western U.S., mostly in Colorado, Montana and Wyoming. Additionally, the abundant sources of low cost-coal and available technology, such as scrubbers, will enable electric utilities to meet their Clean Air Act compliance goals.”

This statement writes off significant sources of high quality compliance coal in Utah and parts of Colorado and creates major problems for the generators of electricity in Utah. The premise for this statement is simply incorrect, and will be discussed below.

Colorado Impacts

The State of Colorado produces close to 30 million tons of high quality bituminous coal annually. Roughly 45% of this coal is used within the state and the remainder is exported to other states. The North Fork Valley near Paonia, Colorado (roughly 90 miles east of Grand Junction, Colorado) produces approximately 60% of the total volume of Colorado coal, and is the fastest growing coal-producing region in Colorado. This area consists of three underground coal mines: Arch's West Elk Mine, the Oxbow Mine and Bowie Resources. It is anticipated that these three mines will produce up to 16 million tons of coal in 2001 with about 700 employees and an annual payroll of \$50 million.

In 1999, coal from these three mines was shipped to power plants in Colorado, Kentucky, Illinois, Wisconsin, Michigan, Oregon, Minnesota, Missouri, Texas, Iowa, and Utah. The Utah power plant supplied by this coal was the Intermountain Power Project (IPP) which is owned by the City of Los Angeles and provides low cost reliable power to California.

The Department of Energy report referenced above highlights some of the energy impacts created by the roadless rule:

“This coal is highly valued by these utilities because of its low sulfur content (0.5%) and high Btu value. Utilities such as Tennessee Valley Authority rely on this coal as their Clean Air Act compliance strategy. The utilities blend this coal with other, higher sulfur, lower Btu coal to achieve compliance, and burn the Colorado coal exclusively during time of high demand in order to avoid derating of their plants while staying under air emissions limits.”

The Department of Energy report also describes specific energy impacts in the North Fork Valley:

“The West Elk Mine requires access in the next one to five years to three areas of high quality coal resources that lie partially or entirely under roadless areas. Approximately 200 million tons of high quality coal would be put off limits and the mine would be forced to close prematurely. In addition, as much as 50 million tons of coal on the existing lease would likely not be mined because planned longwall panels that would extend into unleased federal coal would not proceed. As a result, the \$100 million of infrastructure already invested in this mine would be abandoned.

The West Elk Mine produces seven million tons of coal per year, providing \$26 million dollars per year of direct labor income and almost \$90 million of direct plus indirect income. The potentially unminable 200 million tons of coal have a value of \$3 billion. Using the multiplier of 3.5, as used in the FEIS (p.3-316, table 3-68), this represents a total of over \$10 billion in foregone economic activity.

The Bowie mine, northwest of the West Elk mine, is hemmed in on the north and west by roadless areas. These are the logical directions of expansion for this mine. This mine produces five million tons of high Btu/low sulfur coal and employs 178 people at the mine, with an annual payroll of \$9 million per year. This translates to more than \$30 million per year of direct plus indirect economic impact.

The mining company estimates that the roadless rule would put 50 million tons of high quality coal off limits to the Bowie mine, coal with a value of \$750 million. Using the multiplier from the previous bullet, this translates to over \$2.5 billion of economic activity.”

Utah Impacts

In Uinta coal region of Utah, the Forest Service analysis concentrated on only three tracts: the Muddy, Ferron, and North Horn tracts. These tracts are either next to an existing mine or contain sufficient high quality reserves to support a new mine. The FEIS that preceded the final roadless rule estimates these three tracts contain 185 million tons of high-Btu coal. This coal would have a value of over \$2.8 billion to \$3.7 billion if mined.

While these three tracts represent a sizable amount of coal, they also represent only the tip of the iceberg as shown on the attached map of the Uinta region. The roadless areas block mine development and expansion across the entire western boundary of the region. None of this information regarding resource information outside of the three tracts was considered by the rule writers nor the authors of the FEIS.

The primary impact of the roadless area rule in Utah will be on the Manti-LaSal National Forest. The map shows that a significant portion of Utah's coal industry is located in the Manti-LaSal National Forest and is either overlain or adjacent to the roadless area boundary. The State of Utah annually produces roughly 25 to 27 million tons of high quality, low sulfur coal, half of which is used in the State of Utah. Just under 50% of the coal is exported to states such as Nevada, California, Oregon, Illinois, Missouri, Kentucky, Idaho, Colorado, Washington, Wyoming and Tennessee for electric generation (about 26%) and other industrial/commercial/residential uses (16%). Depending on the exchange rate and the demand for steam and metallurgical coal, about 10% of Utah coal is exported to Pacific Rim countries through the Los Angeles Export Terminal.

The existing coal mines that are overlain by or adjacent to the roadless areas are the SUFCO, Deer Creek, Trail Mountain, Crandell and Star Point mines. In 1999 these mines represented almost 70% of the coal production in the State of Utah.

The State of Utah is unique among coal producing states in that it does not have an extensively developed rail system for many of the mining operations and coal-fired power plants. This means that in many instances the Utah power plants are much more reliant on local sources of coal than counterparts in other states. For example, the Huntington Power Plant has no rail service and must rely on local mines to supply coal by truck. This plant is planning a significant expansion to meet energy demand needs for the State of Utah, as well as for export to other western states (e.g., California).

The City of Los Angeles owns the Intermountain Power Project (IPP), with the power generated by this plant being exported to California. As a part of the current energy crisis in California, the IPP plant is also considering a significant expansion. The vast majority of the coal used at this plant is from the State of Utah.

The potential power plant expansions in Utah could add as much as a 40% increase in in-state demand for Utah coal. This is at a time when the number of coal mines in Utah have been decreasing and significant uncertainty has been added due to the roadless rule. A complicating factor in the State of Utah is the settlement

agreement between the state and the federal government over the lost coal resources as a result of the designation of the Grand Staircase Escalante National Monument. In this settlement agreement, the federal government transferred temporary ownership of some coal reserves to the State of Utah (SITLA). The final rule states that these tracts have valid existing rights and can be mined. However, after a certain amount of coal has been produced from these tracts, they revert back to the federal government. Furthermore, some of these tracts will need adjacent coal in order to justify the capital needed to build a mine. Where that adjacent federal coal is encumbered by the roadless area prohibitions, the likelihood of one investing capital in these mines is diminished.

California

This section briefly discusses the role of coal in the State of California. This State was chosen since it is currently in the middle of a critical energy crisis and has generated a great deal of attention. Currently, the State of California is meeting 75% of its electric needs by in-state generation and is importing the remaining 25% from other western states. There are no major coal-fired power plants in the State of California, but coal-fired-generated electricity still accounts for 20% of their total energy mix.¹ Some of these sources include the Intermountain Power Project in Utah (Utah coal); Reid-Gardner Unit 4 in Nevada (Utah and Colorado coals); Deseret G&T in Utah (Utah and Colorado coals); Boardman Plant in Oregon (Utah, Colorado and Wyoming coals). Each of these sources receives a portion of its coal from mines either adjacent to or underlying areas affected by the roadless rule. The State of California also has various "northwest contracts" from various sources including PacifiCorp in Utah, which is supplied by Utah coal and similarly affected by the rule. As can be seen, the Utah and Colorado coal industries are an integral and critical part of not only the Utah and Colorado electric supply but the State of California as well.

Summary

The Nation must use its vast domestic resources to meet the growing energy requirements that an expanding economy requires. Many of these resources, including coal, are found on lands administered by the Forest Service and on other public lands. Demand for coal for affordable, reliable electricity is expected to increase by over 25% during the next 20 years. Nearly 90% of this additional coal production will come from public lands in the West; much from Forest Service administered lands impacted by this rule. If this affordable coal is not available, high costs for alternative fuels will mean higher electricity costs and lower electricity reliability. Also, the coal industry will continue to be required to reclaim any surface disturbance to at least as good a condition as the premining landscape.

THE ROADLESS AREA INITIATIVE PROCESS

I have been involved in the roadless area proceedings since President Clinton announced the initiative on October 13, 1999. I attended several public scoping meetings, including one in Grand Junction, Colorado in December, 1999 and subsequently requested an extension of time of the scoping period. In our letter, dated December 17, 1999, requesting an extension of time we made several requests that have never been adequately addressed in this process:

"It is difficult, if not impossible, to provide knowledgeable comments on the proposal when the Forest Service has not provided the public with sufficient detail. For example, the Forest Service has not provided maps with any level of detail to be able to develop questions or comments relative to our operations. Just prior to writing this letter, I went to the Forest Service website dedicated to the Roadless Area initiative and it still states that the maps are 'Under Development'. In Colorado, a public hearing was held in Grand Junction, Colorado. Once again, the Forest Service provided maps, but in this case they were 'conceptual', and lacked any meaningful detail. We have asked for detailed maps, that included coordinates, townships, ranges, and sections, but have been unable to acquire the requested information. Local Forest Service personnel have tried to help, but they have warned us that even when the maps are available, they may not be accurate? At a minimum, the Forest Service should provide the following so that meaningful comment can be submitted:

¹ Source: 1999 Net System Power Calculation, Electricity Analysis Office, California Energy Commission, April 2000.

“Detailed maps showing the location of the proposed roadless areas, with coordinates, sections, townships and ranges. Identify the coal reserves that are located within the proposed roadless areas, as well as quantify the coal quality of those reserves. Identify the location of existing mining operations that could access these reserves, and provide an analysis of the socio-economic consequences of the inability to obtain additional reserves. If there are no nearby mining operations, assess the impact on the loss of those coal reserves from the reserve pool.”

The Forest Service never addressed this request. Subsequently, maps were posted on the website after the close of the public comment period, but the scale and lack of legal description made them virtually useless for assessing local impacts, but did give us a sense that we should look very closely at our Colorado operation in particular. The same information was requested by the NMA through a Freedom of Information Act (FOIA) request during the comment period for the proposed rule. After the close of the comment period, NMA was told in a formal response from the Forest Service that, in short, the maps and the relationship between roadless areas and mineral reserves were available on the Forest Service web site. Anyone who saw the information on the Forest Service web site knows this statement is just plain wrong.

Fearing that we would not have any data in which to assess the boundary of the roadless area relative to our West Elk Mine in Colorado, we set out on a mission to try and develop our own map(s). Working with a local Forest Service employee we dug up the RARE II boundary that was proposed in 1979 and plotted that information on our mine plan map. It was found that the boundary passed right over the top of the West Elk Mine and contained nearly all future reserves accessible by this underground mine. As it turned out, the 1979 RARE II boundaries were used in setting the boundaries of the roadless area without any further review of any changes over the 20-year period. Of particular interest is that this boundary encompasses lands that contain a significant number of existing roads.

Once this map was developed, we met with the Regional Forester’s Office in Denver, Colorado in early February 2000. Their response was that they were pleased to have a map with this level of details, as they had not been provided with any detailed information from the Washington, D.C. Office of the Forest Service. The Regional Office acknowledged the problem and asked what relief we were seeking. Our response was that since the West Elk Mine was on the margin (edge) of the proposed Roadless Area that we would like the boundary slightly modified in order to provide a future for the West Elk Mine. The reply was that there was not an opportunity to move the boundaries as that decision had already been made.

