

**H.R. 1869, “ENVIRONMENTAL COMPLIANCE COST TRANSPARENCY ACT OF 2015”; H.R. 2993, “WATER RECYCLING ACCELERATION ACT OF 2015”; AND H.R. 4582, “SAVE OUR SALMON (SOS) ACT”**

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**LEGISLATIVE HEARING**

BEFORE THE  
SUBCOMMITTEE ON WATER, POWER AND OCEANS  
OF THE  
COMMITTEE ON NATURAL RESOURCES  
U.S. HOUSE OF REPRESENTATIVES  
ONE HUNDRED FOURTEENTH CONGRESS

SECOND SESSION

Wednesday, April 20, 2016

**Serial No. 114–39**

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**LEGISLATIVE HEARING ON H.R. 1869, TO PROVIDE FOR  
TRANSPARENCY AND REPORTING RELATED TO DIRECT AND  
INDIRECT COSTS INCURRED BY THE BONNEVILLE POWER  
ADMINISTRATION, THE WESTERN AREA POWER ADMINIS-  
TRATION, THE SOUTHWESTERN POWER ADMINISTRATION,  
AND THE SOUTHEASTERN POWER ADMINISTRATION RE-  
LATED TO COMPLIANCE WITH ANY FEDERAL ENVIRON-  
MENTAL LAWS IMPACTING THE CONSERVATION OF FISH  
AND WILDLIFE, AND FOR OTHER PURPOSES, "ENVIRON-  
MENTAL COMPLIANCE COST TRANSPARENCY ACT OF 2015";  
H.R. 2993, TO AMEND THE RECLAMATION WASTEWATER AND  
GROUNDWATER STUDY AND FACILITIES ACT TO AUTHORIZE  
FUNDING FOR WATER RECYCLING PROJECTS IN AREAS EX-  
PERIENCING SEVERE, EXTREME, OR EXCEPTIONAL  
DROUGHT, AND FOR OTHER PURPOSES, "WATER RECY-  
CLING ACCELERATION ACT OF 2015"; AND H.R. 4582, TO  
EXCLUDE STRIPED BASS FROM THE ANADROMOUS FISH  
DOUBLING REQUIREMENT IN SECTION 3406(b)(1) OF THE  
CENTRAL VALLEY PROJECT IMPROVEMENT ACT, AND FOR  
OTHER PURPOSES, "SAVE OUR SALMON (SOS) ACT"**

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**Wednesday, April 20, 2016  
U.S. House of Representatives  
Subcommittee on Water, Power and Oceans  
Committee on Natural Resources  
Washington, DC**

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The subcommittee met, pursuant to notice, at 10:05 a.m., in room 1324, Longworth House Office Building, Hon. John Fleming [Chairman of the Subcommittee] presiding.

Present: Representatives Fleming, Gosar, LaMalfa, Denham, Newhouse; Huffman, Napolitano, Costa, Lowenthal, and Torres.

Dr. FLEMING. The Subcommittee on Water, Power and Oceans will come to order. The subcommittee meets today to hear testimony on H.R. 1869, sponsored by our Vice Chair of the Subcommittee, Dr. Gosar; H.R. 2993, sponsored by Ms. Matsui; and H.R. 4582, sponsored by Mr. Denham.

We will begin the hearing with opening statements, and the Chair now recognizes himself.

**STATEMENT OF THE HON. JOHN FLEMING, A REPRESENTA-  
TIVE IN CONGRESS FROM THE STATE OF LOUISIANA**

Dr. FLEMING. Today's hearing is on three well-intended bills aimed at improving situations facing water and power ratepayers. I thank the bill sponsors for their leadership on introducing their legislation.

There has been a long-standing debate on the role of the Federal Government in water projects. Today will not be any different.

For generations, the Federal Government has used the National Economic Development process to determine the appropriate

Federal role in a project. As part of that calculation, if the benefits outweigh the costs based on certain criteria such as flood control, power generation, water supply, and environment, among others, then a project was deemed “feasible.”

The cost for a feasible project would be allocated to the purposes of the project. This meant that the water and power ratepayers would pay for their portions of the project. This policy is called the “Beneficiary Pays” rule, where those who benefit from the projects pay for those projects.

That philosophy, while still in place today for many of the Bureau of Reclamation’s and Army Corps of Engineers’ projects, has been shoved aside over the last few decades when it comes to certain projects.

One of those programs is the so-called Title XVI program, which was enacted in 1992 and designed to help western communities recycle and desalinate water. These are laudable goals. But the question has always been over what the Federal nexus is for these simple projects, especially when those local communities are not required to pay back the 25 percent Federal cost share, and that these projects do not undergo a rigorous National Economic Development stress test like other projects.

To bring it home, why should the taxpayers in Louisiana help pay for a single-purpose water recycling or desalination project that is owned by a California city that is the sole beneficiary?

H.R. 2993, introduced by our colleague, Doris Matsui, makes this situation even worse by giving the Interior Secretary discretion to create these so-called Title XVI projects. This would allow the program to spiral out of control and create an even bigger Federal taxpayer backlog for these projects. We need to subject this program to the “Beneficiary Pays” rule, and the National Economic Development process to start, not loosen the rules any further, as this bill does.

The next bill actually improves how the Federal Government operates and was borne out of a recent oversight hearing in this subcommittee. Mr. Denham’s bill, H.R. 4582, eliminates an outdated and conflicting fish-doubling requirement imposed by another 1992 law, the Central Valley Project Improvement Act.

The Federal law, as it stands today, requires the population of striped bass and salmon to be doubled in California. That sounds like another laudable goal. But it simply does not pass the laugh test after we heard that striped bass, an invasive species, are devouring vast amounts of salmon, a native and endangered species that ratepayers devote hundreds of millions of dollars to recover.

This is an instance where one Federal environmental law is prioritizing non-native species over the goals of the Endangered Species Act. That needs to stop, and that is what Mr. Denham’s bipartisan bill accomplishes at no cost to the American taxpayer.

Last, we have Dr. Gosar’s H.R. 1869, which requires four Federal agencies to be more transparent in how Federal environmental laws impact some electricity ratepayers. This bill provides wholesale electric customers a mechanism to better understand what they are paying for, and to debate whether these costs are effective, ineffective, or somewhere in the middle. This bill rightly

shines a light on the government by providing more information for those who pay an agency's bills.

