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**THE FEDERALIST SOCIETY**

**ENVIRONMENTAL LAW IN THE 21ST CENTURY  
FREE MARKET PRINCIPLES AND ENVIRONMENTAL PROTECTION**

**October 25, 2001**

Lewis & Clark University

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**THE FEDERALIST SOCIETY**  
**ENVIRONMENTAL LAW IN THE 21ST CENTURY**  
**Free Market Principles and Environmental Protection: The Case of**  
**Air/Water/Hazardous Waste**

Mr. Edmund Clay Goodman

Project Manager for Oregon Water Trust and of Counsel to Hobbs, Straus, Dean &  
Walker

Mr. Richard Stroup

Montana State University

Mr. Donald Kochan

Crowell & Moring (MODERATOR)

1 **THE FEDERALIST SOCIETY**  
2 **ENVIRONMENTAL LAW IN THE 21ST CENTURY**  
3 **FREE MARKET PRINCIPLES AND ENVIRONMENTAL PROTECTION**

4 (12:15 p.m.)

5 MR. KOCHAN: Our next panel will be exploring the issues of changing  
6 environmental laws in the areas of air, water and hazardous waste. What exactly is  
7 necessary in light of new technologies? What is necessary to give new flexibility in  
8 environmental compliance and environmental enforcement? What can we do in today's age  
9 to adapt largely outdated systems of command and control regulations and laws that were  
10 passed at a time when both the environment, its state of protection, as well as the means for  
11 protecting it, were largely different than they are today.

12 Reforming environmental laws is not an easy task because, as some of our speakers  
13 have noted earlier, the ability to change environmental laws that have become vested and  
14 that have taken on vested interests is very difficult from a legislative angle. Yet in many  
15 ways legislative initiatives may be necessary in order to inject flexibility for those who are  
16 regulated and for those who need the discretion in order to encourage innovation, as well as  
17 to encourage new thinking for environmental compliance and how we can approach these  
18 problems. With that thinking, perhaps we can even create greener outcomes, rather than  
19 trying to fit our current efforts into an outmoded and outdated system.

20 This is not an easy task. When we're looking at approaching new ways to address  
21 environmental problems, we have to look at what and who are going to push reform efforts.  
22 Right now, the regulated industries and other regulated entities are focusing much of their  
23 resources into complying with the current system of laws and regulations. That means that  
24 they cannot commit those resources toward exploring new, more innovative and perhaps  
25 more efficient ways for protecting the environment – steps that could be beneficial not only  
26 to their bottom line but also the equally important interest of preserving the environment and  
27 its values.

28 I would like to introduce Edmond Clay Goodman. Ed has been the project manager  
29 for the Oregon Water Trust since October of 1999. Ed is also Of Counsel to Hobbs, Strauss,  
30 Dean & Walker here in Portland. At the Oregon Water Trust, Ed's responsibilities include  
31 cultivating, negotiating, processing and monitoring deals with farmers and ranchers to  
32 transfer their consumptive use water rights to legally protected in-stream flows. Prior to

1 coming to the Water Trust, Ed was the director of litigation at the Native American Program  
2 for Oregon Legal Services. Ed received his J.D. from Harvard and his B.A. from the State  
3 University of New York at Albany.

4 MR. GOODMAN: I'm going to present one of the alternative approaches that's out  
5 there to try and address the situation on the ground. I'm the project manager at the Oregon  
6 Water Trust, a private, non-profit organization set up in Oregon in 1993, the first of its kind  
7 in the country. The purpose of the establishment of the Oregon Water Trust was to look  
8 specifically at the problem of lack of stream flows in Oregon streams, particularly its  
9 tributary streams. There's an obvious recognition that rivers need water and the fish need  
10 water in those rivers. But under the existing system of prior appropriation -- I'll explain how  
11 that system works in a minute -- there's no water reserved for waters or fish throughout the  
12 arid West.

13 The Oregon Water Trust solution is to reallocate and transfer water rights to in-  
14 stream flows. The goal is enhancing stream flow, restoring our Riparian habitat. And also  
15 something we're working on more recently is the restoration and improvement of water  
16 quality and working with some industry representatives to address those issues as well.

17 The Oregon Water Trust is based on the model of the Nature Conservancy, that one  
18 of the more effective ways to protect a public resource that people are interested in, that is  
19 held by and affected by private interests, is to establish some program for expending funds to  
20 acquire those resources from those private parties and implement environmental protections  
21 on those resources. In the example of the Nature Conservancy, they're actually buying a  
22 parcel of land, protecting that parcel of land through a new management scheme on it.

23 The Oregon Water Trust not so much acquiring a piece of property, but instead a  
24 right to use a resource. And that right itself is a private property right -- the right to  
25 appropriate water.

