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5	PUBLIC MEETING SESSION U.S. ARMY CORPS OF ENGINEERS
б	DRAFT LOWER SNAKE RIVER JUVENILE SALMON MIGRATION FEASIBILITY REPORT/ENVIRONMENTAL IMPACT STATEMENT WITH
7	WIIH FEDERAL CAUCUS CONSERVATION OF COLUMBIA BASIN FISH "ALL-H PAPER"
8	"ALL-H PAPER"
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10	PORTLAND, OREGON
11	PUBLIC COMMENT SESSION FEBRUARY 3, 2000
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PROCEEDINGS 2/3/2000

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2 NANETTE WATSON: 3 -- Mt. Hood Oregon, and I want to address the 4 D 4 5 rule and what is being considered now as breaching the dams. And I would like to say, yes, please, go ahead, take the dams 6 7 out. I don't think there is any substitute for taking the dams out. You all have good ideas and what I would like to 8 9 see is that done immediately. Concerning any of the opposition, I don't feel that 10 11 at this point, with the way the federal ruling is that we can say that it's not a viable alternative. At this point, I 12 think that we should go full steam ahead. 13 And I understand economic consequences are serious, 14 but I feel that losing the salmon is too vital at this point 15 16 and the costs that we would incur through increased utility 17 rates or food, that the farmers on the river would be worth 18 it in order to save the salmon. 19 And as far as anything else goes, I think that there needs to be more -- more open communication between the 20 21 public and the entities involved. I feel that there hasn't 22 been enough as far as opportunities to speak. And I also would like to see a pretty quick ruling on the decision. 23 24 That's it. DEL LATHIM: 25

1 My name is Del Lathim. I'm a public utility 2 district commissioner for Franklin County PUD in Pasco, 3 Washington, and also a commissioner for the Port of Pasco. 4 And I am a hydro engineer for two technical working groups, 5 one with the Corps of Engineers and one with the Department 6 of Energy, on designing and testing fish survival facilities 7 for the dams.

8 I have reiewed the 4,000-page, \$20 million draft 9 FREIS document. What a waste of money. For \$20 million, you 10 could have fixed the dams and there would be no problem. The 11 study assumes that there is a shortage of salmon and that the 12 turbines are at fault. This is not the case on either count.

13 There are plenty of hatchery salmon. If more fish 14 are wanted, then more fish could be hatched, just like 15 chickens. There is a shortage of genetically pure fish 16 because they mixed with stray farm fish that the Fish and 17 Game Department transplanted in the Snake River from the 18 Lower Columbia hatcheries.

19 The turbines on the Snake River dams had nothing to 20 do with the decline of these fish counts. There are many 21 factors that reduced the wild salmon runs before the Ice 22 Harbor Dam was built. Brownlee Dam in Idaho reduced the 23 Chinook run from an average of 160,000 fish per year to only 24 80,000 in 1958 by blocking 4,000 miles of spawning grounds 25 because it had no fish ladder. By 1920, the Snake River

1 sockeye were eradicated by the Fish and Game Department.

2 The four Lower Snake dams were the most efficient 3 and environmentally friendly dams ever built. These dams actually improved salmon migration in that stretch of the 4 5 river. Adult salmon traveled from the mouth of the Snake to Lewiston, Idaho, in an average of seven hours faster after 6 7 the dams were constructed. The number of migrating shad went from zero to three million in just 10 years. Chinook salmon 8 9 counts over Ice Harbor Dam steadily increased from 80,000 per 10 year before the dams to 100,514 in 1969 after three dams were completed. Coho counts doubled. Exotic salmon counts 11 12 fluctuated as millions were planted in Red Fish Lake.

The Lower Snake River drops 400 feet from Lower Granite to the tailrace of Ice Harbor Dam, making it a swift flowing impoundment, so swift that 377 pairs of salmon now spawn there. More than before the dams. Juvenile salmonas move as quickly as they want while resting, feeding,

18 imprinting and learning survival skills.

19 The mortality through the turbines is less than 2
20 percent with 80 percent survival through the Lower Snake
21 stretch. This is higher survival than in the wild river.
22 There was no problem with the salmon migration

23 through the Lower Snake dams until the Corps of Engineers 24 installed fish screens and bypass systems and started 25 transplanting fish with trucks and barges and flushing fish

over the spillways. Fish screen mortality was recorded at a 1 high of 22 percent by the National Marine Fisheries Service. 2 3 Spillways were killing 10 percent outright and exposing the rest to deadly nitrogen gas bubble disease. Bypass systems, 4 5 fish biologists and holding tanks were killing another 20 percent and exposing all of the fish to deadly bacterial 6 7 kidney disease and other diseases. Fish barges and trucks robbed them of their homing instincts and survival abilities. 8

Returning salmon numbers to the Snake River began 10 plummeting in 1976. In just five years coho counts went from 2,000 per year to only 58. Chinook numbers dropped from 11 12 36,556 to only 14,717 in the same time frame despite huge production increases of the farm fish. The fish screens and 13 14 bypass systems were a major catastrophy, but they were not removed because they created dozens of jobs for the Walla 15 Walla district Corps of Engineers, saving it from being 16 17 consolidated with the Portland district.

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18 I have spent a lifetime studying the fish and 19 wildlife on the Lower Snake River. On October 13, 1992, 20 while working for the Corps at McNary Dam, I submitted ID No. CE-PW-93 00 00144 entitled "Improving Fish Passage through 21 22 the Turbines" to the Corps and the action agencies in D.C. Congress then authorized and funded two technical working 23 groups that are installing fish-friendly turbines and 24 25 conducting fish survival studies through the system. I

helped design these turbines and am presently a consulting
 engineer on both working groups.

3 I am happy to report that my fellow scientists and I 4 have proven that the safest and most economical way to get 5 fish down the river is right through the modified turbines, б without the screens. We found all four of the Corps' 7 feasibility study alternatives unacceptable. Alternative 1 with existing conditions, fish screens and bypass systems and 8 9 transportation are costing hundreds of millions of dollars 10 per year and killing more fish than they are saving. Alternative 2, maximizing transportation --11

12 transportation is not working out now. Maximizing would only 13 compound the problem.

Alternative 3, major system improvements. Fish should be directed toward the new turbines, not away from them. Hydro engineers consider bypass systems and collectors as gold-plated junk.