Even though the public comment period had closed, we provided the map that we had developed to the national Forest Service Team working on the Roadless Area Environmental Impact Statement. One member of the team reiterated that there was no opportunity to move the boundary as that decision had already been made. Our question was how could that be if the Draft Environmental Impact Statement was only now being prepared?

All of our efforts during this period were reflected in one small paragraph of the DEIS, which stated:

“[The prohibition of road construction] could increase exploration and development costs for leaseable minerals so that deposits in inventoried roadless areas may be less economically feasible for development. For example, one Colorado coal company has submitted information showing that the opportunity to access coal resources adjacent to their existing leases would be severely limited by a prohibition on road construction.”

Leadership in the Department either did not have adequate information or chose to ignore it. The problem remained that there was a lack of detailed map information. Arch Coal commissioned a consultant to develop the location of existing, and in some instances prospective coal leases, on the Grand Mesa, Uncompaghre and Gunnison (GMUG) National Forest in Colorado. Significant resources were put into developing this map, but the most difficult aspect was obtaining the legal descriptions of the proposed roadless areas.

During the development of these maps, we continued to meet with the minerals branch of the Forest Service, the Department of Energy, Office of Management and Budget, Council on Environmental Quality, among others. A scheduled meeting with Forest Service Chief Mike Dombeck was “delegated” as the Director and other senior members of the Forest Service delegated the meeting to lower level staff at the last moment.

During one meeting with the Department of Energy we were shown a roadless area delineation map supplied to them by the Forest Service that showed several areas of significant impact to the coal industry on the Manti-LaSal National Forest in Utah. This information was stunning for two reasons: first, the Forest Service had never made this information public; and second, our company had been told several times by local forest service officials that there was no impact to our underground coal mining operations in Utah. Unfortunately, we took that declaration at face value.

Upon the revelation that the issue extended beyond our Colorado operations, we also commissioned the consultant to perform the same mapping exercise for the Manti-LaSal National Forest in Utah. The Colorado and Utah maps were finally completed right about the time the Final Environmental Impact Statement was issued, and are attached and incorporated in this testimony. Although the final rule can be published as soon as 30 days following publication of the FEIS, the message these maps conveyed manifested a significant impact the Forest Service failed to project and the message was conveyed to the Department of Energy, the Office of Management and Budget, the Council on Environmental Quality and the Forest Service.

Notwithstanding this compelling information, the preamble to the final rule states:

“The Department has decided not to adopt the exception for future discretionary mineral leasing because of the potentially significant environmental impact that road construction could cause to inventoried roadless areas.”

This is clearly an excuse and not a valid reason. State and federal mining regulations require that all surface disturbances associated with the mining operation must be reclaimed to a condition at least as good as the pre-mining condition. This means that any roads developed in conjunction with the mine, including exploration, development or operation must be reclaimed. Further, state and federal mining regulations require that the quality of surface and ground water must be protected.

In a further effort to convince the public that these lands need to be off-limits for future mineral development the preamble states that if road construction and reconstruction were allowed for future energy and mineral leasing, an additional 59 miles of road over a five-year period would be built in roadless areas (including oil, gas and non-fuel minerals). The preamble further states that at this rate, 10 million acres would be affected, which is interesting considering that the Department only identified 8 million acres that have the potential for oil and natural gas (of which 2.5 million acres have potential for coal and coal bed methane). Again, the Forest Service has conveniently ignored the fact that roads developed in conjunction with mining must be fully reclaimed to a condition at least as good as the pre-mining condition.

PROTECTIONS FOR ROADLESS VALUES ALREADY EXIST

The Forest Service chose to accept these severe proscriptions for roadless areas even though roads associated with coal mines are temporary and the Surface Mining Control and Reclamation Act (SMCRA) mandates that these roaded areas be reclaimed to a condition as good or better than they were before mining. Furthermore, surface coal mines cannot be permitted at all on Forest Service lands unless the Secretary of Interior “finds that there are no significant recreational, timber, economic or other values which may be incompatible with surface mining operations . . .” (Section 522(e)2)) In other words, the values the rule is intended to safeguard have already been considered and protected by an existing statute.

During the rulemaking process, the Forest Service also ignored the fact that the SMCRA provides the exclusive statutory scheme for designating areas unsuitable for coal mining. The first question the authors of this rule should have asked was whether the agency has the authority to deny reasonable access to federal coal.

Other Mineral Related Impacts of the Roadless Area Conservation Rule

Stillwater Mining Company produces platinum and palladium from its mine located partially on Forest Service lands in Montana. Two of the roadless conservation areas cover portions of these reserves, which represent the only operating platinum/palladium mine in the Western Hemisphere. Even though Congress specifically drew the boundaries of the Absaroka-Beartooth Wilderness to exclude these important deposits, the roadless rule ignores this obvious congressional intent.

Platinum and palladium are critical elements in catalytic converters as well as components in high temperature and corrosion resistant alloys used in jet aircraft and other defense applications. The environmental, economic and national security

implications of denying access to develop these unique and important deposits are significant.

Like coal underlying Forest Service lands, holders of federal phosphate leases will be limited in their ability to expand production levels beyond the boundaries of existing leases. The FEIS states that 873.3 million tons of phosphates not yet leased could be affected by the roadless rule and additional amounts could be affected when land management plans are revised or amended. The cumulative impact of the increased energy costs and the escalated cost of fertilizer on western farmers and ranchers will be profound.

Conclusion

The Final Roadless Area Conservation Rule will clearly result in the loss of millions of tons of coal and phosphates, as well as substantial quantities of metallic and other hardrock minerals, that could otherwise be recovered from Forest Service administered lands. The economic impact on energy, agriculture and mining sectors is hundreds of millions of dollars. The cost/benefit analysis appears to underestimate grossly the impact, and the Forest Service has ignored the cumulative effect the rule will have on sectors of the economy already reeling because of elevated energy costs.

In its evaluation of the adequacy of the regulatory framework for hard rock mining, the National Research Council stated:

The lack of information appeared to be greatest among highly placed officials who have the greatest need to know. Consequently, those responsible for regulatory management and change, and for keeping the public and Congress adequately informed, appear to be severely limited in their ability to do so.²

Although this observation was made in a different regulatory context, it is clearly applicable to the situation at hand.

The authors of the rule went to great pains first to dismiss then, when confronted, understate the impacts this rule will have on the Nation's ability to meet its energy needs. The agency completely ignored the existing regulatory scheme, including the Clean Water Act, the Endangered Species Act, the Surface Mining Control and Reclamation Act, and most notably the Wilderness Act, that protects the values this rule claims to defend. The price the entire Country will pay of this failure has already been witnessed in California and is spreading across the West.

Senator CANTWELL. Thank you, Mr. Schaefer. Now we are going to hear from Mr. Edmund Segner with EOG Resources Inc, representing the American Petroleum Institute.

**STATEMENT OF EDMUND P. SEGNER, PRESIDENT,
EOG RESOURCES, INC.**

Mr. SEGNER. That is correct. And also representing the Domestic Petroleum Council and the IPAA and also the Public Lands Advocacy. The U.S. oil and natural gas industry has a long record of providing a reliable and affordable supply of energy to America. The Federal Government has always played a pivotal role in determining how well producers meet U.S. energy needs. It is important that government and industry develop a workable national energy policy that both protects the environment and delivers the energy to insure continued prosperity. We believe both goals can be achieved.

Most natural gas we use come from U.S. sources. According to the National Petroleum Council demand will rise by more than 30 percent by the year 2010 and 60 percent by 2020. We will need an additional 7 trillion cubic feet of natural gas annually over the next decade and 14 trillion cubic feet a year of additional supplies in less than 20 years.

²*Hardrock Mining on Federal Lands*, National Research Council (September, 1999).

The NPC study also found that producers would have to invest almost \$660 billion in new capital to meet that increased need for energy. We are capable of meeting this demand if energy companies have greater access to Federal lands now off limits or subject to severe restrictions. The Department of Energy study on the roadless rule estimated it would close off 11 trillion cubic feet of natural gas estimated to be beneath these lands.

The study also illustrates the disregard given to energy values. More than 80 percent of the predicted 11 trillion cubic feet of natural gas is located on just 5 percent of the land covered by the rule. The new rule bans reconstruction, creating new roadless areas in lands that have previously been available for multiple use. As a result the Forest Service is changing congressional intent.

When the Forest Service devised its long-term strategic plan in 1990 under the Resource Planning Act it stated petroleum leasing activity was designed to meet most demands for access to explore and develop mineral resources, except when doing so would pose unacceptably high risk to other resources. Since then the Forest Service has paid little attention to mineral resources in drafting their land use plans.

Advanced technology enables us to develop and produce oil and natural gas with far less impact on the environment than even 10 years ago. A 1990 DOE study of environmental benefits of today's technology found: With advanced technologies the oil and gas industry can pinpoint resources more accurately, extract them more efficiently, and with less surface area and with less surface disturbance, minimizing associated waste, and ultimately restore sites to original or better condition.

Even with these advances in technology, the domestic producing industry is not asking to drill in areas set aside by acts of Congress. We seek solely to access lands designated as multiple use by Congress so that exploration and production can take place in an environmentally compatible manner.

The roadless rule continues the trend towards less development of the natural resources beneath Federal lands. The resulting decrease in petroleum activities will have a significant impact on jobs and local economies. Moreover, the withdrawal of these lands from leasing will have a seriously negative impact on the U.S. Treasury and State governments. The Forest Service rule will cost the Federal Government and State governments millions of dollars in lost leasing revenues and production royalties. Revenues will steadily decrease if currently producing oil and gas new leases are not continued.

One argument advanced by proponents of the roadless rule is the high cost of maintaining roads. In the proposed rule, the Forest Service claimed a \$10 billion backlog for maintenance and reconstruction of existing roads. However, the oil and gas industry funds the construction, maintenance and reclamation of the roads needed to find and produce oil and gas beneath Forest Service lands, and if a prospect turns out to be a dry hole, the industry removes the road and reclaims the land.

This industry is very concerned that the roadless rule has withdrawn 60 million acres without a balanced assessment of the energy implications of such a decision. This rule prohibits activities

that are consistent with congressionally mandated multiple use, and we believe the rule will inflict economic harm to many people, including residents of local communities.

We urge Congress to carefully review the final roadless rule. A new plan can be developed so that a projected 11 trillion cubic feet of natural gas can be produced in an environmentally compatible manner.

Overall, our energy policy needs to have the following characteristics. We need to balance energy needs with environmental needs. We need to fully staff our regulatory offices. We need to streamline the permitting processes, and we need processes that in fact can change and be flexible over time, incorporating the facts that we will see improvements in technology over time. Thank you very much.

[The prepared statement of Mr. Segner follows:]

PREPARED STATEMENT OF EDMUND P. SEGNER, PRESIDENT, EOG RESOURCES, INC.

Good afternoon. My name is Edmund Segner, president of EOG Resources, Inc., one of the largest independent producers of oil and natural gas in the United States.