26 The environmental issue, particularly as it's played itself out in Oregon, is that out-  
27 of-stream withdrawals (largely through irrigation for agriculture, which holds about 83  
28 percent of the consumptive water use rights in the state) dry up the spawning and tributary  
29 habitat that many of the endangered species that are of issue in the State of Oregon -- salmon  
30 and steel-head -- rely on. Fish can't survive if they can't reproduce. And the nurseries for  
31 these fish are the smaller tributaries, the small streams where they spawn and rear, where  
32 they lay their eggs. The slack pools, or actually dried up sections, allow for predation of

1 those species when they're young and vulnerable to attack. Drying up also can kill the eggs  
2 off after they've been laid in the earlier Spring when the water is still in that system.

3           However, under the system of prior appropriation, water right holders who have  
4 senior water rights actually have the right to completely dry up those streams. There is  
5 nothing that prohibits a water right appropriator to take all the water that they need under the  
6 existing system.

7           Our approach to acquiring water rights, then, is to analyze the basins that we would  
8 target to acquire water rights under a number of factors -- fish habitat, water quality, stream  
9 morphology, and flow conditions -- to decide which of the larger basins in the state it makes  
10 the best sense to take this approach in. Then, within those basins, we identify the key  
11 tributary streams.

12           We focus on small to medium tributaries, based on ecological data, hydrologic data  
13 and water rights data to determine where, with our small amount of resources -- we're a  
14 statewide organization with only four full-time employees -- where we can spend our  
15 resources to leverage them for the most effective use throughout the state.

16           The framework we work within is the doctrine of prior appropriation, which governs  
17 all of Western water law. Prior appropriation as the method of dividing up and sharing  
18 access to a scarce resource in the west has three components. The first is beneficial use.  
19 The basis and the extent of the water right is based on putting it to a beneficial use, and that's  
20 defined by the state through regulation, through statute and through court decision.

21           The second is a priority date. The date in which the water right was first used on the  
22 land is the priority date attached to that water. The older your priority date -- first in time,  
23 first in right -- the better the ability to use that right you have because when there's not  
24 enough water to go around, if you've got an older date, you get the right to use that water  
25 first. You get to use all of that water to satisfy your water right before the next junior  
26 appropriator can take the first drop out of the stream.

27           And finally, there's forfeiture. You have to use your water right or lose it, and it can  
28 be abandoned. Again, this is used to ensure the economic and most beneficial use of the  
29 resource. In Oregon, the law is you have to put your water rights to use. You forfeit your  
30 water right if you have not used it for a period of 5 consecutive years within the last 15.

31           Briefly, how it works in an extraordinarily simplified example on the GIS system  
32 that I've produced here is to look at three water rights on Y-Stream, which is a tributary of

1 the X-River. We've got three water rights: one with an 1880 water right, one with an 1890  
2 water right and one with 1900. And we'll assume that each of those water rights has a right  
3 to withdraw from the stream five cubic feet per second, or CFS, which is a continuous rate of  
4 flow measurement; that's how you determine the use of water rights.

5 In the beginning of the year when there are 20 CFS flowing down the stream,  
6 everyone gets their water and there's water left in the stream. The 1890 water right takes  
7 their water, takes their 5 CFS. There's still 15 flowing down. 1880 takes their 5 CFS.  
8 There's still 10 CFS flowing down. 1900 -- there's still water for them. They take their 5  
9 CFS. And even in this last reach of river, down to the X-River, there's still 5 CFS left in  
10 stream.

11 Say that later on in the summer, the flow starts dropping, drops down to 15 CFS.  
12 Each of the water rights holders still can take their 5 CFS, as we get past 1890, 1880. 1900  
13 can take those last 5 CFS of water right, completely drying up this last stretch of the stream.

14 What happens when there's even less water, when there's only 10 CFS? 1890 and  
15 1880, since they're the most senior, they get all 10 CFS of the water that's there, and this  
16 whole stretch is dried up. The 1900 can't complain if he doesn't have water because the two  
17 upstream users are senior to his water right, so those two users can take all the water that's  
18 left in the stream, leaving the 1900 with no water for the rest of the season.

19 When there's only 5 CFS or less in the stream, what happens is the state has to come  
20 in and actually regulate at this point, if the folks on the ground haven't reached agreement.  
21 And a lot of times, they haven't reached agreement among themselves.

22 So, there's 5 CFS coming down the stream. The 1880's got the senior right to all that  
23 water. He has to make a call past the 1890 water right user. If the 1890 user doesn't  
24 recognize that and continues to irrigate with that water, the state has to come out and tell the  
25 1890 water right user to turn off their water and allow all 5 CFS to pass by them and make it  
26 to the 1880 water right user.

27 In 1987, Oregon adopted two statutes that basically allowed for the work that the  
28 Oregon Water Trust, which is to use the existing system of prior appropriation to transfer  
29 water rights to legally protected in-stream flow.

30 Now, remember, beneficial use is a use that's determined by the state either through  
31 the legislature or through the courts to be a use that is beneficial use of that water for that  
32 state. Up until 1987, water as an in-stream flow right was not recognized as a beneficial use.

