THE FUTURE OF THE U.S.-CANADA COLUMBIA RIVER TREATY, BUILDING ON 60 YEARS OF COORDINATED POWER GENERATION AND FLOOD CONTROL

OVERSIGHT FIELD HEARING

BEFORE THE

COMMITTEE ON NATURAL RESOURCES U.S. HOUSE OF REPRESENTATIVES

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OVERSIGHT FIELD HEARING ON THE FUTURE OF THE U.S.-CANADA COLUMBIA RIVER TREATY, BUILDING ON 60 YEARS OF CO-ORDINATED POWER GENERATION AND FLOOD CONTROL

Monday, December 9, 2013 U.S. House of Representatives Committee on Natural Resources Pasco, Washington

The committee met, pursuant to call, at 9:00 a.m., in Pasco City Council Chambers, 525 N. 3rd Avenue, Pasco, Washington, Hon. Doc Hastings [Chairman of the Committee] presiding.

Present: Representatives Hastings and DeFazio.

STATEMENT OF THE HON. DOC HASTINGS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON

The CHAIRMAN. The Committee on Natural Resources will come to order, and the Chair notes the presence of a quorum, which under our rules are two members, and, as you'll notice, there are two members sitting here, so that satisfies our rule.

The Committee on Natural Resources today needs to hear testimony on the future of the U.S.-Canada Columbia River Treaty, building on 60 years of coordinated power generation and flood control. And the way the process will work is Mr. DeFazio and I will each make an opening statement. We have two panels in front of us. The first panel is sitting to my right, and then we'll hear from them, then there will be an exchange, and then we'll hear from the second panel that is seated in front of you.

I wanted to just make a note here on a personal level. The building that you're in used to be Pasco High School. It was Pasco High School, I think, from 1922 to 1953. And then after that, it was a junior high for another some 30 years. The reason I bring that up, because this is where I went to junior high, here in this building.

And if I'm not mistaken, now, this looks nothing at all like what I remember, but I think that my seventh grade class was in this proximity. Now, I could be mistaken because there were a lot of changes, but I just wanted to make that note. This is kind of a historical area.

I will now start with my opening statement. The field hearing on the Columbia River Treaty was purposely set here in the Tri-Cities because it is in the heart of the Columbia River Basin. The Columbia River has always been essential to our economy and our way of life, generating clean, renewable power to light our homes and businesses, providing fish and recreation opportunities, and providing irrigation for our crops and serving as a waterway to move goods from the interior of the Northwest to our markets overseas.

The river also reminds us of its destructive powers. Sixty-five years ago, 1948, devastating floods along the Columbia River wiped out the city of Vanport in Oregon and displaced thousands of people here in the Tri-Cities. And I do remember the flood of '48. That type of catastrophic flood is much less likely today in large part due to the Columbia River Treaty agreement with Canada and subsequent investments made in new dams by both countries.

The 1964 Columbia River Treaty provided the framework for coordinated power generation and flood control between our two nations. Starting next year, either party can terminate the treaty with 10-year notice, and both countries are re-assessing the treaty to consider changes and develop recommendations for potential bilateral negotiations. We are pleased to have representatives of both the U.S. Entity, as well as the Canadian Entity, here to testify and to explain their views.

This is timely, considering a final recommendation from the U.S. Entity to the State Department is anticipated later this month. In my view, it is essential that the final recommendation to the State Department focus on the two core functions of the treaty; power generation and flood control.

The United States' power generation and operations have changed dramatically in recent decades, in large part to address fish concerns, leaving the formula for compensatory energy liberties to Canada under the entitlement outdated and in need of rebalancing. BPA estimates that the actual U.S. power benefit in coordination with Canada may be a tenth of what we deliver today under the current treaty terms.

Adjusting the entitlement could save Northwest ratepayers millions of dollars annually and should be at the top priority for the State Department. It is obviously imperative that we reach an agreement on how flood control operations should work post-2024. As is the case elsewhere in the United States, and as was done historically in this case, compensation to Canada for this function is appropriately the responsibility of the Federal Government and not Northwest ratepayers.

Some have advocated for adding ecosystem issues into the treaty as a third primary purpose. Negotiations with Canadians over the entitlement and flood control will be challenging enough as it is, without injecting vaguely-worded and contentious items, many of which can or already are being addressed appropriately through domestic processes.

The Northwest Endangered Species Program for Columbia River salmon already costs several hundreds of millions of dollars each year, mainly out of the pockets of our region's ratepayers. Further, we should be encouraged that these efforts have contributed to near record returns this year, for example, for nearly one million fall Chinook salmon have returned this year.

Ultimately, a collaborative biological opinion process, rather than ongoing litigation, is the appropriate way to address many of the ecosystem issues being proposed by some in the treaty context.

While modest improvements have been witnessed in the U.S. Entity's draft recommendations, I continue to remain concerned that ecosystem issues continue to be overemphasized over the core

treaty functions that plainly need to be addressed one way or another in bilateral discussions with Canada.

It is my hope and expectation that the final recommendation from the U.S. Entity will make clear to the State Department that the priorities we need to address are, in fact, the entitlement and flood control.

I have been working very closely with my colleague, Mr. DeFazio, on this issue. I will note that we do not always agree on every issue that comes before our committee, but on this issue we do share many of the same concerns. And I am committed to working with him on a bipartisan fashion so we can move forward with our oversight in this area.

Some may say that because there is cooperation, especially in this political environment, that Mr. DeFazio and I have, that hell has frozen over. Maybe that explains the cold temperatures here today.

So with that, let me welcome Mr. DeFazio, the Ranking Member of the House Natural Resources Committee, to my hometown. And I recognize him for 5 minutes for his opening statement.

STATEMENT OF THE HON. PETER DEFAZIO, A REPRESENTA-TIVE IN CONGRESS FROM THE STATE OF OREGON

Mr. DEFAZIO. Thank you, Mr. Chairman.

Thanks for holding this extraordinarily important hearing, essentially on the eve of the submission of the stakeholders' views to the State Department. Obviously the Columbia River is an extraordinary resource which we all love, although in many different ways. And it is a limited resource, despite when you look at it sometimes, particularly at spring flows, and you think this is an extraordinary and virtually unlimited resource and it can yet withstand many more demands. It's not, for the most part, true.

It is very, very balanced at this point in time, and changes to that balance on either side of the border could have extraordinary ramifications, obviously, the worst of which would be floods, the others of which are economic, and then the third of which are those that relate to a continuing recovery of salmon and other benefits to the environment.

It also is an extraordinary carbon-free source of electricity, again, running at many times on the margin as we're using BPA to balance winds, when wind is intermittent and today is nonexistent. We are benefiting from the hydro system and, you know, we need to keep all of that in mind as we move forward.

Now, we have three options, as the Chairman mentioned. We could terminate the treaty. I hope it doesn't come to that, but if we can't resolve some critical issues, it may. In my opinion, Canada is pretty much running the system, except for some more long-term scheduling, to optimize their own benefits because their system has been built out since the original treaty was negotiated, which means that, I believe, as do many on our side of the border, that the entitlement is overly generous.

I think we'll hear from their representative that they believe the entitlement is not adequate. But that's going to be a key point.

You know, the affordability of electricity is a key issue in our region for our continued economic growth and prosperity. Then,

second, of course, we have the issue of, which Doc mentioned, of floods. You know, there's a provision of going to, you know, call

for—you know, called upon for flood control.

Again, there are a lot of issues relating to the optimization of the Canadian system, which really have superseded some of our past concerns about floods, but there are times at which we will still need, certainly need their cooperation in times of potential for devastating downstream floods, the question is how should we pay for

Do we pay on an annual basis, or do we pay at time of called upon, or do we have some combination of those two. That's something that will be resolved through what I think will be some dif-

ficult negotiations.

And then, finally, as the Chairman mentioned, there's a question of ecosystem function. We are operating the system at this point for ecosystem function. We have dramatically modified the regime of the operation of our hydroelectric system. We are having excellent returns of salmon, and the trend line has been good for some time.

That doesn't mean we can't further improve upon that, but these issues for the most part relate to our domestic laws, our Endangered Species Act, you know, and other laws of the United States of America.

As I often reflect and say to my colleagues in Washington, who sometimes have BPA envy, particularly the Northeast, Midwest caucus, and others who are suffering under higher electric rates, when they launch their attacks on us as being a subsidized system that should pay more and give money to the treasury, which has happened almost under every administration I have served under, is, you know, the fact that this system is really being operated in a way that we are carrying, unlike any other region of the United States of America, our own—our own costs for regional endangered species recovery.

There's no other place in the country where a State or a region is paying for it. The Federal Government's paying for it, for the most part. So that is something we need to keep in mind as we move forward, is, you know, the break point on how much of that we carry versus what is the Federal obligation here, if there are to be further demands on us for Endangered Species Act recovery. I look forward to hearing about those issues, and any others that

the two panels will bring before us today.

Thank you, Mr. Chairman.
The CHAIRMAN. Thank you, gentlemen, for your statement. I have two letters here, one from our colleague Cathy McMorris Rodgers in the district next door and another from our colleague Rick Larsen from the northwestern part of the State. They have statements that they wanted to be part of the record. Without objection, they will be part of the record.

[The prepared statements submitted for the record by the Chairman follow:]

PREPARED STATEMENT OF CONGRESSWOMAN CATHY McMorris Rodgers

I appreciate the opportunity to submit a statement before the House Natural Resources Committee regarding the importance of the United States-Canada Columbia River Treaty and its effect on Eastern Washington.

Eastern Washington and the Pacific Northwest depend on a healthy Columbia River system to provide national energy independence, promote public safety, and protect infrastructure. In addition, the Columbia River plays a vital role in the economy of the Pacific Northwest, promoting increased economic growth and development by providing low-cost energy, specifically hydropower, and dependable irriga-

tion and navigation channels.

For the last 60 years, the Columbia River Treaty has provided a framework for the United States and Canada to promote the production of clean, renewable, and affordable hydropower. Hydropower is not only vital to Eastern Washington but Washington State gets over 75 percent of its power from this clean and renewable source of energy. In Central and Eastern Washington, the Columbia and Snake River system through irrigation, transformed a dry, barren desert with sagebrush to one of the most productive agriculture regions in the world. The low price of hydropower brought high tech companies like Google and Yahoo to relocate their servers here and brought manufacturing facilities like the BMW plant in Moses Lake. In addition, the Columbia River Treaty has provided greater protection for the Pacific Northwest against severe flooding.

For the past few years, Bonneville Power Administration and the U.S. Corps of Engineers, along with key stakeholders including representatives from Washington, Oregon, Idaho, and Montana, representatives from 10 Federal agencies and 15 Native American Tribes have been reviewing the provisions contained in the Columbia River Treaty. I applaud the time and effort they have given to this process. As the United States continues to work through the future of the Columbia River Treaty with Canada, I want to ensure that the treaty reflects the true needs of the Pacific

Northwest and Eastern Washington.

Specifically, as we consider updating the Columbia River Treaty, we need to modernize the original goals to make power generation, flood control, and overall water management more efficient. It is important that neither the United States nor Canada insert additional domestic goals independent of the original purpose of the Treaty. Moving forward, it is also important that the Columbia River Treaty addresses the need to rebalance the payments to Canada for downstream power generation benefits and long-term flood control operations. With assured flood control set to expire in 2024, it is important that the United States and Canada agree to a framework for how future flood control needs will be addressed.

Eastern Washington depends on a healthy Columbia River system to provide low-cost energy, irrigation, and navigation. As such, I want to ensure that as we consider modernizing the Columbia River Treaty, it promotes a more cost-effective, sustainable hydropower system, in addition to providing reliable flood risk management

plan.

PREPARED STATEMENT OF CONGRESSMAN RICK LARSEN

Thank you for the opportunity to provide a statement for the House Natural Resources Committee's field hearing on the Columbia River Treaty (CRT). While I could not be with the Committee today, renewal of the CRT is very important to many groups in my district and I appreciate the Committee's attention to this issue.

many groups in my district and I appreciate the Committee's attention to this issue. The Columbia River does not reach my district, but it has far-reaching effects on my constituents. It provides affordable, clean hydropower to ratepayers in Everett, it provides salmon for fishers in Anacortes, and it provides the power that supports aluminum manufacturing jobs in Whatcom County. For all these reasons, it is critical to continue mutually beneficial management with Canada of the Columbia River

I appreciate the work the U.S. Entity has done in creating a public process to make a consensus recommendation to the Department of State regarding the CRT. The Entity's draft recommendation makes it clear that there are improvements that can be made, most importantly noting that U.S. ratepayers are paying more than their fair share for the incremental power benefit from the coordinated U.S.-Canada management of the river. Any changes to the Treaty should benefit these ratepayers and should not increase their costs.

I am hopeful that in their final recommendation, the U.S. Entity fully reflects the diverse interests and priorities of rights holders, as well as other beneficiaries and users of the Columbia River—including Native American tribes, ratepayers, businesses, water users, ports, recreational users, navigation interests and downriver residents. It is vital that future management decisions surrounding the Columbia River are made in a consensus way by the communities in the Pacific Northwest, not by officials 3,000 miles away in Washington, DC. The Northwest delegation has

repeatedly made it clear that the complicated issues around the Columbia River are best settled by our constituents who live and work here. I believe the administration understands this, and I know this emphasis will remain a key priority for both the

Chairman and Ranking Member.

Considering the Columbia River Treaty was written at a time when color TV was a thing of the future, it certainly can be modernized. The addition of ecosystem benefits as a key part of the treaty has potential to provide new benefits for fish habitats and meeting tribal treaty responsibilities. However, we should not overlook the decades of effort and billions of dollars that have already been invested in salmon restoration. That money comes from folks who pay their electricity bill every month and have a number of other bills to pay for. As a result, this year's salmon returns to the Columbia River are at record levels. Any new ecosystem improvements being suggested should be clearly defined, and the costs and funding sources for any of these improvements should be closely detailed.

We should also know who is paying for those improvements. I do not believe that we should pass additional costs for ecosystem benefits on to everyday folks who are already paying \$700 million each year through BPA for similar efforts. We should not offer a blank check to ill-defined "ecosystem" measures without being completely clear about the specific goals, legal responsibilities and scientific backing for such

measures.

Thank you again for your leadership on this issue. I look forward to working with you to ensure a regional approach to ensure the Columbia River Treaty is a continued success.

The CHAIRMAN. I now want to welcome our first panel seated here immediately to my right. Mr. Elliot Mainzer is the Acting Administrator of the Bonneville Power Administration out of Portland, Oregon. Brigadier General John Kem is a Commander of the U.S. Army Corps of Engineers, Northwest Division, also out of Portland, Oregon. We're very pleased to have Kathy Eichenberger, Executive Director of the Columbia River Treaty Review Team, BC Ministry of Energy & Mines out of Victoria, British Columbia.

Let me explain how these timing lights work. Both of you—in fact, I'll say this for all of the panel. You've all submitted a statement for the record, and your entire statement will be part of the record. So what I'd like to ask you to do is to keep your oral re-

marks within 5 minutes.

And the way that timing light works, it's very similar to a traffic light. When the green light is on, that means you're just going very, very well, but when the yellow light goes on, it means you've got to speed up before you get to the red light. If you can keep your remarks within that timeframe, that would be very, very helpful.

So with that, Mr. Mainzer, I recognize you for 5 minutes for your opening statement.

STATEMENT OF ELLIOT MAINZER, ACTING ADMINISTRATOR, BONNEVILLE POWER ADMINISTRATION, PORTLAND, OREGON

Mr. MAINZER. Thank you very much, Chairman Hastings and Ranking Member DeFazio.

It is a pleasure to be here this morning. Thanks for the opportunity to discuss the Columbia River Treaty review. I am Elliot Mainzer, the Acting Administrator of the Bonneville Power Administration and the chair of the U.S. Entity. I am very pleased to be joined here also this morning by Brigadier General Kem and nice to see Kathy Eichenberger. Both of them are going to be very important partners as we work through these very complex issues in the months ahead.

Since the Columbia River Treaty was ratified in 1964, it has provided significant benefits for both Canada and the United States. It has helped provide assured stream flows that support the region's hydropower system, which is clearly a central underpinning of the region's economy, and the treaty has assisted in effectively managing flood risk to ensure public safety and to facilitate regional development.

Over the past 20 to 30 years, we've also used the operational flexibilities within the treaty to implement operations designed to specifically address—to specifically benefit the Columbia Basin ecosystem in both countries. These actions include an annual agreement to move one million acre feet of water releases from the

winter to the spring and early summer period.

In addition, through non-treaty storage agreements, we've designed mutually beneficial operations that better support ecosystem function and power production in dry years. We are now presented with an opportunity to do even better. In 2024, even though the

treaty continues, certain aspects will change.

This gives us the chance to have a conversation with Canada on how we might want to modify treaty operations after 2024 to improve the benefits to the region in a way that reflects today's conditions and today's values and better prepares us for the future. To that end, we've been administering the treaty review process to collect regional perspectives to assist us in developing a consensus recommendation that will advise the U.S. State Department on potential concepts to consider negotiating with Canada and to modernize the treaty.

After considering an extremely wide range of regional perspectives and working through many challenging issues, we believe it is possible to develop a win-win-win approach in which power, flood risk management, and ecosystem interests all benefit from a modernized and rebalanced Columbia River Treaty. Let me briefly describe how.

First, the methodology originally included in the treaty for calculating Canada's share of power benefits is now outdated and we do not believe it is any longer equitable, resulting in excessive power costs to U.S. ratepayers. The methodology is outdated, it used assumptions which were based off 1960 projections of load growth and resource development, and we clearly believe that this imbalance needs to be re-addressed.

Second of all, while it appears that regional interests are coalescing around the objective of including ecosystem-based operations as a primary purpose in the post-2024 treaty, we understand that there have been significant concerns regarding this potential change and whether such inclusion would create additional cost for Pacific Northwest ratepayers. We've been acutely sensitive to these concerns in our work with regional interests.

At heart, the Columbia River Treaty is an agreement to coordinate the storage and release of water from the treaty reservoirs for the mutual benefit of the United States and Canada. Initially, power and flood risk management were the only two reasons we did this coordination; however, over the past 20 years, we've worked with Canada under the treaty to mutually agree on storing

and releasing water for both Canadian and U.S. ecosystem pur-

poses.

The U.S. Entity's view is that it is appropriate and helpful to formalize and gain more certainty for these operations, as opposed to having to negotiate them on a one-off, ad hoc basis. I do want to be clear, however, that while we support the inclusion of ecosystem-based operations in the treaty, the implementation of ecosystem-based functions should be compatible with rebalancing the entitlement and reducing U.S. power costs and maintaining an acceptable level of flood risk in the basin. This notion of a win-win-win is essential to our recommendation.

Third, I note that fundamentally we're dealing with a water management and allocation issue. There is no new source of water, just a debate about the timing and the storage and release of water that will flow out of Canada. Although some will argue for a dramatic shift in water flows back to a natural hydrograph in support of ecosystem functions, we're not supportive of such significant change because our analysis demonstrates that it would result in very significant hydropower losses and higher flood risk for the region.

That being said, we also believe that there are potential ecosystem benefits of gaining assurance of the spring flow augmentation and dry year strategies we've developed to date and to development mechanisms to adapt in the face of potential changes

in the region's climate.

In conclusion, we believe it is possible to achieve a win-win-win if we work together to rebalance and reduce the U.S. power return obligation to Canada to find a rational, collaborative program that maintains an acceptable level of flood risk for the United States and formalize the ecosystem-based function operations that have been occurring by mutual agreement under the treaty.

Thank you very much.

The CHAIRMAN. Thank you very much. I appreciate your timeliness of that, too. That could be a template here for the rest of the hearing.

General Kem, you are recognized for 5 minutes for your statement.

STATEMENT OF BRIGADIER GENERAL JOHN KEM, COM-MANDER, U.S. ARMY CORPS OF ENGINEERS, NORTHWEST DI-VISION, PORTLAND, OREGON

General Kem. Thank you, Mr. Chairman, Ranking Member DeFazio. It's great to be here this morning. Good morning to everyone.

I'm pleased to be before the committee to discuss the draft regional recommendation regarding the future of the treaty after 2024 in its still ongoing review process. We appreciate the interest this community has shown toward this very important matter. We've provided a written statement, so I'm not going to repeat all of it, but I'd like to highlight a few things and emphasize a few things that my partner, Elliot Mainzer, just said.

The committee is already fully aware of the history of the original treaty and the benefits it provides to both countries. From the outset, the coordinated operations—and that's the key word—the

coordinated operations between both countries for the storage and release of water has been a crucial backbone for the Pacific Northwest and both countries, and for the United States in particular in managing flood risk and supporting the region's hydropower system.

For the past 50 years, this coordinated operation for the storage and release of water has been essential in ensuring public safety and continuing to facilitate regional development in the overall regional economy. The message that we have heard the most during this multiyear, really about a 3-year regional review process, is that there is a strong regional interest to modernize the treaty and to bring about a better, more balanced benefit to the region.

Like almost any issue, there's an eclectic mix of interests and different viewpoints on how to achieve them. I have to say the Entity is not advocating some interests ahead of others. We are receiving a strong regional consensus, and have attempted to recognize key

interests of wide constituencies.

Probably the one area that is still most sensitive, and it has already been mentioned, rests with the fact that we include a recommendation to pursue the ecosystem function as a primary purpose. From my perspective, I want to make it clear this was done not to promote one set of interests over another, or by adding it we seek to advantage or negatively impact any other interests. Rather we added it in the draft to incorporate the context of how we actually conduct coordinated operations today.