18 Alternative No. 4, dam breaching. This is the 19 dumbest idea of all. It would not save one genetically pure 20 fish, but it would devastate 32 native species and thousands of species of other life forms. It would take 3,000 21 22 megawatts of cheap power off the grid when we need 3,000 megawatts more power. It would take 35,000 irrigated acres 23 out of production when we need more. It would stop the barge 24 25 lines to Lewiston when we need more transportation. Tourism

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fish and recreation would suffer. The chances of Portland
 flooding would increase. It would devastate the economy of
 Southeastern Washington.

4 Our alternative of maximizing and enhancing turbine 5 passage would double fish survival through the system; double 6 output of clean, cheap, renewable power; save navigation to 7 Lewiston, save irrigation and water supply, save tourism to 8 the dams, save recreation facilities, save the established 9 ecosystem to which the salmon have adapted, save the 10 ratepayers over \$1 billion per year.

11 This plan has already been approved. It is in 12 progress and has been proven to work. It has the general 13 support of hydro engineers, the Northwest delegation, two 14 Northwest governors and most scientists that are familiar 15 with it. Almost everyone who has seen the plan is in favor 16 of it.

17 Thank you for your time.

18 STEVE WEISS:

My name is Steven Weiss and I am a senior policy analyst for the Northwest Energy Coalition. Our coalition is the largest coalition of its kind in the Northwest. We represent almost 100 organizations and utilities concerned with clean and affordable energy and saving the salmon on the Columbia River system. We represent low income groups, environmental groups, consumer groups, good government

groups, public utilities, private utilities and, as I said,
 we're a very large organization.

After over a year of a long discussion process with our coalition, we recently came to the decision to a vote that these four dams don't make sense and that they can be economically replaced with clean, renewable resources and conservation at not too great a cost for the region and that's the only way the salmon can be restored.

9 I participate in many of the meetings on economics, 10 the DRU meetings, and so on, and I must say that the final 11 product seems to have been very selective. The cost of 12 breaching the dams seem to be scrupulously accounted for, but 13 the cost of keeping the dams seem to have been minimized and 14 the cost of extinction essentially ignored.

Some of these costs that have not been fully accounted for include the cost of flow augmentation at the dams if the dams are kept. Everyone agrees that if the dams are kept, we are going to need a lot of water from Idaho. The cost of that had not been included in the alternatives where the dam is kept.

Another cost is compliance with the Clean Water Act. Again, to bring temperatures in compliance is going -- there is going to have to be some very expensive measures done with those dams if they are kept. Those costs have not been accurately accounted for.

The cost of harvest reductions has not been accounted. There is -- if we have to reduce harvest more, the cost of communities and jobs up and down the West Coast has not been accounted for as a cost of keeping the dams. The cost of changing agriculture and timber harvests

and practices have not been fully accounted for. If we do
not remove these dams, the need to change habitat to try to
compensate will be very expensive and these costs have not
been included in the cost of keeping the dams.

10 The costs of native cultural decline and even 11 possible collapse of native cultures has not been calculated 12 in the keep the dams alternatives.

In addition, the cost of broken treaties with the tribes and Canada has not been calculated. In looking at the difference in expectations of restoration levels, it's clear that the scientists have said removing the dams will increase the likelihood of restoring the salmon. That delta needs to be multiplied by the price of broken treaties with tribes in Canada. That cost has not been accurately accounted for.

20 And finally the existence value to present and 21 future generations seems to be ignored or trivialized as if 22 it doesn't matter. I think if you ask the citizens of this 23 country, they will agree that simply having these salmon for 24 future generations is extremely important.

Therefore, when the true costs and benefits of the

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1 alternatives are honestly added up, the decision essentially

2 becomes a no-brainer.

3 Northwest Energy Coalition urges the federal government to follow the science and the economics and, 4 5 first, remove the dams, the four Lower Snake dams, to replace 6 the lost hydropower generation with clean resources, 7 renewable resources and conservation. And finally, mitigate the effects on the farming communities by investing in 8 9 infrastructure, rail infrastructure and wells or other 10 replacement water for the 13 farms that are -- that will be 11 affected. 12 Thank you very much. We'll have detailed written --DR. GORDON F. STONE, JR.: 13 14 My name is Dr. Gordon F. Stone, Jr. This is a continuation of my talk to the panel earlier in the day. 15 16 I am and I have been for generations a friend of the 17 tuqboaters such as Lou Russell and his ancestors who own and 18 started and own Tidewater; the Burnerts, which own three 19 different tugboat companies in the Northwest. My mother was 20 named after my great-grandfather's favorite tug Margerie 21 Allamet. Farmers and ranchers, yes, many of them. And I 22 know all 14 of the Stoneberg boys. Tackle manufacturers,

23 sporting goods dealers and many more people in business that 24 fish is relevant.

25 I ha

I have been going to these meetings for since I have

been five years old with my great-grandfather and my
 grandfather and my parents. Excluding our Indian friends, we
 need to stop talking money. We need to stop talking welfare.
 Not social welfare; economic welfare, corporate welfare.

5 Irrigation. The farmers have not made the payments 6 that they said they would 50 years ago to present. They pay 7 28 times less for electricity and barging pays less than 20 8 percent of the costs for creating millionaires.

9 I am a free capitalist and I believe in capitalism, 10 but in my 58 years of life, it seems that the major trend has 11 been let's stonewall and hopefully they, the fish, will go 12 away and become extinct.

13 Shame on the ODFW, the WDFW, IMPS, the aluminum 14 companies, the bargers, the irrigators, and, yes, too many of 15 the tackle manufacturers, guides, retail stores and, yes, 16 indeed, many organizations that talk the talk but do not walk 17 the walk. Nice organizations and I am sure they mean good. 18 Organizations like the Northwest Steelheaders. No one wants 19 to bite the bullet and do the right thing.

As Captain Mike said earlier, the area has increased by 87 percent. Well, I don't know if I care whether it's increased by 1,000 percent. It makes me wonder if the increase of population is a good thing. It seems as though the more people I see, the less nice they are and the more screwed up the environment is.

Just not salmon. I'm not talking about that. I am talking about the whole ball of wax. Progress is not money in the pocket. It is not -- it is not to have your trophy house, your big pickup, boat or whatever. It's about air, food, water, families and quality of life.

б And last but not least, water temperature in the 7 Clackamas River, in the Santiam and the MacKenzie River have been out of compliance from federal regulations for years. 8 9 The Clackamas River has not met the water temperature that 10 was required by the federal government for close to 30 years. 11 Now, please don't go away and please listen to the 12 rest of this because this is germane to the Columbia River. According to many biologists, the only remaining indigenous 13 or native run of which you -- indigenous or native run, 14 whichever you prefer -- my Webster dictionary does not make a 15 distinction between the two -- remaining coho are in the 16 17 Clackamas River, not in the Willamette River, but through the 18 entire Columbia system is the Clackamas River run. Two to 19 four fish returned six years ago. It depends on whom you 20 speak to.