Thank you for inviting us to testify. I am a member of the Executive Committee of the Domestic Petroleum Council and today I am also testifying on behalf of the American Petroleum Institute, the Independent Petroleum Association of America, and Public Lands Advocacy, who together speak for thousands of oil and natural gas producing companies in the United States. I will discuss the energy implications of the U.S. Forest Service (USFS) Roadless Rule that was finalized in January 2001.

The U.S. oil and natural gas industry has a long record of providing a reliable and affordable supply of energy to American families. At the same time, the federal government has always played a pivotal role in determining how well producers meet U.S. energy needs. With U.S. energy demand now at an all-time high, it is important that government and industry develop a workable national energy policy that both protects the environment and delivers the energy to ensure continued U.S. prosperity. Both goals can be achieved.

My testimony focuses on Forest Service multiple use lands containing oil and natural gas resources that were placed off limits to exploration and production as part of the so-called "Roadless Rule." The effect of that rule is to put off limits lands estimated to hold between 3.5 and 23.1 trillion cubic feet (Tcf) of natural gas. The final rule chose to ignore such vast potential reserves despite our industry's comments highlighting those energy implications.

Today, we import 57 percent of our crude oil. Last year's gasoline price volatility was due in part to a cutback in production by foreign oil producing countries even as demand grew rapidly. While we cannot eliminate our dependence on imported oil, there are many things that can be done to offset it. And one of them is to do all we can to encourage greater production in this country of all kinds of energy.

Unlike crude oil, most of the natural gas we use comes from U.S. sources. According to a study by the National Petroleum Council (NPC)—an Energy Department advisory group—U.S. natural gas demand will rise by more than 30 percent by the year 2010, and by 60 percent to an estimated 36 Tcf by 2020.

We will need an additional seven trillion cubic feet of natural gas annually by the end of this decade, and 14 Tcf a year in additional supplies in less than 20 years. Almost half of that will be needed to produce electricity because many new power plants are predicted to be powered by natural gas.

The 1999 NPC study that produced the numbers on natural gas demand also found that producers will have to invest almost \$660 billion in new capital to meet that increased need for energy over the next quarter century. The study also concluded the United States is capable of meeting this additional demand, but only if energy companies are given greater access to available federal lands that are now off limits or severely restricted as a result of discretionary federal actions.

There must be a new policy permitting companies to explore for, and produce in multiple-use federal lands, including some of those placed off limits by the USFS.

THE EFFECTS OF THE FINAL RULE

A recent study conducted for the Department of Energy in the last days of the Clinton Administration on the energy implications of the Roadless Rule estimated

that the new rule would completely close to development 9.4 Tcf of the total 11 Tcf of natural gas found on the lands covered by the initiative.

The study also illustrates the casual disregard given to energy values in the USFS Rule. More than 80 percent of the predicted 11 Tcf of natural gas is located on just five percent of the land covered by the Forest Service rule on roadless construction. In other words, if the Forest Service had left out that five percent, it would have made available the vast majority of the natural gas beneath USFS lands in the Rocky Mountain region. It is precisely this type of cavalier dismissal of energy values in federal land use decision-making that has aggravated our current energy difficulties.

Specifically, the new rule bans road reconstruction, thus effectively creating new roadless areas in lands that have previously been available for multiple use. As a result, the Forest Service is circumventing congressional intent, and bans activities that are consistent with multiple use.

Moreover, the Rule effectively withdraws more public lands from oil and gas development without justification, to the detriment of the nation's domestic energy supply. It also exacts costs from local economies in affected states and causes a decline in federal revenues from bonus bids, rents and royalties on exploration and production on federal lands.

When the Forest Service devised its long-term strategic plan in 1990, under the Resource Planning Act, its stated petroleum leasing strategy was designed to "meet most demands for access to explore and develop mineral resources, except when doing so would pose unacceptably high risks to other resources."

This goal was articulated by the agency in the aftermath of a 1988 controversy in which the Forest Service admitted that it paid "little attention . . . to minerals while making land use decisions that restrict mineral exploration access." Since that time, the managers of the National Forests have paid minimal attention to mineral resources in drafting their land-use plans. As a result, a vast amount of Forest Service acreage had been placed off-limits to oil and gas leasing prior to the final Roadless Rule.

In the last administration, the Forest Service asserted that its policies and road construction bans were based on goals that have changed over the years, from a system "largely funded and constructed to develop areas for timber harvesting and to allow the development of other resources. In the last two decades, interest in the appropriate uses of the resources . . . has shifted toward recreation and wildlife."

This shift away from development of the natural resources on federal lands, without a balanced assessment of competing uses, is of great concern to the oil and gas industry. From 1983 to 1996, oil and gas leasing on National Forest and Bureau of Land Management lands in eight western states declined by a drastic 72 percent, from 114.2 million acres to 32.6 million acres. Across the entire National Forest system, lands in Designated Wilderness Areas, which are barred from petroleum leasing, increased substantially—from 9.3 million acres in 1964 to 35 million acres in 1996. Moreover, nearly 6.1 million acres of Forest Service lands remain in limbo as Wilderness Study Areas. The Forest Service decisions regarding potential Wilderness were made as a result of the Roadless Area Review and Evaluation (RARE) I and II processes, and what industry terms RARE III, which was conducted as part of the Forest Service land and resource management planning process completed between 1985 and 1990.

It is evident that the real issue at stake is expanding wilderness acreage throughout the entire National Forest System. The first Wilderness designated by Congress in 1964 totaled 9 million acres. Since then, an additional 100 million federal acres have been designated as Wilderness nationwide. In addition, other categories, including the Forest Service's "further planning" areas, recommended Wilderness Areas, and Wilderness Study Areas (designated by the agency and Congress), amount to more than 27 million acres. Combined with other set-asides, such as national parks and refuges, native claims selections in Alaska, and special management areas, more than 50 percent of federal lands—some 300 million acres—are already completely off-limits to oil and gas leasing and exploration. Of the federal lands available to leasing, more than half are subject to severely restrictive land classifications or lease stipulations. The cumulative effects of this expansion have major consequences for those whose role in the economy depends on important resources located on federal lands and for the nation.

TECHNOLOGY

Any discussion of increased access to natural gas reserves inevitably turns to the technology used in the 21st century to find and remove the gas.

A 1999 Department of Energy report entitled, *Environmental Benefits of Advanced Oil and Gas Exploration and Production Technology* had this to say about the industry's approach to protecting the environment:

“. . . innovative E&P approaches are making a difference to the environment. With advanced technologies, the oil and gas industry can pinpoint resources more accurately, extract them more efficiently and with less surface area and with less surface disturbance, minimize associated wastes, and, ultimately, restore sites to original or better condition.

(The industry) has integrated an environmental ethic into its business and culture and operations (and) has come to recognize that high environmental standards and responsible development are good business.”

These advances in technology apply to exploration and production on hundreds of millions of acres of lands owned by the federal government. However, the domestic producing industry is not asking to drill on parklands or in wilderness areas set aside by Acts of Congress. Rather, we seek access to lands designated as “multiple use” by Congress on Forest Service lands so that so that exploration and production can take place in an environmentally compatible manner.

Critics often portray the industry as careless about environmental concerns. They have probably never visited a rig where safety and environmental protection are the central concerns, regardless of their location, and where our obligations with the government require us to return the land to its original status once oil or gas production ceases.

ECONOMIC IMPACTS

The Roadless Rule continues the trend toward less development of the natural resources beneath federal lands. No new leases of Forest Service lands could be granted where roads must be constructed to achieve the purposes of the lease. The resulting decrease in petroleum activities will have a significant impact on jobs. Drilling activities for a single well require as many as 20 workers for up to three months, generating some \$150,000 in wages. Another \$1 million must be expended on equipment, goods and services for a typical well. Most of this money is spent in the local area where a well is drilled—for severance taxes, production royalties, payments in lieu of taxes (PILT), income taxes and so forth, where previous decreases in oil and gas activity have already had a significant economic impact.

Moreover, the withdrawal of these lands from leasing will have a seriously negative impact on the U.S. Treasury. Under the competitive leasing system, the federal government receives a minimum bid of \$2 an acre to lease these lands for petroleum development. By imposing this moratorium on roads—which are essential to oil and gas development—the Forest Service is foregoing a potential for at least \$66 million in leasing revenues. If there is more than one company interested in leasing in a parcel of land, the high lease bid in the past has gone up to as high as \$1,000 an acre or more. Bonus bids amounting to the first year's rent are also paid at the time a lease is sold. In addition, the Roadless Rule not only diminishes lease rentals and bonuses, but also production royalties that would be paid during the life of production of the lease.

Petroleum reserves and federal ownership of lands are extensive in the West and oil and gas are important sources of state revenues. In Montana, for example, oil and gas producers and refiners paid nearly \$100 million in state and local taxes in 1996. In Wyoming, the oil and gas production industry paid \$378 million, and in North Dakota, \$53 million. In Utah, the state severance tax on oil and gas produced \$46 million in 1983—but only \$12 million in 1996.

Revenues, in these and other states, will steadily decrease if currently producing oil and gas leases on Forest Service lands are not augmented by new leases and subsequent development. The Roadless Rule will discourage, delay and very likely eliminate further petroleum activity on Forest Service lands.

ROAD MAINTENANCE COSTS

One argument advanced by proponents of the Roadless Rule is the high cost of maintaining roads. In the proposed rule, the Forest Service claimed a \$10 billion backlog for maintenance and reconstruction of existing roads on its lands. However, it should be noted that the oil and gas industry funds the private construction, maintenance and reclamation of the roads needed to find and produce oil and gas from beneath Forest Service lands. It does not depend on assistance from the federal government. Moreover, if a prospect turns out to be a “dry hole,” the industry removes the road and reclaims the land. The only time the petroleum industry leaves intact a road that it has constructed is when the Forest Service requests it. Thus,

the Forest Service is only required to maintain roads for public use. Ironically, while road maintenance payments to the Forest Service have declined in recent years, it is the decreasing access of commercial users, including the oil and gas industry that has led to this decline.

MULTIPLE USES

It is also important to note that oil and gas development does not prevent leased land from being used for other purposes or by other users. Under the terms of a federal oil and gas lease, the operator cannot construct housing, farm the land, or remove any minerals other than oil and natural gas. The Forest Service is free to grant permits for non-petroleum uses to others or allow activities which require roads but do not require permits, such as mountain biking, cross-country skiing, fishing, hunting, sight-seeing or picnicking.

The oil and gas industry supports reasonable measures to protect fish, wildlife and environmental resources. This industry has repeatedly demonstrated its commitment to operating in an environmentally compatible manner, with vigilant consideration given to sensitive resource values. This record should provide a basis for a policy that does not prevent oil and gas activity in the unroaded areas. Moreover, the Forest Service's authority under current policies gives the agency almost complete control over how surface resources are managed, providing additional assurance that exploration and production will be conducted with respect for environmental values.