The fact is we coordinate with Canada for the storage and release of water for three purposes: flood control, hydropower, and ecosystem functionality. That's what we do now. So it makes sense from my view to formalize that and stop doing it on an annual, less predictable basis, and under a process that leads to significant

transaction costs.

In conclusion, I think there's a strong regional consensus to modernize and rebalance the Columbia River Treaty and achieve a win-win-win to the Pacific Northwest region.

Thank you for the opportunity to highlight these few topics. I'm

happy to answer questions at the appropriate time.

[The joint prepared statement of Mr. Mainzer and General Kem follows:]

JOINT PREPARED STATEMENT OF ELLIOT MAINZER, ACTING ADMINISTRATOR, BONNEVILLE POWER ADMINISTRATION, PORTLAND, OREGON AND BRIGADIER GENERAL JOHN KEM, COMMANDER, UNITED STATES ARMY CORPS OF ENGINEERS, NORTHWESTERN DIVISION, PORTLAND, OREGON

Good morning, Mr. Chairman. My name is Elliot Mainzer, and I am Acting Administrator of the Bonneville Power Administration. In that capacity, I serve as the Chairman of the United States Entity for the Columbia River Treaty (Treaty). Brigadier General John Kem, as the Commander for the Northwestern Division of the United States Army Corps of Engineers, is the Member of the United States Entity

tity. Together, we are pleased to be before the Committee to discuss the Draft Regional Recommendation regarding the future of the Columbia River Treaty after 2024 and the regional review process underway to inform a final recommendation. We appreciate the interest this Committee is showing toward this matter. We should note that our testimony reflects the status of the process we are coordinating in the region on this matter and does not represent any final Administration recommendations.

The Columbia River Treaty is a successful example of a transboundary water treaty and serves as a model for other international water coordination agreements.

Over the years since the Columbia River Treaty entered into force in 1964, it has provided benefits for the Pacific Northwest and both countries. It has enabled us to coordinate streamflows, and thereby helped us manage flood risks and generate hydropower. The U.S. Entity also uses the flexibilities within the Treaty to work with our Canadian counterparts to implement operations designed specifically to benefit the Columbia Basin ecosystem in both countries. To ensure we can successfully convey the interests of the region, the U.S. Entity, through the regional review process known as the Columbia River Treaty 2014/2024 Review, has engaged throughout the region and is striving to garner support for a regional recommenda-

The message we have most heard during the multi-year regional review process is that it is in the best interest of the region to modernize operations under the Treaty to bring about better and more balanced benefits. As we are developing a regional recommendation, the U.S. Entity has listened closely to the many diverse voices in the region about how to reflect their respective interests in the recommendation.

While many in the region appreciate the benefits that have flowed from the Treaty, there is widespread concern in the U.S. that the method included in the Treaty for calculating Canada's share of the Treaty's power benefits is not equitable. There is interest in providing flood risk reduction for public safety through agreement with Canada on how we can implement continued, mutually agreeable, coordinated flood risk management operations.

There is also a strong desire by many to more formally incorporate ecosystem-based functions into the implementation of the Treaty and to recognize evolving in-terests in other water management issues in the Columbia River Basin. There is also growing interest in mechanisms that are more adaptive, flexible, and resilient to successfully meet the challenges presented by increased demand for water and the uncertainty of climate change impacts on Columbia River flow volume, timing, and variability in the next several decades.

We believe that through our extensive collaboration efforts we have assisted the region to find a middle ground that attempts to recognize and balance all of these viewpoints and interests in the region. We believe that it is possible to simulta-

• Reduce the U.S. obligation, paid by Northwest ratepayers, to return power to Canada that reflects the actual value of coordinated power operations with

Define a workable approach to flood risk management that will continue to provide a similar level of flood risk management to protect public safety and

the region's economy;

Contribute to a more comprehensive ecosystem-based function approach throughout the Columbia River Basin watershed by formalizing and providing greater certainty for ecosystem actions already being undertaken so that they complement the existing ecosystem investments in the region; and

Pursue operational flexibility necessary to respond to climate change, and other future potential changes in system operations while continuing to meet

authorized project purposes such as irrigation and navigation.

In essence, the Draft Regional Recommendation seeks to further improve on operations that are already in place, while also making them more adaptable to address current and future needs of the region. Through this approach, we hope to achieve a collective net "win" for the Pacific Northwest on all fronts.

While we believe that regional interests are coalescing around this approach, we understand that there have been some questions, particularly regarding formalizing inclusion of ecosystem based functions, and whether such inclusion will create an additional cost for the U.S. and thus Pacific Northwest ratepayers. The Treaty provides a process for the U.S. and Canadian Entities to coordinate the storage and release of transboundary waters from the Treaty reservoirs for the mutual benefit of both countries. Initially, power and flood risk management were the basis for this coordination. However, over the past 20 years we also have worked with Canada to mutually agree on storing and releasing water for both Canadian and U.S. eco-

system purposes.

The U.S. Entity's view is that it is appropriate to formalize and gain more certainty for these operations. At the same time, we recognize that over the past 20 years both the Canadian and U.S. management and use of this mutual water resource has become more focused over time on in-stream and out-of-stream uses, while fulfilling our commitments for power production and flood risk management. The U.S. Entity acknowledges the need for continued support for these existing purposes and intends to ensure that the incorporation of ecosystem-based functions would not prevent the region from achieving its objective of rebalancing and reduc-

ing U.S. power costs and would retain an acceptable level of flood risk. Although we believe our draft recommendation will represent a positive balance of regional interests, we recognize that it will still concern certain stakeholders. To address those concerns, we recommend including mechanisms to promote further dialog and minimize the risk of unintended consequences. These mechanisms include proposing a number of domestic processes through which U.S. interests can address

complex issues that are currently beyond the purview of the Treaty.

Throughout the Columbia River Treaty 2014/2024 Review process, the U.S. Entity has consulted extensively with regional sovereigns, stakeholders, and the public. A key component of the review process has been collaboration with the Sovereign Review Team (SRT), which comprises designated representatives from the States of Washington, Oregon, Idaho, and Montana, Federal agencies, and Pacific Northwest Tribal Governments. The Entity also conducted ongoing government-to-government consultation meetings with the Pacific Northwest tribes represented on the SRT, as well as with the Confederated Tribes of the Grande Ronde. In addition, the U.S. Entity has heard from and understands the perspectives of the regional stakeholders through individual meetings, workshop sessions, panel discussions and presentations, and public comment periods. Our goal throughout this process has been to be inclusive and transparent with sovereigns, major river interests, and the general

These regional discussions led to the U.S. Entity's release of an initial working draft of a recommendation for regional interests to review in June 2013. The U.S. Entity conducted 14 public listening sessions around the Pacific Northwest to inform and collect public comment on the working draft recommendation. The U.S. Entity also worked closely with regional stakeholders and the SRT to hear viewpoints and obtain specific input concerning the working draft recommendation. On September 20, 2013, the U.S. Entity released the Draft Regional Recommendation for additional review and comment. As described earlier, the Draft Regional Recommenda-tion reflects sovereign, stakeholder, and public input and seeks a collective "win" for

the region.

As part of the review of the Draft Regional Recommendation, we held another five public meetings during October throughout the region. We also continue to meet and work with numerous parties interested in the Treaty's operation. The Administration has asked us to deliver the U.S. Entity's recommendation by the end of this year. Accordingly, our goal is to deliver to the U.S. Department of State a final Regional Recommendation that enjoys broad regional support in December 2013. The U.S. Entity recognizes the importance of continuing to engage all interested regional parties as we work toward that goal.

Mr. Chairman, this concludes our prepared remarks. We would be happy to re-

spond to any questions from the Committee.

The CHAIRMAN. Thank you very much, General Kem. And last on the first panel, Ms. Kathy Eichenberger, Executive Director of the Columbia River Treaty Review Team in Canada. You're recognized for 5 minutes.

STATEMENT OF KATHY EICHENBERGER, EXECUTIVE DIREC-TOR, COLUMBIA RIVER TREATY REVIEW TEAM, BC MIN-ISTRY OF ENERGY AND MINES, VICTORIA, BRITISH COLUM-

Ms. EICHENBERGER. Thank you, Mr. Chairman, and thank you for inviting the province to share our perspectives with the committee and with the audience. I hope that our views will be helpful

My name is Kathy Eichenberger, and I'm the Executive Director of the Columbia River Treaty review for the province. We're leading the review in Canada because of the agreement with Canada in '63 that transferred most of the obligations and benefits of the treaty to the province.

The Columbia River Treaty is known worldwide as a model to emulate of cooperation for public safety and energy, but also has demonstrated, as we've heard, the flexibility to address environmental and other interests. And as we look at the future of the treaty and ponder the different choices that we have, we need to understand what those choices are and what other interests and benefits accrue from the treaty beyond flood control and beyond power production.

It is also important to understand the ongoing environmental, economic, and social impacts that occur in Canada to meet the U.S. requirements under the treaty and also what is the risk if the trea-

ty is terminated.

We believe that the coordinated management of the river flows and storage reservoirs has produced the intended objectives. It has worked for preventing the damaging floods and also for maximizing the potential to produce hydropower, but it has also provided these extra benefits for ecosystems, for navigation, for water supply, and for recreation. But not many people understand those current benefits and how they can be enhanced or how new benefits can be created between the two countries.

Half of the available flood storage in the Columbia is in Canada, and as a result, there were no major floods once these storage operations became functional. In fact, in 1 year alone, two billion dollars of flood damage was avoided as a result of cooperation under

the treaty.

In 2024, we've heard that the assured flood risk management changes to a more ad hoc called upon flood control, which we believe doesn't make the best use of existing facilities and also increases flood risks throughout the system and also the risk of reservoirs not achieving refill. Currently, the United States and Canada don't agree on how called upon would be implemented.

We believe that all of the reservoirs that can be used to reduce flood risk in the U.S. need to be drafted deeper than is currently before calling upon Canada. But we think that, and we're open to discussing a better arrangement that makes better use and that does provide that security and that certainty for both countries.

We believe that the treaty has provided and has hydropower production in the United States and in Canada and it provides predictable and reliable flows that translates into firm energy to meet customer needs and for all times of the year, including cold weather like we are experiencing today or also—and often not as recognized, during the hot, dry summers where flows are reduced and where flow augmentation from Canada serves a multitude of purposes.

Treaty operations are designed to maximize incremental power in the United States, and so the province doesn't believe that it should be negatively impacted for water allocations that are made

in the United States for other purposes.

We also believe that the flexibility within the treaty has allowed change in operations for ecosystem values, including U.S. salmon recovery, by remitting flows in the spring to try and mimic the natural hydrograph, but also during late summer and during dry years, when it's so critical for fish survival. And as climate change predictions foresee hotter and dryer conditions, this is only going to become more important.

But we do believe and we agree that we don't need to change the treaty to do more for ecosystems on both sides of the border.

Coordination under the treaty also benefits navigations by reducing very high flows and by supplementing drafts during the summer that reduces dredging costs and risks of grounding. We also think that water supply interests are benefiting from how the reservoirs and flows are managed, to ensure that reservoirs aren't drafted too deep to not meet intake elevations, but also reduce pumping costs, and also, again, during that dry period where additional flow shaping is very beneficial to a suite of U.S. interests, including water supply, which is going to become more critical.

A climate change in the future predicts that in Canada, the basin is going to have equal or greater inflow or precipitation, but that's not the case in the United States. It's predicted that 40 percent of flows might be reduced from what is happening currently. And so we think that cooperation and management of reservoirs and flows between the two countries is going to be critical in managing and adapting to climate change impacts.

So as we continue to review the treaty, we think it's important that on both sides legislators understand how the treaty is beneficial, how these benefits can be enhanced, how new benefits can

be created, and what's the risk if the treaty is terminated.

We have a draft recommendation to continue the treaty and to seek improvements supplemented by guiding principles that have been endorsed by a majority of the stakeholders and citizens in British Columbia, and we look forward to hearing the outcome of the U.S. treaty review. And thank you for the opportunity.

The prepared statement of Ms. Eichenberger follows:

PREPARED STATEMENT OF KATHY EICHENBERGER, EXECUTIVE DIRECTOR, COLUMBIA RIVER TREATY REVIEW, MINISTRY OF ENERGY AND MINES, PROVINCE OF BRITISH COLUMBIA

Good afternoon, Mr. Chairman. My name is Kathy Eichenberger and I am the executive director of the Columbia River Treaty Review for the Province of British

ecutive director of the Columbia River Treaty Review for the Province of British Columbia's Ministry of Energy and Mines. I want to thank you for inviting the Province of B.C. to share some of our perspectives on the future of the Columbia River Treaty which we hope your committee will find useful.

The Columbia River Treaty is known throughout the world as one of the most successful models of transboundary water management, providing a framework for cooperation on energy and public safety, while demonstrating flexibility in addressing environmental interests. This agreement is seen as a benchmark on cooperation to create and share benefits that other jurisdictions wish to emulate.

The Treaty has made the Columbia River system into a North American clean en-

The Treaty has made the Columbia River system into a North American clean energy powerhouse. The 14 hydroelectric dams on the Columbia's main stem and many more on its tributaries produce more hydroelectric power than on any other North American river. The Treaty has also prevented devastating floods in the United States which was the other original impetus behind the Treaty. The Treaty has served both countries well for almost 50 years and it's now an appropriate time for it to be reviewed on both sides of the border, especially in light of intensified

concern about climate change and climate change impacts.

In Canada, like in the United States, the Federal Government is responsible for international treaties. As such, the Columbia River Treaty is an agreement between our two countries which was entered into by our two federal governments of the time. In Canada, the provinces have certain constitutional responsibilities, including in areas such as natural resources, which includes hydropower development. Ninetyfour percent of the territory of British Columbia is public land, which we call provincial Crown land. The Columbia River Basin in Canada falls entirely within the territory of the Province of BC. Reflecting these realities, in 1963 a Canada-British Columbia Agreement was put in place that transferred most of the obligations and benefits of the Treaty to the Province.

The Province of BC is therefore leading the Treaty Review on the Canadian side. We are working closely with Canada to ensure a coordinated approach to the Treaty Review. The Province is also engaging First Nations, local governments and citizens throughout the Canadian Columbia basin who have been and continue to endure significant environmental, social and economic impacts from the Treaty. The provincial Treaty Review Team expects to present options on the future of the Treaty to our Provincial Cabinet in December.

As both Canada and the United States continue to review options regarding the future of the Treaty, it is important to ensure that citizens on both sides of the border have a full understanding of the scope of the issues that need to be considered, balanced and managed. The implementation of the Treaty, especially over the last 20 years, has been a careful balancing act of many interests and issues crafted by studies and negotiations between the U.S. and Canadian Entities.

It is important to understand how the Treaty helps and the benefits it creates,

It is important to understand how the Treaty helps and the benefits it creates, and also how further cooperation can enhance or create new benefits. It is also important to understand the ongoing cost to environmental, social and economic interests in Canada to meet U.S. requirements and what is at risk if the Treaty is terminated, especially as we enter an era of intensified climate change impacts.

British Columbia believes that the coordinated management of river flows and storage reservoirs has produced the intended objectives of flood management and the opportunity to maximize hydro-electric power production on both sides of the border. We have also identified a wide range of additional benefits from Treaty operations to interests such as ecosystems, navigation, water supply and recreation. Yet through our consultations, we have also discovered that these existing and future benefits under the Treaty are not well understood.

FLOOD CONTROL BENEFITS

Half of the available flood storage in the Columbia Basin is located in British Columbia. Since the Treaty storage became operational, there has never been a flood causing major damage along the Columbia River. In fact, coordinated flood control avoided \$2 billion in potential damage in the United States in one year alone (2011).

In 2024, regardless of whether the Treaty continues or is terminated, assured flood control operations change to a more ad hoc "called upon" flood control regime. This means that—if no other arrangement is in place—all U.S. reservoirs that are able to reduce damaging flood flows will need to be drafted deeper than is current practice before Canada can be "called upon" to provide additional assistance. British Columbia is open to discussing alternative coordinated flood risk management arrangements that would make better use of existing facilities, increasing certainty of operations and avoiding negative impacts to U.S. interests.

At this time, the Canadian and U.S. Entities disagree on how called upon flood control would be implemented, particularly with regard to which U.S. reservoirs would be affected and when to call upon Canada. Regardless of this disagreement, BC believes that called upon flood control will increase the flood risk on the system and the risk of U.S. reservoirs not being able to refill, with potential negative consequences for a number of U.S. interests, such as fisheries, ecosystems, power production and water supply.

POWER GENERATION BENEFITS

The Treaty has significantly enhanced hydropower production in the U.S. and continues to provide predictable and reliable flows that translate into firm energy so that utilities can meet their customer loads during all periods of the year, including cold winter and dry hot summers. Treaty operations are designed to maximize incremental power production in the United States. British Columbia believes that it should not be negatively impacted by water allocation choices made in the United States for other interests that reduce power benefits in your country.

ECOSYSTEM BENEFITS

Flexibility within the Treaty has allowed changes in operations to benefit ecosystem values, including U.S. salmon recovery, by augmenting flows in the spring to better imitate the natural hydrograph, and by augmenting flows during late summer and during dry years which are particularly critical to fish survival. As climate change predictions foresee hotter and drier conditions for the lower Columbia Basin, this coordination will become only more valuable for the United States. British Columbia believes that we don't need to change the Treaty to work toward improving ecosystems even further.

NAVIGATION AND RECREATION

Coordination under the Treaty also benefits navigation by limiting higher flows that affect shipping times and docking operations, and cause sedimentation leading to increased dredging costs. Treaty flow augmentation from Canada during low flow periods also increases channel draft and reduces the risk of grounding. Generally, because of the Treaty, U.S. reservoirs can be also kept fuller with less fluctuation, which supports a longer recreation season.

WATER SUPPLY

Currently, the implementation of the Treaty for both power production and flood control also benefits water supply in the United States. By using Canadian storage for flood control, U.S. reservoirs are not drafted as deeply, thereby meeting minimum intake levels and reducing pumping costs for irrigation, municipal and industrial water supply. Assured flood control planning also provides more certainty of annual refill of U.S. reservoirs which is critical to irrigators and other water users. Flow augmentation in late summer and early fall, supplemented by a dry-year strategy agreement between the Entities, supports a wide range of interests, including water supply. This will become increasingly important when considering climate change predictions.

CLIMATE CHANGE BENEFITS

Looking into the future—climate change studies predict that total precipitation in the Canadian portion of the Columbia Basin will remain the same or higher, while the U.S. basin will see a reduction by as much as 40 percent. It is predicted that as much as 60 percent of the Columbia River flows will come from Canada.

As climate change will increasingly alter the environment of the Columbia Basin in the broadest sense, reservoir management and coordination are seen as important tools in adapting to climate change challenges that threaten salmon recovery, water supply and energy reliability.

IN CONCLUSION

As both Canada and the United States continue to review options regarding the future of the Treaty, it is important that legislators on both sides of the border understand how the Treaty is beneficial, how further cooperation can enhance or create new benefits, and what is at risk of being lost if the Treaty is terminated.

British Columbia continues to be guided by the Treaty's fundamental premise of

British Columbia continues to be guided by the Treaty's fundamental premise of collaboration between two countries to create benefits and share them equitably. Our draft recommendation to continue the Columbia River Treaty and seek improvements based on guiding principles has been widely supported in our province. We are looking forward to hearing the outcome of the U.S. Treaty review. Thank you for this opportunity to offer comments.

The CHAIRMAN. Thank you very much for your statements. We'll now begin the question period. And I'll start, I recognize myself for 5 minutes.

Let me ask both the U.S. and the Canadian entities, and I don't know if it's General Kem or Mr. Mainzer, whoever wants to, just so we understand what the process is, what is the next step in the process after your draft recommendation?

Go ahead, Mr. Mainzer.

Mr. MAINZER. Our plan is to submit the recommendation with a cover letter this Friday to the Department of State. And then I think that we all should take a collective sigh of relief, having gotten this far, and then I think the State Department will then start going through its own evaluation process, quite frankly, to determine whether they are interested in moving forward with the negotiation

We expect there to be some period of time where we might not hear much back from them, quite frankly, and then we're hoping within the next few months that we'll start getting some initial signals from them that they are intending to move forward with the discussion, at which point we will start reorganizing ourselves as a region to serve in primarily an advisory capacity to the State Department as they serve as the principal negotiators with the Federal Government and Canada.

General KEM. Sir, I would just add one other thing to that. The State Department made it clear that they would take the information and start the interagency policy committee review process that they said would lead to some core recommendation to the Secretary of State and eventually the President on how to proceed. So we don't own that process, but that's kind of how they said that would lay out.

The CHAIRMAN. Ms. Eichenberger?

Ms. EICHENBERGER. We are going to be making a recommendation to the provincial cabinet in December, and the provincial cabinet will be making a decision, I expect, sometime in January. But this might not need to have a Federal decision. We will inform Canada of what the cabinet's position is and work collaboratively with Canada if there are to be negotiations in the future.

The CHAIRMAN. So as I understand what you said, then, the province may be the final arbiter in Canada's case, which is contrary—I mean, obviously, Washington, Oregon, Idaho, and

Montana will not be—ours will be a Federal issue.

Ms. EICHENBERGER. Canada retains its treaty-making powers under the constitution, so if there are changes to be made or a request from the province to terminate, Canada would have to act; however, we are working collaboratively with them with regards to any potential changes going forward. The primary responsibility will be provincial, through the provinces of British Columbia.