21 What has the State done? Well, the dams on the 22 Clackamas are up for relicensure. Therefore, the governor of 23 the state of Oregon appoints a senior vice president from 24 PGE-Enron, and on his card it has a title that says head of 25 hydropower relicensure. Wow, who would have thought of that?

1 Who is running this asylum?

Let's not keep doing business as usual. Let's not
 keep doing something easy. Let's do something right. Let's
 do something for the fish.

5 I humbly thank you for me and I thank you for my 6 parents, Gordon F. Stone, Sr., who is 89 years old, Margerie 7 Stone, who is 84. We beg you to breach those dams and let's 8 start making some good decisions for the betterment of the 9 environment.

10 Thank you very, very much.

11 DR. JEFFRY GOTTFRIED:

12 I'm Dr. Jeffry Gottfried, and I am speaking on my 13 own behalf today. I live at 7040 S.W. 84th Avenue, Portland, 14 Oregon. I'm a biologist by training.

I am speaking at this time advocating the breaching of the dams on the Snake River and lowering the pool behind the John Day Dam and doing -- and taking whatever steps necessary to return the Columbia River to a river, to its being a river as opposed to being a series of lakes.

Everyone who has studied what the salmon need, not what the barge operators need, not what the aluminum industry needs, not what the wheat growers need, but what the salmon need, have concluded that they need moving water. The smolts need to be transported by moving water to saltwater within the time of their biological clocks. They need to be able to

get past obstacles in a timely fashion. They're not good swimmers. I won't go on and on about the biology of the salmon, but they need to live in a river and not in a series of ponds.

5 Unfortunately, we have created -- we as a society 6 has created a giant economy that depends upon an altered 7 river. I have to point out that the aluminum industry, for 8 one, is only here because of that altered environment and the 9 ultra-inexpensive electricity. The fact that we give away 10 our electricity is why the aluminum industry is here.

I I'm not saying they're bad people. I'm just saying that they have no allegiance to this region. The electricity -- the price of electricity goes up, they're out of here. There is nothing indigenous about the aluminum industry.

As a matter of fact, the ore is mined in Australia and transported here. And it's ridiculous to think about the energy that's expended in getting that ore here and the whole thing and still it's profitable. It's just an indication of the fact that we are not charging for the destruction of our natural resources, for the destruction of our salmon runs in what we charge for electricity.

The dams need to go. They're not providing benefits that equal the negatives that they are creating for the survival of the salmon.

25 And -- let's see. That's really what I have to say

here tonight. And I, for one, would be very happy to pay more for electricity if that was the case. I have already purchased the salmon friendly power that's been in -- made available by Portland General Electric and would would pay more. I'd double my bill to save the salmon. I think --Let me go on here a little bit longer because I think it's also --

8 On a whole other level, I think this is a moral 9 question, as well. I think it's a moral and ethical question 10 that we are driving a magnificent living thing, a species to 11 extinction and destroying the genetic potential of living 12 things. I mean, it brings tears to my eyes really to think 13 about what is being destroyed when we destroy salmon.

And it's not simply -- it's not simply the fish because when we destroy a run of salmon, we are destroying the whole richness of the Northwest. You see, what is the Northwest? The Northwest is defined by many as anyplace the salmon can swim and so the Northwest is really shrinking. It's getting smaller.

And, you know, they have traced elements from salmon to trees so that they know that these salmon are bringing the wealth, the richness, the energy that's fixed by green plants in the ocean is transporting it from the ocean to basically sterile rivers.

The rivers of the Northwest are not rich rivers.

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1 The Columbia River tributaries are not biologically rich without the carsasses of the salmon. They're depositing 2 3 this. And everything eats those carcasses from insects to the resident fish. If we want to know why our cutthroat 4 5 trout are disappearing, cutthroat trout are disappearing because they have no salmon to eat. Cutthroat trout eat the 6 salmon carcasses, they eat the salmon eggs, they eat the 7 salmon fingerlings and even smolts. And cutthroat trout are 8 9 disappering because there is no salmon left for them to eat. 10 And the whole web -- ecological web of the Northwest is going 11 to unravel because, really, it's a salmon economy. We can't 12 say anything is all important, but it's -- there is a far -far-reaching ecological effects when salmon are gone in terms 13 14 of the numbers of things that depend on that salmon.

And wheat can be grown elsewhere. I mean, wheat could still be grown. I mean, so it has to be shipped on trains instead of barges. We can't let these, you know, these people are being hurt financially. Help 'em out. Give them tax subsidies. Do something to -- you know, don't cut them off, but do whatever is necessary, figure it out. But take action now.

We can always fix those problems later. If we don't take action now, very soon, the salmon are gone, never to be restored. This is a crossroad and an important decision that needs to be taken in a timely fashion because we can never

bring back animals from extinction and not populations from extinction. The information will be gone. The opportunity will be gone and this will be a moral tragedy and a blot on our society forever.

5 Thank you.

6 DENNIS DUBOIS:

7 Yes. Hello. My name is Dennis Dubois. I'm a 8 member of the Sierra Club, Columbia Group. I also chair, 9 with my wife, the Tillamook State Forest Park Committee for 10 the Sierra Club and we're very active in Tillamook on the 11 salmon issue.

12 I'm here tonight because I am for the breaching of the dams on the Snake River. It doesn't take a rocket 13 14 scientist to see that what has happened over the past 75 years with the decline of salmon not only in the Snake River 15 area, the basin area, but also in the coastal streams that 16 17 we're in desperate need of correction of any kind of methods 18 we can use that has not been tried as of yet. And I really 19 think that we need to try this and see if it works.

I don't know how anyone could argue over the fact that 100 years ago we had -- well, I think this is a low estimate -- 28 million salmon in the basin area. I think that's a very conservative estimate. I would not be surprised if it was triple that amount. And since the dams have been in, we've just seen declining runs year after year

1 after year and now we're in this predicament.

2 So I strongly urge that the U.S. Army Corps of 3 Engineers remove these dams. Let's see what happens. Give 4 it a chance.

5 The economic experts claiming these dams need to be б in are not giving the free market an opportunity to respond 7 to the situation when the dams are removed. The United States is a strong country. It has the ability to adjust to 8 9 things like this and these people will find ways to make a 10 living, alternative methods of keeping their business intact, 11 so I think it's really selfish of them to not consider what 12 is good for the heritage of this country.