With that, I welcome today's debate and thank our witnesses for being here.

[The prepared statement of Dr. Fleming follows:]

PREPARED STATEMENT OF THE HON. JOHN FLEMING, CHAIRMAN, SUBCOMMITTEE ON  
WATER, POWER AND OCEANS

Today's hearing is on three well-intended bills aimed at improving situations facing water and power ratepayers. I thank the bill sponsors for their leadership on introducing their legislation.

There has been a long-standing debate on the role of the Federal Government in water projects. Today will not be any different.

For generations, the Federal Government has used the National Economic Development process to determine the appropriate Federal role in a project. As part of that calculation, if the benefits outweighed the costs based on certain criteria such as flood control, power generation water supply, and the environment among others, then a project was deemed "feasible." The costs for a feasible project would be allocated to the purposes of the project. This meant that water and power ratepayers would pay for their portions of the project. This policy is called the "Beneficiary Pays" rule, where those who benefit from the projects pay for those projects.

That philosophy, while still in place today for many of the Bureau of Reclamation's and Army Corps of Engineers' projects, has been shoved aside over the last few decades when it comes to certain projects. One of those programs is the so-called Title XVI program, which was enacted in 1992 and designed to help western communities recycle and desalinate water. These are laudable goals, but the question has always been over what the Federal nexus is for these simple projects—especially when those local communities are not required to pay back the 25 percent Federal cost share and that these projects do not undergo a rigorous National Economic Development stress test like other projects. To bring it home, why should the taxpayers in Louisiana help pay for a single-purpose water recycling or desalination project that is owned by a California city that is the sole beneficiary?

H.R. 2993, introduced by our colleague, Doris Matsui, makes this situation even worse by giving the Interior Secretary discretion to create these so-called Title XVI projects. This would allow the program to spiral out of control and create an even bigger Federal taxpayer backlog for these projects. We need to subject this program to the "Beneficiary Pays" rule and the National Economic Development process to start, not loosen the rules any further as this bill does.

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With that, I welcome today's debate and thank our witnesses for being here.

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Dr. FLEMING. The Chair now recognizes Mr. Huffman for his statement.

**STATEMENT OF THE HON. JARED HUFFMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA**

Mr. HUFFMAN. Good morning, Mr. Chairman. Welcome to the witnesses. I am looking forward to a good discussion on these bills today.

First on the agenda we have H.R. 4582, also known as the Save our Salmon Act, offered by my friend, Jeff Denham. This bill would amend the Central Valley Project Improvement Act, or CVPIA, to exempt striped bass from the anadromous fish doubling goals in light of concerns that striped bass prey on endangered salmon.

The science tells us that we ought to be focused on habitat, temperature, and flow as far greater concerns than predation. But I do want to commend Representative Denham for his concern about California salmon runs. And perhaps this is the beginning of a shared interest, where we can work together to do some good things for salmon.

As Congressman Denham and the Chairman know, California's salmon runs sustain numerous jobs in my district. Currently, I am sorry to say, we have what can only be described as a salmon crisis in California. According to some estimates, 78 percent of our native salmon will be extinct or extirpated within the next century if current trends continue.

Last year, the mortality rate for Sacramento winter-run salmon was 97 percent. The year before that, it was 95 percent. Simply put, Mr. Chairman, many California fishermen are hanging on by a thread. Boats are being scrapped because their owners cannot pay mooring fees. Fishermen are struggling to pay mortgages. Restaurants, hotels, and other businesses that depend on healthy fish runs are struggling just to get by.

And even now, many are still recovering from the total closure of the ocean salmon fishery along the West Coast in 2008 and 2009. That was because of poor California salmon returns in those years. The closure devastated the Pacific Coast fishing industry. Ultimately, it required many millions of dollars in Federal disaster aid. And, just last month, in an ominous sign, fishery managers again announced that the commercial salmon season off the West Coast for this summer will be severely restricted. This will be the second year in a row because of very low population levels.

So, Mr. Chairman, Congress and the Administration need to be proactive and bold in addressing the salmon crisis. And even though H.R. 4582 focuses on predation, it is important to remember that the science clearly tells us there are more important stressors we need to address before our salmon runs are going to recover.

Unsustainable water exports from our rivers, degraded habitat conditions, a lack of sufficient cold water, all of these are essential to sustaining our fisheries. And while they are politically difficult, we have to deal with these other stressors that everyone knows prevent salmon recovery. Otherwise, we will just be writing off thousands of jobs that are very important to my district and beyond, including throughout California, Oregon, and Washington.

H.R. 4582 will not help California salmon. But, as I said, I hope it moves us toward finally working together on things that will help salmon recovery, including smarter water policy, updating our



reservoir operations, and working on habitat conservation measures.

Moving to the second bill, H.R. 1869, offered by Vice Chairman Gosar, this is a bill that would require the PMAs to make a special note on customers' bills highlighting the cost of complying with fish and wildlife protections.

I think Mr. Gosar's laudable goal is transparency and disclosure of costs. If that is the case, I would suggest that the legislation also require inclusion on bills of all costs that affect power rates, such as the cost of irrigation, transmission, and failed investments like the Bonneville Power Administration's nuclear plant default, which ratepayers have been on the hook paying back for decades. We could actually require these bills to note what the power would cost if market rates were being charged, like most other places in the country, rather than taxpayer-subsidized cost-based rates.

Maybe we could also include a line item on customer bills that shows the discount that the Power Administration customers are getting from U.S. taxpayers subsidizing the construction of hydrodams that generate most of their power. While we are at it, we could list the economic benefits of robust ecosystems that PMA mitigation activities actually support. These are things with huge economic benefits to the American people. They pay for themselves many times over.

So, if we really care about transparency, let's not cherry-pick a sliver of misleading information to include on customers' power bills, while excluding all other relevant information. Let's include all of it, or better yet, maybe let's leave these bills alone.