The CHAIRMAN. One of the issues that we seem to have here in the United States, and it's not confined just to the Northwest, is the issue of more water storage for a variety of reasons. I'd like to ask you again, Ms. Eichenberger, what are the prospects for more storage in Canada to supplement what you've described as ensuring the flow? Could you give us an idea of what you're thinking of there?

Ms. EICHENBERGER. Well, under our Clean Energy Act, it identifies two rivers as working rivers for hydropower production and other uses, and that is the Peace and the Columbia River. And so currently we're undergoing a process to add storage on the Peace River system. And so we believe that hydropower production is clean energy that is a resourceful source of energy, reliable and certain energy that we can continue to rely on.

And currently we are in a surplus situation, but in the future, should we require further sources of energy, certainly the system, the two Peace and Columbia systems are the systems we would look at.

The CHAIRMAN. OK. Final question that I have, I guess, General Kem, since you brought it up and I alluded to it, the ecosystem part in your discussions. The question I have, just as kind of a pretty basic, what is the logic behind elevating ecosystems, say, above irrigation or river navigation? Why would that have a higher call?

I mean, the Columbia Basin project itself is over 500,000 acres. I mean, that's the most obvious one right here in Central Washington. Why would ecosystem be elevated any higher than, say, ir-

rigation or navigation? What is the logic behind that?

General KEM. Sir, I think the way I said that was, it wasn't that any one part is more important than the other, but the fact is at this point, when the Entity sits down with Canada, B.C., to do the annual operating plans and to work through the details of water flow, we do adjust the flow of water based on ecosystem functions. We have not sat down and adjusted the flow of water for irrigational purposes.

Those have been a byproduct of it, it happens, we get the benefits of it, but we haven't physically sat down and said we need water for irrigation today and so we've got to change the flows.

The CHAIRMAN. OK. My time is about to expire, so I recognize the Ranking Member Mr. DeFazio.

Mr. DEFAZIO. Thank you, Mr. Chairman.

I didn't quite understand, Ms. Eichenberger, what would trigger your having to consult with or defer or engage the Federal Government versus renegotiating or whatever—I'm not quite sure. I mean, here there's a question on our side whether what kind of changes would trigger a need for the Senate to re-ratify, which is a horrifying prospect to many of us, since they never ratify anything. So could you tell me? I don't quite understand.

Ms. EICHENBERGER. Yes. I'll try to be a little clearer. If we wish to make changes within the current framework of the treaty, as we have in the past, we would not require the assistance of Canada, and we could continue with entity agreements. And we're exploring what are the boundaries of flexibility that would allow us to do that

If we wish to make changes in negotiation consultation with the United States that requires something such as an exchange of notes, we would make a request to Canada to collaborate with us and to work with us to make change to any interests in the national interest and the provincial interest, and they would then work with the State Department on that.

Mr. DEFAZIO. So the trigger is national versus provincial inter-

Ms. EICHENBERGER. The trigger is whether what we want, we may wish to change, can be done within the flexibility of the current treaty or whether we need to adjust the framework of the treaty itself, which would then require Canada to intervene.

Mr. DEFAZIO. OK. So we already had mentioned adding a third leg formally, as opposed to acknowledging that the system can be operated for ecosystem benefits and trying to continue to enhance those. But the formal addition of that, would that trigger a consultation or something with the Federal Government?

Ms. Eichenberger. Well, we don't believe that it's necessary

Ms. Eichenberger. Well, we don't believe that it's necessary and, therefore, we wouldn't ask Canada to intervene to make that particular aspect happen.

Mr. DEFAZIO. What do you mean? What isn't necessary?

Ms. EICHENBERGER. To make ecosystems a formal part of the treaty, as we've demonstrated that the treaty has been able to address ecosystem needs in the past and can continue to do so.

Mr. DEFAZIO. OK. That helps. That helps a bit.

So on our side, I think, either or both of you mentioned, either General Kem or Acting Administrator Mainzer, you talked about, actually, enhancements to the existing or original agreement that would make for ecosystem management and somehow memorializing those as we go forward in the treaty.

Could you be a little more specific? And then I want to ask her

if she thinks that crosses the threshold.

Mr. Mainzer. Yes. I think our perception is that generally it would—we certainly have found some flexibilities within the treaty to address ecosystem function issues, but we'd like to formalize these mechanisms. We'd like to create adaptive management mechanisms, a little bit more formalized, a little bit more standardized, with formal mechanisms for addressing potential changes, potential modifications if the science materializes, and just providing greater certainty that those types of mechanisms exist with the treaty context.

So it's not huge structural changes, but it's more a sense of secu-

rity of formalization.

General KEM. The only thing I would add is, not speaking for the State Department, but when they were out in September, as part of their visit, they made it clear that as part of the IBC process, when they were looking at the scope of it, that's when they were—the first time they were trying to figure out whether that mix of things would require change of diplomatic notes or could it be done in a way where it required full Senate verification. They would only then, after we submitted these recommendations, start to review where those kind of red lines were.

Mr. DEFAZIO. OK. So do you believe that that would trigger a

Federal consultation?

Ms. EICHENBERGER. We're still not exactly clear ourselves what that would mean to elevate it as a third leg of the stool concretely, and so we're not sure whether it would require Federal intervention.

I just want to actually clarify that we are working closely with Canada every step of the way during the review, and so we are collaborating on what a process may look like going forward if we do

need to negotiate——

Mr. DEFAZIO. Well, I don't think they said exactly the third leg of the stool. They were saying recognizing, formalizing agreements we already have about augmented flows and maybe potentially some increments on that, I think is what they're talking about, not adopting some huge broad new category of obligation across the board.

I mean, I don't know the laws of Canada very well. I assume you have some sort of equivalent to an Endangered Species Act, some sort of an equivalent, hopefully not as labyrinthian, to our national

Environmental Policy Act and things like that, so—

Ms. EICHENBERGER. Well, we don't know whether it would require a formal intervention from Canada. We'd have to first look at what elevating ecosystems would actually mean and whether it could be accommodated within the framework of the treaty. We would prefer to use the flexibility of the treaty first, prior to asking

the Parliament or the Prime Minister's office to make a decision on it.

Mr. DEFAZIO. OK. And then I think one of—I've identified, and I think if the Chair would indulge me for just a minute, I think we're going to have significant differences over the entitlement. And I'm wondering if British Columbia has made sort of an initial—you believe you're being under-recognized, and if you've put a number on that over and above what we're currently paying.

Ms. EICHENBERGER. What you're currently paying is even a bit confusing because the way we receive the Canadian entitlement in energy and capacity which we sell on the market, currently it's valued at about \$138 million, not the \$250 to \$350 that's been talked about. It's gone as low as \$98 million. And that's the only benefit from the treaty that British Columbia receives as a return of the Canadian entitlement.

So what we are doing is a full cost accounting of all the benefits that I've touched upon this morning to be able to determine what is the true value of the collaboration on storage reservoirs and flows at the border and then to go back to the original principle of the treaty to share those fairly. And so we are doing that work right now.

Mr. DEFAZIO. OK. And I'd like to ask the administrator or chief

just to comment on the number \$138 to \$98.

Mr. MAINZER. Well, certainly, you know, market variables change, there are a number of issues that—our estimate, certainly our base case analysis indicates that it is higher than that. The, quote, providing a significant amount of capacity, 1,400 megawatts of capacity from the system and over 500 average megawatts of energy, and it's just, given the volatility of the markets, given the multipurposes of that capacity, we believe that value is higher.

But we certainly—we will continue to have a conversation with

our Canadian counterparts to try to find a center. Mr. DEFAZIO. OK. Thank you, Mr. Chair.

The CHAIRMAN. I just have a follow-up question in the second round here, since Pete used his second round here already. And it was brought up on the ecosystem, where I see a bit of skepticism here on both sides on this.

So the question I have, then, is if you have the issue of the ecosystem management, however defined, how would that correlate, then, with U.S. laws like, for example, the BiOp that we're waiting for here on the Columbia River or the FERC licenses that goes into every energy project that we have and, of course, the habitat conservation plans that are widespread here in Washington, how—how would inserting something new into a treaty correlate with those laws that are already on the books here in the United States? So whoever wants to take that one.

Mr. MAINZER. Well, certainly our intention is not to do anything that would interfere or preempt any of the critical Federal or State laws that are already in the books. They will continue to dominate. And I think we know that we have a huge infrastructure and paradigm of ecosystem protection already in place in the lower 48, so it's—certainly in the Pacific Northwest.

I think what we're trying to do, our fundamental intention is it's really at two levels. First of all, it's just to honor the regional value

that I think is very important to many of our regional interests around ecosystem protection. That is something that is part of the Pacific Northwest way of life, and we have wanted to honor that intrinsically. This is an integrated river basin, we wanted to acknowledge that.

On the other hand, what we're really trying to do primarily is to formalize specific mechanisms, which really get down to day-to-day discussions between the U.S. Entity and the Canadian Entity to make sure we have formalized processes for doing things that we have already done in the past, but without having to do it on an ad hoc, one-off basis and providing greater long-term certainty for the region about how they might operate.

General KEM. Sir, I'll just add to that, when the Department of State was out, they emphasized that the fundamentals of the treaty is about the flow of water. The ecosystem function component, if incorporated, it is important if that's what the region recommends, but they did not say we're going to sit down with Canada and add U.S. domestic components into a treaty.

We're not going to add our Endangered Species Act requirements, per se, into a treaty with Canada. That's a U.S. domestic issue. In the end, we sit down with Canada to incorporate the flow, the pricing, and the concerns associated with that. And the ecosystem part that already affects the system and the fact that we do some ecosystem things for Canadian fish, they do some things, water flow, that help fish in the United States, which needs to be captured in some way

The CHAIRMAN. Well, it just seems to me, 50 years of experience where something like that is not written into the treaty, and yet when there are issues that need to be addressed, they've been addressed. And that's the concern. I'm trying to make a treaty, at least from my perspective, you know, by adding a new component that would—when 50 years of practical experience that has shown that those things can be addressed on a case-by-case basis. That's

all I have.

Pete, do you have any second round? Mr. DEFAZIO. Thanks, Mr. Chairman.

I mean, seeing—we heard earlier about adaptive management. I mean, are there things about the current treaty that restrict adaptive management that need to be changed? Or—I mean, it seems to me it has evolved quite a bit since the original treaty.

General Kem. I think—I'm not an expert on sitting down on the annual operating plan, on the pricing mechanism, so I have to

defer to both of our staffs to get more details on that.

But I think what happens is we sit down very constructively with Canada, as these adaptive managements have been tried over time, and it has been off treaty in some regards; partially on treaty, partially off treaty. And so you're always stuck with the whims—I say that lightly, not necessarily the whims—but the whims of the negotiating table. And, you know-and so if their interests change, do you have a mechanism or do they want to hold you, in a sense, hold you hostage for something you want to do?

So the better you can price that and formalize that in the treaty gives much better left-right limits, so you have predictability. Because in the end, the predictability on the flow of water is very im-

portant for everybody, and the pricing of that.

Mr. DEFAZIO. OK. And just one other quick thing, just back to the entitlement, because I do see this as probably the biggest disagreement we have ongoing with Canada. And the values that Ms. Eichenberger put out, I'd offer that perhaps what we could do then is take an average of that, which is \$118 million a year, and write you a check and forget about the exchange of power, since that causes us problems which aren't being calculated in, in terms of congesting our system and a whole bunch of problems over here by moving power north.

We're having what are called diseconomies because of that. And I don't know that you've fully accounted for those things. I don't know that we've even accounted for them as costs or lost opportunities on our side of the border. So maybe we just ought to go to a

cash payment.

Ms. EICHENBERGER. I think that after 50 years, it is a good time to look at all of the benefits and really understand what the value of all of those benefits are and to find a way of sharing them fairly, and it could be through a number of different means. So we look forward to, if there are to be negotiations, sit down and look at the full spectrum.

Mr. DEFAZIO. OK. This is going to be tough. Thank you, Mr.

Chairman.

The CHAIRMAN. Thank you. And I want to thank the panel very much. I understand you have to catch a plane, and so we will try to accommodate you. And so with that, I'll excuse the panel, and thank you very much for your statements.

Sometimes at these hearings, questions or afterthoughts prompt new questions. So if you are—if you are asked later on, we'd ask you to respond in a timely manner if you would. OK?

General Kem. OK.

Mr. MAINZER. Thank you very much.

The CHAIRMAN. Thank you very much. The first panel is excused. I now want to welcome the second panel, who is breathlessly

waiting here, and thank you very much for that.

We have Ms. Kathryn Brigham, Secretary Treasurer of the Columbia River Inter-Tribal Fish Commission out of Pendleton, Oregon; Mr. Scott Corwin, Executive Director of the Public Power Council, also out of Portland, Oregon; Mr. Tony Webb, General Manager of the Grant County Public Utility District just north of here in Ephrata, Washington; Mr. Rick Crinklaw, General Manager of the Lane Electric Cooperative from Mr. DeFazio's area; Mr. Ron Reimann, President of the Columbia-Snake River Irrigators Association, also a Port Commissioner here at the Port of Pasco; Mr. Greg Haller, Conservation Director of the Pacific Rivers Council out of Portland; Mr. Paul Amos, President of the Columbia River Pilots, also out of Portland; and last, but not least, Mr. Wes McCart, who is Commissioner of Stevens County, Washington.

And you've heard my explanation on how the timing light works, and all of you have submitted a statement that will be part of the permanent record, so if you could keep your oral remarks to those

5 minutes, we'd very much appreciate it.

Ms. Brigham, we'll start with you and you are recognized for 5 minutes.

STATEMENT OF KATHRYN BRIGHAM, SECRETARY TREAS-URER, COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION, PENDLETON, OREGON

Ms. Brigham. OK. Is this on? OK, is that—is it on now?

The CHAIRMAN. I think it's on. Can you hear in back, audience? Yes.

Ms. Brigham. All right. Good morning, Chairman Hastings and Congressman DeFazio.

As you stated, you know who I am. I would just like to thank you to allow me to be here today. I am very here—very pleased

here also to be today—why am I stuttering? I'm sorry.

I'm very pleased to be here today because I'm representing 15 Columbia River Basin tribes who have worked together to come and develop a—what we call a common views document. And we started this in 2008. And the reason we started this was because we see this as an opportunity to correct some of the things that the Columbia River Treaty has had negative impacts to the tribes.

We have seen where flood control is being controlled downriver, but it is impacting the rivers up above. We have seen where we had clean water, clean air, clean land, and in this time we had over 17 million fish come over to the Columbia River. These have all changed. Yes, some of these are positive, there are some positive things going on, but that is not enough.

I think our biggest concern is we are asking to be partners. We are not asking to control the Columbia River Treaty. And we know that as partners, we can do a lot. We know the Columbia Basin as a whole, when we get together, is a powerful entity, and when we are divided, we are weak and people are telling us what we should be doing. And, therefore, it's important that the Columbia Basin look at the basin as a whole, and recognize that there are ecosystem management things that need to be done.

The current treaty, even though it is recognized that the ecosystem can be done, we have learned that if you don't have something in writing, sometimes when leaders change, things change. And so this treaty is going to be in place for a number of years, so it's important to have something written down that ecosystem is going to be a partner within the Columbia River Treaty.

And since, you know, the 1964 treaty has passed, there have been a number of decisions that have—court, Federal Court decisions and agreements that you are all aware of that have taken place in the Columbia River. They have been positive agreements. They have been positive decisions for the Columbia River tribes, and we want to continue that tradition.

Right now, we are cleaning up after our grandparents and our parents, and we don't want our children and our grandchildren to be cleaning up after us, therefore, we are asking that you support the U.S. Entity to develop and modernize the treaty and to seek the high-level policy recommendations that we are very close to. We've put a lot of work in what's going to be presented, and there are a lot of points in there that we agree to, but there are some

points that we are very concerned about, and ecosystem is one of them

I mean, we have dams on the Columbia River that no longer allow fish passage. We need to correct those. Those are treaty rights above those dams, and we have one in court that those treaty rights are something that's very important. So, you know, we have a number of issues, but we also have a number of areas in which we support modernizing that treaty.

But we think it's really important to develop that regional consensus, a consensus that we can all support, a consensus that makes the Columbia River a powerful entity, an entity that we can all move forward on.

And I know, Congressman Hastings, you know what this is all about, because you've taken the lead in the sea lion issue, and because you have taken the lead, the co-managers in the basin have stepped forward and found a solution. And I want to thank you for your leadership on that issue, because it's been very effective and very positive.

And that's what we're asking for in the Columbia River Treaty. Let the co-managers work, let the co-managers find a solution, and find out how we can develop a very powerful Columbia River entity. Thank you.

[The prepared statement of Ms. Brigham follows:]

PREPARED STATEMENT OF N. KATHRYN "KAT" BRIGHAM, TREASURER, COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION, PENDLETON, OREGON

Good morning, Mr. Chairman. I am Kat Brigham, an enrolled member of the Confederated Tribes of the Umatilla Indian Reservation and Secretary of the Board of Trustees, the Tribes' governing body. I am testifying before you today in my capacity as the Treasurer of the Columbia River Inter-Tribal Fish Commission and on behalf of the 15 tribes in the Coalition of Columbia Basin Tribes. These 15 Columbia Basin Tribes have legally recognized natural resource management authorities and responsibilities reserved under treaties or executive orders or as federally recognized tribes that are affected by the implementation of the Columbia River Treaty. There are five other tribes that may assert interests in the basin that may be affected by the Columbia River Treaty; the U.S. Entity is consulting with them individually.

HIGH LEVEL CONSENSUS-BASED POLICY RECOMMENDATION

At the outset, I want to highlight the fact that the Columbia Basin Tribes worked with the U.S. Entity, other regional sovereigns, and Columbia River stakeholders, including the public utility districts, to try and craft a consensus-based high level policy recommendation on the future of the Columbia River Treaty. We understand that this high level policy recommendation will be formally submitted to the U.S. Department of State on or about December 13, 2013; a near final draft has been released to Congress, regional sovereigns and stakeholders. There is no technical analysis or recommendation to accompany this high level policy recommendation.

NEED TO CONTINUE COLLABORATION OF REGIONAL SOVEREIGNS

Over the last 3 years, the Columbia Basin Tribes have collaborated with the U.S. Entity and the other regional sovereigns, and more recently the stakeholders, to complete three iterations of modeling and analysis of a wide range of river and reservoir operations. This expansive modeling and analysis was conducted so that the region would have a common understanding of the potential impacts from modified Treaty operations. While the goal had been to fully integrate this wealth of technical information into a document that would support the regional recommendation, that final step was not taken at the request of the State Department. Therefore, the region's work is not complete—the regional sovereigns will need to continue their technical and policy collaboration in order to support the next phase of the Treaty review process—the State Department's consideration of the high level policy recommendation developed by the region.

KEY ELEMENTS OF THE DRAFT HIGH LEVEL RECOMMENDATION

I believe the region was successful in crafting much of the recommendation. That is to say, the Columbia Basin Tribes support the major elements of the recommendation, but some elements require additional background and clarification. Critical elements of the draft regional recommendation for the Columbia Basin Tribes include:

- modernizing the Columbia River Treaty by integrating ecosystem-based function as a third primary purpose of the Treaty, equal to the Treaty's current obligations for the United States and Canada to coordinate hydropower generation and flood risk management;
- enhancing spring and summer flows while stabilizing reservoir operations;
- pursuing a bilateral international effort between the United States and Canada with the shared goal of returning salmon and steelhead to spawning and rearing habitat into the Upper Columbia River above Grand Coulee dam;
- ensuring that future treaty operations do not impact fish passage efforts throughout the basin;
- pursuing potential alternatives for post-2024 operations to meet flood risk
 management objectives, including the possibility of using planned or assured
 Canadian Storage, consistent with ecosystem function, and completing an infrastructure assessment and updating reservoir management through a domestic process as necessary to accomplish this objective;
- securing a dry water year strategy; and,
- reducing U.S. energy costs through rebalancing the Canadian Entitlement.

It is also important to build sufficient flexibility into a modernized Treaty so that operations can adapt to the impacts of climate change and other factors. We believe that the regional sovereigns and stakeholders have coalesced around most of these broad policy goals, and we look forward to working with the U.S. Department of State to advance these goals through discussions with Canada, the province of British Columbia and the First Nations.

BACKGROUND ON THE TREATY

As you know, the Columbia River Treaty was signed and ratified by the United States in 1961 and, after the adoption of a protocol, was ratified by Canada and implemented by the two countries in 1964. Under the Treaty, Canada agreed to build three storage dams and coordinate the operation of these new storage facilities with the U.S. hydroelectric power supply system in order to optimize hydroelectric power production and to provide coordinated flood control benefits. The U.S. was allowed to build Libby Dam in Montana, creating Lake Koocanusa, which backs 40 miles into Canada.

The U.S. Entity will tell you that the Treaty is a model of international cooperation for the management of a transboundary river system. But that international cooperation is limited in the purposes it serves, optimizing hydropower generation and coordinated flood risk management. The Treaty is not currently designed to provide for ecosystem-based functions. Under the current Treaty, we can only modify operations in very limited ways to benefit ecosystem-based function, and only when both countries agree there are mutual benefits that flow from those modified operations. I do want to point out that the Treaty increased the impacts of hydropower to communities by moving the flood upriver, these impacts began before the Treaty with the earlier construction of dams on the mainstem in the United States that affected the cultural and natural resources of the Columbia Basin Tribes, First Nations and other communities all the way up to the Basin headwaters in Montana, Idaho and British Columbia.