13 That's all I have to say on the issue.

14 Thank you very much.

15 PAUL VITELLO:

Hello. My name is Paul Vitello. I am a member of
Trout Unlimited. I want to speak in behalf of this process.
My own personal experience is that I am a recent
import to the West Coast from the East Coast. We have no
salmon in the East Coast because we didn't implement the

21 policies that would maintain runs and now the salmon are

22 gone.

23 When I moved to the West Coast, I was looking 24 forward to seeing these tremendous runs that I had read 25 about. And much to my dismay, I found that the runs are in

deep and dire straits here. The mistakes that were made in
 the East are being repeated here. Special interest groups
 seem to take precedence over the good of the environment and
 the good of the mass of people.

5 This is very upsetting. I don't get to see my 6 tremendous salmon runs that I have read about and, in fact, 7 if we all do not react, we will see no salmon at all.

8 The federal government must implement corrective 9 measures now to restore these salmon runs. It's a good 10 policy to focus on habitat, harvest, hatchery measures as 11 long-term policy. But if the dams are not taken out now to 12 restore a free-running river, it will be too late for these 13 measures to have impact. The salmon will be gone.

14 The elimination of the dams will increase habitat, 15 return cool, clean water and encourage nutrient movement and 16 provide woody debris for habitat.

Artificial means to enhance runs have been expensive
and futile. The only way to save salmon is to return to a
free-running system.

20 Thank you very much.

21 BARBARA MCLEAN:

All right. Hello. My name is Barbara McLean. Ilive in Beaverton, Oregon.

And I didn't want to come out tonight, but I came out tonight because I feel if these salmon go extinct, I

1 would feel really bad that I didn't do the very best that I
2 could to help preserve them. I have two children and I have
3 a grandchild. I'm very concerned that these fish won't be
4 around for future generations.

5 I have looked at literature and it seems that it's 6 going to be the most helpful thing to do to partially remove 7 these dams or fully remove the dams. The literature that I 8 have read makes sense to me and so I am asking the Army Corps 9 of Engineers, National Marine Fisheries to make that 10 decision. Get rid of the dams. Let's make the rivers free 11 and better for the salmon to survive.

12 It's not fair that certain smaller interest groups should be subsidized by the government at the expense of 13 14 larger more ordinary people, so I am asking you to do the logical thing and the best thing and to -- if you have 15 children, look at it this way. You know, you want your 16 17 children to be able to see these fish, to know these fish, 18 eat the fish. You know the fish are a big part of the 19 Northwest.

And thank you for listening to my testimony. I hope you really consider seriously everyone's testimony. Just because we don't have big bucks or, you know, we don't have maybe all the governmental clout of electric companies or something of that sort, I hope, as our representatives, since we are the taxpayers and pay your salary, that you will

1 consider the testimony of everyone here tonight.

2 Thank you very much.

3 LAUREN ELDER:

My name is Lauren Elder. As I am sitting here, I 4 5 see many people from different ethnic backgrounds and many б different generations. I see children no older than three or 7 four proudly holding signs bearing the words "Salmon rule," "Dams rule" while sporting salmon stickers on their clothes. 8 9 One toddler caught a group of peers and explained 10 the life of salmon. Around them adults feel the same way. 11 Colorful displays showing status, options and facts. No 12 matter how old or how young, the decisions today involve everybody, not just in this country but all over the world. 13

These ideas have been spoken before, but I want you to hear them from a youthful mouth. The salmon are needed along with every other species on this earth, including humans. They were created for a reason, even if nobody knows the exact one.

19 The only sure way to save them is to remove the 20 dams. Not only will this help stop the demise of the salmon, 21 it will eventually create a more beautiful environment.

Does it really matter that the dams put money in somebody else's pocket or does it matter more that our future generations will know the pleasure of a flowing river, of watching the miracle of salmon returning to their spawning

ground? Think about these two simple options and make up
 your own mind.

3 BARBARA PAYNE:

4 My name is Barbara Payne and I am vice chair of
5 OSPIRG on PSU campus.

6 Currently, one of our campaigns that we're working 7 on for the school year of the 1999-2000 is Save Our Wild 8 Salmon, where we have a coalition with Save Our Wild Salmon 9 Coalition in Portland, National Wildlife Federation and 10 Sierra Club.

I just wanted to talk about the importance of this campaign on our campus and that even students do care about salmon loss. Those that are struggling to get their degrees and make a better life for themselves actually take time out to sign postcards and petitions in order to get the word across to legislators that it is an important issue.

We had a table by itself, unmanned, and it got 40 postcards signed in just an hour of being by itself with a few props. That tells you how important the table is and how important the issue is to the students on campus. And besides the dirty water that the salmon are dumped into on a daily basis, like cleaning the Willamette, of course, this is one of the biggest issues on PSU campus.

I'm a native Floridian, where I have had the experience with endangered species such as the Florida

panther and had success such as the alligator -- Florida
Everglades alligator being brought back off the endangered
species list, so I am familiar with endangered salmon and the
issues surrounding it.

5 I have never seen a salmon in the wild in the five 6 years that I have lived in Oregon, so it would kind of be 7 nice to see one before I die.

8 And as I said, I speak for all the students on PSU 9 campus, for all of the OSPIRG chapters in the state of 10 Oregon, including the OSPIRG state chapter in Portland, that 11 we are for saving the wild salmon and removing the lower four 12 dams on the Snake River in order to continue their success as 13 a species.

14 Thank you.

15 BRAD WILEY:

16 Hi. My name is Brad Wiley. I'm here to make a 17 comment in favor of dam removal.

18 Just to give you a little bit of my background just 19 because it may carry some more weight with my comments. I am 20 an -- I have a master's degree in marine biology. I am an 21 ichthyologist. I have studied the population genetics of 22 fish. I have worked for the South Carolina Department of Marine Resources in their fish and ichthyology division. I 23 have also worked for the National Marine Fisheries Service in 24 Charleston, South Carolina. 25

I just want to say that I think that if we're ever 1 2 going to be serious about salmon restoration that we need to 3 breach these and other dams. I don't think that anything that we're doing right now is going to be sufficient on its 4 5 own. I don't think that removal of these dams is sufficient on its own, but I think that its an absolutely necessary 6 7 component to restore habitat to a level to where survival and restoration will be possible. 8 9 I think that the fish hatcheries as they exist now 10 or actually fish hatcheries in general are a bad thing. They do nothing but destroy the genetic diversity of the species 11 12 they aim to protect. I think that it's a Band-Aid. It's a technological 13 14 fix for something that has a much deeper problem. Let's see. I think that's about it. I mean, that's 15 just basically -- I just want to put in my two cents towards 16 17 --18 BRETT BROWNSCOMBE: My name is Brett Brownscombe and I am here on behalf 19 20 of NEDC, the Northwest Environmental Defense Center, in 21 support of breaching the four Lower Snake dams.