1 The statutory change in 1987 under the In-Stream Water Rights Act recognized expressly that  
2 using water, protecting it in-stream as a legally protected in-stream flow right, was a  
3 beneficial use, and that an individual could purchase, lease or receive a gift, or barter any or  
4 all of an existing water right. The new in-stream right – the old right that's transferred to the  
5 new in-stream right -- retains the original priority date.

6 The legislature also at the same time adopted a conserved water program, which  
7 allowed for the capturing of wasted water through inefficient irrigation systems. A lot of the  
8 irrigation systems that were set up around the state were set up in the late 1800s. Our open  
9 ditches and flood irrigation on fields are often inefficient, leading to leakage through these  
10 open ditches and evaporation.

11 The conserved water program created an incentive for people to put more efficient  
12 irrigation systems on their property by allowing them to transfer the water that would be  
13 saved. For example, if someone had a water right to 5 CFS and were using all that 5 CFS  
14 because they had an inefficient irrigation, and they put an efficient system on that only used  
15 2 CFS, they'd have 3 CFS of saved water. The incentive for the owner of that water right to  
16 put that new system on is to give them the ownership of that saved 3 CFS and allow them to  
17 transfer that, including the right to transfer that water to in-stream flow.

18 Now, the Water Trust works in a situation with the Y-Stream and the X-River that I  
19 just described -- we try to acquire the most senior rights on that stream so we can ensure that  
20 there's water in-stream throughout the season. We'd go and approach the 1880 water right  
21 holder.

22 If we were successful in persuading that individual to sell their water right to a  
23 legally protected in-stream flow – I'll explain some of the tools and mechanisms we have for  
24 doing that -- what we would have is a 5 CFS legally protected in-stream flow from the point  
25 of diversion, where they take their water out, through the mouth of that stream out to the X-  
26 River. That water right would still have an 1880 priority date. And the system would be  
27 regulated the same as it would have been, had that 1880 water right user continued to use  
28 that water as a consumptive use.

29 So we get to the late part of the season, where there's only 5 CFS of water in the  
30 stream. The 1880 water right can still call that water past the up-stream junior user, so the  
31 1890 water right has to allow that water to go by. Because it's a legally protected in-stream  
32 right, it stays in stream from the point of diversion down there.

1           The 1900 water right has to watch that water go by, and also cannot take that water  
2 out of the stream, even though, when the 1900 in the past had seen water going by, that  
3 would mean they would have the right to take that water. But since this water's been  
4 purchased and put to a legally protected in-stream flow, that water has to go past their point  
5 of diversion.

6           It winds up the same basic scenario, whether it's an out-of-stream use or an in-stream  
7 use. The 1900 does not have a right to that water right when there's not enough to satisfy the  
8 1880 water right claim.

9           Briefly, I will explain the tools that the Water Trust uses in acquiring water rights.  
10 It's very difficult to persuade farmers and ranchers to part with their water for a number of  
11 reasons, and economics is probably one of the least of those. As folks know, farming is  
12 probably one of the least economically beneficial ways to make a living, particularly in the  
13 State of Oregon and particularly in the smaller rural areas where we tend to do our  
14 acquisitions. But folks hold on to those water rights and hold on to farming because it's a  
15 valuable way of life, both to them and to their communities.

16           So, what can we bring of value to that community, to that farmer, in order to be able  
17 to persuade them to work with the Oregon Water Trust to enhance stream flows in their  
18 streams? One approach is the short term lease. This is the approach that we use the most  
19 often because it's the most amenable to folks.

20           The short-term lease involves leasing a water right for a short, defined period of  
21 time. Under current rules and regulations, it's two years or less. If a farmer is not planning  
22 to use their water for a year or two, they are often amenable to a lease arrangement. And in  
23 a lot of cases, you have the graying of the agricultural population, where folks are getting  
24 older and their children are moving out of those rural communities. They want to retain the  
25 ability to irrigate on those acres, but they don't have anyone to take over the farming  
26 operations yet.

27           So, what can they do? They can lease the water right so that they're not in the  
28 position of having not used the water for five consecutive years. If they lease the water  
29 right, because it's considered now a beneficial use under Oregon law, that water is  
30 considered to have been used for the term of the lease and that five-year period doesn't start  
31 running. Again, the overwhelming majority of the deals that we've done are donated water  
32 rights through the short-term leasing program that are done for the flexibility of the water



1 right holder so they can manage and keep their water rights on those lands.

2 Longer-term leases for period of, at this point, three years or more -- we're looking at  
3 someone again who's looking at the long term of managing their property but they want to  
4 get some income for doing that. And we can negotiate a paid lease with those land owners  
5 for periods of three years or more.

6 A lot of people in the state are working with the soil and water conservation districts  
7 in the National Resource Conservation Service, through a program called the Conservation  
8 Reserve Enhancement Program ("CREP"), which is a program aimed at protecting riparian  
9 areas on streams that have endangered salmon species in them. What they do is they lease  
10 that land or enter into a conservation easement type agreement with the government to do  
11 riparian protections on those lands. Often, those lands are irrigated lands that have water  
12 rights on them. For the term of the CREP lease, they can't irrigate on those acres, so they'll  
13 lease that water right to us for those acres for in-stream flow.