Last on today's agenda we have H.R. 2993, offered by my friend, Doris Matsui. This is a common-sense surgical piece of legislation. It would remove the existing requirement that potential water recycling projects have to first receive a project-specific authorization from Congress. This will help us stretch our western water supplies. That has always been discussed as something in the national interest. I hope we will keep that in mind today as we consider this important bill.

Thank you, Mr. Chair.

[The prepared statement of Mr. Huffman follows:]

PREPARED STATEMENT OF THE HON. JARED HUFFMAN, RANKING MEMBER,  
SUBCOMMITTEE ON WATER, POWER AND OCEANS

Good morning, Mr. Chairman. Welcome to the witnesses. I'm looking forward to a good discussion on these bills today.

Now first on the agenda we have H.R. 4582, also known as the Save Our Salmon Act, offered by my friend Jeff Denham. Now this bill would amend the Central Valley Project Improvement Act, or CVPIA, to exempt striped bass from the anadromous fish doubling goals in light of concerns that striped bass prey on endangered salmon. Now the science tells us that we ought to be focused on habitat, temperature, and flow as far greater concerns than predation, but I do want to commend Representative Denham for his concern about California's salmon runs. And perhaps this is the beginning of a shared interest where we can work together to do some good things for salmon.

As Congressman Denham and the Chairman know, California's salmon runs sustain numerous jobs in my district and currently, I'm sorry to say, we have what can only be described as a salmon crisis in California. According to some estimates, 78 percent of our native salmon will be extinct or extirpated within the next century if current trends continue. Last year the mortality rate for Sacramento winter-run salmon was 97 percent. The year before that, it was 95 percent.

Simply put, Mr. Chairman, many California fishermen are hanging on by a thread. Boats are being scrapped because their owners can't pay mooring fees. Fishermen are struggling to pay mortgages. Restaurants, hotels, other businesses that depend on healthy fish runs are struggling just to get by.

And even now, many are still recovering from the *total* closure of the ocean salmon fishery along the West Coast in 2008 and 2009—that was because of poor California salmon returns in those years. The closure devastated the Pacific Coast fishing industry. Ultimately, it required many millions of dollars in Federal disaster aid. And just last month, in an ominous sign, fishery managers again announced that the commercial salmon season off the West Coast for this summer will be severely restricted. This will be the second year in a row because of very low population levels.

So Mr. Chairman, Congress and the Administration need to be proactive and bold in addressing the salmon crisis. And even though H.R. 4582 focuses on predation, it's important to remember that the science clearly tells us there are more important stressors we need to address before our salmon runs are going to recover. Unsustainable water exports from our rivers, degraded habitat conditions, a lack of sufficient cold water, all of these are essential to sustaining our fisheries.

And while they're politically difficult, we *have to* deal with these other stressors that everyone knows prevent salmon recovery. Otherwise we'll just be writing off thousands of jobs that are very important to my district and beyond including throughout California, Oregon, and Washington. H.R. 4582 won't help California salmon but, as I said, I hope it moves us toward finally working together on things that will help salmon recovery including smarter water policy, updating our reservoir operations, and working on habitat conservation measures.

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While we're at it, we could list the economic benefits of robust ecosystems that PMA mitigation activities actually support. These are things with huge economic benefits to the American people. They pay for themselves many times over. So if we really care about transparency, let's not cherry pick a sliver of misleading information to include on customers' power bills while excluding all other relevant information. Let's include all of it, or better yet, maybe let's leave these bills alone.

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Thank you, Mr. Chair.

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Dr. FLEMING. I thank the gentleman.  
Dr. Gosar is now recognized for 5 minutes.

#### **STATEMENT OF THE HON. PAUL A. GOSAR, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ARIZONA**

Dr. GOSAR. Thank you, Mr. Chairman, for holding today's hearing. Today is a step toward making common-sense, bipartisan improvements in Federal law. I commend our committee colleague, Mr. Denham, for introducing his bill to help protect endangered

salmon from the voracious appetites of non-native striped bass in California.

Ratepayers and taxpayers pay to help recover these salmon, only to see them devoured by the millions from predatory fish that are also protected by Federal law. The conflicts between these two fish and the laws that protect them is worthy of a mention in Paul Gosar's Top 10 "You Can't Believe Your Government is This Dysfunctional" list. Fortunately, this bill, if enacted, will remove this policy from my list.

Another bill, the Environmental Compliance Cost Transparency Act, from Yours Truly, requires needed Federal transparency from the four power marketing administrations, or PMAs. These Federal agencies sell 42 percent of our Nation's hydropower resources to hundreds of wholesale customers throughout the West and the South. These nonprofit utilities comprised of cities, towns, rural electric cooperatives, irrigation districts, and Native Americans bear the full cost of the environmental mandates imposed on the PMAs.

The millions of retail customers served by these wholesale utilities eat the cost of the Endangered Species Act, the Grand Canyon Protection Act, the Central Valley Project Improvement Act, and other Federal environmental laws. These costs result in direct expenditures, such as environmental studies, capital outlays, and operation and maintenance and staff costs. Indirect costs include lost hydropower and replacement power costs. These combined costs can be real.

In the Pacific Northwest, 30 percent of the rates are related to environmental costs and the Glen Canyon Dam flows in Arizona can cost its customers up to \$50 million annually, due to foregone power.

My bipartisan bill requires the PMAs to provide these costs on a monthly basis to their customers. It does not repeal or change any environmental laws, it simply requires transparency and helps those who are paying for the bills to better understand what they are actually paying for. And it focuses on one of the most variable costs that are growing faster than many of the more fixed cost items.

This bill is the result of years of work and input from the PMAs and the customers they serve. As an example, the Bonneville Power Administration testified that a prior bill should be changed so that all fish and wildlife costs should be included, not just Endangered Species Act costs. That change has been made.

[Slide]

Dr. GOSAR. That agency, under this Administration, even stated—and I quote, if you will turn to the monitor—"shares the interest in accountability that prompts this legislation. Power bills result from complicated calculations and the public debate about what affects power rates often strays from hard numbers. The bill would take a step towards clarifying the matter."

Someone suggested this bill will increase electricity rates. Nonsense. The PMAs have testified that it would not cost anything, and customers support this bill.