NO PRIOR AND INFORMED CONSENT OF TRIBES AND FIRST NATIONS

In negotiating the Treaty and developing the Treaty's coordinated system operation, the U.S. did not consult with the Columbia Basin Tribes nor consider the effect of the Treaty on our cultural and natural resources, yet the Treaty has had far reaching impacts on our cultural and natural resources that continue to this day. Not only were the Columbia Basin Tribes not consulted during the Treaty's negotiation, the tribes were excluded from its governance and implementation, as well as sharing in the benefits of the Treaty. The Treaty does not include considerations of critical tribal cultural resources. The coordinated power and flood control system created under the Treaty degraded rivers, First Foods, natural resources, and tribal customs and identities. The coordinated flood risk management plan, while providing substantial protections for Portland and Vancouver, permanently moved the

floods upriver through the creation and maintenance of large storage reservoirs. The Treaty currently limits the ability of Treaty and non-Treaty water agreements to address these issues and meet tribal resource priorities.

COLUMBIA RIVER TREATY 2014/2024 REVIEW AND THE SOVEREIGN PARTICIPATION PROCESS

When the U.S. Entity initiated the Columbia River Treaty 2014/2024 Review, the 15 tribes recognized the opportunity to work with the U.S. Entity to correct past mistakes and improve upon the Treaty. The Columbia Basin Tribes began meeting in January 2008 to identify their common issues and concerns with the Treaty and its implementation, while also meeting on a government-to-government basis with the U.S. Entity to develop a better understanding of the Treaty's implementation. By February 2010, the tribes' several meetings and workshops on the Treaty led to the development of the "Columbia Basin Tribes' Common Views on the Future of the Columbia River Treaty"—known as the tribes' Common Views document. I have included a copy of this document with my testimony. I have also provided you with a map of the Basin that shows you the location of the 15 tribes, as well as that of the First Nations in Canada that have asserted interests affected by the Treaty's implementation in Canada.

DEVELOPING THE SOVEREIGN PARTICIPATION PROCESS FOR THE TREATY REVIEW

The Columbia Basin Tribes met with the U.S. Entity in July 2010 to discuss their issues and concerns with the Treaty and how best they could collaborate with the U.S. Entity to address these issues through the Treaty Review. At that meeting, the U.S. Entity agreed to work with the Columbia Basin Tribes, other Federal agencies and the States to establish the Sovereign Participation Process for the Treaty Review. The Sovereign Participation Process was three-tiered: the first tier was government-to-government, where decisions were made regarding policy issues; the second tier was the Sovereign Review Team, where the regional sovereigns coordinated, discussed policy issues and provided guidance to the Sovereign Technical Team; and finally, the Sovereign Technical Team, which conducted the technical modeling and analysis.

The Sovereign Participation Process also provided for expert policy and technical input from stakeholders, including presentations from expert panels on power, water supply and irrigation. Building upon the bilateral Phase I Report released by the U.S. and Canadian Entities in August 2009, the sovereigns completed three more iterations of modeling and analysis. As each of the three iterations of modeling and analysis was, the U.S. Entity, with the support of the other regional sovereigns, took the lead on reporting out the results to stakeholders through a series of public meetings or "listening sessions" held across the basin. These listening sessions provided cities, counties and other public representatives and stakeholders to ask questions and provide feedback.

ADDITIONAL DETAIL ON ECOSYSTEM FUNCTION

One of the most significant, and appropriate, features of the high level recommendation is the addition of ecosystem function as a third primary purpose of the Treaty, along with flood control and hydroelectric generation. During the course of the discussions at government-to-government and Sovereign Review Team meetings, tribal representatives and staff were often asked to describe "ecosystem-based function." Tribal leaders explained that since time immemorial, the rivers of the Columbia Basin have been, and continue to be, the life blood of the Columbia Basin Tribes. The ecosystem function of the Columbia Basin watershed is measured as the Basin's ability to provide, protect and nurture cultural resources, traditions, values and landscapes throughout its length and breadth. The Columbia Basin Tribes hold that clean and abundant water that is sufficient to sustain healthy populations of fish, wildlife, and plants is vital to holistic concept of ecosystem-based function and life itself

CLOSING

The Columbia Basin Tribes would be happy to answer any additional questions you might have about the tribes' views on the high level regional recommendation, or the integration of ecosystem-based function into a modernized Treaty, whether now or in the future. We look forward to working with the Department of State, our elected representatives in Washington, D.C., regional sovereigns and stakeholders and the U.S. Entity in 2014 as the State Department considers the regional recommendation.

COLUMBIA BASIN TRIBES ¹ COMMON VIEWS ON THE FUTURE OF THE COLUMBIA RIVER TREATY

February 25, 2010

The present Columbia River power and flood control system operations are negatively affecting tribal rights and cultural interests throughout the Columbia Basin. The Columbia River Treaty is foundational to these operations.

The Columbia River Treaty:

Was negotiated and continues to be implemented without regard to the tribes' unique legal and political relationship with the Federal Government.

Is narrowly designed for the benefit of power and flood control.

• Does not include ecological considerations for critical tribal natural resources.

Does not include considerations of critical tribal cultural resources

Created a power and flood control system that degraded rivers, First Foods, natural resources, and tribal customs and identities.

Significantly affects tribal economies.

Excludes tribal participation in its governance and implementation.

 Limits what can be accomplished with non-Treaty agreements to meet tribal resource priorities.

The Columbia River Treaty is under review by the U.S. and Canadian governments for reconsideration in 2014. Reconsideration of the Treaty provides an opportunity for the tribes to seek benefits not realized in 50 years of Treaty implementation.

The Columbia Basin tribes' interests must be represented in the implementation and reconsideration of the Columbia River Treaty. The Columbia River must be managed for multiple purposes, including:

—Respect for the sovereignty of each tribal government—each tribe has a voice in governance and implementation of the Columbia River Treaty.

—Tribal cultural and natural resources must be included in river management to protect and promote ecological processes—healthy and useable fish, wildlife, and plant communities.

—Integrate the tribes' expertise of cultural and natural resources in river management.

 Equitable benefits to each Tribe in priority to other sovereign parties in Columbia River management.

-Respecting and preserving the benefits of settlement agreements with tribes.

—Recognize tribal flood control benefits.

—Protecting tribal reserved rights to current and future beneficial uses, in a manner consistent with ecosystem-based management.

In order to realize these principles, the tribes' collective voices must be included in the implementation and reconsideration of the Columbia River Treaty.

The CHAIRMAN. Ms. Brigham, I understand we're going to deviate a bit from the schedule because you have a flight to catch here. Ms. Brigham. Yes.

The CHAIRMAN. So in order to accommodate you, we're going to—we won't have the testimony right now, and I just have a couple of questions and Mr. DeFazio has a couple of questions.

Ms. Brigham. OK.

The CHAIRMAN. Then we'll excuse you so you can catch your flight.

¹The Burns Paiute Tribe, the Coeur d'Alene Tribe, the Confederated Salish and Kootenai Tribes of the Flathead Nation, the Confederated Tribes of the Colville Reservation, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes and Bands of the Yakama Nation, the Confederated Tribes of the Warm Springs Reservation of Oregon, the Cowlitz Indian Tribe, the Kalispel Tribe of Indians, the Kootenai Tribe of Idaho, the Nez Perce Tribe, the Fort McDermitt Paiute Shoshone Tribe, the Shoshone-Bannock Tribes of the Fort Hall Reservation, the Shoshone Paiute Tribes of the Duck Valley Indian Reservation, and the Spokane Tribe of Indians, with support from the Columbia River Inter-Tribal Fish Commission, Upper Columbia United Tribes, and the Upper Snake River Tribes tribal organizations have been working together to consider the effects and alternatives related to the Columbia River Treaty.

Ms. Brigham. All right. Thank you.

The CHAIRMAN. First of all, thank you for the compliment in regards to the legislation on the sea lions. But there's another aspect because I know how important the salmon runs are to you. And the concern I have, and this is kind of based on the exchange I had here with the first panel, for 50 years we have had a treaty in place where there has been flexibility to address those issues.

One of the things that the tribes have done, and I certainly am very much supportive of, is the fish hatcheries that I think have contributed to the record runs coming back. The question that I would have, and maybe something to contemplate, if you don't have a direct response right now, but by inserting another element, like ecosystem, into the treaty, would that potentially or not potentially affect the fish hatcheries? Because now you have an international, you know, someone may have a problem with that, who knows.

As you know, there is a lot of discussion on hatcheries. I happen to be one that thinks you're doing the right thing in that regard. But if you add an international element; i.e., a treaty, to fish hatcheries, I just wondered if you've given some thought to that, recognizing what you said about some of the dams that don't have fish

hatcheries. Have you given any thought to that?

Ms. BRIGHAM. Yes, we have, a little bit. But I think I agree with General Kem's presumption that, you know, we have our own domestic process, and within our own domestic process, we will go through that process. And as you already know, when we want to build a hatchery on the Columbia River, we go through a number of steps to get that concurrence.

And for the Umatilla tribe, we just received that concurrence for the Walla Walla Basin. So we are going to be constructing a Walla

Walla hatchery, and we hope to complete it by 2016.

And we also have on the Pacific Salmon Treaty, that already looks at salmon populations and harvest. So we annually adopt fishing regimes for how fish are going to be harvested, and they already look at what's going on with fish production.

So it may not play a part in the Columbia River Treaty being modernized, but it is going to play a part in the Columbia Pacific Salmon Treaty, which has already been agreed to and signed in

1985.

The CHAIRMAN. Well, it's just another element that, obviously, that I had some concerns with because it's the unknown. And if there's one thing that I have learned loud and clear it's that environmental issues tend to be more litigious than anything else.

Ms. Brigham. Yes.

The CHAIRMAN. And we have 50 years of having been able to deal with that on a domestic level, so that's the caution that I have, so——

Ms. Brigham. OK.

The CHAIRMAN. Mr. DeFazio.

Mr. DEFAZIO. Thank you, Mr. Chairman. Thank you for your testimony. And having to catch planes all my life here, I'll be very quick.

You know, recognizing, I think, that the domestic process is very important, but as you heard from my exchange with Ms. Eichenberger, or my questions, it seems that they are, shall I say,

skeptical about incorporating this in a broader way into the treaty, as looking at a treaty that's flexible enough to accommodate us on either side of the border. I mean—and that seems to be what you're

saying here, is that correct?

Ms. Brigham. Yes, the ecosystem. But at the same time, I know that, you know, the First Nations on the other side of the border would like ecosystem. You know, so there are some people on both sides who would like ecosystem considered in the modernizing of the treaty.

Mr. DeFazio. Right.

Ms. Brigham. I know it's complicated, it's very complicated.

Mr. DEFAZIO. Well, in particular, they were, in another written document I saw from them, they were much more definitive about the idea of—and this is where you come into a very interesting sovereign versus sovereign versus sovereign versus sovereign, perhaps, is that in fish above Grand Coulee, that—I saw a very definitive statement from British Columbia saying we don't want that.

Now, there may be First Nations up there that want it. I don't know how they resolve those things in Canada. And we have had a long series of litigation resolving—you know, tribal rights and

fisheries here in the United States.

Ms. Brigham. Right.

Mr. DEFAZIO. So I just wanted to point out that trying to put something into the treaty that at least one of the principal entities being, you know, the government, is adamantly opposed to would seem to me to be very problematic in terms of getting to a success-

ful negotiation.

Ms. Brigham. I think it's important to also note that for a number of reasons we didn't have sockeye salmon returning back to the Columbia River, and then when the Canadian government stepped up and the First Nations stepped up, we started reproducing sockeye salmon. Now we have record sockeye runs back into the Columbia River. We have the largest sockeye runs that we've ever had in the Columbia River.

So it can be done. It's not easy and it's not very complicated, but this is something that we are willing to work together on to figure out how we can make it happen. We know that during the negotiations, we can't all of us come back with what we want, because that's part of negotiations. But we're hoping that we do develop a win-win situation so that we can go back and tell our children's children that, you know, things are going to change.

Eventually we're going to be able to drink the water that we are not being able to drink now without being treated. We have people who can't breathe the air when they get allergies, and we have land that we cannot go on because of contamination, but we need

to make those changes.

And the Columbia River Treaty and so many other things because, you know—and I think that's been part of the problem is that people say, this is my territory, this is mine, this is mine, this is mine, and yet it's all linked together. Tribal leaders have learned from a very long time ago that everything goes in a circle and we have to plan for the next set of generations because if we don't, our children are going to be in a worse condition than we are.

Mr. DEFAZIO. OK. Thank you.

The CHAIRMAN. Thank you very much, and I think we will keep you on time here.

Ms. Brigham. Thank you very much for accommodating me. The Chairman. Thank you very much for your testimony.

We'll now recognize Mr. Scott Corwin with the Public Power Council, recognize you for 5 minutes.

STATEMENT OF SCOTT CORWIN, EXECUTIVE DIRECTOR, PUBLIC POWER COUNCIL, PORTLAND, OREGON

Mr. CORWIN. Thank you, Mr. Chairman, Ranking Member.

The Public Power Council represents electric utilities in the Pacific Northwest that purchase power and transmission from the Federal Columbia River power system. We are also a member of the Columbia River Treaty Power Group, consisting of over 80 electric utilities, along with other regional industries.

Mr. Chair and Ranking Member, we really appreciate your knowledge and leadership of these regional issues, and especially your interest in the future of the treaty here. And we appreciate the work of the U.S. Entity on this and their willingness to listen to our concerns lately.

It's vital that members of the treaty power group and electricity consumers, along with tribes, States, other regional stakeholders, continue to be involved during the next phase of the process. This hearing is an important step in ensuring that involvement, and I'm honored to be here with two of the managers of utilities in the region and also with Ms. Brigham and the other witnesses.

As the treaty recommendation moves to the State Department, it's critical that its review proceed expeditiously. Every month that goes by is a substantial loss in value to U.S. residents. The Columbia River Treaty has provided benefits to both countries, certainly, since its inception, but the power provisions are vastly out of sync with current conditions.

The U.S. obligation under the Canadian entitlement far exceeds the actual power benefit we receive. If this inequity is not addressed, there will be an enormous lost opportunity and a disservice to citizens of the northwest United States. Without correction, by 2025, the United States would be returning to Canada about 450 average megawatts of clean hydropower and over 1300 megawatts of capacity, valued at approximately \$250 to \$300 million annually, not to mention the value for system operations and reliability and integration of variable resources like wind power.

Meanwhile, the U.S. Entity's own estimate of the actual annual value received by the United States is in the range of \$25 to \$30 million, about one-tenth of the obligation sent to Canada. This inequity is unsustainable.

Power benefits sent north should not exceed one-half of the actual incremental benefit achieved through a coordinated U.S.-Canada operation, as the treaty intended. It should not be based on inaccurate and outdated extrapolations of 1960's forecasts of conditions pre and post dam construction.

The nature of the assumptions in the forecast, the 60-year time period, and the provisions for a 10-year notice of intent to terminate at the end of the initial treaty term all demonstrate a clear intent that the two nations would need to update these arrangements and re-evaluate the benefits and obligations over time. Also, national clean energy policy objectives argue for correcting the balance of benefits, rather than over-exporting clean, renewable do-

mestically produced energy out of our country.

On flood control, the financial responsibility for funding called upon or any other flood risk management strategy should be the responsibility borne equitably by all taxpayers since the benefit from those efforts accrue to the general public. Electricity customers in the Northwest should not shoulder this cost.

Regarding ecosystem issues, customers of electric utilities in the Northwest have made significant investments totaling tens of billions of dollars in the river ecosystem. We have a large stake in seeing the success of these programs. There needs to be an adequate recognition of and accounting for the efforts already underway.

And it is key that any other proposals have a strong basis in the best available science with known costs and benefits and then they not adversely affect ongoing programs for aquatic species and not negatively impact electric system reliability or navigational needs.

Hydropower is one of our main economic drivers in our area of the country. The Northwest residents depend on it for almost 60 percent of generating capacity. Industries rely upon the economically priced power because they operate in highly competitive global markets. A modernized treaty that is sustainable must truly rebalance the sharing of power benefits, and we will urge the State Department and other Federal agencies to expeditiously move toward that end.

We thank you for your involvement and guidance on this important topic to electricity customers, and I'm happy to answer any questions. Thank you.

[The prepared statement of Mr. Corwin follows:]

PREPARED STATEMENT OF R. SCOTT CORWIN, EXECUTIVE DIRECTOR, PUBLIC POWER COUNCIL, PORTLAND, OREGON

Good morning, Chairman Hastings, Ranking Member DeFazio, and Members of the Committee. My name is Scott Corwin. I am the Executive Director of the Public Power Council (PPC), an association representing consumer-owned electric utilities of the Pacific Northwest that purchase power and transmission marketed by the Bonneville Power Administration (BPA). Our member utilities have service territories with consumers in portions of eight Western States.

PPC is also a member of the Columbia River Treaty Power Group, consisting of over 80 electric utilities industry associations and other entities that depend on

PPC is also a member of the Columbia River Treaty Power Group, consisting of over 80 electric utilities, industry associations and other entities that depend on power produced by the Columbia River hydropower generating plants. Together, we represent at least 6.4 million electric customers in the four Northwest States that are directly impacted by this Treaty. More information can be found at the group's

website (www.crtpowergoup.org).

Our primary concern has been to ensure that the Treaty discussions prioritize the fundamental need to reestablish an equitable distribution of power benefits between the United States and Canada. If this inequity is not addressed, it will be an enormous lost opportunity and a disservice to the citizens of the Northwest United States. We share the goal of building the broadest agreement possible to build a base of better engagement with Canada next year. The Columbia River Treaty has provided benefits to both countries since its inception. It is our hope that a rebalancing of the Treaty in the future will ensure mutual benefit for decades to come.

ancing of the Treaty in the future will ensure mutual benefit for decades to come. The U.S. Entity for the Treaty (BPA and the U.S. Army Corps of Engineers) is about to release a final recommendation to the Department of State that will serve as a basis for possible negotiations with Canada to improve and modernize the Treaty. As this process moves into the hands of the Department of State in Washington, DC, it is very important that the next phase of the review proceed expeditiously.

As described below, every month that goes by is a substantial loss in value to U.S.

We greatly appreciate the Committee's interest in the future of the Columbia River Treaty. Recently, we have appreciated being able to work with the U.S. Entity and others in the region regarding our strong concerns with prior drafts of the U.S. Entity's recommendation. Going forward, it is vital that members of the Treaty Power Group, along with Tribes, States, and other regional stakeholders, continue to be involved in the process. This hearing is an important step in ensuring that involvement.

THE CANADIAN ENTITLEMENT MUST BE REBALANCED IN ANY TREATY NEGOTIATION WITH CANADA

The primary objective of engaging in any Treaty negotiations with Canada must be focused on correcting the current inequity of the U.S. obligation under the Canadian Entitlement, and providing a significant net benefit to the region's consumers. Regional consensus on a path forward hinges on this being the centerpiece issue in any Treaty negotiations. Reducing the financial burden to Northwest electric customers, caused by a Canadian Entitlement vastly out of sync with current conditions, and returning the use of clean, renewable hydroelectricity to the Northwest, is clearly in the best interest of the United States. This is the cornerstone of any negotiation with Canada, and should be openly recognized as such.

In sum, the U.S. obligation under the Entitlement far exceeds the actual power benefit received. If the Treaty continued using the current calculations for the Canadian Entitlement, by 2025 the United States would be returning to Canada about 450 average megawatts of clean hydropower and 1,300 megawatts of capacity each year, valued at approximately \$250 to \$350 million annually (not to mention its value for system operations and reliability). Northwest electric customers are likely to provide well over \$2 billion in benefits to Canada over the next 10 years

likely to provide well over \$2 billion in benefits to Canada over the next 10 years alone, despite the U.S. Entity's own estimate that the actual annual value of this benefit to the United States is only in the range of \$25 to \$30 million (i.e., only one-tenth of the current Canadian Entitlement obligation).\(^1\)

This inequity is unsustainable. The focus should be on analyzing the problems in the current methodology for calculating the Canadian Entitlement, identifying possible solutions for correcting these problems, and implementing a recommendation for addressing these matters with Canada at the earliest possible time. By 2024, 60 years will have passed since the Treaty was ratified.

The U.S. has a duty on behalf of its citizens, and Northwest electricity customers

The U.S. has a duty on behalf of its citizens, and Northwest electricity customers in particular, to rebalance the Canadian Entitlement in a manner that ensures that the U.S. obligation under the Treaty is commensurate with the power benefits actually received. Amounts provided to Canada for downstream power benefits should not exceed one-half of the actual, incremental power benefit achieved through a co-ordinated U.S./Canada operation (as compared to the non-coordinated operation).

From the perspective of those trying to make ends meet or create jobs in the region, it is untenable that we would continue to shift this level of generation and wealth to another country. The appropriate level of value returning to Canada after the initial 60-year agreement must be based on the benefits of ongoing coordinated operations between the U.S. and Canada—not on an inaccurate and outdated comparison of conditions pre- and post-dam construction.

Correcting the Canadian Entitlement also is consistent with the Administration's clean energy policy objectives. From that perspective, it is counterproductive to export between \$2 billion and \$3 billion in clean, renewable, domestically produced energy over the next decade and beyond. Correcting that inequity should be the highest priority of the State Department when pursuing any Treaty negotiations with Canada, Each year after 2024 in which the Canadian Entitlement remains unchanged is a significant loss of resources and value for the United States.