I would like to frame this issue because by the time you hear this testimony you will have heard much talk about fish. I would like to frame the issue in terms of people, because people, when they make resource decisions, they make

1 these decisions based on how those resources are used will affect people, I think. And NEDC believes the choice is 2 3 about trade-offs. This gets into the costs and benefits. First, the science, NEDC, believes is clear, as 4 5 expressed by the Fish and Wildlife Service and various state agencies. I personally also believe the science is clear. 6 7 I worked as a hatchery employee up in the state of Alaska for the better part of six months. And when we raise 8 9 salmon from fingerlings to smolt size before release, we did 10 so using the elements, the conditions and the habitat -- in a 11 simulated habitat that salmon require and these are the exact 12 conditions that dams cover. For example, good substrate, healthy dissolved 13 14 oxygen content in water, healthy flows of water. Dams impair all these qualities. In the hatchery, we tried to replicate 15

16 them.

Moving on to the economic costs and benefits, the Idaho Statesman estimated in its study that the cost of dam removal -- pardon me, the benefits of dam removal would benefit the region economically by greater than \$180 million versus the costs.

22 What are the other costs to people of failing to 23 remove or breach these dams? There is a loss of cultural 24 heritage, continued lawsuits, most likely increased, and 25 trapped revenue potential. The benefits to people, just as

the cost to the culture, the revenue, jobs, fishing and the
 legacy the fishing has already proven to provide.

The cost of transportation. This is probably the biggest and the most hotly debated issue in this whole salmon crises consideration. The effect on transportation, I believe, could be a decrease in barging. I think the science supports that. But the increase -- the decrease in barging would increase trucking, would increase rail transport.

9 I would like to point out that the region is strong 10 economically because of its location and the types of 11 businesses it houses, not because of the barging, the 12 trucking or the freight related to those businesses.

Finally, I would like to remind you of the second law of thermodynamics, which is energy never is lost, it only changes form.

You have a choice and I think you should make the choice in favor of restoring salmon. People adjust, along with the fish. And on balance, the benefit to fish and the benefit to people will be greater for the region in failing to breach these dams at this time.

21 Thank you.

22 PAT HOWELL:

23 My name is Pat Howell.

And I just wanted to have on record that I fully support -- I am actually commenting on both the draft EIS, as

well as the list H, I believe it's called, and support full 1 removal of the Lower Snake River dams in order to protect our 2 3 salmon. The science is there. The economics are there. 4 5 And, really, I have lived here all my life and salmon are a б huge part of our culture and our well-being as a region and 7 really as a nation and we should remove the dams. 8 Thank you. 9 KIMBERLY KAMINSKI: 10 My name is Kimberly Kaminski and I am from Portland, 11 Oregon, and I am a concerned citizen. 12 We have studied salmon literally to death. The results are in. The scientists agree if something is not 13 14 done now, the salmon will go extinct. Indeed some runs have already gone extinct. It is a shame in a way that we have to 15 be here to even discuss this issue, that we are facing this 16 17 issue today. 18 It is not too late, but it will be soon. Breaching 19 the Lower Snake River dams is not the only thing that needs 20 to be done, but it is a step in the right direction. 21 This is a small step that will achieve a great 22 purpose. When we think of our legacy and to paraphrase a thought from Mike Dombeck, let's start to think not about 23 what we take, but what we leave. 24 25 Thanks.

KEVIN ADAMS:

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My name is Kevin Adams and I am a concerned citizen. 2 3 We still hear ancient legends of rivers so packed with salmon that a man could walk across it on their backs 4 5 and not get his feet wet. We can read of early accounts such as that of Meriwether Lewis who describes the delicious 6 steelhead trout he ate on his journey. 7 8 My father told me stories of growing up on the 9 McKenzie River, that farmers were able to use their pitch 10 forks to harvest the salmon they were so plentiful. What will I tell my children and future generations 11 12 when they ask about these great fish? Better yet, ladies and gentlemen of the panel, what will you tell them? 13

14 The remainder of my testimony consists of facts and 15 figures written in a Harper index format. It is my hope that 16 this information will help everyone see that these dams and 17 our present methods of salmon recovery do not make sense.

18 Amount in dollars that taxpayers have spent to date 19 since 1981 on ineffective salmon recovery, \$3 billion.

20 Estimated number of salmon that once entered the 21 mouth of the Columbia River, 16 million.

Number of spring Chinook salmon that reached theLower Granite Dam in 1988, 21,870.

Number of spring Chinook salmon that reached theLower Granite Dam in 1991, 8,475.

1 Number of sockeye salmon that reached the Lower 2 Granite Dam in 1976, 531. 3 Number of sockeye salmon that reached the Lower Granite Dam in 1996, seven. 4 5 Estimated number of years until most Snake River salmon become extinct, 10 to 20. 6 7 Amount of regional electricity provided by the four Snake River dams, 5 percent. 8 9 Estimated rate increase for regional power users if 10 the dams are breached, one to five dollars a month. Percentage of flood control provided to the region 11 12 from the four Snake River dams, zero. Yearly dollar amount to maintain nine fish 13 14 hatcheries built on the Lower Snake, \$12.7 million. Yearly dollar amount to barge and truck fish around 15 dams, \$3.5 million. 16 Estimated number of commercial fishing jobs 17 18 threatened by depleted fish populations, 15,250. 19 Annual dollar amount spent by Northwest 20 salmon/steelhead fishermen alone, \$600 million. 21 Total economic contribution in the region in terms of hotel stays, restaurant meals and other indirect fishing 22 related spending each year, \$3 billion. 23 Number of dams in the U.S. already removed in an 24 effort to restore fish habitat, 400. 25

Extinction is forever.

2 JACK STRATON:

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3 My name is Jack Straton. I have been a citizen of4 Oregon since 1959.

5 As a scientist in another field -- that is physics 6 -- I may not understand the intricacies of fish biology, but 7 I know enough of science in general to be shocked to see a 8 process in which respectable scientific conclusions are set 9 aside in what appears to be a politically motivated 10 expedience.