Ms. Leslie James, the Executive Director of the Colorado River Energy Distributors Association, testified—and I quote, if you will

look at the monitor again—"It is our understanding that this information is readily available and can be provided at little or no incremental cost." The problem, as we will hear later, is that one agency does not make this information transparent. To that end, let me refer you again to another customer group that supports this bill.

If you will look to the monitor again, Mr. Joe Kay, from the Grand Canyon State Electric Cooperative Association said, "Your legislation will allow for a better understanding of how those costs are derived. Moreover, through transparency and discussion, your legislation will lead to better business practices and improved communication between customers and PMAs."

Some in the so-called environmental community oppose this bill because they fear transparency and the debate that may happen with that transparency. Well, that debate is sorely needed.

In closing, I welcome the witnesses before us, and I yield back what little time I have left. Thank you, Mr. Chairman.

[The prepared statement of Dr. Gosar follows:]

PREPARED STATEMENT OF THE HON. PAUL A. GOSAR, A REPRESENTATIVE IN  
CONGRESS FROM THE STATE OF ARIZONA

Thank you for holding today's hearing. Today is a step toward making common-sense, bipartisan improvements in Federal law.

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These costs result in direct expenditures such as environmental studies, capital outlays and operation and maintenance and staff costs. Indirect costs include lost hydropower and replacement power costs. These combined costs can be real: In the Pacific Northwest, 30 percent of the rates are related to environmental costs and the Glen Canyon Dam flows in Arizona can cost its customers up to \$50 million annually due to foregone power.

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This bill is the result of years of work and input from the PMAs and the customers they serve. As an example, the Bonneville Power Administration testified that a prior bill should be changed so that ALL fish and wildlife account costs should be included—not just Endangered Species Act costs. That change has been made. That agency, under this Administration, even stated and I quote, "shares the interest in accountability that prompts this legislation. Power bills result from complicated calculations and the public debate about what affects power rates often strays from hard numbers. The bill would take a step toward clarifying the matter."

Some have suggested that this bill will increase electricity rates. Nonsense. The PMAs have testified that it would not and customers support this bill. Ms. Leslie James, the Executive Director of the Colorado River Energy Distributors

Association, testified that, "It is our understanding that this information is readily available and can be provided at little or no incremental cost."

Let me refer you to another customer group that supports the bill—Mr. Joe Kay from the Grand Canyon State Electric Cooperative Association said, "Your legislation will allow for a better understanding of how those costs are derived. Moreover, through transparency and discussion your legislation will lead to better business practices and improved communication between customers and PMAs."

Some in the so-called environmental community oppose this bill because they fear transparency and the debate that may happen with that transparency. That debate is sorely needed.

In closing, I welcome the witnesses before us and yield back the little time I have left.

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Dr. FLEMING. Thank you, Dr. Gosar.

Well, since Dr. Gosar just described his bill, the Chair will now recognize Ms. Matsui of California to describe your bill, H.R. 2993.

You are now recognized for 5 minutes.

**STATEMENT OF THE HON. DORIS O. MATSUI, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA**

Ms. MATSUI. Mr. Chairman, Ranking Member Huffman, and distinguished members of the committee, thank you very much for holding this hearing today, and inviting me to testify on my bill, the Water Recycling Acceleration Act.

As your subcommittee knows well, the West continues to face severe drought conditions. In California, this has reignited generations-old disputes over our limited water resources. The answer to our drought challenges is not taking water from one group or region in order to benefit another. Instead, we should be looking at ways to generate new water sources which benefit all water users.

When considering new sources, we should consider all options, including water recycling. Water recycling is a proven technology that has expanded water resources for millions of Americans.

The Bureau of Reclamation currently supports water recycling projects through its Title XVI program, which funds the study and construction of projects that reclaim and reuse wastewater and naturally impaired ground and surface water. This program has had a record of success since its establishment in 1992, facilitating the production of hundreds of thousands of acre-feet of recycled water annually, and leveraging \$2.4 billion in non-Federal funding.

But while the program is strong, the project selection process under the Title XVI is broken. Currently, projects must be individually authorized by Congress before they can compete for program funding. Due to the earmark ban, authorizing new projects is nearly impossible. In fact, despite years of devastating drought, we have not had a new Title XVI authorization since 2009.

My bill would remove the requirement that projects funded under the Title XVI program must receive individual congressional authorization, thereby expanding the pool of water recycling projects the Bureau is able to consider. Because Title XVI is an over-subscribed program, we should be prioritizing the most beneficial and deserving projects. The best way to do this is to allow more projects to compete for funding.

Additionally, my bill lays out a Title XVI program that is earmark-free, and requires projects to meet comprehensive criteria

in order to compete and qualify for funds. These criteria ensure that we are providing funding for projects that have multiple benefits and serve the needs of an entire region. This new way of distributing funding would facilitate a more competitive process that makes our Federal water recycling infrastructure construction dollars go further, and it prioritizes projects in drought-stricken areas, which is critical given the current challenges facing the West.

And, the changes made by my bill do not require Congress to increase spending. Congress would continue to have complete control over the Title XVI appropriations allocation. These changes to Title XVI and the expansion of water recycling and reuse help us to decouple the West's water supply from unpredictable weather and precipitation conditions. By moving toward a sustainable water supply that is more resilient to drought, we can benefit all water users, whether urban, agricultural, or environmental.

In Sacramento, we are exploring our own water recycling project. If built, this recycling project in Sacramento will provide the region with an opportunity to use wastewater in a more beneficial way. By piping reclaimed water to farms and habitat mitigation lands in the county, we can irrigate up to 18,000 acres of farmland and habitat.

This would help our local farmers by providing them with a reliable water source that they can count on, even during extreme drought. But it would also reduce our farmers' reliance on groundwater and replenish our aquifer. And by using recycled water for agriculture, more potable water would remain for urban uses. Importantly, this water would be affordable. In fact, as technologies continue to improve, the price of recycled water will continue to drop.

In conclusion, we must continue to expand the role of recycling as we envision the future of our water resources. As our population grows, all types of water sources must be considered to ensure that the West continues to prosper. I ask that you consider supporting the Water Recycling Acceleration Act as it moves through your committee.

Thank you, Mr. Chairman. Thank you, members of the committee.