CONCLUSION

This industry is very concerned that the Roadless Rule has placed 60 million acres in de facto wilderness withdrawal without a balanced assessment of the energy implications of such a decision. These lands have repeatedly been found not to meet the 1964 Wilderness Act criteria, and were released to multiple use during the comprehensive RARE I and II processes and the Forest Service planning process. This Rule appears to be an alternate method of prohibiting activities that are consistent with congressionally mandated multiple-use. The Rule imposes high costs on many people—severe economic impacts on local communities, effects on the price and availability of oil and gas, hardrock minerals, lumber and paper products and other goods and services. Moreover, there is also a cost in more limited recreational opportunities to the public. The gain—preserving unroaded acreage with the National Forest System—does not appear to equal the cost.

We urge Congress to carefully review the Forest Service's Final Roadless Rule. A new plan can be developed in these unroaded areas without halting all activities on these lands so that a projected 11 trillion cubic feet of needed domestic natural gas can be produced in an environmentally compatible manner.

We must find a way to eliminate government obstacles and regulatory complexity so that our companies will be better able to produce the enormous amounts of energy that will be required over the next decade and beyond. That includes the Forest Service's capricious rule banning new road construction on multiple use Forest Service lands that are most promising for oil and gas exploration.

Senator CANTWELL. Thank you, Mr. Segner. Finally, Professor Tom McGarity from the University of Texas School of Law at Austin. Thank you for being with us as well.

STATEMENT OF PROFESSOR THOMAS O. MCGARITY, UNIVERSITY OF TEXAS SCHOOL OF LAW, AUSTIN, TX

Mr. MCGARITY. Thank you. I am a professor of law at the University of Texas School of Law where I have taught administrative law and environmental law for the last 20 years. I am pleased to testify here on the legal issues concerning the Forest Service's final rule on roadless areas and the Bush administration's response to that rule. The testimony that I am giving, however, I represent only myself and I do not necessarily represent the views of the University of Texas.

As is typically the case when an administration during the transition between administrations and the following administration, the volume of proposed and final regulations issued by many execu-

tive departments increases—that happened in the Clinton administration. This is not at all unusual for any decision-making institution to increase its output at the end of its appointed term.

The roadless rule was one of these. It was not an ill-conceived product of a hasty decision-making process. As Senator Cantwell has pointed out, there was a great deal of notice and comment, a great deal of public participation with respect to this rule over a long period of time. Impressive to me, more impressive than 800,000 form letters sent in is the 430 public meetings which were attended by 23,000 people. That is a pretty impressive record of public participation to me. On January 20, the White House Chief of Staff, Andrew Card, wrote a memorandum to the heads of the agencies asking them to withdraw rules that had been submitted and published in the Federal Register—or at least to stay them, I'm sorry, for a 60 day period.

It is certainly conceivable that at the end of this 60 day period the Forest Service's 60 day stay will either be extended or perhaps even be made indefinite. I think that the demand that the agency extend the effective date for 60 days was, as at least explained in the Federal Register notices, violative of the Administrative Procedures Act. The rulemaking process is by its very nature open ended, and one administration may certainly rescind or replace a rule issued by a prior administration; however, a regulation may only be deferred, modified, withdrawn, or repealed through the same notice and comment procedures that the APA, the Administrative Procedures Act, prescribes for promulgating regulations in the first instance.

Moreover, any decision to appeal, withdraw, defer, or amend a regulation may ordinarily be accomplished only with the same degree of study, analysis, and deliberation, and supported by a rule-making record.

The postponement of the effective date of a rule is itself a rule, and therefore rulemaking procedures should be undertaken in that exercise. So long as the action does not come within one of the exceptions to notice and comment rulemaking in section 553 of the Administrative Procedures Act, the postponement may legally be accomplished only through the procedures prescribed therein. There was a boilerplate paragraph in the Forest Service rule, as in all of the rules that were issued pursuant to the Card memorandum, taking the position that it was either a procedural rule—which it clearly is not—or that there was good cause for the 60 day postponement, but with little explanation for that, other than there had been a change of administrations. And the law is very clear that simple deadline or change of administrations is not good cause for extending the effective date of a rule.

It is possible that the Forest Service may, during the time that it reviews this rule, decide to withdraw or amend the rule. It has certainly been suggested here that that is an action the Forest Service should take. Two important impediments stand in the way of an attempt to implement that option. First, any rescission must be accomplished through notice and comment rulemaking with full public participation. Second, any such action must be supported with data and analysis capable of demonstrating that the rescission or modification is not arbitrary and capricious. The leading Su-

preme Court holding on this question, the *State Farm* case, says that agency rule rescissions must be reviewed with the same degree of scrutiny as the review of initial rule promulgations.

The Court said, and I quote, “an agency changing its course by rescinding a rule is obligated to supply a reasoned analysis for the change beyond that which may be required when an agency does not act in the first place.”

I have submitted my full comments for the record and I ask that they be printed with the hearings. I would simply conclude with the conclusion that the Chief of Staff’s memorandum did send a message to ordinary people that it is acceptable to circumvent the legally binding procedural requirements set out in the Administrative Procedures Act. I think that neither the President nor Congress should reinforce that message by arbitrarily rescinding, at the behest of a few interests, protective regulations like the roadless rule that have been years in the making. Thank you.

[The prepared statement of Mr. McGarity follows:]

PREPARED STATEMENT OF PROFESSOR TOM MCGARITY, UNIVERSITY OF TEXAS SCHOOL OF LAW, AUSTIN, TX

My name is Tom McGarity. I hold the W. James Kronzer Chair in Law at the University of Texas School of Law, where I have for the last 20 years taught courses in Administrative Law and Environmental Law. As my attached Curriculum Vitae indicates, I have published many articles and two books in the area of Administrative Law and Regulatory Reform, and I have co-authored a casebook on Environmental Law. I am, therefore, pleased to testify today on the Forest Service’s Final Rule on Roadless Area Conservation and the Bush Administration’s response to those regulations.

THE ROADLESS AREA CONSERVATION RULE.

As is typically the case during the transition between one Administration and the following Administration, the volume of proposed and final regulations issued by many Executive Branch agencies increased during the last few weeks of the Clinton Administration. The same thing happened at the end of the Carter and Bush Administrations when a President from a different political party was elected.

It is not at all unusual for a decisionmaking institution to increase its output substantially at the end of its appointed term. The volume of Supreme Court opinions invariably increases dramatically in June and July as the October term comes to an end. Legislative bodies, including this body, typically pick up the legislative pace and enact a disproportionate number of laws at the end of a legislative session. It is in the nature of a deliberative law-making body to deliberate longer and harder over difficult decisions and, consequently, to leave them to the end of the deliberations.

One of the regulations issued at the end of the Clinton Administration was the Forest Service’s Final Rule on Roadless Area Conservation.¹ This regulation was not an ill-conceived product of a hasty decisionmaking process. The Forest Service proposed to suspend road construction and reconstruction in most inventoried roadless areas in January, 1998, three years before the issuance of the final rule.² After considering more than 119,000 public comments on the proposal, the Forest Service a little more than a year later issued an interim rule temporarily suspending road construction and reconstruction in most inventoried roadless areas.³

Having temporarily suspended road construction and reconstruction in roadless areas, the Forest Service began the process of providing long-term protection of the areas by announcing, in October, 1999, that it planned to initiate a rulemaking and to prepare a Draft Environmental Impact Statement (DEIS) analyzing various alternative approaches to protecting roadless areas.⁴ After issuing this notice, the Forest Service conducted 187 public meetings that were attended by about 16,000 people, and the agency received more than 517,000 responses.⁵

On May 10, 2000, the agency issued a proposed regulation,⁶ and soon thereafter it made the DEIS available to the public.⁷ The documents and much other background information were published on the agency’s website.⁸ The agency hosted two cycles of public meetings on the proposed rule and the DEIS, resulting in a total of about 430 public meetings attended by more than 23,000 people.⁹ On November

17, 2000, the agency published a notice announcing the availability of the Final Environmental Impact Statement (FEIS). By the time that the rulemaking period had closed, the agency had received more than 60,000 original letters, 90,000 e-mail transmissions and one million postcards or other written submissions.¹⁰ The agency carefully analyzed those submissions in a full volume of the FEIS and responded to significant negative comments in the preamble to its final rule.¹¹

All interested members of the public thus had ample opportunity to present their views and to have them considered by the agency. Moreover, the preamble to the final rule carefully analyzed the public comments on the alternatives identified in the DEIS, and it changed various aspects of the regulation in light of the comments that it received.¹² The final rule has been challenged in a federal district court in Idaho on the ground that it is arbitrary and capricious. Assuming that the rule is not withdrawn, that challenge will presumably go forward and the court will address the merits of the regulation under the Multiple-Use Sustained-Yield Act of 1960¹³ and the National Environmental Policy Act.¹⁴

THE CARD MEMORANDUM AND SUBSEQUENT DELAY OF EFFECTIVE DATE

On January 20, 2001, White House Chief of Staff Andrew Card wrote a memorandum to the heads and acting heads of all Executive Branch agencies to communicate to them President Bush's "plan for managing the Federal regulatory process at the outset of his Administration."¹⁵ Subject to some limited exceptions for emergencies and urgent situations relating to public health and safety, the memorandum asked the agency heads to "withdraw" any regulation that had been sent to the Office of the Federal Register, but had not been published in the Federal Register. The regulation was not to be published in the Federal Register "unless and until a department or agency head appointed by the President after noon on January 20, 2001, reviews and approves the regulatory action."¹⁶ With respect to final regulations that had been published in the Federal Register but had not taken effect, the agency heads were asked to "temporarily postpone the effective date of the regulations for 60 days."¹⁷ The memorandum defined the term "regulation" to mean "any substantive action by an agency (normally published in the Federal Register) that promulgates or is expected to lead to the promulgation of a final rule or regulation, including notices of inquiry, advance notices of proposed rulemaking, and notices of proposed rulemaking."¹⁸

The Forest Service responded to the Card Memorandum by publishing on February 5, 2001, a notice in the Federal Register "temporarily delay[ing] for 60 days the effective date" of the roadless area rule, which the agency had previously published in the Federal Register.¹⁹ Although it is not clear how the Forest Service will proceed at the end of the 60-day delay period, it is certainly conceivable that the agency will suspend the effective date indefinitely while it decides whether to modify portions of it or to rescind it altogether.

LEGAL AND POLICY ANALYSIS

The rulemaking process is by its very nature open-ended, and rules that are promulgated during one administration may be rescinded and replaced during another, if the relevant agency statutes give the agencies discretion to do so. The agencies' substantive statutes are the determinants of the substantive legitimacy of the regulations and of their amendment or repeal. Unless an agency's statute prescribes a different process, the Administrative Procedure Act (APA) is the determinant of the procedural aspects of rule promulgation, amendment and repeal.²⁰

In general, a regulation may only be deferred, modified, withdrawn or repealed through the same notice-and-comment rulemaking procedures that the APA prescribes for promulgating regulations in the first instance. Moreover, any decision to repeal, withdraw, defer, or amend a regulation should ordinarily be accomplished with the same degree of study, analysis and deliberation that went into the promulgation of those regulations. Anything less would represent a disservice to the intended beneficiaries of the protections that the rules provided. Legal considerations aside, it is bad public policy cavalierly to throw out important environmental protections solely because they were promulgated during a previous administration. It makes no more sense to erect a presumption against retaining regulations promulgated near the end of a presidential administration than it would make to erect a presumption against the wisdom or legitimacy of legislation enacted during the end of a congressional session.