14 There are permanent acquisitions, where a farm may determine that it is simply not  
15 economically feasible to continue to irrigate a certain number of their acres. They reach a  
16 deal with us, where we simply pay them the economic value of that water right.

17 Under the conserved water program, we work with farmers and ranchers to pay them  
18 to develop a more efficient irrigation system on their acres in exchange for putting the saved  
19 water that they have a right to in stream.

20 Point-of-diversion switch is another method that we use that's a little more  
21 innovative and doesn't involve an actual legal protection of that right, *per se*. Assume that  
22 the 1880 water right holder wants to continue irrigating on their lands, but they're close  
23 enough to the X River that they can put a pump in the river and pump water from the X  
24 River up to their lands.

25 What they'll do is execute with the Oregon Water Resources Department a change in  
26 their point of diversion. They're still using the same water; it's just flowing through the Y  
27 Stream out into the X River. They put their new point of diversion out here and pump up to  
28 their acres. Because they still have the same water right and because it's still the same water  
29 from the Y Stream, they have the right to call that water all the way down and out through  
30 the mouth.

31 So, in a year where they might have dried up this stretch of stream because they  
32 were the last appropriator on it that had the most senior right, they now call their water all

1 the way through. They're still irrigating those same acres, but they're doing it through a new  
2 system that we'll help pay for. We've done two separate deals like this through different  
3 areas of the state, where we've helped a farmer or rancher move their point of diversion  
4 through a larger confluence stream.

5 Finally, there's source-switching. That's where in some situations that the land  
6 owners actually have another source of water, other than the surface water from that stream,  
7 that they can go to but it will cost them some money to develop it. This alternative source  
8 could be either a ground water source that's not connected to the stream or a stored water  
9 source that's nearby that's in a reservoir from winter flow. We can work with Oregon Water  
10 Resources Department to permit them to use that other source to irrigate their acres. We can  
11 then transfer their existing water right, their surface water right to in-stream flow and allow  
12 them to continue to irrigate those acres with a new water right.

13 With that, I'll end and we'll hopefully have some time for questions afterwards.

14 MR. KOCHAN: Thanks, Ed. If only the government would similarly pay us every  
15 time they wanted to keep us from using our property rights.

16 Our next speaker is Richard L. Stroup. Rick has written extensively on the reform  
17 of the Endangered Species Act, recommending eliminating the penalties and restrictions now  
18 imposed unfairly on landowners. Most recently, his primary research has focused on the  
19 multi-billion dollar Superfund program. He has examined costly efforts to clean up  
20 hazardous waste sites even when no proven harm or health risks exist. In the late 1970s,  
21 Stroup was one of the originators of the New Resource Economics, the academic approach  
22 that is popularly known as free market environmentalism. He is a widely published author  
23 and speaker on economics, including natural resources and environmental issues. He is the  
24 co-author with James D. Gwartney of a recent primer on economics, *What Everyone Should*  
25 *Know About Economics and Prosperity*. Stroup also is recognized for introducing the public  
26 choice school of economics in a leading economics principles textbook, which he co-  
27 authored with James D. Gwartney, *Economics: Private and Public Choice*. A native of  
28 Washington state, Stroup received his Ph.D. in economics from the University of  
29 Washington in 1970. He is a professor of economics at Montana State University and a  
30 senior associate of the Political Economy Research Center ("PERC"). During the Reagan  
31 administration, Stroup served as the director of the Office of Policy Analysis at the  
32 Department of Interior.

1 and we welcome his remarks.

2 MR. STROUP: It's a pleasure to be here. I am an advocate. We at PERC are  
3 advocates of what we call free market environmentalism. To some people, that's an  
4 oxymoron, but we don't think so. One of the kinds of programs that we really appreciate is  
5 the Oregon Water Trust program. We've kind of been tooting their horn in our territory for  
6 some time. We hired one of their alumni, Clay Landry, who's working now with us.

7 You'll note that when the Oregon Water Trust wants to preserve habitat, it takes a  
8 number of steps, given that it doesn't have the club of the Endangered Species Act or Section  
9 404 to work with. One of the things they do is prioritize. They prioritize what's the most  
10 important thing they can go after, in terms of protecting fish habitat, for example.

11 The second thing they do is find methods that are going to be least costly. When  
12 you have to pay for it, or when you have to get people to cooperate voluntarily, by golly, you  
13 really want to find ways to put the least burden on other folks. That's because you have to  
14 pay for it.

15 The third thing they do, again in order to reduce costs, is not only do they prioritize,  
16 not only do they find low-cost methods, but once they've decided what they need, what their  
17 goal is, and what they need to implement their methods, they find the least-cost provider of  
18 that resource -- the least-cost provider of the water, for example.