[The prepared statement of Ms. Matsui follows:]

PREPARED STATEMENT OF THE HON. DORIS O. MATSUI, A REPRESENTATIVE IN  
CONGRESS FROM THE STATE OF CALIFORNIA

Thank you Chairman Fleming, Ranking Member Huffman, and distinguished members of the committee for holding this hearing today and inviting me to testify on my bill, the Water Recycling Acceleration Act.

As your subcommittee knows well, the West continues to face severe drought conditions. In California this has reignited generations-old disputes over our limited water resources. The answer to our drought challenges is not taking water from one group or region in order to benefit another. Instead, we should be looking at ways to generate new water sources which benefit all water users.

When considering new sources, I believe we should consider all options, including water recycling. Water recycling is a proven technology that has expanded water resources for millions of Americans.

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In conclusion, we must continue to expand the role of recycling as we envision the future of our water resources. As our population grows, all types of water sources must be considered to ensure that the West continues to prosper.

I ask that you support the Water Recycling Acceleration Act as it moves through your committee. Thank you, Mr. Chairman.

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Dr. FLEMING. I thank the gentlelady. We do not do formal questions to Members who testify, but I will open the dais for any follow-up questions that Members may have for Ms. Matsui.

[No response.]

Dr. FLEMING. If not, we will—oh, do you have one? Go ahead. Or a statement, if you have a statement.

Mr. COSTA. No, I want to commend the Congresswoman. I think this provides flexibility for Congress to try to deal with issues that are particular to our various congressional districts across the country. And this measure with Title XVI gives us that flexibility in using other management tools.

Yesterday, I pointed out that we do not have a recovery plan for the Delta smelt. There are a host of issues, whether it is the tertiary treatment on the city of Sacramento, as the Congresswoman pointed out in her testimony, or whether there are other issues in our respective districts that we can use the ability that—in the past was an option with earmarks, but since we do not have earmarks these days, that is no longer an option. But this creates an opportunity, in fact, to do so.

I think that it should receive bipartisan support because, clearly, we all have different circumstances in our congressional districts and in regions that we represent in which we want to try to address issues, but we are hand-tied in doing so. I think this legislation would go a long ways toward assisting us in that effort.

Dr. FLEMING. OK.

Mr. HUFFMAN. I also want to commend Congresswoman Matsui. We have an awful lot of water recycling projects that are ready to go throughout the West, and it has been a source of great frustration that Title XVI has really been stalled for several years now, and the Federal Government has been on the sidelines, not partnering with states and local water districts to move these supply projects forward.

I think some of that has just been out of stubborn ideology, applying some sort of a rigid Beneficiary Pays Principle to these projects. But if you look at what has happened as we have sat on the sidelines these last few years out of stubbornness on the Title XVI program, we have sent a lot more money than that in emergency drought relief to the state of California. Here are projects that have been ready to go, that are ready to go, that will make our state far more drought-resilient.

So, we can pay now or we can pay later. This is a bill that will help make sure that our Federal dollars are leveraged far more efficiently and effectively. So I commend the author, and hope this is something that we can take a serious, objective look at, and try to work on together.

Dr. FLEMING. OK. Again, we thank the gentlelady. And certainly you are welcome to stick around or get back to your important duties. But we thank you.

Ms. MATSUI. Thank you.

Dr. FLEMING. Our next panel can now go ahead and begin moving forward.

As Mr. Denham is not here to give a statement—he is tied up at the moment in another committee meeting—he has provided a statement for the record. So I ask unanimous consent to enter it into the record.

[No response.]

Dr. FLEMING. Hearing no objection, so ordered.

[The prepared statement of Mr. Denham follows:]

PREPARED STATEMENT OF THE HON. JEFF DENHAM, A REPRESENTATIVE IN CONGRESS  
FROM THE STATE OF CALIFORNIA

Chairman Fleming, thank you for holding this important legislative hearing today.

Over the past year, our committee has heard a recurring theme in hearings that predation is a key stressor in efforts to protect fish listed under the Endangered Species Act, especially in California.

In February, this subcommittee held an oversight hearing on predation, and a National Marine Fisheries Service witness testified that some salmonid populations in California are “extremely low due to an abundance of striped bass.” As the oversight hearing highlighted, in California, the problem of predation has been perpetuated in part by a counterintuitive provision in the Central Valley Project Improvement Act of 1992.

As part of an effort to protect fish populations, the CVPIA mandated population doubling for all anadromous fish. This requirement applies to the endangered salmon and their non-native predator, the striped bass.



Quite simply, my bill, H.R. 4582, the "Save our Salmon Act" aims to remove this doubling requirement for striped bass.

I am grateful for the bipartisan support and local interest that is growing behind my common-sense bill. To that end, I would like to make a motion to include these letters of support, representing 15 irrigation and water districts or associations throughout California, in the official record.

I would like to thank Dr. Hanson and Mr. Iseman for their testimony here today. I find your opinions and technical insights most informative and I look forward to working with the U.S. Department of the Interior to make the technical changes necessary to accomplish my bill's intent.

Thank you both for your endorsement and with that I yield back.

Dr. FLEMING. As our panel—yes, go ahead and move forward, please, and I will be introducing you as you step forward.

First we have Dr. Charles Hanson, Senior Fishery Biologist of Hanson Environmental, Incorporated. It is located in Walnut Creek, California. Dr. Hanson is also representing the State Water Contractors today. Dr. Hanson will testify on H.R. 4582.

Next is Mr. Jim Herberg, General Manager of the Orange County Sanitation District, which is based out of Fountain Valley, California. Mr. Herberg will testify on H.R. 2993.

Mr. Tom Iseman, Deputy Assistant Secretary of Water and Science at the U.S. Department of the Interior in Washington, DC. Mr. Iseman will testify on H.R. 2993 and 4582.

Mr. Bo Downen, Senior Policy Analyst for the Public Power Council, which is in Portland, Oregon. Mr. Downen will testify on H.R. 1869.

And, Mr. Patrick Ledger, CEO of Arizona G&T Cooperatives in Benson, Arizona. Mr. Ledger will also testify on H.R. 1869.