Sure you can find some scientists to back up any conclusion you desire, even some not funded by farm and power interests. But having one theory to rebut another theory does not constitute an impasse. Let us be clear that these four dams were an experiment foisted off on an unknowing public. The results of this experiment is an acknowledgment by all of the devastation of salmon runs.

Let us be clear that the theoretical debate is not about the cause of that devastation. The only debate is about the most cost-effective or politically expedient method to deal with the mess these experimental dams created.

It is time to move to a new experiment. If we breach the earth berms on these dams for, say, a decade or so and these salmon runs do not improve, we can always pile that dirt back in the river and say we tried.

1 Let us be clear that if we don't try the breaching experiment, in a decade or so we cannot reverse this choice. 2 3 The salmon will be gone. Whatever your politics, no matter if you are an 4 5 Idaho farmer or a Warm Springs Indian, if you look in your heart with unflinching intensity, you will know that it's 6 7 immoral to even try to balance an irreversible act with a 8 reversible act. 9 Thank you very much. 10 TONY MURCZEK: My name is Tony Murczek from Portland, Oregon. 11 12 I don't necessarily represent but I am a member of the Mazama Conservation Committee and I am speaking on my own 13 14 behalf tonight. I feel -- I'm not a person that normally comes 15 forward to speak about political matters. However, this 16 17 issue has definitely struck a deep, deep sense in myself and 18 a lot of other people. 19 I am encouraged by seeing the turnout here today. 20 The people that are living very, very busy lives, taking the 21 time out to come here and express their views, especially the 22 views of removing the dams and trying to do everything we can to save the salmon. 23 I grew up in Chicago. I did not grow up in the 24 Northwest, but have been here since 1990. And just in the 25

last year and a half I have had some extremely awe-inspiring 1 trips. One in particular was going down the Snake River on a 2 3 raft last year, last summer, and seeing the grandeur of that area and how it's had problems with what people have done 4 5 with jet boats and that sort of thing. And just -- when I was getting into really being on that river and really 6 7 enjoying my outdoor experience, we were told to get off the rafts because there were dams in the way on the Lower Snake. 8

9 And so I couldn't help but think what a wonderful --10 continued wonderful experience it would have been to continue 11 to raft down that river or that great river and not have 12 those dams in the way and restoring it as best we could to 13 its natural state.

14 Since then I went to a salmon festival this year in Clackamas and have learned more about the salmon and tried to 15 get involved and have since joined the conservation committee 16 17 with the climbing club that I am a member of. And I am going 18 to continue to do everything in my power to help the 19 ecological state of our nation. And I think that this is a 20 very worthwhile effort and I just implore you to deal with 21 this issue in a very responsible manner.

This issue goes well beyond boundaries of ecological and/or economic -- I'm sorry -- and goes really to a deep spiritual level where a lot of people are coming together and we can really make a difference.

Thank you very much.

2 RUSSELL DICKSON:

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My name is Russell M. Dickson. I'm a 74-year-old Portland attorney. I have been a fisherman all my life. I have been a resident of Oregon since I was about a six-year-old.

I have been very concerned about this salmon situation. And it's very discouraging to me that nobody seems to be able to come to grips with the whole thing. I applauded Andy Kerr who was the first one, to my knowledge, who suggested that -- suggested dam removal. He had the courage to call a spade a spade and to name what the real problem was.

14 I don't think you have to be a rocket scientist to 15 figure out that if you have a viable species that goes out 16 into the pastureland of the Pacific and grows from a small 17 smolt to a 30-pound salmon, you don't have to cultivate them, 18 you don't have to fence them in, you really don't have to do 19 anything except let them do their thing. And for years, they 20 supported all the peoples of the Northwest area, the Indian 21 tribes.

I don't think you have to be a rocket scientist to see that if you cut them off from their means of propagation, you are going to destroy them. And that's what has been happening on the Columbia River. The only viable remedy that

I can see is to remove or modify some of these dams. When 1 they were put in, no one had any idea of the ramifications 2 3 and what was going to happen. The idea was that we'll build all these dams; we'll 4 5 put in all these fish hatcheries; the fish will mature in the fish hatcheries and then we'll just send them down the river 6 to the ocean and everything will just be fine. 7 Unfortunately, like many of the other things that we 8 9 have tried to do in engineering nature, it hasn't worked. 10 Roosevelt, when he put in Grand Coulee, said we're going to do a lot of things and if they don't work, we're going to 11 12 reverse them.

13 It's time to take those dams out and make whatever 14 other modifications on the river are required. The world is 15 close to a food crises. We need salmon.

16 That's all I have to say.

17 JEFF WHITE:

18 My name is Jeff white and I am not representing any 19 particular organization.

However, I would like to say that I am originally from the East Coast, the Boston area, and I came out here specifically to volunteer for a -- well, it's the Americorps program. And what we do is environmental restoration and we try to plant a lot of trees. But with the idea of not only reforesting areas, but bringing back native species,

1 including salmon.

And I find it kind of strange that this conversation and this whole debate is even taking place when the evidence is so overwhelming and obvious. I'm not an expert on salmon or salmon recovery, but I am essentially dedicating a year of my life to kind of improve the environment here in the Northwest because it's one of my favorite places in the world.

9 And I would just hate to see a resource -- and even 10 hate to use that word because it just puts it in an economic 11 context, but I think we need to look beyond that and to the 12 much broader issues here. And the extinction of a species is just kind of like the tip of an iceberg. It's much bigger 13 14 than that, because you are talking about a whole habitat. And if the salmon go, I think in the long run, we will go to 15 some extent if we don't start to save some of these species. 16

17 And I realize there are jobs at stake here and so 18 forth, but we always seem to be able to come up with creative 19 ways to do things economically and politically when there are 20 things like a war or other things that we get ourselves into 21 and other kinds of crises. But when it comes to the 22 environment, it always seems to get pushed aside and kind of it gets the short end of the stick. And I just think that 23 that's got to change or else our economy is going to suffer 24 25 as well as our -- just everything that makes us human and

makes us alive. And I think it's really high time. And I 1 think the people that have the power to make the right 2 3 decisions, if they let their consciences speak to them, I think they will do the right thing. 4 5 And I appreciate you listening to everybody's б comments because I know this must be real, real difficult to 7 sit and listen to all this. But thank you very much. LYNN FORD: 8 9 My name is Lynn Ford and I am from Portland, Oregon. 10 And I want to urge your agencies to decide to breach the dams and to do so as quickly as possible. The fish and 11 12 other wildlife do not owe humans a living, much less the chance to make a killing. We do have an obligation, however, 13 14 not to wipe out the salmon. That means we must do everything 15 we can to save them. There is ample evidence that the economic costs of 16 17 breaching can be mitigated. We have 20 years of proven 18 failure of mitigation for the damage the dams do to the fish. 19 The vast preponderance of the honest science supports 20 breaching the dams and so do I. 21 Thank you. 22 TANYA SANORIB: All right. My name is Tanya Sanorib and I'm a 23 resident of Washington state and I am here today because I 24 25 support the removal the four dams on the Snake River.