19 Those are steps that really increase the efficiency of getting environmental results,  
20 and that's one of the things that we at PERC think is very important about environmental  
21 policy. It's one of the things that free market environmentalism aims at.

22 When I did my time in Washington, D.C., working for the Secretary of Interior,  
23 running the Office of Policy Analysis, one of the very first things the staff told me coming in  
24 was, you have to understand something. A lot of us are economists here. We're with you on  
25 that. But remember, in politics, in government, efficiency has no constituency. It's a very  
26 important point. Efficiency has no constituency. None. Zero.

27 In a literal sense, that may be true within the private sector. No one is out there  
28 working for efficiency. But if they're working for profit or, like the Oregon Water Trust, if  
29 they're working for environmental goals and there's a budget involved, suddenly they have to  
30 act as if they care about efficiency. I want to take off from there to suggest just how  
31 important efficiency is from an environmental point of view.

32 Suppose for a moment that you're an environmentalist -- a really, really strong

1 environmentalist who thinks that the environment's it, nothing else. My claim is -- I'm going  
2 to try to convince you here -- that if only the environment matters, nothing else, you're still  
3 going to want to try to do things efficiently, if you understand how the system works and  
4 what it's about.

5         The second thing I want to convince you of is that the most important thing with  
6 respect to results is very often the institutional arrangements -- not the resources you're  
7 working with, but rather the institutional arrangements you're working under or working  
8 with. As for example, the Oregon Water Trust has found ways to do things very efficiently  
9 with relatively small amounts of resources.

10         Let me start with something that's not directly environmental, but it gives a flavor, I  
11 think, of just how important institutions can be, in this case economic institutions. Suppose  
12 what we're trying to produce is not fish habitat, for the moment, but we're to produce food.  
13 What do we need for food? Well, one of the things we need for food is people, labor.  
14 Another thing we need for food is good land, land that has good soil, good water availability  
15 and good climate.

16         I'm going to start off with just a very simple example. It won't prove anything, but  
17 it'll sure illustrate what I am trying to say here. Let's look at two nations that produce food,  
18 produce agricultural output -- Ethiopia and the Netherlands.

19         Ethiopia, believe it or not, is an extremely rich country with respect to good  
20 farmland. This is FAO data that shows that Ethiopia has, per capita, ten times as much as  
21 the Netherlands good farmland, land that has the right soil with water and good climate. Ten  
22 times as much. What do they get from that? How productive are they?

23         Now, bear in mind, Ethiopia -- this is data from the mid '90s, the latest I could get  
24 when I put this stuff together a couple years ago -- was a Marxist regime, although I don't  
25 know if it still is or not. Their economy was run as a socialist regime. The Netherlands, on  
26 the other hand, is more or less market-oriented in its economy.

27         So, how does Ethiopia fare, given that it has ten times as much good farmland per  
28 capita? One measure of how well they're doing is, can they feed themselves? Some years  
29 Ethiopia can feed itself and some years not. This year -- I think this may have been 1995,  
30 Ethiopia fed itself and was able to export \$2 per person worth of farm products.

31         The Netherlands, on the other hand, with one-tenth as much good farmland per  
32 capita, was able to export almost \$1,000 per capita worth of agricultural products. So if you

1 put those two things together, you see a serious disparity here -- Ethiopia, with ten times as  
2 much land getting about one-five hundredth as much surplus from it from it.

3         Again, that was a hand-picked case. It doesn't prove a thing. But it illustrates how  
4 important institutions, economics institutions, can be.

5         Let's try to expand it now. I want to go to all the countries in the world that we have  
6 data on, and I want to look at something very simple. I want to say, what about cereal grain  
7 production? What if we say, cereal grain production per acre, or in this case, per hectare.  
8 I'm going to do it in kilograms per hectare. It's the same deal.

9         I want to divide all the countries in the world into five different categories, from  
10 most market-oriented economies to least market-oriented economies, and look at cereal grain  
11 yields. Here are the countries with the least market orientation, as measured by a very  
12 sophisticated index put together by a large team of economists, headed by a former  
13 statistician. You may have heard of him -- Milton Friedman.

14         He made his living first as a statistician and then became an economist. He was the  
15 head of this team that included some other Nobel laureates, as well. They put together the  
16 index that ranked countries by how market-oriented or how much command-and-control  
17 oriented their economies are. This begins to actually tell a story. It's not a full model here;  
18 it's not econometrics. But it does show that there's a systematic relationship between the  
19 ability to get productivity from a resource, on the one hand, and the economic institutions in  
20 that economy, on the other.

21         Well, cereal grains -- that's one thing. What about the rest of possible outputs?  
22 Well, here's the whole world, folks, if you look at everything that could be produced, the  
23 entire economy, and you look at output per person, productivity per person, all the countries  
24 in the world, command-and-control economies, most market-oriented economies, and all  
25 those in between. There's a pretty strong relationship.