THE INEQUITY OF THE CURRENT TREATY

The United States has compensated Canada for the construction of Canadian storage projects that improved flood control and increased hydropower generation in both countries. This compensation took the form of lump sum payments and the provision of the Canadian Entitlement, which represents Canada's share of the difference in hydroelectric power capable of being generated in the United States with and without the use of Canadian storage. Over the last 50 years of implementing this arrangement, actual U.S. benefits of coordinated operations with Canada have

¹See U.S. Entity Studies, Iteration #2 Alternatives & Components: General Summary of Results at 34 (Apr. 10, 2013).

reduced precipitously while the Canadian Entitlement calculations in the Treaty are

tied to theoretical, 50-year-old assumptions.

When the Treaty was ratified, both the U.S. and Canada anticipated that the Treaty calculation of U.S. power benefits would result in a much smaller energy benefit by 2024. The U.S. and Canada acknowledged that the real power benefits could be much less than the Treaty calculation due to additional U.S. storage reservoirs and transmission interconnections that are not included in the Treaty calculation. These assumptions and forecasts, together with the provisions for a 10-year notice of intent to terminate at the end of the initial Treaty term, 2 demonstrate an intention that the two nations would update these assumptions and reevaluate the benefits and obligations over time.

History has shown that no matter how sincere the effort to appropriately calculate the Canadian Entitlement might have been, a static formula based upon extrapolations of then-current conditions into the future was not an optimal approach to ensuring fair and equitable outcomes. The original methodology was not developed to capture the actual realized downstream power benefits created by the Treaty so much as it was a compromise method that was based upon then-current expecta-

much as it was a compromise method that was based upon then-current expectations about the future. It was focused on the outdated attempt to estimate benefits of construction of the Canadian storage projects compared to the operation of a U.S. power system, as it stood prior to 1965.

During original Treaty negotiations, there clearly was an expectation by both countries that the Canadian Entitlement would end well before 2024. The current methodology was a choice, based upon expert judgment in the early 1960s, that it would be a presentable experiment to the actual power benefits greated by would be a reasonable approximation to the actual power benefits created by Canadian storage based upon certain expectations as to how the future would unfold. However, the future unfolded much differently than expected.

Several factors have greatly undermined the reasonableness of the current Treaty

several factors have greatly undermined the reasonableness of the current Treaty methods as an approximation of the actual downstream power benefits resulting from the original Treaty, and thus the accuracy of the calculated Canadian Entitlement. These factors include significantly lower than expected regional electric load growth, greatly expanded opportunities to market non-firm hydropower outside the region, a much wider slate of power supply resource types than existed at the time of Treaty signing, and changing societal preferences regarding environmental and cultural issues. The result is the severe imbalance in benefits received relative to costs paid by U.S. power consumers.

Now, as the 60th anniversary of ratification approaches, is the time to recognize

Now, as the 60th anniversary of ratification approaches, is the time to reevaluate these benefits and begin steps to rebalance Treaty obligations to match the actual

benefits received.

FLOOD RISK MANAGEMENT

It is critical that there be a common understanding between the United States and Canada regarding the methods and procedures for post-2024 "called upon" flood control. We believe that the financial responsibility for funding "called upon" or any other flood risk management strategy within the Columbia River Basin should be a responsibility borne equitably by all taxpayers, since the benefit from these efforts and investments accrue to the general public. Electricity customers in the Northwest should not be required to shoulder responsibilities that would otherwise be paid for from the general Federal, State, and local funding base.

TREATY SCOPE AND THE ECOSYSTEM

As national leaders in both energy efficiency and fish and wildlife mitigation, electric utilities in the Northwest are firmly committed to environmental stewardship. It is notable that, under the existing Treaty and non-Treaty agreements, electricity customers in the Northwest have made significant investments, totaling tens of billions of dollars, resulting in ecosystem improvements through Habitat Conservation Plans (HCPs), Federal Energy Regulatory Commission (FERC) licenses, Bonneville Power Administration's fish and wildlife program, and other investments associated with the FCRPS Biological Opinion and Columbia Basin Fish Accords. We have a large stake in the seeing the success of these programs.

PPC and other members of the Treaty Power Group have stated that, to the extent a modernized Treaty is to address ecosystem matters, adequate recognition of and accounting for efforts already underway is critical. We have also noted the risk of lack of clarity and specificity in Treaty recommendations. And, we have emphasized the importance of ensuring that any provisions not adversely affect ongoing programs for aquatic species, that they have a strong basis in the best available

²Treaty, Art. XIX(2).

science, and that the costs and benefits are clearly established and compelling. In addition, provisions must not compromise the integrity of electric system reliability, must not negatively impact navigational needs, must not impede long-standing water supply obligations, and must not interfere with ongoing ecosystem management under existing Federal and State regulatory programs, including FERC licenses.

POWER AND JOBS

The Federal Columbia River Power System creates clean electricity for millions of residents. Its array of benefits reach all corners of the Northwest in the form of economically priced emission-free power, navigation, irrigation, recreation, and of course, fish and wildlife habitat.

It is important to remember the foundations of this Treaty. From the beginning, the focus of the Columbia River Treaty was upon power production and flood control. In a message to the U.S. Senate transmitting the Columbia River Basin Treaty with Canada on January 17, 1961, President Dwight D. Eisenhower said:

"The treaty is an important step toward achieving optimum development of the water resources of the Columbia River basin as a whole from which the United States and Canada will each receive benefits materially larger than either could obtain independently.

The United States will secure a large block of power at low cost, substantial flood control benefits, and additional incidental benefits for irrigation, navigation, pollution abatement, and other uses resulting from controlled storage. Canada will also receive a large block of power at a low cost, as well as flood control and other benefits resulting from the control of water flow."

And, in his remarks with Prime Minister Pearson upon proclaiming the ratified Treaty on September 16, 1964, President Lyndon B. Johnson talked of the cooperation between the two countries. His only comment on the substance of the Treaty is on the power provisions, noting among other things that, "It will supply new electric power to millions of my countrymen."

These leaders understood very well the critical role of hydropower in the Northwest as one of the main economic drivers in an area that has other geographic challenges to economic growth. Today, Northwest residents depend on hydropower for almost 60 percent of the generating capacity in the region. Industries rely on economically priced power because they operate in highly competitive global markets. Any increase in major cost inputs, especially energy costs, directly pressures the sustainability of employment levels. In addition, increases to power rates directly threaten the cost effectiveness of essential irrigation services and many other power dependent sectors.

CONCLUSION

The Columbia River is a magnificent asset that plays a central role in the Northwest's economy and cultural identity. It generates clean electricity to millions of people, avoids carbon emissions, provides habitat for fish and wildlife, offers recreational opportunities, provides water for navigation, and now also plays an important role in integrating wind into the electric grid.

The Columbia River Treaty helped create mutual benefit from this system for

The Columbia River Treaty helped create mutual benefit from this system for many years. A modernized approach that rebalances the sharing of power benefits is crucial to having a sustainable Treaty moving forward.

Thank you for holding this hearing today on an important topic to electricity consumers. And, thank you for the opportunity to testify. I look forward to answering any questions.

The CHAIRMAN. Thank you very much, Mr. Corwin, for your testimony.

I'll now recognize Mr. Tony Webb, manager of the Grant County PUD.

Mr. Webb, you're recognized for 5 minutes.

STATEMENT OF TONY WEBB, GENERAL MANAGER, GRANT COUNTY PUBLIC UTILITY DISTRICT, EPHRATA, WASHINGTON

Mr. Webb. Good morning, Chairman Hastings and Ranking Member DeFazio.

Grant County PUD is the consumer-owned utility that serves 90,000 residents within Grant County. This rural, predominantly agricultural area borders on the west of the Columbia River. Nationally, Grant County is an agricultural leader ranking 5th in the United States for irrigated acreage and 11th for value of crops produced.

Our major power consumers include food processors, frozen food storage, data centers, silicon production, steel fabrication, and auto carbon fiber manufacturing. Grant PUD owns significant electric generation assets, all of which are 100 percent renewable, a vast majority of that generation coming from our two hydro developments, Priest Rapids and Wanapum Dams on the Columbia River.

These valuable renewable resources support reliable electricity delivery, clean air, and significant economic benefits for millions of families and businesses throughout the Pacific Northwest. My message today is simple: Rebalancing the Canadian entitlement should be the top priority of the U.S. Entity's final recommendation.

What's at stake is lost opportunity for the United States, specifically the potential that future jobs could be transferred north. Grant PUD is one of three public utility districts that own and operate non-Federal hydropower dams on the mid-Columbia River. Together, the three mid-Columbia PUD's pay $27\frac{1}{2}$ percent of the Canadian entitlement.

As identified by BPA, the actual power benefit to the U.S. on ongoing coordinated operations with Canada has greatly reduced over the past 50 years, and is now worth a fraction of the current Canadian entitlement. If the treaty continues post-2024, we are concerned that the U.S. electric consumers will be paying too much for diminishing downstream power benefits.

While the U.S. Entity acknowledges the need to rebalance the Canadian entitlement, we believe this is the single most important issue that must be addressed in the final recommendation because of the potential and significant lost economic opportunity to the United States and the region. I will illustrate this point by using one of Grant PUD's newest industrial customers as an example.

German automaker BMW, in a joint venture with SGL Group, a major German carbon products company, conducted a worldwide search to locate their new state-of-the-art auto carbon fibers manufacturing plant. The new facility would produce lightweight carbon fibers for the passenger compartment of BMW's new all-electric vehicle, the i3.

A key factor in locating the new plant was availability of a reliable, renewable, and affordable energy source. An important selling point for BMW and its customers was the vehicle had to have the minimal lifecycle emissions impact in its development. BMW and SGL narrowed their search to sites with hydropower.

Ultimately, BMW/SGL selected the U.S. site in Moses Lake, Washington, for their new plant, which opened in 2011. The 60-acre site brought in an initial investment of a hundred million

dollars and created 80 good manufacturing jobs, plus another 200 construction jobs. The plant has plans for potential expansion.

The point is that more and more companies are moving their operations, building new facilities, and creating jobs in areas close to hydro resources. The reason for this trend is that renewable hydropower provides its customers one of the most affordable, reliable sources of electricity in America. Each megawatt hour of clean, renewable hydropower exported from the U.S. to Canada in excess of the fair value of the Canadian entitlement reduces the potential for this type of beneficial growth that we have seen with BMW/SGL. This lost opportunity must be recognized.

In closing, Grant PUD wants to ensure a fair and equitable outcome for the customers we serve. The primary benefit for rebalancing the Canadian entitlement would be to preserve an important renewable domestic energy for the entire western United States. It's simply unacceptable to give away a disproportionate amount of this clean, renewable domestic resource and the opportunity to create U.S. jobs along with it.

Grant PUD appreciates the committee's interest in this important matter and for convening today's field hearing.

[The prepared statement of Mr. Webb follows:]

PREPARED STATEMENT OF ANTHONY WEBB, GENERAL MANAGER, GRANT COUNTY PUBLIC UTILITY DISTRICT, ÉPHRATA, WASHINGTON

INTRODUCTION

Good morning Chairman Hastings and members of the Committee, I am Tony Webb, General Manager of Public Utility District No. 2 of Grant County, Washington (Grant PUD) located in the central region of the State of Washington.

Grant PUD is a consumer-owned utility that serves 90,000 residents within 2,800

square miles of Grant County. This rural, predominantly agricultural area is bordered on the west by the Columbia River. Nationally, Grant County is an agricultural leader ranking 5th in the United States for irrigated acreage and 11th for value of crops produced.

Our local economy is based on diversified agriculture. Our major power consumers include: food processors, frozen food storage, data centers, silicon production, steel fabrication and auto carbon fiber manufacturing.

Grant PUD owns significant electric generation assets, all of which are 100 percent renewable. Hydropower, small irrigation-canal hydro and wind power comprise our total combined generating capacity of over 2,000 megawatts, with a vast majority of that capacity coming from our two hydropower developments, Priest Rapids and Wanapum Dams on the Columbia River.

These valuable renewable resources support reliable electricity delivery, clean air and significant economic benefits for millions of families and businesses throughout the Pacific Northwest

In addition, Grant PUD coordinates mid-Columbia River hydro operations for the region to optimize power generation and river flows among seven dams: Grand Coulee, Chief Joseph, Wells, Rocky Reach, Rock Island, Wanapum and Priest Rap-

Grant PUD is a member of the Columbia River Treaty Power Group, a coalition of over 80 electric utilities, industry associations and other members that depend on the renewable energy produced by the Columbia River.

REBALANCE THE CANADIAN ENTITLEMENT

My message today is simple: Rebalancing the Canadian Entitlement should be a top priority in the U.S. Entity's final recommendation.

What's at stake is lost opportunity for the United States . . . specifically, the potential that future jobs could be transferred north.

Grant PUD is one of three public utility districts that own and operate non-Federal hydropower dams on the Mid-Columbia River. Together, the three Mid-Columbia PUDs pay 27.5 percent of the Canadian Entitlement.

By 2024, it will be 60 years since the Columbia River Treaty was ratified. Article VII of the Treaty defines downstream power benefits as the "difference in hydroelectric power capable of being generated in the U.S. with and without the use of Canadian storage." However, post-2024, this becomes the wrong baseline upon which to determine any Canadian Entitlement. Payments returned to Canada after the initial 60-year agreement should be based on the benefits of ongoing coordinated operations today between the United States and Canada—not on a comparison of conditions before and after construction of the storage dams 60 years ago.

As identified by the Bonneville Power Administration, the actual power benefit to the United States of ongoing coordinated operations with Canada has reduced significantly over the past 50 years and is now worth a fraction of the current Canadian Entitlement.

If the Treaty continues post-2024, we are concerned that U.S. electric consumers, including our local customers, will be paying too much for diminishing downstream power benefits. While the U.S. Entity acknowledges the need to rebalance the Canadian Entitlement, we believe this is the single most important issue that must be addressed in the final recommendation because of the potential and significant lost economic opportunity to the Unites States and the region.

HYDROPOWER—EXPANDING U.S. MANUFACTURING

I will illustrate this point using one of Grant PUD's newest industrial customers

as an example.

German automaker BMW, in a joint venture with SGL Group, a major German carbon-products company, conducted a worldwide search to locate their new state-of-the-art auto carbon fibers manufacturing plant. The new facility would produce lightweight carbon fibers for the passenger compartment of BMW's new all-electric vehicle, the i3.

A key factor for locating the new plant was the availability of a reliable, renewable and affordable energy source. An important selling point for BMW and its customers was a vehicle that had minimal life-cycle emissions impact in its development. BMW/SGL narrowed their search down to two locations—one site in the United States (served by Grant PUD) and a site in eastern Canada. Both locations

provided a reliable, renewable energy source—hydropower.
Ultimately, BMW/SGL selected the U.S. site in Moses Lake, Washington for their new auto carbon fibers plant, which opened in 2011, due to the affordability, availability and reliability of renewable hydropower. The 60-acre site brought an initial investment of \$100 million and created 80 good manufacturing jobs, nearly all from the region, plus another 200 construction jobs. The plant has plans for potential ex-

pansion as well.

The point is that more and more companies are moving their operations, building new facilities and creating jobs in areas close to hydropower resources. The reason for this trend is that renewable hydropower provides its customers one of the most affordable and reliable sources of electricity in America, while boosting corporate sustainability goals. Each megawatt hour of clean, renewable hydropower exported from the United States to Canada, in excess of the fair value of the Canadian Entitlement, reduces the potential for the type of beneficial growth we have seen at BMW/SGL. This lost opportunity must be recognized.

CONCLUSION

In closing, Grant PUD wants to ensure a fair and equitable outcome for the customers we serve. The primary benefit for rebalancing the Canadian Entitlement would be to preserve an important renewable, domestic energy resource for the entire western United States. Hydropower is a beneficial and cherished resource developed by our country for the reliability of our power system. It is simply unacceptable to give away a disproportionate amount of this clean, renewable, domestic resource and the opportunity to create future U.S. jobs along with it.

Grant PUD appreciates the Committee's interest in this important matter and for

convening today's Field Hearing. I look forward to answering any questions that

Committee members may have.

Thank you.

The CHAIRMAN. Thank you very much, Mr. Webb. Now I'll recognize Mr. Rick Crinklaw, who is the general manager of the Lane Electric Co-op in Eugene.

Mr. Crinklaw, I will recognize you for 5 minutes.

STATEMENT OF RICK CRINKLAW, GENERAL MANAGER, LANE ELECTRIC COOPERATIVE, EUGENE, OREGON

Mr. CRINKLAW. Thank you, Chairman Hastings, Ranking Member DeFazio.

Thank you for this opportunity to testify on behalf of the member consumers of Lane Electric Co-op. Lane Electric is an electric distribution utility headquartered in Eugene, Oregon, and I'm very proud to say that we serve a large portion of Congressman DeFazio's congressional district.

I also wanted to acknowledge Congressman DeFazio's years of service and support for rural electric co-ops like Lane Electric and Lane Electric's members who have benefited greatly from his service and advocacy on their behalf. I'm grateful for the committee's focus and attention on the future of the Columbia River Treaty. Lane Electric's members in rural Lane County are greatly impacted by the treaty today, and they have a big stake in any future commitments made by the United States.

Copies of my formal written testimony have been provided to the committee, therefore, in respect for your time, I will briefly emphasize a couple of areas: First, the need to rebalance the Canadian entitlement; and, two, concerns regarding ecosystem proposals.

Regarding the first issue, the need to rebalance the Canadian entitlement, I feel this an absolute necessity. It must reflect actual benefits based on today, not the '60s or '70s. The treaty must recapture one of the original intents: to share power benefits equitably.

As part of the U.S. Entity's review of the Columbia River Treaty. BPA and the U.S. Army Corps of Engineers has studied the Canadian entitlement and determined that Canada now receives significantly more benefits under the treaty than does the United States. The scale of that imbalance has been talked about in previous testimony here today.

Now, the Columbia River Treaty cannot be changed until 2024, but electric consumers of the Pacific Northwest should not be expected to continue sending billions of dollars in clean and renewable hydropower to Canada for decades to come. Using Lane Electric as an example, the following is the impacts on my members.

The estimated annual cost of the Canadian entitlement for Lane Electric is approximately \$900,000 annually. For the average Lane Electric member, that translates to \$5.50 per month or \$66 a year. For 2014, Lane Electric will increase rates by 5.4 percent, largely influenced by the recent increase in Bonneville's wholesale power rates. Ironically, the revenue derived by our 2014 rate increase is comparable to our cost on the Canadian entitlement annually.

Though \$5.50 per month may seem like a modest amount, it's not for many Lane Electric members. Consider these statistics. High unemployment is a persistent problem in rural Lane County. Thirty-nine percent of Lane County residents are eligible for food assistance, and 53 percent of children are eligible for free or reduced lunch in schools. And these figures are even higher in the

rural portions of the county.

The median household income in Oakridge, Oregon, which is served by Lane Electric, is about \$25,000 a year. The median household income for the State of Oregon is about \$50,000 a year.

Chairman Hastings, Congressman DeFazio, on behalf of the families and the communities that Lane County serves, rebalancing the Canadian entitlement is simply a question of fairness and an

opportunity to ease pressure on rates.

The second issue I want to address is the potential of an ecosystem function being added to the treaty. I believe the final recommendation must recognize and fully account for the efforts already being undertaken to protect fish and wildlife resources in the Columbia and contribute—and its tributaries, and my members must get credit for what they have contributed and are contributing.

Electric consumers have invested billions of dollars in successful fish and wildlife programs, programs and expenditures that I frequently explain to members what they have actually paid for. Again, using Lane Electric as an example, the following are pocket-

book impacts.

Lane Electric contributes \$2.9 million annually to Bonneville fish and wildlife programs. This translates to \$219 per member per year. Consequently, the average Lane Electric customer pays a total of \$285 annually to fund the Canadian entitlement and sup-

port Bonneville's existing fish and wildlife programs.

As mentioned previously, Lane Electric continues to struggle economically. And another data point is the average low-income heating assistance a member receives a year is \$250, just under what their obligation is for the entitlement and fish and wildlife programs.

I hope I've illustrated for the committee that the Columbia River Treaty is a big issue for my members, as it is for most customers in the Pacific Northwest, and this is an issue that goes to the family budget for every member we serve in rural Lane County.

This concludes my testimony, and thank you for this opportunity.

[The prepared statement of Mr. Crinklaw follows:]

PREPARED STATEMENT OF RICK CRINKLAW, GENERAL MANAGER, LANE ELECTRIC Cooperative, Eugene, Oregon

Chairman Hastings and Ranking Member DeFazio, to begin with, let me thank you both for the opportunity to testify on behalf of Lane Electric Cooperative. My name is Rick Crinklaw and I am the General Manager of Lane Electric Cooperative, located in Eugene, Oregon. We are proudly located in Congressman DeFazio's Dis-

Chairman Hastings, it is a pleasure to be in your District today. We have worked with your constituents on issues of importance to rural electric cooperatives and I join your constituents in thanking you for your support. I do however want to specifically note Congressman DeFazio's years of service and support for rural electrics like Lane Electric Cooperative. We-and I mean Lane Electric's ratepayers-have benefited greatly from your service and advocacy on behalf of your constituents.

Lane Electric's service territory covers 2,600 square miles. The cities and towns Lane Electric serves in or near include Blue River, Cottage Grove, Creswell, Culp Creek, Dexter, Dorena, Eugene, Fall Creek, Lorane, Oakridge, Pleasant Hill, Veneta, Vida and Westfir. As a rural electric cooperative, Lane Electric is owned by our members. Our 47 employees serve more than 13,000 customers and manage almost 1,500 miles of power lines. I have spent my 38-year career working for electric cooperatives—the last 18 as Lane Electric's general manager. I currently serve on the Executive Committee of the Public Power Council, and on the Board of Directors of PNGC Power. Lane Electric is an active member of the National Rural Electric Cooperative Association. Last, and important to this hearing, Lane Electric is a

member of the Columbia River Treaty Power Group.