I would also like to note that the Department of Energy was invited to testify on H.R. 1869, but once again has refused to testify before this subcommittee.

Each witness's written testimony will appear in full in the hearing record, and we will have 5 minutes of oral statements.

The lights work thusly: you will be under a green light for the first 4 minutes, then a yellow light for 1 minute; and if you have not finished by the time the red light comes on, we ask for you to quickly conclude so we can keep things moving.

Trust me, your written statement, no matter how long it is, will be included in the record. And we thank you for appearing here today.

I now recognize Dr. Hanson for your testimony, sir.

**STATEMENT OF CHARLES H. HANSON, SENIOR FISHERY BIOLOGIST, HANSON ENVIRONMENTAL, INC. AND THE STATE WATER CONTRACTORS, WALNUT CREEK, CALIFORNIA**

Dr. HANSON. Good morning, Chairman Fleming, Ranking Member Huffman, and members of the subcommittee. My name is Chuck Hanson. I am a fisheries biologist, and as mentioned, I am here representing the State Water Contractors.

My background is: I studied Chinook salmon at the University of Washington. I studied striped bass in the Potomac and Chesapeake Bay at Johns Hopkins University. I have spent 35 years working on San Francisco, Sacramento, and San Joaquin Bay Delta fisheries issues, and have a Ph.D. from UC Davis.

This morning I would like to speak on the CVPIA, the Central Valley Project Improvement Act, which included an anadromous doubling goal and which was inclusive of a variety of fish species including non-native striped bass. When the CVPIA was being developed back in the late 1980s and early 1990s, striped bass were viewed as one of the key indicator species of the health of the Delta. They were also a very, very popular sport and recreational species. So it was natural to include them as part of the consideration of various indicators of the health of the estuary.

Starting in the 1990s and continuing to date, however, that perspective has changed. Priority has now shifted from non-native species to recovery of listed native populations. We have a number of fish species that inhabit the Bay Delta estuary that have been listed under the state or Federal Endangered Species Act as either threatened or endangered, and those include two runs of Chinook salmon, which I am going to focus on this morning.

[Slide]

Dr. HANSON. In terms of fish life history, the CVPIA includes anadromous species. Anadromous species are those fish that live part of their life cycle in the ocean, but return to fresh water to spawn. The adults migrate up the rivers, they spawn in the upper reaches of the rivers, and then the juveniles migrate back down to the ocean to rear. Next slide.

[Slide]

Dr. HANSON. This is a map that shows the geographic distribution of spring-run Chinook salmon, a threatened species in the Sacramento River system. The red indicates areas of spawning activity; the greener areas are juvenile rearing and migration. The importance of this figure is that all of the spring-run Chinook salmon migrate through the Lower Sacramento River and the Delta as juveniles on their way from the upstream spawning and rearing areas to the coastal marine rearing waters. It is an area of constriction, geographically. Next slide.

[Slide]

Dr. HANSON. The importance of that constriction is that these juvenile spring-run Chinook are migrating downstream during the spring—typically, March, April, and May—and that coincides with the period when adult striped bass are migrating upstream into the Lower Sacramento River in preparation of spawning.

So, we have a co-occurrence of adult striped bass, we have juvenile Chinook salmon that are migrating at the same time and the same location through a reach of the river that is channelized, has riprap levies, it is about 500 feet across. There is no cover for juveniles to avoid predators. So we have a co-occurrence with a predatory fish and their juvenile prey.

These are results of some acoustic tag survival studies done on the Sacramento River. These were with late fall run Chinook. The fish were released upstream in the area near Red Bluff, then migrated downstream and were monitored in terms of their survival. The importance of this figure is that it shows by the time those fish reach the Golden Gate, about 90 percent had been lost as a result of some source of mortality. This does not tell you what the mortality was, but we had about 90 percent loss, on average, for these Sacramento River fish.

These are similar results of survival studies conducted on the Lower San Joaquin River. Again, for the last decade, survival has roughly averaged 5 percent: very, very low survival estimates.

As Mr. Huffman pointed out, predation is not the only cause of mortality that occurs in our system. We have a number of other stressors. We have had habitat changes. We have cold water pool and water temperature issues. We have water project operations. We have the dams themselves that create a physical blockage to otherwise suitable upstream habitat. There are a variety of factors that are all interacting that result in the survival rates being so low that I mentioned. Next slide.

[Slide]

Dr. HANSON. We have also identified a number of what we call predation hot spots. This is Clifton Court Forebay, and there is 80 percent mortality across this—about a 1-mile reach.

Striped bass have co-occurred in the Delta for 150 years. And the question that arises is, are they the cause of the decline of salmon? And the answer to that question is no. They are a contributor. Next slide, please.

[Slide]

Dr. HANSON. In conclusion, increasing the population abundance of a non-native predator as a goal under the CVPIA is counter-productive to the goals of the ESA recovery. Salmon survival is low on both the Sacramento and San Joaquin River systems. Striped bass contribute to that predation mortality, and the poor survival that we see reflects a variety of stressors. I am an advocate of not saying we should deal with the striped bass predation issue in and of itself, but rather as a portfolio of diverse actions to help benefit salmon in general.

[The prepared statement of Dr. Hanson follows:]

PREPARED STATEMENT OF CHARLES H. HANSON, HANSON ENVIRONMENTAL, INC.,  
REPRESENTING CALIFORNIA STATE WATER CONTRACTORS ON H.R. 4582

Chairman Fleming, Ranking Member Huffman, and members of the subcommittee, I am Charles Hanson, Senior Biologist and Principal of Hanson Environmental, Inc., located at 446 Green View Court, Walnut Creek, California. Thank you for the opportunity to testify before you today. I am here representing the State Water Contractors, a statewide, non-profit association of 27 public agencies from Northern, Central and Southern California that purchase water under contract from the California State Water Project. Collectively the State Water Contractors deliver water to more than 26 million residents throughout the state and more than 750,000 acres of agricultural lands.