26         What if we look at not prosperity but at growth. Same idea. Command and control  
27 -- this is a ten-year period of time ending in 1996 -- the most command-and-control countries  
28 in the world, those economies managed to lose income per person. Maximum growth was in  
29 those countries that are most market oriented. That's not going to surprise too many people  
30 at this point.

31         By the way, if you ran those institutions and asked how do environmental results  
32 compare directly, that's been done econometrically. I don't have any nice pictures of it, but it

1 has been done econometrically. Seth Norton has done a lot of work along that line, some of  
2 it with us at PERC. He is an econometrician and, sure enough, not only is prosperity better  
3 but environmental variables are better also with more economic freedom -- indeed with  
4 stronger property rights. He ran that separately, as well.

5 Well, two questions follow when we see these kinds of results, including  
6 environmental results, which I haven't actually shown you yet. First of all, who cares? If  
7 you're an environmentalist, if you care not about prosperity but about the environment, why  
8 would you care about things like prosperity and economic efficiency? The second question  
9 is, why does the command-and-control approach fare so badly, compared with the market  
10 approach to productivity of all kinds of things, including environmental quality.

11 Well, to answer the first question, environmentalists should care for a number of  
12 reasons. I'll just talk about three because we're constrained on time here. Three of the most  
13 important ones are the following.

14 The first reason is that the demand for environmental quality depends very strongly  
15 on income levels. That is to say, higher income levels lead to a very strong demand for  
16 environmental quality. Low income levels, a much weaker demand for environmental  
17 quality. Everybody wants better environmental quality, but richer people want it a lot more.

18 In fact, numerically it turns out that willingness and ability to pay for environmental  
19 quality go up with income, but it goes up much faster than income goes up. A 10-percent  
20 income increase in, let's say, Portland, will lead to approximately a 25-percent increase in  
21 people's willingness and ability to pay for environmental quality. How would you measure  
22 that? Well, there are a lot of different ways to measure that, none of which are very, very  
23 good, but things like donations to environmental causes.

24 If you look across states and look at income and income changes, income rises are  
25 associated with much stronger environmental laws, more pages of environmental legislation,  
26 during times of prosperity. Fewer pages come out of the legislature on environmental  
27 quality during down periods, and so forth.

28 If you doubt the importance of income, consider Sierra Club members. Sierra Club  
29 data from 1992 -- it's a bit dated, but I don't think things have changed, except all incomes  
30 have risen. Sierra Club members have an income that's about double the average U.S. adult  
31 of the same age. This is corrected for age. It costs about \$25 to join the Sierra Club, or did  
32 when this data was taken. Most U.S. citizens can afford to join the Sierra. Who does join

1 the Sierra Club? Relatively rich people. That's great. I think it's a good thing.

2 That 2.5 figure, willingness to pay for environment going up 2.5 times as fast as  
3 income, that's the same relationship between income and demand for luxury automobiles. If  
4 you're a BMW dealer in Portland, you really want good times to roll because that's when you  
5 sell the BMWs. In the bad income times in Portland, your BMW sales are going to fall  
6 faster than income falls; roughly 2.5 times as fast as income falls.

7 Environment, I submit, is a BMW. If you want to sell the environment and a  
8 willingness to sacrifice for the environment, you want people to be richer.

9 The second reason why environmentalists, purely environmentalists, should care  
10 about prosperity and efficiency -- citizens want more environmental quality when markets  
11 keep its costs lower. If you can offer more bang for the buck in providing stronger  
12 environmental policy, if you can give citizens more per unit of sacrifice they make to get it,  
13 they'll buy more. They'll buy more of anything when the price goes down, other things  
14 equal. So we're talking not only about an income effect -- that was the first one I talked  
15 about -- now we're talking about a price effect, too.

16 If you can have efficient environmental policy, the sort of low-cost results that  
17 Oregon Water Trust, for example, delivers, people are going to be more willing to buy that,  
18 they're going to be more willing to buy more of that, than if it were a high-cost per unit of --  
19 the small bang for the buck that they were going to be getting.

20 The third reason that an environmental purist should care about economic efficiency  
21 is that it brings technological efficiency. This is the kind of technological innovation that  
22 leads to a much better environment. If you can cut down the resource requirements for what  
23 you want to do, you can have a better environment automatically.

24 Consider energy use. If we look at market economies and socialist economies  
25 before the Berlin Wall came down, back when there was a big difference, you can see there's  
26 almost a factor of three difference. This is electricity consumption per unit of output, per -- I  
27 think it's million dollars of GDP.

28 Let me move along to why does this happen. Why is command-and-control less  
29 efficient? Justice Steven Breyer wrote a wonderful little book -- I believe it's called *Breaking*  
30 *the Vicious Circle* -- a few years ago. It was based on three lectures he gave at Harvard.  
31 And he explains why environmental regulation is extremely inefficient and doesn't get the  
32 job done very well, on grounds that people in each bureau, people in each regulatory agency,

1 people in each regulatory program, are so focused on their own program that they carry  
2 things too far. They tend to carry things too far.