POSTPONEMENT OF THE EFFECTIVE DATE OF THE ROADLESS AREA RULE

As an initial matter, the APA exempts rules involving "public property" from notice-and-comment rulemaking procedures. In 1971, however, the United States De-

partment of Agriculture (USDA), acting pursuant to a recommendation of the now-defunct Administrative Conference of the United States, published a regulation voluntarily waiving this exemption.²¹ This regulation “fully bound the Secretary to comply thereafter with the procedural demands of the APA.”²² Thus, until such time as it revokes the 1971 regulation, the Forest Service must follow the prescriptions of section 553 of the APA in promulgating regulations related to Forest Service lands.

Once a rule has been published in the Federal Register, it is a final rule for purposes of the APA, even if the effective date of one or more of its legally binding requirements occurs some time in the future.²³ The agency may not modify the rule except through the section 553 notice-and-comment rulemaking procedures.²⁴ The Card memo requested the executive branch agencies to “temporarily postpone the effective date” of the already published regulations for 60 days to allow newly appointed agency heads to review and approve those regulations,²⁵ and the Forest Service complied with that request.

The law is clear that the postponement of the effective date of a rule, either indefinitely or for a set period of time, is “rulemaking” within the meaning of the APA. The court in *Natural Resources Defense Council, Inc. v. EPA*,²⁶ the leading case on the subject, observed that “it makes sense to scrutinize the procedures employed by the agency all the more closely where the agency has acted, within a compressed time frame, to reverse itself by the procedure under challenge.”²⁷ In “postponing the effective date” of the rule, the agency in that case had “reversed its course of action up to the postponement,” and it had done so “without notice and an opportunity for comment, and without any statement . . . on the impact of that postponement.”²⁸ The indefinite postponement of the regulations was a “rule” within the meaning of the APA that could lawfully be promulgated only through the procedures provided for in the APA.

So long as the action postponing the regulation does not come within one of the exceptions listed in section 553 of the APA, the postponement may legally be accomplished only through the notice-and-comment rulemaking procedures provided for in section 553. The exemptions, in turn, are quite narrow. As the D.C. Circuit Court of Appeals has noted: “it should be clear beyond contradiction or cavil that Congress expected, and the courts have held, that the various exceptions to the notice-and-comment provisions of section 553 will be narrowly construed and only reluctantly countenanced.”²⁹

The Forest Service’s Federal Register notice for the 60-day delay of the roadless area rule contained a boilerplate explanation for why the delay was either a “rule of procedure” within section 553’s exemption for such rules from the notice-and-comment rulemaking requirements or were subject to the “good cause” exception.³⁰ In relevant part, the boilerplate reads as follows:

To the extent that 5 U.S.C. section 553 applies to this action, it is exempt from notice and comment because it constitutes a rule of procedure under 5 U.S.C. section 553(b)(A). Alternatively, the Department’s implementation of this rule without opportunity for public comment, effective immediately upon publication today in the Federal Register, is based on the good cause exceptions in 5 U.S.C. section 553(b)(B) and 553(d)(3). Seeking public comment is impracticable, unnecessary and contrary to the public interest. The temporary 60-day delay in effective date is necessary to give Department officials the opportunity for further review and consideration of new regulations, consistent with the Assistant to the President’s memorandum of January 20, 2001. Given the imminence of the effective date, seeking prior public comment on this temporary delay would have been impractical, as well as contrary to the public interest in the orderly promulgation and implementation of regulations. The imminence of the effective date is also good cause for making this rule effective immediately upon publication.³¹

The boilerplate explanation for neither exemption is at all convincing.

The 60-day suspension of the effective date of the roadless area rule issued in response to the Card memo cannot reasonably be characterized as a “procedural rule” within the meaning of the APA. The law is well established that “[a] procedural rule is one that does not itself alter the rights or interests of parties, although it may alter the manner in which the parties present themselves or their viewpoints to the agency.”³² Agency actions that “jeopardize or substantially effect the rights and interests of private parties” are not procedural rules.³³ The effective date of a substantive rule is a substantive, not a procedural component of that rule. Procedural rules are rules that govern the procedures under which an agency exercises its powers or under which private parties interact with the agency. They address how the agency goes about its substantive work.³⁴ They do not affirmatively implement the

agency's substantive responsibilities. The roadless area rule implemented the Forest Service's substantive responsibilities under the Multiple-Use Sustained-Yield Act of 1960.

Just as clearly, the suspension did not come within section 553's "good cause" exemption. An agency may rely upon that exemption when it "for good cause finds . . . that notice and public procedure thereon are impracticable, unnecessary, or contrary to the public interest."³⁵ The courts have repeatedly held that the "good cause" exemption is to be "narrowly construed and only reluctantly countenanced . . . [and] should be limited to emergency situations."³⁶ In particular, "the mere existence of deadlines for agency action . . . [can]not in itself constitute good cause for a §§ 553(b)(B) exception."³⁷ Otherwise the "good cause" exemption could easily swallow the rule that regulations must be promulgated through notice-and-comment procedures.³⁸ The good cause exemption is not an 'escape clause' that may be arbitrarily utilized at the agency's whim."³⁹

The boilerplate rationale that the Forest Service provided in its Federal Register notice was that the "temporary 60-day delay in effective date is necessary to give Department officials the opportunity for further review and consideration of new regulations, consistent with the Assistant to the President's memorandum of January 20, 2001." An agency's desire to re-consider a regulation that it has already considered cannot conceivably constitute the sort of emergency that is required to support the "good cause" showing under section 553. An agency is free to reconsider a previously promulgated regulation while it remains in effect by issuing a notice of proposed rulemaking, inviting public comment on any changes the agency has in mind, and either withdrawing the previously promulgated rule or promulgating an amended rule. The Forest Service's postponement of the effective date of the final roadless area regulation cannot possibly fit within the intentionally narrow "good cause" exemption to section 553's notice and comment procedural requirements.

WITHDRAWAL OF PUBLISHED FINAL RULES

The Card memo contemplated that agency heads would "review and approve" postponed published final rules. Although not made explicit, it no doubt also contemplated that the agencies would rescind regulations that did not receive the approval of the agency heads.⁴⁰ Thus, the Forest Service may decide to withdraw or amend the roadless area rule. Two important impediments, however, stand in the way of any attempt to implement that option.

First, as discussed above, any rescission or modification of a published final rule must be accomplished through notice-and-comment rulemaking procedures, unless the action comes within the good cause exception. Section 553 defines "rulemaking" as "agency process for formulating, amending, or repealing a rule."⁴¹ Hence, the amendment or repeal of a final rule must be accomplished through section 553 notice-and-comment rulemaking procedures.

Second, and perhaps more importantly, any such action must be supported with data and analysis capable of demonstrating that the rescission or modification is not "arbitrary and capricious."⁴² In the leading Supreme Court opinion on this question, the Court held that courts should review agency rule rescissions with the same degree of scrutiny as they review initial rule promulgations, and it explicitly rejected the claim that the courts should review the repeal of a regulation as a decision declining to promulgate regulation in the first place.⁴³ The Court noted that "an agency changing its course by rescinding a rule is obligated to supply a reasoned analysis for the change beyond that which may be required when an agency does not act in the first instance."⁴⁴ The Court then articulated the test for "substantive" judicial review of agency action under the arbitrary and capricious test.⁴⁵ The same standard applies to the indefinite suspension of a previously promulgated rule.⁴⁶

As noted above, the Forest Service assembled a massive record on the roadless area rule, and it supported that rule with extensive analysis both in the FEIS and the preamble to the Notice of Final Rulemaking. While it is possible that the agency could adequately justify a decision to amend or repeal that rule with less extensive data and analyses than those that went into the promulgation of the original rule, a reviewing court would no doubt insist that the agency back up such an action with a substantial record and very strong reasons. The mere fact of a change of Administrations is not a sufficient justification for the modification or repeal of a promulgated rule.

REPEALING RULES UNDER THE CONGRESSIONAL REVIEW ACT

One alternative to the unlawful postponement or withdrawal of a published final rule is action under the Congressional Review Act to rescind a major rule. When Congress takes this rather extreme step, however, the rescinded regulation cannot

be promulgated in “substantially the same form” without explicit authorizing legislation.⁴⁷ Because it has the effect of undoing all of the work that the agency has put into the rule, this relatively blunt tool has the potential to waste huge amounts of public and private resources. In the case of the roadless area rule, the Forest Service has spent years of time and huge quantities of its limited analytical resources on the recently promulgated regulation. The congressional review process is not likely to devote nearly the same degree of care and analysis to the rule, should Congress elect to take it up.

Congress should not hastily exercise its power to undo the legitimate products of a deliberative rulemaking process. In general, neither the offices of individual congresspersons nor the committee staffs are populated with persons who have the technical expertise to second-guess the technical conclusions of agency staff and upper-level agency decisionmakers. With the demise of the Office of Technology Assessment in 1995, Congress lost its institutional capacity to elicit the technical advice of experts in particular subject areas relevant to federal regulation. The primary determinants of congressional decisions under the Congressional Review Act are likely to be political, not technical considerations. The fate of individual regulations, long in the making, should not turn on a hasty and unprincipled exercise of raw political power. In the years since it enacted the Congressional Review Act, Congress has wisely refrained from using that statute to reward political benefactors and punish political enemies. It should continue to do so in the future.

CONCLUSION

Like the Bush Administration before it, the Clinton Administration issued a comparatively large number of rules and proposed rules during its last few weeks. When Chief of Staff Card, at the President’s request, asked agencies to postpone the effective date of published final regulations, he was asking them to take an action that was unlawful under the Administrative Procedure Act. The fact that it may be impossible, as a practical matter, for an affected citizen to challenge the unlawful conduct of the agencies in court does not render that conduct any less unlawful. Federal agencies should obey the law, just as they expect ordinary citizens to obey the law. The Chief of Staff, in asking the agencies to engage in unlawful conduct, sent a message to ordinary citizens that it is acceptable to circumvent legally binding procedural requirements in pursuit of political ends. Congress should not reinforce that message by arbitrarily rescinding, at the behest of a few special interests, protective regulations like the roadless area rule that have been years in the making.

END NOTES

¹ 66 Fed. Reg. 3244 (2001).

² See 66 Fed. Reg. at 3247.

³ 64 Fed. Reg. 7290 (1999).

⁴ 64 Fed. Reg. 56306 (1999).

⁵ See 66 Fed. Reg. at 3248.

⁶ 65 Fed. Reg. 30276 (2000).

⁷ 65 Fed. Reg. 31898 (2000).

⁸ 66 Fed. Reg. at 3248.

⁹ *Id.*

¹⁰ *Id.*

¹¹ *Id.*

¹² 66 Fed. Reg. at 3249-67.