I am delighted to see this committee focus its attention on the future of the Columbia River Treaty. It may come as a surprise to some but our members in rural Lane County are greatly impacted by the Columbia River Treaty today and we have a big stake in any future commitments made by the United States.

I would like to use my time today to illustrate for the committee the impact that the Columbia River Treaty has on one small rural electric cooperative and our members in Oregon. To do this, I want to address two key issues related to the Columbia River Treaty. The first issue is the absolute necessity to rebalance the Canadian Entitlement to reflect actual benefits to ratepayers like my members. The second issue is the broad ill-defined ecosystem function proposal, which does not appear to be coordinated with existing salmon recovery efforts across the region. These efforts are also funded in part by Lane Electric members and other customers of the

Bonneville Power Administration (BPA) from all across the Pacific Northwest We at Lane Electric fully appreciate that the Columbia River and the 60-year treaty with our Canadian neighbors has been a significant contributor to our region's economy, to our region's flood control efforts and our region's efforts to restore

and recover historic salmon populations in the Columbia River Basin.

When the United States and Canada negotiated the Columbia River Treaty in the 1960s, the two countries agreed on a mechanism to share the benefits provided under the treaty. Unfortunately, the negotiators used a set of assumptions that did not materialize to set the Canadian Entitlement or payment delivered in power to Canada to represent its share of the treaty benefits.

As part of the U.S. Entity's review of the Columbia River Treaty, BPA and the U.S. Army Corps of Engineers have studied the Canadian Entitlement and determined that Canada now receives significantly more benefits under the treaty than does the United States and our electric customers who ultimately fund the Canadian Entitlement. According to the U.S. Entity, Canada may be receiving as much as 10 times the benefit received by the United States.

The Canadian Entitlement is estimated to be worth between \$250 and \$350 million per year in power generated by Bonneville and the non-Federal projects along the Columbia River. A recent U.S. Entity study estimates that the United States receives approximately \$25 million in benefits related to the treaty.

The Columbia River Treaty cannot be changed until 2024. What this means is that electric customers in the Pacific Northwest are already obligated to send between \$2.5 and \$3.5 billion in power benefits to Canada over the next decade. As the U.S. Government reviews the future of the treaty in 2014, we must make rebalancing the Canadian Entitlement the highest priority to the United States. Electric customers in the Northwest should not be expected to continue to send billions of dollars in clean, renewable hydropower to Canada for decades to come. My members expect their government to forcefully address the Canadian Entitlement issue with Canada. The treaty's hydropower benefits must be shared on an actual basis rather than a series of antiquated flawed assumptions. Rebalancing the Canadian Entitlement is simply a question of fairness for the communities and families we serve.

Here are a few examples of how the Canadian Entitlement impacts Lane Electric

The estimated annual cost of the Canadian Entitlement for Lane Electric is \$900K annually. For the average Lane Electric member/consumer the cost is \$5.50 per month, or \$66.00 per year.

• For 2014, Lane Electric will increase rates by 5.4 percent. Ironically, the 2014 rate increase is comparable to our portion of the Canadian Entitlement. Bonneville has increased rates several times in recent years; these increases are difficult to pass on in economically challenged areas. I can tell you from daily experience, electric rate increases are difficult for many families to manage in our service territory.

Recall the U.S. Entity study that suggests Canada receives a benefit that could be 10 times higher than enjoyed on the U.S. side of the border. For us, that means we send \$900K to Canada in the form of the Canadian Entitlement and receive \$90,000 annually in coordinated hydropower benefits. To us this is a significant sum of money that we cannot invest in our system, our

people and the communities we serve.

High unemployment is a persistent problem in rural Lane County. Thirtynine percent of Lane County residents are eligible for food assistance and 53 percent of children are eligible for free and reduced meals at schools. These figures are higher in the rural parts of Lane County where we are located. The median household income of Oakridge, Oregon, served by Lane Electric, is \$25,000. The median household income for the State of Oregon is \$49,000, almost twice that of Oakridge. Our members and consumers cannot afford the Canadian Entitlement today. And we cannot make an open ended commitment to continue the current inequitable arrangement for decades to come.

Chairman Hastings and Congressman DeFazio, for the families in my community, rebalancing the Canadian Entitlement is a very important opportunity to ease pressure on rates. The only opportunity to seek relief for Northwest electric customers to the Canadian Entitlement inequity is through the Columbia River Treaty review

to the Canadian Entitlement inequity is through the Columbia River Treaty review and renegotiation. Lane Electric Cooperative, and I think I can safely say all of the Rural Electric Cooperatives in the Northwest, needs your continued support to encourage the Administration to prioritize the Canadian Entitlement issue in 2014. The second issue I want to briefly address today is the potential inclusion of an ecosystem function in the treaty going forward beyond 2024. At Lane Electric, we believe the Final Recommendation and the upcoming Obama administration treaty review process must recognize and fully account for efforts already being undertaken under existing Federal and State programs to protect fish and wildlife resources in the Columbia River and its tributaries. Any effort to expand the Treaty to include ecosystem function must not interfere with or adversely affect these ongoto include ecosystem function must not interfere with or adversely affect these ongoing programs, as they are publicly developed programs. Northwest electric customers have invested billions of dollars already and will continue to invest hundreds of millions of dellars in fall and mill of millions of dollars in fish and wildlife measures each year.

We appreciate that the U.S. Entity has taken steps to recognize the existing ecosystem efforts and investments made by our ratepayers. We do have ongoing concerns with the ecosystem function proposals. The ecosystem function proposal, including programs under the Resource Committee's jurisdiction, is vague and offers little certainty and structure. These uncertainties could diminish, or threaten altogether, ecological benefits achieved after years of detailed studies, tireless investigations and negotiations, and at times, litigation. The uncertainties associated with ecosystem function create significant risk to environmental resources and electric

customers in the Northwest

This issue is also a pocketbook issue to the members of Lane Electric.

• Lane Electric contributes \$2.9 million annually to the Bonneville Power Administration's fish and wildlife programs. This translates into an average annual contribution of \$219 per Lane Electric ratepayer.

As stated above, rural Lane County continues to struggle with higher unemployment rates and heavy reliance upon food assistance program. Another data point to note, the average LIHEAP payment in our service territory is

The average Lane Electric consumer pays a total of \$285 annually to fund the Canadian Entitlement and support the BPA's fish and wildlife programs.

Our members are aware that we support Bonneville's fish and wildlife programs with ratepayer dollars. As General Manager of an electric cooperative, I am accountable to our members and consumers. I ask the same of the U.S. Entity, the Congress, and the Obama administration. Please be accountable in reviewing an enhanced ecosystem function in the Columbia River Treaty. Please hold proponents of an enhanced ecosystem function accountable to the public as well. When I talk to Lane's members about the region's fish and wildlife expenditures, they often respond with a sense of pride over our success in recovering salmon. They seem to embrace that which they think is reasonable, and fair. We may all disagree with some parts of our massive regional investment in the ecosystem, the world's largest Endangered Species recovery program, but this I know to be true: many of our customers believe that our current investments represent a broad consensus of scientific opinion. I can explain it to them, and they understand it. However, this not the case with the new proposed Treaty ecosystem function. When they ask me what is proposed, and why, I only have one answer: more for ecosystem function, and you will be asked to pay for it.

Our members, and many in the public power community, are concerned that proposals to inject ecosystem functions at the Treaty level could have unintended consequences for existing, publicly developed programs in the United States that represent significant investments for electric customers. Treaty-mandated changes in flow regimes, fish passage operations, or similar requirements could conflict or

interfere with ongoing programs in the Columbia River Basin.
Mr. Chairman and Congressman DeFazio, again, on behalf of Lane Electric and our members, we believe any further consideration of an ecosystem function must be closely examined including by the Resource Committee and Members of Congress from the Northwest who best know the key issues impacting hydropower, rate increases, flood control, navigation, and the many Federal and non-Federal fish and

wildlife enhancement initiatives.

I hope I have illustrated to the Committee today that the Columbia River Treaty is a big issue to my members. This issue goes to the family budget of every member we serve in rural Lane County. I appreciate that you both understand this very real impact on your constituents.

This concludes my testimony. Thank you for the opportunity to testify today. Lane Electric and the public power community in the Northwest will remain engaged in the future of the Columbia River Treaty and I hope you will call upon us if we may be of assistance to your work.

The CHAIRMAN. Thank you very much, Mr. Crinklaw, for your testimony.

Next I'll recognize Ron Reimann, who is president of the Columbia-Snake River Irrigators Association, he's also a commissioner for the Port of Pasco here in Pasco.

Mr. Reimann, you're recognized.

STATEMENT OF RON REIMANN, PRESIDENT, COLUMBIA-SNAKE RIVER IRRIGATORS ASSOCIATION AND COMMIS-SIONER, PORT OF PASCO, KENNEWICK, WASHINGTON

Mr. REIMANN. Thank you, Chairman and Ranking Member.

On a personal note, Doc, is it just me, or am I the only one up here with a suit and tie?

Mr. DEFAZIO. You're the only one who's comfortable.

The CHAIRMAN. I don't know where Rella messed up, but she must have messed up.

Mr. REIMANN. I get to wear three hats today, so I'll be brief. I'm a Port of Pasco commissioner. The Port is an economic engine for Pasco and Franklin County, you may have flown into our airport and over the Port's processing center development. I'm also president of the Columbia-Snake River Irrigators Association. We represent approximately 250,000 acres of all types of irrigated crops.

I'm also secretary/treasurer and, I might add, one of the better equipment operators of T & R Farms, Inc., a family owned and operated irrigated farm. We are not a large operation compared to many, but we produced enough potatoes on our farm this fall to feed 640,000 people for a year.

All of these three hats I wear are dependent on the reliable and economically practical water supply from the Columbia River. I am at somewhat of a loss for the purpose of this hearing. I understand public comment was to be submitted by the end of October, and the regional recommendation by the end of December. I have read the regional recommendation briefing version. It sounds very good. Reads like a book, that everybody ends up married, rich, or just plain happy.

This is not a story. This is about my son, my granddaughter's future, and everybody else's future that lives in the Pacific Northwest. And it seems like everybody else I know no longer has faith that our legislators or agencies will do the right thing. What's more disturbing is we don't have the faith that they know how to do it anymore.

I read the disclaimer that this treaty was written back in the '60s. My father-in-law entered into a potato seed contract with a seed grower in the early '60s. We still operate on that same con-

tract three generations later. Maybe you need some old farmers from Canada and the United States to write the next treaty. Better yet, people who just care enough to protect and use our river in the best interest of all.

What happened to a coalition of legislators from the Northwest stepping forward to protect our rights? Sometimes it takes common sense to make something work. I am afraid the citizens of the Pacific Northwest are out of luck once again.

Thank you.

The CHAIRMAN. Thank you very much, Mr. Reimann.

I'll recognize Mr. Greg Haller for the Pacific Rivers Council, recognized for 5 minutes.

STATEMENT OF GREG HALLER, CONSERVATION DIRECTOR, PACIFIC RIVERS COUNCIL, PORTLAND, OREGON

Mr. HALLER. Chairman Hastings, Ranking Member DeFazio, thank you for the opportunity to testify in the hearing on the future of the Columbia River Treaty. My name is Greg Haller, I'm the conservation director for Pacific Rivers Council.

My testimony will focus on four or five issues regarding the treaty and recommendations for modernizing it, for the future of hydropower in the basin, congressional authorization for review of flood risk management, and expanding the U.S. Entity to include regional expertise on ecosystem function.

We strongly support the U.S. Entity for recommending ecosystem function as the third primary purpose of the treaty. Modernizing the treaty offers a unique opportunity to effect a basis to get out of the long-term health of the Columbia River. This effort will be critical for the sustainability of wild salmon runs as the challenges of climate change take hold.

The elevation of the ecosystem function accurately reflects the high value that citizens of the region place on the health of the river and on salmon runs generally. It also reflects the reality in today's Northwest that ecosystem health and economic health are inextricable.

Because there is still no lawful Federal plan to restore endangered Columbia-Snake salmon and steelhead and because all but one of ESA's listed stocks are still far below the level needed for recovery, there's still much work to be done, particularly regarding flow management, improving river temperatures which are dangerously high in both the Columbia and Snake, restoring habitat, improving passage for lamprey, reconnecting flood plains, and restoring salmon to areas now blocked by dams.

Modernization of the treaty will allow the region to address some of these issues by integrating strategies more consistent with regional salmon recovery and health goals.

Regarding the future of hydropower in the basin, the region and nation obviously have benefited greatly from the renewable energy supply generated by the Columbia River. These benefits, however, have come at the expense of salmon and people. Importantly, the dynamics of a changing energy portfolio, including the rapid development of wind power and the increasing use of natural gas to meet peak power demands, coupled with societal demands to re-

store salmon, point to a future less dependent on hydropower for

peaking power needs.

Further, climate change will likely decrease the overall reliability of the hydro system. Therefore, power production under a modernized treaty must account for and promote development of non-carbon energy in the Northwest, consistent with the Northwest Power and Conservation—I think it's the Northwest Conservation Power Planning.

Modernizing flood risk management represents a rare opportunity to positively affect the river ecosystem at the basin scale through a comprehensive public planning process. This effort should integrate new analysis of flood risks under predicted climate change scenarios with an assessment of how renewable and conventional energy sources will affect the demand for power produced in the basin.

Further, it will involve a review of the adequacy of existing flood control infrastructure and an assessment of where flood plains can safely be reconnected to the river. This review should also include funding for the integration of modern precipitation and runoff forecasting techniques in the seasonal planning processes. The potential benefits of a modernized flood risk management extend to other treaty purposes, as well. And I appreciate the comments of Mr. Mainzer in finding win-win-win solutions.

Fuller reservoirs not only enhance reservoir productivity and provide flexibility to provide additional summer flows, they also enhance system hydropower capacity and recreational opportunities. These types of scenarios should be fully explored. I think this issue is particularly salient with recent biological movements concerning Federal Emergency Management Agency's national flood insurance program and how that program affects salmon in Oregon and

Washington.

Though we acknowledge concerns about the calculation of the size of power deliveries made to Canada pursuant to the treaty, we strongly believe that calls to terminate in order to reduce the socalled entitlement are short-sighted. The United States must be cautious in its approach to the suggestion of it reducing or eliminating the entitlement to be a primary driver in treaty negotiations or as a basis to terminate the treaty to avoid power deliveries.

The significance of entitlement power deliveries as an inducement to British Columbia and Canada to negotiate changes should not be underestimated, particularly as Ms. Eichenberger pointed out, that Canada can point to other benefits provided to the United

States from operating the treaty dams.

Finally, PRC believes that an ecosystem expert should be added to the U.S. Entity to better prepare for negotiations with Canada and to better implement this 50-year treaty for today's Northwest. We suggest either the 15 Columbia Basin tribes, U.S. Fish and Wildlife Service, NOAA Fisheries, or the Environmental Protection

In closing, we believe the regional recommendation lays a solid foundation to begin negotiations with Canada, and while some differences may remain, these differences should not be interpreted as

reasons not to proceed with negotiations.

Thank you.

[The prepared statement of Mr. Haller follows:]

PREPARED STATEMENT OF GREG HALLER, CONSERVATION DIRECTOR, PACIFIC RIVERS COUNCIL, PORTLAND, OREGON

Chairman Hastings, Congressman DeFazio, and members of House Committee on Natural Resources, thank you for the opportunity to testify on "The Future of the U.S.-Canada Columbia River Treaty—Building on 60 Years of Coordinated Power Generation and Flood Control." The Pacific Rivers Council (PRC) is a regional river conservation group, located in Portland, Oregon, which works throughout the Columbia Basin and northern California to protect rivers, their watersheds and the native aquatic species that depend on functioning, high quality aquatic and riparian ecosystems. Due to our focus, we have been actively involved in the Treaty review process, which we believe offers a unique opportunity to positively affect the long-term health of the Columbia River. We strongly support the U.S. Entity's conclusion in its Regional Recommendation that modernizing the Treaty with Canada is in the best interest of the United States and the river's ecosystem.

SUPPORT FOR MODERNIZING THE TREATY WITH ECOSYSTEM FUNCTION AS A PRIMARY PURPOSE

PRC commends the U.S. Entity for recommending ecosystem function as a primary purpose of a modernized Treaty, along with flood risk management and hydropower production. The elevation of ecosystem function as a primary purpose accurately reflects the high value that citizens of the Pacific Northwest place on the health of the river and is consistent with nationally held opinions about how society should manage its interaction with the environment, as evidenced by environmental laws such as the Endangered Species Act (ESA) and the Clean Water Act (CWA). It also reflects the reality in today's Northwest that ecosystem health and economic health are inextricable.

Ecosystem function may generally be defined as the physical and chemical interaction of living components (plants, animals and microorganisms) with non-living components (air, water, rocks) which produce and sustain an environmental community rich in abundance and diversity, resilient to natural processes and disruptions so that it may persist into the future. In the context of the Columbia River, ecosystem function are those processes that create environmental conditions, i.e., natural flow patterns, good water quality, cool river temperatures, connected floodplains and a healthy estuary that support and sustain, among other species, strong populations of wild salmon for present and future generations. A vital corollary to any definition is that, in the Northwest, ecosystem function underlies economic function. The health of the river is the basis for every economic activity undertaken in the basin.

As a result of dam building throughout the Basin, the Columbia River is now a highly fragmented and mechanized system, with degraded habitat, poor water quality and numerous ESA-listed salmon and steelhead runs. Because there is still no lawful Federal plan to restore endangered Columbia-Snake salmon and steelhead, and because all but one of ESA-listed stocks are still far below levels needed for recovery, there is still much work to be done, particularly regarding flow management, improving river temperatures, reconnecting floodplains and improving passage for salmon. Modernization of the Treaty will allow the region to address some of these issues by integrating strategies more consistent with regional salmon recovery and ecosystem health goals.

A critical consideration for a modernized Treaty is climate change. Climate change scenarios predicted for the region do not bode well for the future of salmon and other cold-water species. Already, river temperatures in the Columbia and Snake are dangerously high for extended periods in the summer and early fall. Treaty negotiations offer the region the chance to plan for operations that will address the challenges of low flows and elevated temperature.

We believe the issue ecosystem function is particularly salient to Treaty negotiations, given recent biological opinions concerning the impact of the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program on ESA-listed salmon in Oregon and Washington. As such, FEMA requirements at the local level should be integrated into the larger flood review process, described below

level should be integrated into the larger flood review process, described below.

Conversely, not modernizing the Treaty will increase the risk of extinction for salmon. Absent a modernized Treaty, the Army Corps of Engineers must demonstrate that is has "effectively used" all U.S. storage capacity for system flood control before it can "call upon" Canadian reservoirs for additional storage. Proceeding with this type of flood risk management may require larger and more frequent drawdowns at Lake Roosevelt and perhaps at all U.S. storage reservoirs, including

non-treaty dams such as Dworshak and Brownlee. Such operations would could limit system capability to provide needed spring and summer flows for salmon.

THE FUTURE OF HYDROPOWER IN THE BASIN

The region and nation have benefited from the renewable energy generated by the Columbia River. But these benefits have come at the enormous cost of salmon and the river's ecosystem. Now, the people and the courts demand a different and better future for clean water and wild salmon runs. As climate change manifests as changed precipitation and runoff patterns, the hydrosystem will be under increasing pressure to reliably meet peak power needs and provide flows for fish. Importantly the dynamics of a changing energy portfolio, including the rapid development of wind and solar power and the increasing use of natural gas to meet peak power demonstrative and the increasing use of natural gas to meet peak power demonstrative and the contractive and mands, point to a potentially different future for hydropower operations on the Columbia, one potentially much more compatible with salmon recovery. These changes necessitate a forward thinking planning process that seeks to build a future for hydropower and salmon that reflects the needs and challenges of the 21st century. Treaty negotiations offer this opportunity.

Power production under a modernized Treaty must account for and promote development of non-carbon energy sources in the Northwest, including conservation and renewable resources, consistent with the region's goals as stated in the Northwest Power and Conservation Council's Sixth Northwest Conservation and Electric Power *Plan*. Energy efficiency and new renewables are the dominant growth areas in the region's energy supplies. Based on expanded power production model, the United States and Canada should re-evaluate the division of surplus power generation between the two nations.

COLUMBIA RIVER BASIN FLOOD RISK POLICY REVIEW—MODERNIZING FLOOD RISK MANAGEMENT

Modernizing the Treaty represents an opportunity to positively affect the river ecosystem at the Basin scale through a comprehensive, public planning process that would seek to modernize flood risk management. This effort should integrate new analysis of flood risk under predicted climate change scenarios with an assessment of how renewable and conventional energy sources will affect the demand for hydropower produced in the Basin. Further, it will involve a review of the adequacy of existing flood control infrastructure and an assessment of where floodplains can safely be reconnected with the river. It should also include funding for the integra-tion of modern precipitation and runoff forecasting techniques into seasonal planning processes. Flood risk management based on monthly forecasts has often resulted in unnecessarily large reservoir drawdowns, missed refill targets and diminished flows and higher river temperatures. With improved forecasting and modeling, reservoirs can safely be maintained at higher levels to aid both anadromous and resident fish species.

The potential benefits of modernized flood risk management extend to other Treaty purposes. Fuller reservoirs not only enhance reservoir productivity and provide flexibility to provide additional summer flows, they also enhance system hydropower

Ilexibility to provide additional summer flows, they also enhance system hydropower capacity and recreational opportunities. These types of win-win scenarios can be fully explored in an expanded review process.