My academic training includes Bachelor of Science and Master of Science degrees in fisheries from the University of Washington, College of Fisheries, graduate studies in environmental engineering at the Johns Hopkins University and a Ph.D. in fisheries and ecology from the University of California, Davis. I have been involved in issues related to the status of fish species in the Sacramento-San Joaquin-San Francisco Bay-Delta since 1976. These issues include state and Federal Endangered Species Act studies regarding fisheries populations, including the biological monitoring of listed fish species, preparation of biological assessments, preparation of habitat conservation plans, and service as a member of the United States Fish and Wildlife Service's (USFWS) Sacramento-San Joaquin Delta Native Fishes Recovery Planning Team and the National Marine Fisheries Service's (NMFS) Central Valley Salmonid Technical Recovery Team, Santa Ynez River Technical Advisory Committee, Kings River Technical Steering Committee, Mokelumne River Technical Advisory Committee, and San Joaquin River Restoration Program Technical Advisory Committee. I served as a member of the National Scientific Peer Review Panel for Stanislaus River Water Temperature Criteria for Salmonid Restoration.

I serve as co-chair of the Collaborative Adaptive Management Team (CAMT) Salmon Scoping Team.

This morning I would like to discuss the inclusion of striped bass under the anadromous species doubling goal of the Central Valley Project Improvement Act (CVPIA). As introduced, H.R. 4582 would eliminate striped bass from the CVPIA's doubling goal. I am not here to advocate a position on H.R. 4582, but to provide expert testimony on the impact of predation on salmon and steelhead species in the Sacramento-San Joaquin Delta.

#### ORIGINAL GOALS FOR CVPIA

The CVPIA was enacted in 1992 in an effort to improve the abundance of anadromous fish inhabiting the Central Valley rivers and streams including the Sacramento and San Joaquin River watersheds and the Bay-Delta estuary. Anadromous fish are those that spawn in freshwater but live a part of their life as juveniles and pre-spawning adults in saltwater, including native species such as Chinook salmon and steelhead.

Striped bass were intentionally introduced into the Bay-Delta estuary from the East Coast to serve as a recreational and food resource for those living in the San Francisco Bay Area. Although they are not native to the Central Valley, striped bass were identified as one of the anadromous fish species under the CVPIA doubling goal. At the time the CVPIA was being developed, striped bass were considered to be a key indicator species on the health and condition of the Bay-Delta estuary as well as a valued recreational fish species. Part of the appeal of striped bass as a recreational species was their large size and aggressive predation foraging on smaller fish. Since striped bass actively forage on small fish, including shad, smelt, salmon, herring, anchovy, and others, they can be readily caught by recreational anglers fishing from boats and the shoreline throughout the Bay-Delta estuary and rivers.

#### GROWING CONCERNS FOR NATIVE SPECIES

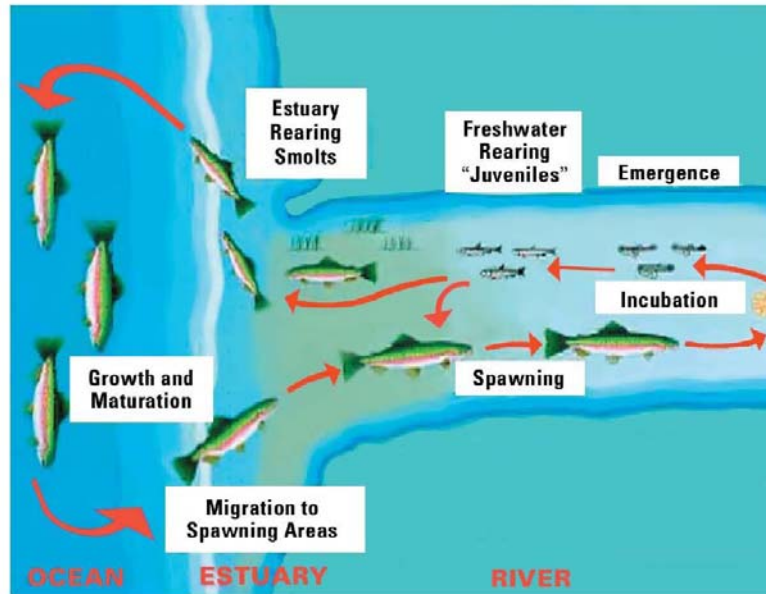
In the 1990s and later, a shift occurred in the fisheries' management priority away from non-native fish to native fish species, particularly those that have been listed for protection under the Federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA). These listed species include winter-run and spring-run Chinook salmon, Central Valley and Central Coast steelhead, green sturgeon, delta and longfin smelt. For purposes of this presentation I have focused on Chinook salmon, however, striped bass are known predators of all of the listed fish species inhabiting the estuary.

The Central Valley supports four species of Chinook salmon including winter-run (Endangered), spring-run (Threatened), fall-run and late fall-run. The name of each species is based on the seasonal time of year when the adults migrate upstream into freshwater prior to spawning.