¹³ 16 U.S.C. §§ 1600, et seq.

¹⁴ 42 U.S.C. § 4321, et seq.

¹⁵ Memorandum for the Heads and Acting Heads of Executive Departments and Agencies from Andrew H. Card, Jr., dated January 20, 2001, 66 Fed. Reg. 7702 (2001) [hereinafter cited as Card memo].

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ Forest Service, Special Areas; Roadless Area Conservation: Delay of Effective Date, 66 Fed. Reg. 8899 (2001).

²⁰ 5 U.S.C. § 551 et. seq.

²¹ 36 Fed. Reg. 13804 (1971).

²² *Rodway v. USDA*, 514 F.2d 809, 814 (D.C. Cir. 1975).

²³ Indeed, under section 553(d) of the APA, the effective date of a regulation is ordinarily at least 30 days after promulgation in the Federal Register.

²⁴ See *Alaska Professional Hunters Association, Inc. v. FAA*, 177 F.3d 1030, 1034 (D.C. Cir. 1999) (the term “rulemaking” in the APA “includes not only the agency’s process of formulating a rule, but also the agency’s process of modifying a rule”).

²⁵ Card memo, *supra*, at 7702.

²⁶ 683 F.2d 752 (3d. Cir. 1982) (indefinite suspension of a published regulation is rulemaking that must follow notice-and-comment rulemaking procedures). See also *Environmental Defense Fund, Inc. v. Environmental Protection Agency*, 716 F.2d 915 (D.C. Cir. 1983) (attorney fee recovery case in which court noted that “[t]he suspension or delayed implementation of a final regulation normally constitutes substantive rulemaking under the APA”); *Environmental Defense Fund, Inc. v. Gorsuch*, 713 F.2d 802, 816 (D.C. Cir. 1983) (“an agency action which has the effect of suspending a duly promulgated regulation is normally subject to APA rulemaking requirements”).

²⁷ 683 F.2d at 760.

²⁸ *Id.*

²⁹ *New Jersey v. United States Environmental Protection Agency*, 626 F.2d 1038, 1045 (D.C. Cir. 1980).

³⁰ The agency did not claim that the suspension constituted an “interpretative rule” or a “statement of policy,” both of which may be promulgated without full notice and comment procedures. That route was foreclosed by judicial opinions rejecting such contentions in other contexts. See *Environmental Defense Fund, Inc. v. Gorsuch*, 713 F.2d 802, 816-17 (D.C. Cir. 1983).

³¹ For other notices delaying previously published regulations pursuant to the Card memo, see Department of Health and Human Services, Public Health Service, Alcohol, Drug Abuse and Mental Health Administration (ADAMHA) Substance Abuse and Mental Health Services Administration (SAMHSA), Opioid Drugs in Maintenance and Detoxification Treatment of Opiate Addiction; Repeal of Current Regulations and Issuance of New Regulations: Delay of Effective Date and Resultant Amendments to the Final Rule, 66 Fed. Reg. 15347 (2001); Department of Labor, Mine Safety and Health Administration, Diesel Particulate Matter Exposure of Underground Metal and Nonmetal Miners; Delay of Effective Dates, 66 Fed. Reg. 15032 (2001).

³² *Chamber of Commerce v. Department of Labor*, 174 F.3d 206 (D.C. Cir. 1999).

³³ *Thomas v. State of New York*, 802 F.2d 1443, 1447 (D.C. Cir. 1986).

³⁴ A possible example of a true procedural rule for which an agency legitimately extended a deadline pursuant to the Card memorandum is the revision of the Department of Housing and Urban Development’s regulations for implementing the Freedom of Information Act. Department of Housing and Urban Development, Revision of Freedom of Information Act Regulations; Delay of Effective Date, 66 Fed. Reg. 8175 (2001).

³⁵ 5 U.S.C. § 553(b)(B).

³⁶ *Environmental Defense Fund, Inc. v. EPA*, 716 F.2d 915, 920 (D.C. Cir. 1983).

³⁷ *United States Steel Corp. v. United States Environmental Protection Agency*, 595 F.2d 207, 213 (5th Cir. 1979).

³⁸ See *Council of the Southern Mountains v. Donovan*, 653 F.2d 573 (D.C. Cir. 1981) (finding good cause in the “possibly unique” situation in which: (1) the forces requiring the rule postponement were beyond the agency’s control; (2) the agency acted diligently to overcome the hurdles erected by other parties; (3) the record strongly indicated that the agency intended to implement the regulations on schedule; (4) the agency deferred the implementation date for only a short time; and (5) government counsel assured the court that the regulations would be fully implemented by a date certain).

³⁹ *American Federation of Gov’t Employees, AFL-CIO v. Block*, 655 F.2d 1153, 1156 (D.C. Cir. 1981) (quoting S. Rept. No. 752, 79th Cong., 1st Sess. (1945)).

⁴⁰ At least one agency has done just that. On March 23, 2001, EPA published a notice of proposed rulemaking to extend indefinitely the final rule for arsenic in drinking water. Environmental Protection Agency, National Primary Drinking Water Regulations; Arsenic and Clarifications to Compliance and New Source Contaminants Monitoring: Delay of Effective Date, 66 Fed. Reg. 16134 (2001).

⁴¹ 5 U.S.C. § 551(5).

⁴² 5 U.S.C. § 706.

⁴³ *Motor Vehicle Manufacturers Ass’n v. State Farm Mutual Automobile Insurance Co.*, 463 U.S. 29, 41-42 (1983).

⁴⁴ 463 U.S. at 42. See also *Atchison, T.&S.F.R. Co. v. Wichita Bd. of Trade*, 412 U.S. 800, 807-808 (1973) (observing that a “settled course of behavior embodies the agency’s informed judgment that, by pursuing that course, it will carry out the policies committed to it by Congress. There is, then, at least a presumption that those policies will be carried out best if the settled rule is adhered to.”).

⁴⁵ 463 U.S. at 43. The test prescribed by the court is as follows:

Normally, an agency rule would be arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

Id.

⁴⁶ *Public Citizen v. Steed*, 733 F.2d 93 (D.C. Cir. 1984).

⁴⁷ Congress has exercised its power under the Congressional Review Act, enacted in 1996, on only one occasion—the recently rescinded OSHA Ergonomics standard.

Senator CANTWELL. Thank you, Professor McGarity.

Senator CRAIG. Senator Cantwell, why do not you go ahead and start with questions.

Senator CANTWELL. I would be happy to, thank you Mr. Chairman.

I think I will start with Dr. Morton. On your comments about the possible supply from these lands, it sounds like the last panel used a different formulation and came up with 75 percent that was really extractable, there would be half a year's supply. Your numbers, as they relate to consumption, are approximately 21 to 29 days of oil supply and 2 to three months of natural gas supply. That is what your study and analysis show as far as what might actually be produced from the roadless areas?

Dr. MORTON. That is correct.

Senator CANTWELL. So why would we want to undertake these activities at such great cost? This seems almost like a guise by which to overturn the rule, when in my State we are seeing 11 times the rate in the mid Columbia for electricity prices over last year. There are a lot more urgent questions people want answered today than whether or not energy companies can enter parts of our pristine forests to go and look for reserves that are only going to provide us with two to three months of supply over 20 years.

Dr. MORTON. Yeah, I spent several hours yesterday listening to the testimony on high gas prices in the West and it seemed a lot of the experts suggested that it has to do with refining capacity and bottlenecks in the infrastructure. And actually there is been articles showing increased profits for oil companies, they just had record profits, so I think that is probably a good place to focus some of our attention, not in the roadless areas.

Senator CANTWELL. But your point as well is that there have been years of opportunity to do resource extraction in these roadless areas and it has not happened. Probably for these same reasons.

Dr. MORTON. Yeah. I think these areas have a low potential to begin with. A lot of the high potential, as I mentioned the high potential areas are already under lease and they have difficult operating conditions, and they have been available for leasing for 60, 70 years and there has not been much interest. So I think the Forest Service did an adequate job in doing an analysis because if nobody has been interested in your product and they have the high potential lands already leased, I do not think it was worth taxpayer's dollars to spend a lot of time doing the analysis, I think—any more analysis than what they already did. So I think they did a good job.

Senator CANTWELL. Thank you. And Professor McGarity, I want to ask you a question because I want to make sure I understood

you correctly. You believe that the rule is in force, and that the postponement of that rule is actually a—

Mr. MCGARITY. The postponement of the effective date of the rule does not make it not a final rule. It is still a final rule. If it has not become effective yet, it can still have legal significance. And certainly to amend that rule even to postpone the effective date is itself a rulemaking process and requires notice and comment.

Senator CANTWELL. And so you believe that the Card memo does not quite meet that standard, that it is actually a violation of the APA?

Mr. MCGARITY. Yes, I think the memo was urging agencies to violate the Administrative Procedures Act, yes.

Senator CANTWELL. That said, there was some discussion about changing this rule that now is in force. How would one go about doing that?

Mr. MCGARITY. Well, I think we need to go through the full notice and comment process, and it needs to be supported by such evidence, data, analysis, et cetera, as would survive judicial—or as to not be arbitrary and capricious.

In addition, by the way, under the National Environmental Policy Act, any change or modification might very well require a supplemental environmental impact statement or even a totally new environmental impact statement if the change was that dramatic.

Senator CANTWELL. Well, it seems now that if there were some agreement on, for example, this 5 percent area in the Rockies, you could go back with an amendment to the APA and go through the APA procedures? Which would make sense, as opposed to overturning the entire rule to go after a very small area that somebody wanted to investigate?

Mr. MCGARITY. Yeah. Two points on that, one is certainly you could do that and that would be an amendment to the rule, that would again require notice and comment and need to be supported in the record. The other is probably that would not require a fresh environmental impact statement but could be accomplished through a supplemental EIS.

Senator CANTWELL. And why does that not seem to be a simple solution here, if we're discussing such a limited segment of the roadless areas? Do any of the other panelists want to comment?

Mr. SEGNER. I certainly cannot get into the legal side, but in terms of thinking about a couple of issues here, one is we do not know at this time what areas will prove to be beneficial. Obviously we have got some areas that have been designated at this point in time as having potential, but as technology changes, our knowledge of the where will also change, and so taking steps that permanently cut off areas could be harmful in the long term.

Senator CANTWELL. Why not just keep the whole United States open then, under that scenario? I mean, you are saying that we should not close off anything to resource extraction.

Mr. SEGNER. I think the correct process is to look at areas by area as circumstances arise.

Senator CANTWELL. Offshore?

Mr. SEGNER. Certainly—

Senator CANTWELL. Off our coast of Washington? Where do you draw the line here? Part of this process was saying what areas do we want to make sure.

Mr. SEGNER. No, I understand your point.

Senator CANTWELL. So what is wrong with going through APA procedures if later technological advancements determined that there were recoverable resources in the Rockies or somewhere else? Why couldn't we go through the APA process? As Professor McGarity was saying it would not even necessarily require another EIS, but you could do an amendment to the APA and thereby get at that the resources. I know my time is expiring, Mr. Chairman, but if he could answer that, it would be appreciated.