1 I moved to the Pacific Northwest about three years ago and became very interested in fish issues because I think 2 3 it's hard to live here and not be. And I always heard about the four H's. And I think that although my work personally 4 5 has always been involved with habitat, that removal of б hydropower is one of those four H's and is very important, so please remove the dams. 7 8 Thank you. 9 SARAH CLINEHENS: 10 My name is Sarah Clinehens and I am a concerned 11 citizen. 12 I wanted to offer some comments about the removal of the four dams from the Lower Snake River. I'm just fully in 13 14 favor of removing the dams in order to provide more salmon habitat for all the habitat that's been cut off by the dams. 15 I work for a nonprofit here in Portland doing 16 17 habitat restoration, so I am very familiar with the plight 18 that our native fish are in and I am very supportive that 19 this would be a measure that would really improve the chances 20 for us to save these salmon runs. 21 I feel like we have a responsibility to protect 22 diversity in our species, and all of our animal and plant species on the planet because that's what gives life its 23 strength and resilience. And I also feel there are important 24 25 cultural values around the salmon and just they're important

to people in the Northwest for a myriad of reasons, so I am
 very in favor of removing the dams.

3 Thanks.

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4 JOHN SWEENEY:

5 This is John Sweeney, and I'm a native Oregonian and 6 I've lived most of my life in Oregon.

7 And I'm against removing the dams because I think the deal is the costs will be just too extreme because I 8 9 think that you are going to have to replace a lot of roads, 10 railroads. And the loss of the fish will even increase their losses because the river will get narrower and the predators 11 12 who are in the rivers will be able to gobble up the salmon even faster, so we need to keep the dams because it has a 13 14 benefit.

And you have to remember that the dams have been there a long time and they have created their own ecosystems. They're just as viable as the old style.

And if they want to save salmon, there is two things that they can do that don't involve doing away with the dams. And that's, one, they could have our navy ships out on the sea to keep the foreign fishermen from running in and scooping up the sea beds about a hundred yards wide four or five miles at a time that wipes out the bottom of the food chain.

And the other is a fact that you look at the bridges

that have gone across the small streams, over a period of time, they've done away with the bridges and gone to culverts because they're cheaper. The only trouble with the culverts is they've created narrow hallways and the fish don't want to go down those hallways.

6 It's like going home and on your way home and 7 suddenly there is no lights on the way and, you know, it 8 looks right but you are -- you are nervous and you don't go. 9 And that's what happened to many places with the fish that 10 going to culverts has wiped out plenty of fish runs. But 11 again, the economic cost of taking out those dams is just 12 beyond concept.

Now, if they got the pressure on so heavy that they 13 14 -- it's almost unbearable, instead of taking the earthen portion out of the dams, just lower the spillways, open the 15 locks. And then in a few years when you find out that it 16 17 didn't do any good, instead of having to be rebuilding the 18 dam is all they have to do is just close the locks, close the 19 spillways and we would regain things as they are now. And 20 maybe people will have it burned into their memory.

21 Thank you very much.

22 Again, my name is John Sweeney.

23 LARRY SNEEDEN:

Okay. My name is Larry Sneeden. I'm the presidentof Clackamas River Trout Unlimited.

I am here representing 275 members in our chapter. 1 I'm not real well prepared for this. I do have a couple of 2 3 points that I would like to make. I think that economically, this isn't like it was 4 5 when the timber industry got hit so hard a few years back. б This is going to be an economic shift. It happens 7 everywhere. I just got hit by one myself. I took a major cut in pay, but it's the way things happen in the world. 8 9 Some people have to suffer while the world moves on. I was 10 hit; I recovered from it. The other point that I would like to make is I think 11 12 these -- right now the time is 11:59 for these fish. We don't have much time left to try new things other than 13 14 removing the dams, putting the river back the way it was before we got in and messed it up. 15 What I hear is a bunch of alternatives which are 16 17 exactly what we have been trying for the last 150 years, 18 which has gotten us into this situation to begin with. 19 I guess, in closing, I would just like to say as a 20 representative of Trout Unlimited and my chapter of 275 21 people, we strongly support removing these dams. 22 Thank you. JACK HERBERT: 23 My name is Jack Herbert, John Herbert. I live in 24 Washington County, Oregon. I'm not representing anybody 25

1 except myself and my family.

It's important -- I think the important things in life -- physically important things in life are mainly nature and physical survival, and that we cannot have decent lives no matter what else we do if we destroy our natural heritage. So that leads me to say we need to do whatever we can to restore the (inaudible) fish runs and all other wildlife and echo systems as much as we can.

9 It's not a matter of calculating dollars. That's a 10 phony argument. And we know that our economy will be better 11 if we take care of -- if we have a healthy environment.

12 Removing the dams is one of those steps and we need to do that. The lower four Snake River dams, according to 13 14 what we've heard, is one of the most important parts of dam removal. We also need to do all the steps, not just think, 15 oh, we can remove those four dams and then we don't have to 16 17 do anything else. We need to do all of them that have been 18 mentioned in the multiple H plan, deal with the habitat and the harvesting and the fisheries -- hatcheries. 19

20 We also need to do each step most effectively, 21 taking the care necessary to do it well. This means 22 minimizing the sediment entrainment in the river when we 23 breach the dams. We should not just bore a hole through it 24 and let the water rip. It'll probably cost several times as 25 much to do it right as to do it wrong, but we need to do

whatever it costs to ensure that the water is -- there is not
 too much sediment in the water to harm the fish.

We also need -- we should realize that we're all in this together. We should have that attitude in our society so we should provide assistance to the employees and the smaller farmers, if needed, to obtain water or to change occupations or locations.

8 George Bush did not want to protect our old growth 9 cutting but he wouldn't help out the loggers who were thrown 10 out of work mostly by mechanization, not so much by the 11 decreasing of cutting. He claimed to be for them, but when 12 it came to helping them retrain to do something else with 13 their lives, he wouldn't give them anything. We need more 14 responsible action from our government.

We also need to consider things like the dredging for the Portland harbor. We need to do that without adding too much sediment to the stream when the smolts are running down or other fish are returning upstream. We need to do each step and need to do it as well as we can.