We believe the issue of flood risk review and ecosystem function is particularly salient given recent biological opinions concerning the impact of the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program on ESA-listed salmon in Oregon and Washington.

Because the Army Corps' current position is that the agency will not move forward with a basin-wide flood risk management review absent congressional authorization, we strongly urges Congress, particularly Northwest Members of Congress

ization, we strongly urge Congress, particularly Northwest Members of Congress, to direct the Corps to perform this review, using the best available science in a fully transparent and public process.

THE CANADIAN ENTITLEMENT

Though we acknowledge the concern about the calculation and size of power deliveries made to Canada pursuant to the current Treaty, we strongly believe that the United States must be cautious in its approach to suggestions that reducing or eliminating the Canadian Entitlement be a primary driver in Treaty negotiations, or as a basis to terminate the Treaty to avoid power deliveries. The significance of entitlement power deliveries as an inducement to British Columbia and Canada to negotiate changes to the Treaty that the United States may seek should not be underestimated, particularly when Canada can point to other benefits provided to the United States from operations of Canadian Treaty dams, including predictability of hydropower forecasting, flood control, recreation, navigation, water supply and ecosystem benefits.

The U.S. analysis that has been done to determine what the cost of termination to the United States in reduced hydropower flexibility and in resorting to "called upon" flood control, is based upon assumptions of how Canada might operate in the absence of the Treaty. Instead, this should be a bilateral analysis. Canada estimates the benefits to the United States of flood control over the lifetime of the current Treaty at \$32 billion, and in 2012 alone at over \$2 billion. Those numbers do not address the enormous economic benefit of predictable hydropower, recreation, navigation, water supply and ecosystem benefits. Some interests in the region have voiced concerns regarding the cost of doing more for salmon and the health of the river. We suggest that a cost-benefit analysis of the existing Treaty's compared to a modernized Treaty would benefit the dialog between both nations. Supporting the need for such an analysis are suggestions that revaluation of the Entitlement calculation include "credits" for actions currently implemented pursuant to court order or the ESA. We do not see a legal, analytic or commonsense basis for creating "credits" for compliance with the Endangered Species Act (or any law). Such one-sided analysis ignores the very large benefits accruing to Northwest communities and people from compliance with such laws. We also note that the Federal dam system on the Columbia and Snake Rivers is not in compliance with the Endangered Species Act, and has not been since 2000.

A REPRESENTATIVE FOR ECOSYSTEM FUNCTION IN THE U.S. ENTITY

An ecosystem-expert should be added to the U.S. Entity, to better prepare for negotiations with Canada and to better implement this 50-year Treaty for today's Northwest. The Treaty process should include a third agency or sovereign in the U.S. Entity, co-equal to Bonneville Power and the Army Corps of Engineers, for both negotiations and implementation of the Treaty. We suggest that the 15 Columbia Basin Tribes or U.S. Fish and Wildlife Service, NOAA Fisheries or Environmental Protection Agency represent ecosystem function.

WATER SUPPLY ALLOCATION

PRC is concerned about the Regional Recommendation's call for a process to allocate additional water from Canada for out-of-stream uses. Given existing streamflow deficits, allocating additional spring and summer flows for out-of-stream uses would be inconsistent with the elevation of ecosystem function as a primary purpose of a modernized Treaty. Only after instream uses are fully supported should analysis of consumptive and other uses be considered. Further, the Canadian government has already signaled that water supply is one of the many benefits it should be compensated for, and therefore, any additional out-of-stream use could be viewed as an additional benefit requiring additional compensation.

CONCLUSION

In closing, PRC believes that modernizing the Treaty to include ecosystem function as a primary purpose is in the best interest of the United States and the Columbia River's ecosystem and the regional economy. Treaty negotiations, changes in energy demand, new sources of renewable power, and the challenges of climate change combine to create a unique opportunity to improve the health of the river and to modernize governance of the Columbia. And while some differences may remain unresolved among the region's stakeholders, States, and Native American Indian Tribes about the Recommendation, these differences should not be interpreted as reason not to proceed with negotiations with Canada. Rather, these differences merely highlight the importance and complexity of the many values the Columbia provides to society.

The CHAIRMAN. Thank you, Mr. Haller.

Now I'll recognize Mr. Paul Amos, who is the president of the Columbia River Pilots out of Portland, Oregon.

Mr. Amos, you are recognized for 5 minutes.

¹Province of British Columbia, "U.S. Benefits from the Columbia River Treaty—Past, Present, and Future: A Province of British Columbia Perspective," June 25, 2013.

STATEMENT OF PAUL AMOS, PRESIDENT, COLUMBIA RIVER PILOTS, PORTLAND, OREGON

Mr. Amos. Thank you, Chairman Hastings, Representative Ranking Member DeFazio. I am the president of Columbia River Pilots. Our organization provides navigation expertise for the ships transient in the Columbia River. We board in Astoria, Oregon, and take the ships all the way to Portland, all the points in between, and take them back out to the bar when it's time for them to leave.

Before I became a river pilot, I spent 10 years in my career as a towboat captain, operating over the system; grain tow runs to Lewiston, Idaho, and back were my primary source of employment in those days. I've been continuously employed on the system since 1974. I appreciate the opportunity to provide the perspective of the navigation community in the Northwest as it relates to the Columbia River Treaty.

I'll briefly highlight the importance of the river system for trade and transportation, and I'll relay our thoughts on the treaty reviews. Our economy relies on a safe and efficient transportation system, and that system includes roads, rail, air, and water. Columbia-Snake River system is a critical part of our Nation's water transportation portfolio, providing benefits to the region and the Nation as a whole.

We are an export heavy system and play an important role in balancing the Nation's trade deficit. We are top in the Nation for the export of wheat and the second for soy. We also lead the West Coast in wood exports and mineral exports.

This is a busy waterway. My colleagues and I bring in 1,400 to 1,500 ships per year with a total vessel movement of about 4,500 movements per year on the system. Over 42 million tons of international trade moved on this waterway in 2010, valued at over \$20 billion

A conservative estimate of the jobs directly tied to just the deep draft navigation channel finds that 40,000 individuals rely on this waterway for their livelihood. As you know, substantial Federal investments have been made recently in the river system, including the Columbia River channel deepening, creating locked gates, and major jetty repairs. This waterway is a significant Federal infrastructure asset and any potential changes which may impact its safety and efficiency should be evaluated thoroughly.

Regarding the Columbia River Treaty, we are most concerned with the suggestion by some that the existing spring and summer flow should be augmented through an expansion per the treaty agreements. Increased flows in the spring and early summer will increase shoaling, which will increase dredging costs and impact navigation safety. I have personal experience with increased sedimentation that occurred in the Columbia River as a result of higher spring and summer flows.

The most recent example is 2011, when we had, just 6 months after the channel deepening project was completed, due to high river flows, we had that shoaling that we had to decrease the amount of draft we could load the ships to. The high flows that created the shoaling have—well, the shoaling from that one episode has continued for the last 3 years.

When we can't fully load the ships, Northwest goods are left on the docks, which means our farmers and other producers are less competitive with overseas markets.

Some are further suggesting that increased spring and summer flows would be accompanied by lower flows in the fall and winter. Lower flows at that time of year would provide even less water over which to navigate these increased shoals. The combination of these two proposals would be a one-two punch for the river system.

In addition to the deep draft channel, there are other ways navigation would be impacted by changes to flows. The Columbia River Pilot access to the Columbia River jetties are of particular concern. We are also concerned about impacts to bridges, port infrastructure, port lands behind levees, and more. Finally, I need to note that higher flows also impact safe maneuvering of vessels.

Again, from firsthand experience, I know that higher flows reduce the number of barges that can be safely handled by a towboat in swift currents. Higher flows for longer periods of time will keep barge operators from moving full tows which will impact shipments of Northwest agricultural products, petroleum, and all other cargo handling on the inland system.

High flows also affect deep draft ships handling in the lower Columbia River, the kind of vessels my colleagues and I pilot. High flows mean more challenging ship handling, longer transient times, and difficult anchorings.

We appreciate the work with the Corps the past 2 years to analyze potential impacts on navigation which could result from several of the flow regimens sought by some State and tribal members of the Sovereign Review Team. My colleagues and I also sincerely appreciate the efforts of the Corps and the BPA to construct a review process to provide a reasonable recommendation in the time available.

Moving forward, we would respectfully request increased stakeholder involvement. It is critical that regional interests that would be impacted by changes in the river system—utilities, navigation, irrigators, and flood control authorities—have the opportunity to participate. These regional interests serve millions of Northwest residents through power delivery, facilitating trade routes for regional and national cargo, producing high-value crops, and protecting lives and businesses from floods. Their expertise is critical as proposed changes to the river operations are contemplated.

Thank you for the opportunity to testify. I welcome any questions you may have.

[The prepared statement of Mr. Amos follows:]

Prepared Statement of Capt. Paul D. Amos, President, Columbia River Pilots, Portland, Oregon

Good morning. My name is Paul Amos, and I am the elected President of the Columbia River Pilots. River pilots are licensed by the State of Oregon to provide pilotage services for the maritime industry. Pilots possess the extensive local knowledge and ship-handling skills necessary for commercial and governmental vessels of all types and sizes to safely transit roughly 350 nautical miles of the Columbia and Willamette Rivers. These vessels are piloted in all kinds of weather, at all hours of the day and night, 365 days a year. River pilots have been engaging in this demanding profession for over 150 years, through one of the most lengthy and demanding pilotage grounds in the world. I spent 10 years of my career, before I was

a River Pilot, as a towboat captain on the inland system and have been continuously

employed on the system since 1974.

I appreciate the opportunity to provide the perspective of the navigation community in the Northwest as it relates to the Columbia River Treaty.

BACKGROUND ON THE COLUMBIA SNAKE RIVER SYSTEM

Our Nation's economy relies on a safe, efficient and cost-effective multi-modal transportation system. That system includes road, rail, air and water.

The Columbia Snake River System is a critical piece of the nation's water portfolio, providing benefits not just to the Pacific Northwest, but far into the heartland of our country. We are an export heavy system, and play an important role in balancing the Nation's trade deficit. The Columbia River is the Nation's number one gateway for the export of wheat, and second for soy exports. We also lead the West Coast on wood exports and mineral bulk exports. My colleagues and I pilot between 1,400 and 1,500 vessels each year with a total of approximately 4,500 ship move-

ments per year on this busy waterway.

The Columbia Snake River System is essentially a river highway. It includes our 105-mile deep draft Columbia River channel from Astoria to Portland, Oregon. From there, a 360-mile inland barging channel stretches from Portland, Oregon to Lewiston, Idaho, with a series of eight locks along the way. These are the highest lift locks in the United States, and are among the highest in the world, with the John Day lock topping out at 110 feet. There are also three large jetties at the Mouth of the Columbia, hundreds of pile dikes, and many other critical pieces of Federal and port-owned infrastructure which ensure safe navigation and the free

flow of trade.

Over 42 million tons of international trade moved on this waterway in 2010, valued at over \$20 billion. A conservative estimate of the jobs directly tied to the deep draft navigation channel finds that 40,000 individuals rely on this waterway for their livelihood. This economic benefit is expected to increase in the future, supporting even more jobs as additional companies make use of the river system.

This waterway is a significant Federal navigation infrastructure asset, and any potential changes which may impact its efficiency should be evaluated thoroughly. Substantial Federal investments have been made in both the deep draft Lower Columbia River as well as the inland barging channel and locks. The entire region pulled together to support the recently completed \$200M Columbia River channel deepening project. We also celebrated \$60M for three new downstream lock gates on the inland system, and significant Columbia River jetty repairs in the last decade. A major rehabilitation of the Columbia River jetties is on the horizon, along with additional lock investments and enging any local major propages dradging on the with additional lock investments and ongoing annual maintenance dredging on the Lower Columbia and at the Mouth of the Columbia.

COLUMBIA RIVER TREATY CONCERNS

The Northwest navigation community sincerely appreciates the efforts of the U.S. Army Corps of Engineers (Corps), Bonneville Power Administration (BPA), and the select representatives from the region who have given many hours of their time on the Sovereign Review Team (SRT). We recognize the efforts of the Corps and BPA to construct a review process to provide a regional recommendation in the time available.

Throughout the Columbia River Treaty review process, the navigation community has called for recognition of the interconnected nature of flood risk management, flows for ecosystem benefit, and the ability to provide the federally authorized navigation channel and river conditions which will allow for safe and reliable navigation. Navigation stakeholders are most concerned with the assumption in the Draft

Recommendation that existing spring and summer flows should be augmented through an expansion of present Treaty agreements. These augmented flows will increase shoaling which will, in turn, increase dredging costs and likely impact navigation safety. The document further suggests that these increased flows would be accompanied by lower flows in the fall and winter. This will provide even less water was relief to these increased should Nevigotion to be shown between the contractions of the same have a provided the same part of the same provided th over which to navigate these increased shoals. Navigation stakeholders like me have repeatedly expressed our concern with higher flows in the spring and summer, and lower flows in the fall and winter. I will highlight a few reasons why these flow changes could present problems for navigation.

POTENTIAL IMPACTS TO FEDERAL NAVIGATION PROJECTS

I have personal experience with the increased sedimentation that occurs on the Columbia River as a result of higher spring and summer flows. The most recent example of the impact of high flows occurred in 2011. In November 2010, we celebrated the completion of the Columbia River channel deepening project. Just 6 months later, high river flows in 2011 resulted in severe shoaling that could not be adequately addressed by the level of funding provided to the Corps of Engineers' Federal dredging program. For several years, the Corps has worked to address the shoals that developed in 2011. Unfortunately, this severe shoaling meant that the Columbia River Pilots had to institute restrictions on how deeply ships could safely draft in our river. When ships can't be fully loaded, Northwest goods are left on the docks, which impacts whether our farmers and other regional producers can compete in overseas markets. I am very concerned about the ability of the Federal Government to provide adequate funding to address similar shoaling events resulting from any changes to river operations.

In addition to the Columbia River channel, there are additional elements of Federal navigation infrastructure which may be impacted by increased flows. The Columbia River pile dike system which helps guide the Federal navigation channel and the movement of sediment is already in serious disrepair. This system would likely be undermined by higher flows that occur with greater frequency. We are also very concerned about any potential weakening of the base of the Columbia River jetties, the rubble-mound structures that protect the entrance to the system from powerful Pacific storms. A 7-year, \$257 million jetty rehab project will hopefully begin in 2014. Any impact to the jetty structures below the waterline would be devastating and costly to the ports and communities along the 465-mile Columbia/ Snake river channel, and to a critical national transportation infrastructure invest-

ABILITY TO SAFELY AND EFFICIENTLY NAVIGATE

Higher flows that occur more frequently will also hinder safe navigation, as well as the efficiency of barging in the Federal navigation channel. I know from first-hand experience that high flows reduce the number of barges that can be safely handled by a towboat in swift currents, including around the dams where spill operations may be in effect. Higher flows for longer periods of time will undermine the ability of barge operators to move full tows, which will impact shipments of Northwest agricultural products, petroleum, and all other cargo handled on the Columbia Snake River System.

We are also concerned about the impact flows may have on deep-draft ship handling on the Lower Columbia River, the kinds of vessels my colleagues and I pilot. Higher flows in spring/summer will impact vessel handling, transit time, and the ability to safely anchor. Additionally, lower flows in the fall/winter will further reduce the available draft on the Lower Columbia River.

We appreciate the work of the Corps team over the past year to analyze potential impacts to navigation which would result from implementation of several of the flow regimes sought by some State and tribal members of the Sovereign Review Team. The desire of some for increased "ecosystem flows", and the reflection of this desire in early drafts of the regional recommendation with no reference to potential impacts to navigation and other authorized purposes, created great concern among many river system users. The current draft of the regional recommendation now notes that "potential impacts to other river uses and infrastructure such as navigation, bridges, and other transportation features" will be evaluated and addressed. I also want to note that in the past few months we have been provided additional

I also want to note that in the past few months we have been provided additional opportunities to provide feedback to the U.S. Entity. The latest version of the Draft Recommendation, circulated by the U.S. Entity on November 26, 2013, represents an improvement from earlier drafts in its inclusion of the importance of Columbia River navigation to the region and the nation, and the concerns expressed by navigation stakeholders.

Moving forward, we would strongly recommend increased stakeholder involvement. It is critical that regional interests that would be impacted by changes to the river system—utilities, navigation, irrigators, and flood control authorities—have more opportunity to participate. These regional interests serve millions of Northwest residents through power delivery, facilitating trade routes for regional and national cargo, producing high-value crops, and protecting lives and businesses from floods. Their expertise is critical as proposed changes to river operations are contemplated.

Thank you for the opportunity to testify. I welcome any questions you may have.

The CHAIRMAN. Thank you very much, Mr. Amos. And as I mentioned, last, but certainly not least, we have Mr. Wes McCart, who

is the commissioner of Stevens County in the north part of the State.

Mr. McCart, you're recognized for 5 minutes.

STATEMENT OF WES McCART, COMMISSIONER, STEVENS COUNTY, WASHINGTON

Mr. McCart. Thank you, Chairman Hastings, Ranking Member DeFazio.

For the record, not only do I represent Stevens County as a county commissioner, I also serve as vice-chair of Eastern Washington Council of governments. It is made up of 10 counties that have come together. It was formed originally over Lake Roosevelt and the Teck Cominco studies that needed to be done for clean water and the Columbia River system. We originally had about 5 counties, we now have 10 and continue to grow, mainly over the Wolf and the Columbia River issues.

We are opposed to adding ecosystem function as a primary function of the treaty. Not only is it mentioned as the first element in a revised treaty, it is mentioned throughout every element of the treaty in the recommendation of the draft recommendation that's out for comment now. We have all seen how government tends to creep. We've seen how we've had to change how we address salmon over time.

The fear that we have in adding this in the treaty is that this will creep not only to the entire Columbia system as it runs through the dams, but in all the tributaries that flow into the system. In other words, the entire Columbia Basin.

It's also a domestic issue. How we handle the ecosystem on this side of the border has been laid out in laws, lawsuits, and several other instruments. We should not be adding any domestic issues into an international treaty.

Also, I wanted to stress, in the water supply, in-stream flows are listed first as the primary function for water supply. I find this a little bit disingenuous on behalf of the recommendations from the U.S. Entity, the State Department, over the fact that they've added ecosystem functions first and they've ignored irrigation.

There's been no consensus in our region on what the U.S. Entity is trying to move forward to the State Department. The Sovereign Review Team has not a single local-elected official or State-elected official on that review team. I believe we are considered, we should be considered stakeholders as local electives. We have not only a duty, but a responsibility, to represent all of our constituents and all of the different interests in our area, in our local area.

There's also a requirement in both Federal law and several Presidential orders for planning to be done by Federal agencies to be coordinated with local governments at all levels so that our concerns for economics, customs, and culture are all recognized. This has not been done to date, even though we have sent several requests to the U.S. Entity to do so.

Further, we see that the recommendation of the draft recommendation that's out now seems to put the human element below the environment and the salmon. This is also not acceptable and against law.

Next, there is a lack of any mention of irrigation in the recommendation. This has a huge impact. They do mention water supply, but water supply mentions municipal water supply, it does not mention the word irrigation, nor does it even lead one to the conclusion that irrigation is in consideration in the system. This has a huge impact on our local economies. As county commissioners, we're charged to protect those economies, so I'm very concerned that those are not included in the recommendation of the State Department.

I also believe this is a national security issue. Our ability to feed ourselves and our troops is what makes us a great Nation, and we need to protect that at all levels. And as a local-elected official,

again, I believe that's important.

In regards to climate change that's mentioned in here, for several years, since the beginning of the treaty, we've had the flexibility in the treaty as it relates to this to deal with how the climate will change. I don't believe we need to add it, again, as an ecosystem

mantra throughout the new treaty.

We suggest that you stay the course with the treaty, the primary functions being flood control and hydropower. We recognize that some changes do need to be made to the treaty, especially in relationship to the Canadian entitlement and to protect our irrigation and our economies. But before any recommendation is made to the State Department, or before the State Department moves on anything, I ask that you help us, as local-elected officials, and at all levels of local-elected officials, to get our voices heard as a stakeholder instead of being relegated to a public comment.

Thank you.

[The prepared statement of Mr. McCart follows:]

PREPARED STATEMENT OF WES McCart, Commissioner, Stevens County, Washington

Honorable Chairman Doc Hastings and members of the Committee, please accept the following testimony for the record on behalf of myself and the 10 member coun-

ties of the Eastern Washington Council of Governments.

Ecosystem-based function should not be an element of the U.S. Entity recommendation to the Department of State. Currently ecosystem-based function is listed as the first and primary element of a renegotiated treaty. It is also present in every aspect of the draft recommendation. The existing treaty does not include every dam on the Columbia River system. If ecosystem function becomes the primary function, and it is currently listed first before hydropower and flood control without any mention that the order in which items are listed is not pertinent, then the ability exists for a renewed treaty to include all of the dams as well as all of the tributaries in the entire Columbia Basin. We should not allow for this massive expansion of the treaty as it would harm our citizens and our economy.

Ecosystem function has been a domestic issue, as has irrigation, in regards to the current treaty. It is vital that it remains a domestic issue. The ecosystem and salmon are important to all of us, but there are domestic provisions already existing to address these issues and they need not be elevated to an international agreement regarding some of the dams on the Columbia River. The primary purpose for building most of the dams included in the current treaty was for hydropower and flood control and we owe it to all of our constituents to not expand this meaningful purpose to include domestic special interests. The current recommendation also recommends increased water supply, but mentions instream uses first which are also ecosystem based, and leads one to question whether humans will be considered or

fall behind all ecosystem and environmental needs.