Senator CRAIG. Certainly. Please proceed.

Mr. SEGNER. I am not a specialist on the process so I really do not have a view there.

Mr. MCGARITY. There is something called site specific rule-making that would accomplish this just exactly, you could amend the rule to a site specific rule and accomplish what you wanted to accomplish, I think.

Senator CANTWELL. Thank you, Mr. Chairman.

Senator CRAIG. Thank you very much. Mr. Sparrowe, I have a letter that you and a good many others signed to Secretary Veneman on April 11 in which you said: We urge the department to rescind the new planning regulations and to initiate the development of a regulatory framework that will enable the Forest Service to pursue resource stewardship on our national forests rather than confound its ability to do so. We offer our assistance in this important effort.

I say that in passing, and I wanted to enter that into the record. What was your thinking in signing this letter along with, I haven't counted the other groups, but a good number of other conservation groups?

Dr. SPARROWE. There are some specific wordings in that planning reg for example that require Forest Service managers to certify certain things about the sustainability of actions and resources and other things which we see as largely an invitation to challenge, and possible continuation of gridlock in management of the public lands which is currently going on. And we think some of that is worth rethinking.

Senator CRAIG. Thank you. Mr. Schaefer, let me turn to you. In his January 5, 2000 letter, John Spotila, the Office of Management and Budget, former Forest Service Chief Mike Dombeck stated several times that the agency could not determine the impact of the rule on coal production in Colorado's Grand Mesa, Uncompahgre, and Gunnison national forests or Utah's Manti-La Sal Forest because no operators indicated a need for access to contiguous reserves in inventoried areas to continued existing operations.

According to, the question then is according to Chief Dombeck, Arch Coal Company was the only coal operator to provide comments during the abbreviated DEIS scoping period. Would you explain how you determined your West Elk mine would be affected by the roadless rule?

Mr. SCHAEFER. Yes, Mr. Chairman. Dave, would you put up the Colorado map one more time?

In the assessment in—the letter that Arch Coal was the only coal company that commented was not correct. The National Mining Association provided comments as did Interwest Mining which is based in Salt Lake City. Dave, if you'll get up and point, since it is fairly small over there, point where the West Elk mine is, right there. And then the roadless area to the right of that, that is the location of all our future reserves. When we started through this process, we initially started in the public scoping comment. When they had presented the concept we are going to expand the roadless areas throughout the United States, our question was how does that impact our mine? They said, do not worry about it, we will provide you maps, they will be on the Internet shortly.

The public scoping comments closed in January. In February the maps were finally posted on the Internet themselves, but were on such a gross scale that they were absolutely useless to be able to determine. So what we have done is we were able to get finally the RARE II boundary and took that and plotted that over our West Elk mine. And that was ultimately how we determined there was an impact. We then took these maps and provided them to the Forest Service.

And this map was done in about February or March of 2000, and Dave, pull back up the other Colorado map. We finalized this which shows the entire North Fork Valley, that was finalized in the October, November 2000 time frame. And the Utah map which you can see took quite a bit more to develop where the lease areas were, we finally finished that in December of last year and provided that to the Forest Service. But this was all done under our own volition. And it was very difficult to put those together. It took almost a year process to put those together.

Senator CRAIG. It strikes me that the spirit, if not the letter of the Administrative Procedures Act and NEPA, require an agency to define its proposal in sufficient detail to allow the public to understand the impact of the proposal and the alternatives and provide substantive and meaningful comment on them. In your opinion, did the information provided by the Forest Service either in the proposed rule, notice of intent to publish an EIS, the draft EIS, or anywhere else including communications with individual forests or other Forest Service and Agriculture Department personnel, give you sufficient information to determine the true impact of the roadless rule on Federal coal accessibility or production?

Mr. SCHAEFER. Absolutely not. We were not able. That again was done completely on our own volition in taking that information to the Forest Service. In fact the only Federal agency that asked us for our opinion on what kind of impacts there were, was the Department of Energy and Mr. Hochheiser.

Senator CRAIG. Former director Dombeck took a very aggressive stand against minimizing the impact to the coal industry in Colorado and Utah. Did you ever meet with Mr. Dombeck personally to discuss the rule's impact.

Mr. SCHAEFER. We had set up a meeting with Mr. Dombeck and scheduled it for, it was around the October, November time frame. A couple of days before we had the meeting with Mr. Dombeck we got a call from the Forest Service mineral staff, and said you might as well not come over, it has been delegated clear down into our

staff level functions now and you have already talked to us. So we never did get the chance to sit down face to face with Mr. Dombek.

Senator CRAIG. Did you or the National Mining Association file a FOIA request to get adequate information to determine the impact of the roadless rule?

Mr. SCHAEFER. The National Mining Association did file a Freedom of Information request. The information that came back was, see our website, and that was just about it. Again those maps were on such a gross scale as to be unusable for determining site specific impacts.

Senator CRAIG. Thank you. Senator Cantwell, do you have any further questions?

Senator CANTWELL. Thank you Mr. Chairman. I'm sorry to hear the Internet was not as accommodating as it should have been in this process. But being new here I am trying to understand this. I almost feel like we are having a hearing about a law that we passed and that now people are coming to say what parts of the public comments were listened to and what parts were not.

So I am really trying to understand the APA from a process perspective. And so if you could, Professor McGarity, go through that again, because my impression is that some of this discussion is about the process and now what steps we can take from here. And my sense is that this applies no matter which administration is in place. There are probably many examples of Administrative Procedure Act decisions. And since there is a legal process here, I am very concerned. Because every day it seems like there is an article in the paper about another rule or action that had been proposed by the past administration and yet is now being overturned by this administration.

In this case, the APA is a rulemaking which has the force of law. Is that—?

Mr. MCGARITY. The final rule, there were a number of regulations affected by the Card memorandum in various degrees of status. I testified in the House a month ago about those. Some of them could easily be rescinded, withdrawn from the Office of Federal Register with no legal consequence at all.

The one kind of regulation where the law is very clear is a regulation that has been submitted to and published by the Office of the Federal Register. There the law is clear that that is a final rule, that is when it becomes final, whether or not its effective date has gone or some other condition subsequent may have occurred.

A final rule then may only be amended through the rulemaking process absent good cause. And I spoke and my testimony speaks about the good cause exemption. That is how it works. The Administrative Procedures Act was set up in 1946 as a result of the New Deal creation of lots and lots of regulatory agencies with regulatory authority over people. And the notion was that the Government should not act arbitrarily and that that should apply to the Government across administrations as well as to the tiniest official operating at some locale.

Senator CANTWELL. So our Attorney General should be acting as if it has the force of law?

Mr. MCGARITY. I think that the regulation that is written right now is the final rule. Its effective date has been postponed, I think

that that was an unlawful postponement of the effective date and violative of the Administration Procedures Act. The consequence of that of course is difficult to determine because one has to ultimately have litigation to know what the ultimate consequences of that will be.

Senator CANTWELL. Is this the only one of the various environmental issues being discussed that was part of an APA rule-making?

Mr. MCGARITY. The Forest Service?

Senator CANTWELL. Yes.

Mr. MCGARITY. No, there were several, the arsenic rule, the EPA arsenic rule, there was several environmental regulations that had likewise been submitted to the Office of Federal Register and published in the Federal Register.

Senator CANTWELL. Thank you.

Mr. SEGNER. Senator, could I respond perchance to the same question that you asked Dr. Morton earlier?

Senator CANTWELL. Yes.

Mr. SEGNER. You asked about the impact effectively of 11 trillion cubic feet and in the first panel you asked Mr. Eppink about spreading that over a period of time.

Senator CANTWELL. I did not care if you spread it out or used it all at once, I was just trying to get the amount.

Mr. SEGNER. The point I would like to get back to is that changing our national supply by just a few percentage, even 2 percent, 1 percent, and much less 5 percent, actually can have a huge impact on price.

If we go back and look at this past year, where prices obviously have increased dramatically and have come down now some, but still higher than they have been in the past, in most of the past, we would find that really it is the change in storage levels, which is really a function of either supply or a major demand change, obviously on the supply side was one of the critical factors and why storage was what it was. Had storage been simply one or two percent on a per day basis higher in terms of injection capability, that would have a fairly impactful effect on price.

Senator CANTWELL. I am sure you can imagine if you are dealing with 100 percent or more rate increases, and tens of thousands of jobs being lost, for example, in the aluminum industry and in agriculture, you can imagine that people would like to see a more direct, easier path with larger results in a shorter period of time.

Mr. SEGNER. Absolutely.

Senator CANTWELL. Not that there could not be, as you said, as technology advances, more specific targeting that would allow us to go back with a particular proposal and amendment for a very rich resource area. Thank you for your comments.

Senator CRAIG. Thank you. Gentlemen, thank you. We will keep the record open for any additional questions we might submit to you through next week, but we thank you all for your testimony and the building of this record. The subcommittee will stand adjourned.

[Whereupon, at 4:20 p.m., the hearing was adjourned.]

[The following letter was received for the record:]

WASHINGTON LEGAL FOUNDATION,
Washington, DC, April 25, 2001.

Hon. LARRY E. CRAIG,
Chairman, Subcommittee on Forests and Land Management of the Senate Committee
on Energy and Natural Resources, U.S. Senate, Washington, DC.

DEAR MR. CHAIRMAN: This letter is in response to your letter of April 3, 2001, requesting the Washington Legal Foundation (WLF) to survey and analyze "(1) the Clinton Administration's record in court on defending or abandoning the resource management decisions of previous administrations; as well as (2) cases where the Clinton Administration was called upon to defend its own resource management decisions." Your inquiry was prompted by unfounded criticism with respect to the Bush Administration's handling of the Roadless Rule issue in the courts.

We appreciate the opportunity to be of assistance to you and the committee. WLF is a non-profit public interest law and policy center that promotes principles of free enterprise and private property rights through litigation, the administrative process, and civic communications. WLF does not lobby for or against pending legislation.

As you properly noted in your letter, WLF has been actively involved in several resource management issues, such as the Roadless Rule issue. That rule would needlessly lock up approximately 58 million acres of our national forests, and as you are no doubt aware, the federal court in Idaho recently granted a motion to preliminarily enjoin enforcement of the rule because of the flawed rule making process in that proceeding. *State of Idaho v. U.S. Forest Service*, No. CV01-11-N-EJL (D. Id. Apr. 5, 2001). WLF has recently filed a formal petition with the Department of Agriculture to repeal the Roadless Rule, a copy of which is enclosed for your information.*

Based on our review of reported decisions, it appears that the Clinton Administration on at least 13 occasions refused to defend resource management decisions of its predecessors, choosing to accept an injunction or remand from a U.S. district court rather than defend those decisions in a U.S. court of appeals. On at least 28 other occasions, the Clinton Administration refused to defend its own resource management decisions in a court of appeals after receiving an injunction or remand from a U.S. district court. On these 41 occasions the Clinton Administration chose to abandon rather than defend timber sales, grazing allotments, mining approvals and wildlife management decisions that were carefully made by professional resource managers.