3 I must say, as head of policy analysis at Interior, one of the things that came home  
4 very strongly to me was the people, the decisionmakers in every single program -- whether it  
5 was the pro-development programs, the pro-environment programs, it didn't matter -- were  
6 very smart, very hard-working, and very focused on what they were trying to do.

7 I like to point out that Mother Teresa, rest her soul, was focused very strongly on  
8 helping the sick and the indigent in Calcutta. And I'll compare her now, on a narrow  
9 mission, with John Muir, the Patron Saint of wilderness buffs. He really cared about  
10 wilderness. I'd be willing to bet that Muir would have happily taken the budgets from all the  
11 hospitals that Mother Teresa could have otherwise built and put it toward wilderness  
12 preservation, and I'll bet Mother Teresa would have been delighted to trash any number of  
13 wildernesses if it would help build more hospitals to get those jobs done.

14 You get focused on your mission, and your mission only, and you end up with this  
15 situation -- Conan the Bureaucrat. Environmental regulatory agencies have immense  
16 authority, as in the case of Superfund and to some extent Clean Water Act § 404 regarding  
17 wetlands. In the interest of streamlining the judicial process, we'll skip the evidence and go  
18 directly to the sentencing. That describes Superfund. Common law wasn't good enough. It  
19 wasn't fast enough. Under Superfund, EPA has zero burden to prove anything or any harm  
20 or anything like that. All they have to do is imagine some possible future harm, and they can  
21 impose enormous costs.

22 Not only do these regulatory agencies spend a lot of money and have strong  
23 regulations, but look at EPA. Median cost per life-year saved and EPA using their data --  
24 \$7.6 million. Shift that same \$7.6 million to the FAA, and imagine how many lives could be  
25 saved. You can't blame the folks at EPA. It's just that they do not have the kind of adult  
26 supervision from the law that would help equalize these benefits per program.

27 Kip Viscuzzi has published recently some data from a study funded by EPA, I  
28 believe, a very extensive multi-year study, where he says the following: We looked at 150  
29 sites and, using their data, found that 95 percent of the benefit came from one half of one  
30 percent of the expenditures. There were three or four sites out of the 150 that accounted for  
31 virtually all of the projected lives saved under Superfund, using EPA's own data.

32 What we're saying, then almost all of the \$30- or \$40 billion that's been spent has



1 yielded virtually nothing. You get beyond that expenditures for those 3 or 4 sites, and the  
2 median cost per projected cancer case averted is, as I recall, \$3.7 billion. That's just getting  
3 past the best five percent. That's just the marginal cost at five percent. If you go to 80 or 90  
4 or 95 percent, you get virtually zero benefit for very large expenditures.

5 So, we at PERC have a number of ways we think market  
6 mechanisms can be brought to all sorts of programs. I would urge you to check out our  
7 website. I don't have time to present those options to you, in addition to things like Oregon  
8 Water Trust. We have a number of what we think are actual implementable. Visit  
9 [www.perc.org](http://www.perc.org), if you want to check that out.

10 A political philosopher from a couple centuries ago, or three, had it right. We want  
11 to go to market type solutions, property rights type solutions. "If you do not succeed in  
12 connecting to the notion of right without a personal interest, the only immutable point in the  
13 human heart, what means will you have of governing the world, except by fear?" If we can  
14 go to less fear, we will have had a tremendous boon for our society. Institutions really  
15 matter. We would like to see less fear, as well as more efficiency.

16 Thank you for your time.

17 MR. KOCHAN: I think there are some excellent ideas that were presented here  
18 today. One of the difficulties I think is not only from the regulators; not only from  
19 restrictive laws. Industry is not necessarily in favor of free markets in many areas of  
20 regulation, and it is its own enemy in a lot of ways.

21 Individuals become comfortable, and sometimes self-interest lies in certainty,  
22 precluding many individuals from fighting for more market-oriented regulations. This is  
23 true even when that certainty may not lie within an optimally efficient or most green system.  
24 Sometimes it is actually more efficient in the business manager's minds to fit themselves  
25 within these outmoded systems so long as they can know that EPA or others won't be  
26 knocking on their door.

27 And then there are the environmentalists who at the same time have good notions,  
28 but are pushing for more and more prescription, more and more process, believing these will  
29 be the most environmentally-friendly means, rather than shifting their resources toward  
30 some of the solutions like the Water Trust or others can find for greater environmental  
31 protection in a more market-oriented and innovative manner.

32 So there are a lot of people who are their own enemies in this process, and I think

1 that that is a difficulty as we look for solutions. As we look toward changing the regulatory  
2 and legislative structures, we have to realize that there is a psychological barrier to that, as  
3 well as a mere self-interest barrier that precludes many from embracing an ethic that can  
4 allow us to move toward more innovative solutions. Those are barriers that will not be  
5 easily overcome.