The current draft recommendation from the U.S. Entity to the Department of State has no consensus and lacks any meaningful participation. The entire Sovereign Review Team (SRT) is made up of tribal members and unelected bureaucrats, 15 tribal governments, 11 Federal agencies and 4 State members, and not a

single elected official. The Eastern Washington Council of Governments represents 10 counties with local-elected county commissioners making up the Council. We, along with several other elected county commissioners from around the State, have been trying to get our voices and the voices of the people we represent heard throughout this process to no avail as of yet. Federal agencies have a requirement by law and several Presidential orders to coordinate their efforts with local-elected officials to protect the local customs, culture, and economic stability of the areas we represent. To date this has not occurred and the current draft recommendation has the potential to create great harm to our economies and to our local customs and culture. The recommendation also places the human element below the environment and salmon. This is unacceptable and against Federal statute. County Commissioners, State Representatives, City Councils, and elected Public Utility District Commissioners have all been relegated to non-stakeholder status. The Eastern Washington Council of Governments was formed primarily to study and address issues regarding Lake Roosevelt and the Columbia River. As local electeds, we have the responsibility and duty to protect our citizens from human health hazards and the duty to protect our local economies, yet by being excluded from any meaningful input in the recommendation, our duties have been rebuffed by the SRT and the U.S. Entity. We believe that until the U.S. Entity has meaningful coordination with Local County electeds that the recommendation not to send to the Department of State, or if already forwarded to the Department of State that the recommendation is returned back with instructions to include coordination with local-elected officials. The current draft recommendation makes no mention of the word "irrigation."

The current draft recommendation makes no mention of the word "irrigation." This was a primary purpose for the construction of Grand Coulee Dam and much of the non-treaty infrastructure on the Columbia River System. This is an important element that should be considered in any future changes to the treaty. All of our local, State, and regional economies depend upon irrigation, and the electricity to run the irrigation systems, for food production. No nation in world history has ever been defeated when it has kept its ability to feed itself and its troops. Irrigation of the Columbia Basin from both treaty and non-treaty dams allows us to feed ourselves and the world. This is a national security issue, as well as a local economic

issue, that must not be forgotten or ignored.

Climate Change, i.e.—Man-made Global Warming, is another recommendation made in the draft by the U.S. Entity. This is yet another attempt to place ecosystems above our constituents in any new treaty. The weather has changed constantly throughout the entire history of the treaty and will continue to do so. Flexibility exists in the current treaty to deal with changes in weather and we need

not change the status quo.

Obviously with flood control provisions changing in 2024 and the Canadian entitlement payments putting a strain on our local economies, there are some changes that will need to be considered in the treaty. We, as local-elected officials, agree and understand the need for some change, but we must continue to stay the course of the existing treaty with hydropower and flood control as the only primary purposes of any new or revised treaty; and any new or revised treaty must only include the dams currently within the existing treaty. Further, local electeds, and the interests of our constituents we have a duty to represent, must be brought to the table for meaningful input before any recommendation is made to the Department of State and/or any action is taken by the Department of State to negotiate change to a new treaty.

Thank you for allowing me to be heard today.

The CHAIRMAN. Thank you very much, Mr. McCart, for your comments and thank all of you for your statements. We begin now with questions, we might have several rounds here.

I want to ask Mr. Webb the first question. You alluded to the fact that Grant PUD, along with Chelan and Douglas, are part of a mid-Columbia—mid-Columbia PUDs. I have had the privilege of visiting every one of the dams at least once, sometimes multiple times. And I'm always struck by what the three PUDs have done with each of their facilities.

Now, for the record, there's not a one-size-fits-all fish passage for all five dams, is there? Just for the record.

Mr. Webb. Yes.

The CHAIRMAN. One-size-fits-all? Or each dam has a unique way of passing fish?

Mr. Webb. Each dam has a unique way of passing fish.

The CHAIRMAN. Right. In other words, the same fish passage is not the same on all five dams?

Mr. Webb. Yes.

The CHAIRMAN. OK. What I, listening to the testimony here, certainly hearing from my constituent staff as the draft came out, there has been, and several of you mentioned, the concern of add-

ing the ecosystem in there.

Given what you have done, and I'll ask you to speak, obviously, for Grant PUD, but if that's consistent, if you can speak about Chelan and Douglas, adding an element like that and the unknowns that may come from adding that element in there, what do you think-how do you think that would affect your work on fish passage at your respective dams?

Mr. WEBB. I think from a physical standpoint, and I would speak from Grant first, is I think physically, and we're just completing our fish bypass system at the Priest Rapids Dam, and we've already completed one of them, and it's been successful. That was a couple of years ago. So, you know, from my point of view, I would have concerns with what is that next step that we want to take.

Because I think, from our point, and this is more from a power group standpoint, is that I think our commitments in this region, we've met those commitments, and I think our practice has been reflected that it's been successful. So, physically, I would be concerned with—I don't know what else we could do physically.

You heard from General Kem that, you know, trying to manage the water in a different way scientifically doesn't make sense, so I think from that standpoint, we would say—we would have some concerns if we change and try to manipulate the river to meet other requirements of the ecosystem.

The CHAIRMAN. Do you think that there might be a potential— I assume when you're going through the relicensing of your dams that there was some sort of litigation involved one way or the other, is that correct?

Mr. Webb. Yeah, I wouldn't say litigation, but we had several commitments that we made through our relicensing. And this is where I think it's been successful. Part of it is the bypass physically from the hydro systems, but also a lot of commitments with hatcheries. You know, the Chief Joe partnership, up in Penticton, you know, our acclamation process at Mason Creek, Carlton.

So we've made a lot of commitments through our relicensing that now, what I'm seeing is really the positive steps of actually seeing it happen and actually constructed, and next year actually having production in those hatcheries and acclamation sites.

The Chairman. I may want to come back to that in another round, but I want to ask Mr. Reimann and Commissioner McCart, we've had a treaty that's been in place for 50 years and it's silent on irrigation and silent on navigation. You expressed my—you've heard my concern about adding a new element in there.

Just give me your thoughts of adding it. Would it be logical to add an element of irrigation or should we be silent, recognizing that for 50 years it's worked fairly well? I'll start, Mr. Reimann, we'll start with you, and Mr. McCart.

Mr. REIMANN. I guess we could—if we stay silent on it, the problem is—you're from this area, and if you look at where we farm out on the Snake River, there's nothing out there. It's called Poverty Flats. It's called that for a reason. It raised five bushel of wheat. We produce—and I—and that's a small amount, 640,000 people just on our crop alone, and we're a small potato grower.

You know, the term "ecosystem," we've changed the ecosystem. We've changed it for the better. If you take out the dams, we can take it back to where it was before, but we've improved it, and we need to learn to live with this new ecosystem we've created.

And irrigation is food, it's life. I mean, let's face it, we're not—none of us in any job we do, I don't care if you're a farmer or a legislator, we need farms, we need water, we need water for all of us to survive. It's a simple fact that a person could live on two things, potatoes and milk. You could live on that the rest of your life. And both of them require lots of water.

The CHAIRMAN. Mr. McCart, I'd like you to briefly respond to that.

Mr. McCart. I do believe it would be important to have irrigation as an element of the treaty. I don't believe it needs to be a primary element, as hydropower and flood control need to be, but I think it does need to be an issue.

It is vital to our economy, it is part of our customs and cultures and, like I alluded to in my testimony, I believe it comes down to a national security issue. We have to be able to produce food. And without the irrigation, this area would not succeed in food production at the level we do now.

The CHAIRMAN. OK. My time has expired. Recognize the Ranking Member.

Mr. DEFAZIO. Well, Mr. Chairman, just to kind of pursue that part, I'm a little puzzled, actually, because, I mean, we see a lot of these kind of resolutions in Congress where they have a whole bunch of whereas's, which I always ignore, to tell the truth, because they always sound high and mighty and usually don't mean anything.

But then you get to the point of, you know, sort of getting it resolved, and that's where you get the action items. And just following up on this, because I certainly recognize the importance of irrigation, you know, I was substantially involved a number of years ago in dealing with the Federal investment and partnering with irrigators in terms of trying to limit the diversion of fish into irrigation activities, and I felt that that was a good investment by BPA and the Federal Government, and we have some obligation to do that.

But when I look at the general principles versus the recommendation details, I do see under, you know, water supply, which was referenced by one of the witnesses, that, I mean, the second thing is talking about irrigation as a long and important history for our production purposes. Need will only increase as this region continues to grow and as food supply and security continue to grow in importance. Operations under a modernized treaty should recognize irrigation as an important authorized purpose of the basin.

So I think, you know, we've got some—I mean, everybody's going to read into this fairly vague document—which is what it is, it's fairly vague—what they want. But I, for one, would not want to ignore irrigation, but I think there is some significant weight to put on it in there. I think, Mr. McCart, were you the one who mentioned that there was water but didn't feel it was adequate? Where they recognize that part?

Mr. McCart. Yes, sir. I was working off the draft document that was out, since the final hasn't been released, to my knowledge, yet.

Mr. DEFAZIO. Well, is that the December—or maybe, yeah, what date is today? Oh, OK. Yeah, well, I guess this one maybe hasn't been produced. This one is dated December 13th, so—

Mr. McCart. I haven't seen that document yet, sir.

Mr. DEFAZIO. Well, to tell the truth, I hadn't, either. So—

Mr. McCart. So if, in fact, they did add that item, I am happy that it's there.

Mr. DEFAZIO. Well, I think you have a legitimate concern. I mean, this is a tough balancing act here. This river, like I said at the beginning, we all love it.

Now, let me ask just sort of a general question for everybody. Anybody think we need to terminate or it'd be desirable to terminate?

[No response].

Mr. DeFazio. OK. Anybody—I think we've got at least one outlier here—feel that we're not overpaying on the entitlement? I think there's someone who kind of said that in their testimony. Do you want to—Mr. Haller, do you—why do you feel that?

Mr. HALLER. Well, I'm not sure that overpaying is the right—is the right word there. As I had mentioned, I do acknowledge that there is legitimate concern over the calculation of that entitlement benefit, but I do think that a thorough cost-benefit analysis of all the benefits that the treaty provides to both nations would benefit the dialog between the countries, and I think that would reveal, you know, what's really going on in terms of those costs and benefits and where they're accruing.

Mr. DEFAZIO. Yeah, I'm not an expert on the issue, but I did—when I did the tour 2 years ago this last spring, it was the year that was specifically mentioned as having provided—I can't remember how many billion dollars in flood control benefits. But the folks I traveled with and the people we talked to actually on both sides of the border said, actually, they didn't operate the system any differently in that high water year than they would have without the provisions in the treaty.

I mean, they had built out their side so much and it's so different now, that they are optimizing their returns over there, and yet they are, you know, in another place saying, we've got this \$9 billion worth of flood problems. Yes, it's true, but that's because of dams that they built which we financed by overpaying initially so they would build those dams, recognizing that, and they're built and now they're optimizing their use, so—

OK. Well, anyhow, that's just sort of an editorial comment on a question. And then let's—I just wanted to, if everyone could sort

of briefly say what they think is good or bad about the discussion of ecosystem. Because I think, again, it's a perception among people that it's something that we're not doing now, you know, or that we won't continue to do in the future or we're not going to want to enhance in the future.

So just start with Mr. Corwin, what's your comfort level here with just—again, you, unfortunately, probably haven't seen this either, and we're—the phraseology is considerably different than the earlier draft. And I didn't know this wasn't publicly available, I'm sorry.

Mr. CORWIN. Thank you, Mr. Ranking Member.

The U.S. Entity did release to at least some of the regional parties, the Sovereign Review Team and others that are on their distribution list, a draft from November, in mid-November, that catches, I think, some of what you're referring to in this draft that's expected later this week. And there were some positive movements in there, including the language on irrigation, more specifically, and others.

There's also, to get to your question, there's a re-ordering that seems to emphasize needing to get the Canadian entitlement rebalanced, as opposed to having this ecosystem issue up-front which

was a new piece added to the recommendation.

The ecosystem, though, I think you alluded earlier to a vision that I think the Entity's striving toward, of firming up what's being done already and then what potential other changes. The problem that comes up is that it does raise a lot of questions. One was earlier raised, what's domestic versus appropriately in an international treaty? Cross-border flows are international, but other pieces may not be. Canada, then, raises a question, so what's the real mechanical need, does it need to be in this treaty? That's a good question.

Our concern, if there's going to be ecosystem pieces included in the discussion, our concern is how do they interplay with what's already being done? Are they—do they have a scientific basis? Are they costed out? Do they overwhelm the need to reduce power costs out of this discussion? And, as you said, it's such a vague document and short, a lot of that's pushed forward into an uncertain area

moving forward.

So are there unintended consequences? It's just—it's something that's going to need a lot more work, and that's why we want to stay very involved in the process moving forward.

Mr. DEFAZIO. Thank you. I've exceeded my time. Thank you, Mr.

Chairman.

The CHAIRMAN. I want to—Mr. Haller, you alluded to this, I believe, in your testimony or in your written statement, about the makeup of the Entity. And you've heard some of the other panelists have some concerns about the Entity, Commissioner McCart mentioned about the local involvement, for example.

Are you aware of any effort by agencies within the administration to change the makeup of the entities as we move forward?

Mr. HALLER. No, I'm not aware. We have vocalized that informally to some of the agencies, but, quite honestly, I think their workloads, they would like to keep away from it for as long as possible.

The CHAIRMAN. But you thought, at least you alluded to the fact that you thought it should be expanded from your perspective.

Mr. HALLER. Yes, I do believe that we need the expertise of those agencies or tribes to represent ecosystem function, yes, in the treaty negotiations.

The CHAIRMAN. Specifically ecosystem functions?

Mr. HALLER. Correct, yes. The CHAIRMAN. OK. Now, would you share Commissioner McCart's concern that local governments did not have a seat at the

table, at least in his view, as-

Mr. HALLER. Well, I would be concerned if I truly felt that—I think that the stakeholder process actually has been run fairly well, fairly inclusively. Not everyone, unfortunately, has been able to get the level of engagement that the sovereigns have. That includes the NGOs, as well, so I share some of those concerns.

The CHAIRMAN. Let me just kind of give you—I know that that new draft, and I, too, just became aware of that, and I know that that ecosystem language was—has been tapped down a bit. But generally what concerns me, and I'll just speak of where I—we've had 50 years of having this treaty in place. I honestly cannot say in the time that I've had the privilege to represent this area in Congress that there has been an outpouring of people coming to me saying this treaty is absolutely broken and we really need to change it.

In fact, moving into the 10-year window of renegotiation has been somewhat seamless, until—until the first mention of expanding from the two basic parts. And so-and that's why I asked the question about irrigation and navigation. Probably a good analogy is the U.S. Constitution is pretty short, and that's the law of the land. Contrast that with our tax code.

So do you want to get to a point where you have a treaty, then, adding a whole bunch of elements that can be interpreted or misinterpreted in the future? That's the question that, you know, from my perspective, as we move forward on this. So let me ask that question, posit that question in a way for all of you, if you would kind of respond to this.

Mr. Corwin, we'll start with you and just go down the line. Mr. CORWIN. Could you restate that question just briefly?

The CHAIRMAN. Well, the analogy that I used, and again, was you've heard my concern about the ecosystem being part of the treaty. That has been toned down, and I recognize that, in the latest draft that will be submitted to the State Department. Nevertheless, I mentioned that in the time that I've had the privilege of having this job, I don't recall a whole lot of controversy about the treaty until the first draft came up introducing the third element indication to hydropower.

So my question, and using the Constitution as an analogy, which is a pretty short document compared to the tax code, would it be better to have something that is more constitutional-like than a tax

code in a treaty? I guess that's the way I would say it.

Mr. CORWIN. Yes. Thank you, Mr. Chairman, for the question. I think it's a—it is a difficult question, but it raises the right issue. The treaty itself isn't that long, the original treaty isn't that long. It's only 20 pages, I think, and then it has attachments. So the more you—the more you complicate it, the more you may have dis-

putes that arise.

And the other thing about adding new pieces is, remember, part of our—part of the critique of the original treaty is it wasn't able to evolve over time. It locked in these assumptions which now don't make sense 50 years later. If you do that with other things, especially on the ecosystem's side, there's a big ethic of adaptive management. Things change over time. So that is a good question that you raise.

The CHAIRMAN. Good. Real quickly, Mr. Webb, if you can—

Mr. Webb. Just, the only thing I would add is what the General stated in the first panel, that I think part of it is maybe the recognition of past practices that we've done, that there may be some sense to that or science. But other than that, I do agree with Scott that anything you put in writing, after a day, it's history and more—you know, when you add years to it, it can become a problem for the future if we have another treaty past 2024.

The CHAIRMAN. OK. Mr. Crinklaw?

Mr. Crinklaw. Yes, Chairman Hastings. I'd keep it as simple as possible, do the original two purposes, which is power and flood control. To add anything else to it, which is the third leg, ecosystem functions, I think, just gets in the way of reaching a conclusion with or without it.

The CHAIRMAN. OK. Mr. Reimann?

Mr. REIMANN. That's an excellent point, Doc. I'll tell you, that's why I mentioned that one-page contract that we still work on three generations later. The simpler, the better. If it could be one page, we'd probably survive a lot better than complicating it. So, good point.

The CHAIRMAN. Mr. Haller?

Mr. HALLER. I think something as important as coordinating the management of water and power production should not be open to interpretation. And so ecosystem function should be well-defined in what that means in the operations going forward.

The CHAIRMAN. OK. Mr. Amos?

Mr. AMOS. I guess my concern would be if you enter that in the treaty, you could, perhaps, hamstring yourself in the future by certain parameters that may not be met or may change. I think as it is now, we've met—we've risen to the challenge and met the ecosystem needs, and I think it provides more flexibility without having it a substantial part of the treaty.

The CHAIRMAN. Thank you. Commissioner McCart?

Mr. McCart. I think one of the advantages of the treaty that we have in place is the fact that it's been very short and to the point, allows for a lot of flexibility as time has changed. And where I would—I would like to see things that we're commonly doing now mentioned, I'm not sure we have to elaborate on any of them, and leave the treaty as short and flexible as possible, much as the Constitution is.

The CHAIRMAN. OK. Thank you. Mr. DeFazio?

Mr. DEFAZIO. Well, I like those. It seems that we had some consensus there, to a great extent, and I will say, you know, I do fear, personally, and I'll express it here, because I think it will be of great value in the future, that essentially we are sending—my rec-

ommendation since the beginning has been that what we send as regional recommendations should be as succinct and as subject to as little interpretation as possible by the State Department, since they will be the principle entity negotiating with the Canadians.

And my fear is that the State Department and, say, the Department of Commerce, you know, who no one has mentioned as a party to this, have much bigger fish to fry than the interests of the Pacific Northwest, whether they're environmental interests or economic interests. And I worry about being traded off for something to get the Canadians to go along with something in the trade—Trans-Pacific Trade Partnership or some other thing.

So I think we have to be very circumscribed in our recommendations to the State, and we've got to keep them on that circumscribed basis. And, you know, I think there is consensus, even with Mr. Haller, that we really need to scrutinize what the value of benefits is on both sides of the border. Everyone here has agreed we don't want to terminate, we want to renegotiate, and we want to look toward the future.

But there's also the whole reality of the economic impact and there are competing demands here because some of what advocates for fish would like to have would, say, increased spill, has a cost. And the question is, who bears the cost? And thus far, all the costs of the system have only been borne by Northwest ratepayers, which isn't true in any other attempt by the government of the United States to recover a species.

You know, all of the others have the Federal Government carrying most of, if not all, of the burden. No other region has been called upon for this. And so, you know, I—that's another concern

I have as we go forward.

But I think we can accommodate with this, the idea about adaptive management, I mean, I don't look at these as, you know, the treaty as fixed. And it hasn't been. I mean, it has—it has changed and now we're looking at taking some of the changes that have been in place for a number of years and giving them the certainty, as BPA and the Corps talked about, in recognition of the treaty.

But I don't think we should try to set flow numbers or anything specific in the stone of a treaty, that that is potentially disastrous, particularly the climate change and other conditions that we can't even anticipate.

And so I don't really have any other questions, Mr. Chairman. I think we've covered some good ground here, you know, and it's the beginning of a process that hopefully will come out well and hopefully won't have to be christened by our Senate.

The CHAIRMAN. We can hope that, but we know it will.

I want to also mention that outside the door, there are comment sheets so anybody in the audience that wants to comment on this, feel free to do so. I think it is self-explanatory what they say.

I don't have any other questions, but I will associate myself with my Ranking Member's comments. This is going to be a work in progress, and I, too, am concerned because on a regular basis, as Mr. DeFazio said in his opening statement, regardless of administration, people look to what we have here in the Northwest with our power generation very enviously, not recognizing the fact that, of course, we take care of our region.

And so with that uniqueness that we have and a treaty that's going to be negotiated from Washington, DC, to someplace else is fraught for some potential problems. So I think one of the reasons why I wanted to have this hearing earlier on, even though we still have 10 years before the consummation of this treaty, I think it's important to start that dialog as soon as we possibly can. That was the reason why we wanted to have this hearing here.

So I want to thank, again, all of you for your testimony and for your input. Many times there are questions that come up after a hearing has been adjourned. If that happens and you're contacted, we'd certainly ask you to elaborate on whatever question we have and that, too, will be part of the record.

So if there's no further business to come before the committee, the committee stands adjourned.

[Whereupon, at 11:00 a.m., the committee was adjourned.]

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