The Clinton Administration's defense effort in the Supreme Court was even worse. Apart from the district court losses that it refused to defend, the Clinton Administration lost over 20 resource management cases in U.S. courts of appeals after winning in the district court. More than half of these losses were in the Ninth Circuit court of appeals, the appellate court with the highest reversal rate (over 90%) in the Supreme Court. Yet in its eight years in office, the Clinton Administration asked the Supreme Court to review an adverse resource management decision by a court of appeals just once.¹

I. 13 RESOURCE MANAGEMENT DECISIONS MADE BY PRIOR ADMINISTRATIONS AND THEN ABANDONED BY CLINTON ADMINISTRATION; NO APPEAL OF U.S. DISTRICT COURT INJUNCTION OR REMAND ORDER

1. *Defenders of Wildlife v. Babbitt*, 958 F. Supp. 670 (D.D.C. 1997). The court overturned Fish and Wildlife Service (FWS) decision not to list Canada lynx under Endangered Species Act (ESA). On March 11, 1993, the new FWS regional director asked FWS national director to rescind prior administration's finding that listing was not justified.

2. *Oregon Natural Desert Association v. Green*, 953 F. Supp. 1133 (D. Or. 1997). The court enjoined Bureau of Land Management (BLM) plan for eastern Oregon river for violations of Wild and Scenic Rivers Act and National Environmental Policy Act (NEPA).

3. *Southwest Center for Biological Diversity v. Babbitt*, 926 F. Supp. 920 (D. Ariz. 1996). The court overturned FWS decision not to list northern goshawk west of 100th meridian under ESA.

4. *Greater Gila Biodiversity Project v. Forest Service*, 926 F. Supp. 914 (D. Ariz. 1994). The court enjoined Forest Service timber sale on Apache-Sitgreaves National Forest pending NEPA compliance.

*Retained in subcommittee files.

¹*Thomas v. Pacific Rivers Council*, 514 U.S. 1082 (1995) (petition for writ of certiorari was denied).

5. *Friends of the Bitterroot, Inc. v. U.S. Forest Service*, 900 F. Supp. 1368 (D. Mon. 1995). The court remanded Forest Service timber sale to the agency to correct NEPA violation in 1990 environmental impact statement (EIS).

6. *Carlton v. Babbitt*, 900 F. Supp. 526 (D.D.C. 1995). The court overturned FWS decision not to move grizzly bears from threatened to endangered under ESA. On remand, the agency again decided that there was no justification to reclassify grizzly bear. The district court again ruled against agency and remanded matter to agency for a second time. *Carlton v. Babbitt*, 26 F. Supp. 2d 102 (D.D.C. 1998).

7. *Shoshone-Paiute Tribe v. United States*, 889 F. Supp. 1297 (D. Id. 1994). The court enjoined Air Force training range development for NEPA violations in 1992 EIS.

8. *Ayers v. Espy*, 873 F. Supp. 455 (D. Col. 1994). The court enjoined Forest Service timber sale approved in 1992 on Arapaho and Roosevelt National Forests pending NEPA and National Forest Management Act (NFMA) compliance. The government's motion for reconsideration was denied.

9. *Anacostia Watershed Society v. Babbitt*, 871 F. Supp. 475 (D.D.C. 1993). The court enjoined transfer of portions of Anacostia Park, a national park, to local government for development for children's park, pending preparation of EIS or environmental assessment (EA). Plaintiff's motion for clarification was denied. 875 F. Supp. 1 (D.D.C. 1995).

10. *Hells Canyon Preservation Council v. Richmond*, 841 F. Supp. 1039 (D. Or. 1993). The court ordered the Forest Service to issue final regulations for Hells Canyon National Recreation Area.

11. *Alpine Lakes Protection Society v. U.S. Forest Service*, 838 F. Supp. 478 (W.D. Wash. 1993). The court enjoined Forest Service road access permits to private timber company pending NEPA compliance.

12. *Sierra Club v. Lujan*, 1993 WL 151353 (W.D. Tex. 1993). The court ordered FWS to impose minimum streamflows on San Antonio water source to remedy ESA violations.

13. *National Wildlife Federation v. Babbitt*, 1993 WL 304008 (D.D.C. 1993). The court remanded BLM coal leasing regulations pending new EIS.

II. 28 CLINTON ADMINISTRATION RESOURCE MANAGEMENT DECISIONS LATER ABANDONED BY CLINTON ADMINISTRATION; NO APPEAL OF U.S. DISTRICT COURT INJUNCTION OR REMAND ORDER

1. *Greenpeace Foundation v. Mineta*, 122 F. Supp. 2d 1123 (D. Ha. 2000). The court enjoined National Marine Fisheries Service (NMFS) approval of Hawaiian lobster fishery pending ESA and NEPA compliance on monk seals.

2. *Wilderness Society v. Bosworth*, 118 F. Supp. 2d 1082 (D. Mon. 2000). The court enjoined Forest Service timber sale in Clearwater National Forest for NEPA and NFMA violations.

3. *Greenpeace v. NMFS*, 106 F. Supp. 2d 1066 (W.D. Wash. 2000). The court enjoined fishing in critical habitat of endangered Stellar sea lion pending ESA compliance by NMFS.

4. *Federation of Fly Fishers v. Daley*, 2000 WL 33225295 (N.D. Cal. 2000). The court overturned decision by NMFS not to list steelhead as threatened under ESA.

5. *Center for Biological Diversity v. Badgley*, 2000 WL 1513812 (D. Or. 2000) The court ordered FWS to make 12-month ESA finding on yellow-billed cuckoo.

6. *Siskiyou Regional Education Project v. Rose*, 87 F. Supp. 2d 1074 (D. Or. 1999) The court enjoined BLM rule easing mining restrictions for NEPA violation.

7. *Defenders of Wildlife v. Ballard*, 73 F. Supp. 2d 1094 (D. Az. 1999). The court enjoined nationwide Corps of Engineers wetlands fill permits pending NEPA compliance on pygmy-owl.

8. *Oregon Natural Resources Council v. U.S. Forest Service*, 59 F. Supp. 2d 1085 (W.D. Wash. 1999) The court enjoined 35 Forest Service and BLM timber sales and all new sales pending compliance with survey and manage requirements of Northwest Forest Plan.

9. *Alaska Center for the Environment v. West*, 31 F. Supp. 2d 714 (D. Ak. 1998) The court enjoined nationwide Section 404 permit to fill wetlands for home construction pending further Clean Water Act analysis by Corps of Engineers.

10. *Conservation Council for Hawai'i v. Babbitt*, 24 F. Supp. 2d 1074 (D. Ha. 1998). The court ordered FWS to publish 100 proposed critical habitat designations by November 30, 2000, and additional 145 by April 30, 2002.

11. *Sierra Club v. United States*, 23 F. Supp. 2d 1132 (N.D. Cal. 1998). The court enjoined housing construction in Yosemite National Park pending NEPA compliance by National Park Service.

12. *National Wildlife Federation v. Cosgriffe*, 21 F. Supp. 2d 1211 (D.Or. 1998). The court ordered BLM to prepare management plan under Wild and Scenic Rivers Act.

13. *Kentucky Heartwood, Inc. v. Worthington*, 20 F. Supp. 2d 1076 (E.D. Ky. 1998). The court enjoined all Forest Service timber sales on Daniel Boone National Forest pending ESA and NEPA compliance.

14. *Sierra Club v. Babbitt*, 15 F. Supp. 2d 1274 (S.D. Ala. 1998). The court set aside two FWS incidental take permits for housing projects pending additional ESA and NEPA review.

15. *Oregon Natural Resources Council v. Daley*, 6 F. Supp. 2d 1139 (D. Or. 1998). The court set aside NMFS decision not to list coastal coho salmon as arbitrary and capricious and ordered new decision in 60 days.

16. *Pacific Coast Federation of Fishermen's Associations v. National Marine Fisheries Service*, No. 97-775R (W.D. Wash. 1998). The court enjoined 23 Forest Service and BLM timber sales in southwestern Oregon pending ESA compliance.

17. *Save Our Springs v. Babbitt*, 27 F. Supp. 2d 739 (W.D. Tex. 1997). The court overturned FWS decision not to list Barton Springs salamander under ESA.

18. *Friends of the Wild Swan v. FWS*, 12 F. Supp. 2d 1121 (D. Or. 1997). The court ordered FWS to reconsider decision not to list bull trout under ESA.

19. *Curry v. Forest Service*, 988 F. Supp. 541 (W.D. Pa. 1997). The court enjoined Forest Service timber sales in Allegheny National Forest pending NEPA and NFMA compliance.

20. *House v. Forest Service*, 974 F. Supp. 1022 (E.D. Ky. 1997). The court enjoined Forest Service timber sales in Daniel Boone National Forest pending ESA compliance.

21. *Restore: The North Woods v. U.S. Dept. of Agriculture*, 968 F. Supp. 168 (D. Vt. 1997). The court enjoined Forest Service land exchange for ski resort expansion in Vermont pending NEPA compliance.

22. *Friends of the Wild Swan v. FWS*, 945 F. Supp. 1388 (D. Or. 1996). The court overturned FWS decision that listing bull trout under ESA, although warranted, was precluded by higher-priority species. On remand, FWS listed bull trout only in certain geographical areas rather than throughout species' entire range. That decision was also overturned. *Friends of the Wild Swan v. FWS*, 12 F. Supp. 2d 1121 (D. Or. 1997).

23. *Biodiversity Legal Foundation v. Babbitt*, 943 F. Supp. 23 (D.D.C. 1996). The court overturned FWS decision not to list Alexander Archipelago wolf under ESA.

24. *Southwest Center for Biological Diversity v. Babbitt*, 939 F. Supp. 49 (D.D.C. 1996). The court overturned FWS decision not to list Queen Charlotte goshawk under ESA.

25. *Klamath Tribes v. United States*, 1996 WL 924509 (D. Or. 1996). The court enjoined eight Forest Service timber sales within former Klamath reservation in Oregon for violations of tribal rights despite release language in 1995 Rescissions Act.

26. *Sierra Club v. Martin*, 71 F. Supp. 2d 1268 (N.D. Ga. 1996). The court enjoined Forest Service timber sales on Chattahoochee and Oconee National Forests pending NEPA and NFMA compliance.

27. *Washington Trails Association v. Forest Service*, 935 F. Supp. 1117 (W.D. Wash. 1996). The court enjoined Forest Service trail reconstruction project pending NEPA compliance.

28. *Leavenworth Audubon Adopt-A-Forest Alpine Lakes Protection Society v. Ferraro*, 881 F. Supp. 1482 (W.D. Wash. 1995). The court enjoined three Forest Service timber sales on Wenatchee National Forest prepared under Northwest Forest Plan pending NEPA and NFMA violations.

We hope that this information is of help to you and your committee. We would also like to express our appreciation to students enrolled in WLF's Economic Freedom Law Clinic at George Mason University School of Law for assisting in this research.

If we can be of any further assistance to you, please feel free to call on us.

Sincerely yours,

DANIEL J. POPEO,
Chairman and General Counsel.
PAUL D. KAMENAR,
Senior Executive Counsel.