6 I want to pose a question to our panelists. How much of the problem that we see,  
7 how many of the situations where there are really nonsensical applications of the law or at  
8 least they're carried too long and too far, how much of that is a matter of discretion that  
9 could be solved within the agencies themselves, if they could shift their mindset, and how  
10 much of it is the laws and regulations themselves restricting that discretion?

11 MR. STROUP: You have to understand that these people who are pushing things  
12 too far, from society's point of view, are in their own minds doing exactly the right thing,  
13 number one.

14 Number two, regulators often have very little discretion, especially given the way  
15 the laws since the 1970s have been written to allow things like citizen lawsuits, so that the  
16 Endangered Species Act, for example, is almost precisely the opposite of the Oregon Water  
17 Trust approach because (a) you cannot prioritize. Everything under the ESA not only has  
18 top priority but it trumps anything else in government, in principle.

19 And (b), you don't have flexibility on method because the big tool that biologists  
20 have working at the Fish and Wildlife Service or the National Park Service to enforce the  
21 Native Species Act, is the ability to put more land, in effect draft land from either agencies  
22 or from the private sector into service to those species they're trying to help. They can put  
23 more restrictions and they can expand the land that they are putting restrictions on. That's  
24 free; without consequence to the agency. And they would have to be stupid not to use that  
25 extensively.

26 But it would be much more effective and cost one-one thousandth as much or one-  
27 one millionth as much to put artificial habitat enhancements on very few acres, and find the  
28 right acres to put them on. They do not have that authority. Now, they have a tiny amount  
29 of budget they could purchase that easement on. But who's going to sell it to them? Who  
30 would be foolish enough to allow them to put a habitat enhancer on their land when bringing  
31 the species in makes them vulnerable to shutting down anything on their land.

32 Absent the ESA, a person may have been delighted to enhance the habitat -- put bird

1 boxes up or something like that, or have volunteers do it. We have success stories by the  
2 dozens where that's happened in the past. Now, with the ESA, with this lack of  
3 responsibility and also a lack of freedom on the part of biologists enforcing the law, every  
4 land owner has a very strong incentive to do exactly the opposite, to de-enhance their land at  
5 the margin. So what would have been cheap turns out to be horrendously expensive.

6 Indeed, instead of finding a low-cost provider of habitat, what's often done in the  
7 case of the ESA is individuals who simply oppose a project search to find an endangered  
8 species on the project site and say that the project can't be built there. They're willing to sue  
9 the Fish and Wildlife Service to force the project to be stopped.

10 So, it's a combination of lack of flexibility, lack of being on budget, and then the  
11 perverse consequence of people not wanting to cooperate, when ordinarily they would. But  
12 with that pit bull of environmental law, the ESA, hardly any land owner wants to get  
13 involved with helping the habitat, with that kind of threat.

14 MR. GOODMAN: I'll play somewhat of a devil's advocate in the more limited  
15 realm that I've worked in. I've seen a fair amount of flexibility exist in the statutory and  
16 regulatory framework that the bureaucrats that we deal with are not willing to avail  
17 themselves of. I think there's even more flexibility in the Endangered Species Act than it is  
18 generally given credit for, as Professor Funk mentioned in his discussion earlier today.

19 There is absolutely no flexibility in bringing in economics into determining whether  
20 a species is endangered or not. But there are economic considerations that can be brought  
21 into critical habitat and what you do with that.

22 I've seen in certain instances where you have the same framework imposed with the  
23 Endangered Species Act. I'll use the two that I've seen in the state of Oregon -- the same  
24 statute, the same issues, basically, and two radically different approaches because the folks  
25 who were involved in implementing them are more or less flexible in their approach.

26 In the Klamath basin, there is a clear example of a number of sides entrenched in  
27 their positions and unwilling to find some flexibility in the existing statutory framework.  
28 There does not appear to be a willingness, really, among the parties involved to come  
29 together and find some kind of negotiated approach that would work. The result is acrimony  
30 and litigation.

31 Contrast that with what's going on in the Walla-Walla basin. Two species were  
32 listed in the Walla-Walla, which is up in the Northeastern Oregon -- bull trout and the spring

1 Chinook. The parties there recognized this coming early on, and are working together in a  
2 much more constructive, creative way, using the same statutory framework, Endangered  
3 Species Act and Oregon water law, to try to find ways in which they could put more water in  
4 streams, could develop habitat enhancements, while maintaining the viability of irrigated  
5 agriculture. People are working hard there on the ground.

6           The dividing lines between liberal, conservative, environmental and resource are  
7 much more blurred in that area. And as a result, people are able to come together when  
8 there's a willingness to explore a flexible approach. So, I think that while there is some  
9 rigidity in the statutory frameworks out there, there is also a need to be creative with what is  
10 there, recognizing that big changes are probably not going to happen statutorily or in the  
11 judicial realm on the near future. So it's looking at what's out there and what you've got and  
12 working with it in a creative way.

13           MR. KOCHAN: Thank you all for your participation.