20 Thank you.

21 ROBERT MOSIER:

Okay. My name is Robert Mosier and I am here
because I'm a native Oregonian. I have grown up in Eugene,
Oregon, and this is an issue that's very important to me.
I have never come to a public hearing before, but

this is something that was very important to me because salmon are very important to the heritage of the people in the Northwest.

I support the removal of the Lower Snake River dams. Salmon has always been a prized fish, a prized resource to me and my family. At family gatherings, we would share the salmon. We would go out with our grandfather and catch salmon and share them at the next family gathering.

9 I became aware of the appalling decline in the 10 salmon in my teens. There used to be a very vital fishing 11 industry all along the coast. And as I grew up, I became 12 aware of the lack of resource because they kept on shortening 13 and shortening the season. The fishing families had no way 14 to make a living. Eventually, that industry totally died out 15 along the Oregon coast.

16 It's hard to believe that we could see the 17 extinction of the salmon in our lifetimes, but that's what 18 we're seeing right now. It could be another 20 or 30 years 19 before they're totally gone, but there are salmon that are 20 going extinct at this time and salmon that have already gone 21 extinct.

The economic impact of this decision is not limited to the area that they studied. It is not limited to the local economy in Lewiston, Idaho. This decision affects the the economy all over the Northwest, just as in the fishing

industry on the coast. The health of the salmon as a species
 is very important to all of us.

3 None of the economic studies placed a value on this lost resource or on the lost part of our heritage and the 4 heritage of our children. The economic studies don't address 5 б cheap power to the industrial power users like aluminum 7 smelters who do not generate the jobs in proportion to the power use that they have. This power could mitigate the lost 8 9 power from these dams. How can we be so arrogant as to 10 propose that cheap power is more important than the priceless 11 resource of this salmon species?

Every piece of the salmon recovery puzzle is important. Removal of the Lower Snake River dams is an important first step, but only the first step. We have a moral responsibility to save the salmon.

So, in closing, I support breaching of the Lower Snake River dams and the aggressive conservation approach that they had proposed in the HHH study.

19 Thanks.

20 BRYAN THEIS:

21 My name is Bryan Theis.

I'm a resident of the Northwest, Portland, Oregon. I do not represent any group or other organization that has a direct stake in this issue. However, I am a representative of the people of Oregon and I feel strongly that these dams

1 should be removed.

2 I don't think that you can really make an economic 3 case for the maintenance of the dams and their current position once you consider the real costs, which must include 4 5 the costs of loss of fish, loss of endangered species and all б of the biological costs associated with that turn of events. 7 I am concerned that the functional equivalent of these dams is that of a tax on everyone who uses the 8 9 ecosystem that surrounds the Snake River. These dams have 10 the effect of benefiting a relatively small group of customers, and, in exchange, the community as a whole pays 11 12 the price. This is a tax. This is a classic, big government solution. It's the kind of -- it's the kind of economic foul 13 14 play that conservatives often deride but, in this case, they 15 are -- they seem to be the ones who are supporting the retention of the dams. 16

You cannot make a real economic case for retention
of the dams. I strongly support the removal of them or their
partial breach.

20 Thank you very much.

21 TOM SCHRAW:

22 My name is Tom Schraw, and I'm representing the 23 Community Action Directors of Oregon and the Oregon Energy 24 Coordinators Association. We provide services to low-income 25 families across Oregon, including programs like Head Start

1 and Energy Assistance.

2 And the concern has come up about dam breaching, 3 that removal of the hydroelectric power load would increase 4 electric rates. We're here basically to strongly support dam 5 breaching. And we believe that the right environmental thing 6 to do in this instance is the right thing to do.

7 There has been decades of focus on this issue that 8 hasn't really solved the problem and has cost a tremendous 9 amount of money. And our druthers in terms of long-term 10 impact is to do the thing that scientists are saying actually 11 solves the problem, which is breach dams. It has the highest 12 likelihood of success and we think in the long run will have 13 the lowest rate impact on low-income people who we serve.

We've worked very hard in Oregon intervening in rate cases from investor-owned utilities, working with BPA, getting legislation like SB 1149 passed, to protecting low-income people's electric rates.

18 We think that dam breaching is exactly the right 19 strategy in this particular instance over the long run to 20 provide the types of protections that people need.

21 Thanks for this opportunity to testify.

22 MARILYN LAMB:

Hi. My name is Marilyn Lamb and I am a member of the Northwest and very strongly identified with the wildlife and the natural resources that have been so generously given

1 to us and that we are responsible for and we must in no way 2 allow the salmon to go extinct. 3 We're in charge of them and we're guilty parties if they disappear. We must take the dams out and save the 4 5 salmon. Our natural life-style is wrapped around these 6 animals and creatures. 7 And just take an aluminum can and put it in a nice frying pan with some olive oil and garlic and fry it up real 8 9 good and eat it and compare that with eating a nice salmon 10 steak. Then you make the decision. 11 And let's keep the salmon and throw out the tin 12 cans. Thank you. 13 14 JACK MCDONALD: Okay. My name is Jack McDonald, a citizen of 15 16 Portland. I support the EIS option of removing or breaching 17 18 the dams. The dams were the last built on the Columbia 19 system in a time where dam building was done overzealously 20 and are of marginal economic benefits, I believe. Further, I think removal of the dams will provide 21 22 the most cost-effective benefit to restoring salmon by removing of the dams. Those economically relying on the dams 23 can be made reasonably whole at least through money provided 24 25 that would otherwise serve to operate the dams, could be made

-- could benefit those that would be impacted by the removal
 of the dams.

3 Any equivalent gains that could be made through habitat reform, et cetera, first of all, are probably 4 5 unlikely to happen due to belligerence through the state and б from the states. And, also, making those whole again, the 7 farmers, ranchers, et cetera, those relying on the dams would have to sacrifice to get any equivalent type of benefits that 8 9 dam removal would obtain. It would be much to cost expensive 10 and, therefore, I believe removal of the dams is the best 11 option.

- 12 Thank you.
- 13 MANDY PARKINSON:

14 My name is Mandy Parkinson and I am a concerned 15 citizen. I'm also a law student.

In the interests of longevity, we must make long-term decisions. We have to, even if this comes down to economic terms. We must think in long terms. Economic interests in the long-term support breaching of these dams. We must take them down. We have to think about all the factors, and this includes the life of the fish, our life, all economic interests.

- 23 Thank you.
- 24 (TESTIMONY CONCLUDED.)
- 25