#### SALMON CHARACTERISTICS AND BEHAVIOR

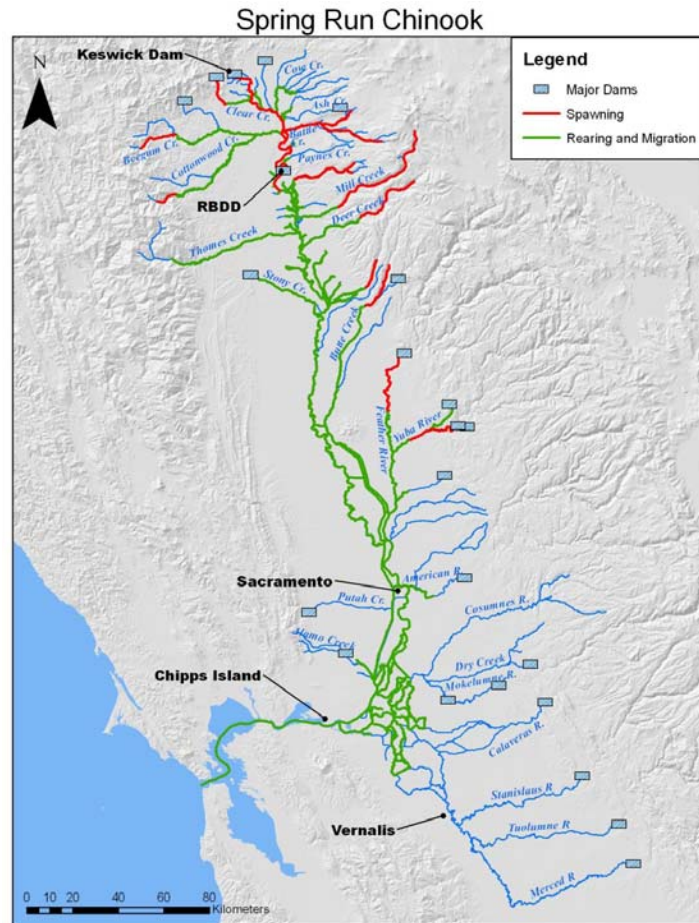
Chinook salmon have a life history (Figure 1) in which the adult salmon migrate upstream from the ocean into freshwater rivers where they dig a shallow depression in gravel deposits, known as a redd, where the female deposits her eggs which are then fertilized by a male and covered with gravel. Chinook salmon, unlike some of the other listed fish, die after spawning. Incubation occurs with the eggs buried in the gravel over a period of months depending on factors such as water temperatures. After hatching from the egg the young salmon with their attached yolk sac remain in the gravel for a period of weeks while they grow and develop. As the young salmon develop into juveniles, they emerge from the gravels and begin rearing in the rivers near where they were hatched. A portion of the juvenile salmon, known as fry, may disperse downstream soon after emergence, where they rear in the lower reaches of the rivers and estuary. Other juveniles may continue to rear in the upper reaches of the rivers for months or up to 1 year until they are large enough to undergo the physiological transformation known as smolting which allows the juveniles (typically 2 to 4 inches in length) to migrate downstream from freshwater and enter coastal marine waters where they continue to grow and develop. The juvenile salmon reside in marine waters for a variable period of time ranging from approximately 1 to 5 years before returning to the freshwater rivers to spawn and complete their lifecycle.

**Figure 1: General anadromous salmonid lifecycle.**



Central Valley salmon spawn and juveniles rear in the upper reaches of larger rivers including the Sacramento, Feather, Yuba, American, Mokelumne, Consumes, Stanislaus, Tuolumne, and Merced rivers depending on salmon species. The red areas shown on Figure 2 are an illustration of the areas of the Central Valley where spring-run Chinook salmon spawn and are also primary areas of juvenile rearing. As a result of their life history and habitat requirements, all of the juvenile spring-run Chinook salmon produced in the Central Valley, in this example, migrate downstream in the Sacramento River and through the Delta during their passage to the ocean. The juvenile salmon downstream migration typically occurs during the late winter and spring months. A large portion of the Sacramento River used as the juvenile migration route is characterized by a trapezoidal channel with very little shallow water, riprap banks with little or no riparian vegetation, very little to no in-channel cover or protection from predators, with a river channel typically only 500 feet across through which all juvenile salmon must migrate.

**Figure 2: Spawning areas for spring-run Chinook salmon.**



#### CONTRIBUTING FACTORS IMPACTING SALMON SURVIVAL

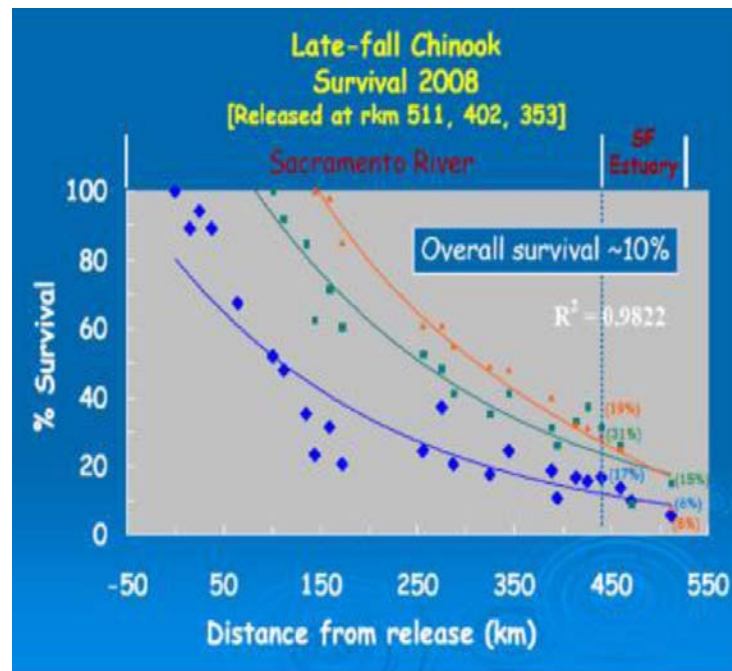
Survival studies have been conducted in both the Sacramento and San Joaquin Rivers over a number of years. In the past, survival of juvenile salmon was estimated based on the number of marked juveniles that were released into the river (juvenile salmon have typically been marked using a small metal wire implanted in the fish's nose—a coded wire tag) and the number of marked fish subsequently recaptured at a downstream location such as Chipps Island. More recently, advances in tag technology have led to the development of small battery powered tags that emit an underwater sound (acoustic tags) that can then be detected as an individual fish passes an acoustic detector. By placing acoustic tag detectors in a number of locations and channels in the river and Delta, juvenile salmon survival can be estimated. Figure 3 shows an example of juvenile Chinook salmon survival as the fish migrate downstream in the Sacramento River and Delta. In these studies, only about 10 percent of the juvenile salmon survived the migration down the Sacramento River to the Golden Gate. Results of similar survival studies conducted on the lower San Joaquin River and Delta for juvenile Chinook salmon (Figure 4) have shown a pattern in which survival declined in the early 2000s and has been less than 5 percent every year for the past decade.

A variety of factors have been identified that are thought to contribute to the poor survival of juvenile salmon in the Bay-Delta estuary including:

- Changes in habitat/wetland reclamation/channelization;
- Dams and water project operations;
- Natural hydrology/water quality (e.g., temperature);
- Food web changes;
- Invasive non-native species as predators and competitors——
  - Inadvertently introduced (Asian clam)
  - Intentionally introduced (striped bass)
- Entrainment at unscreened diversions;
- Loss of riparian vegetation;
- Loss of shallow channel margin habitat and seasonal floodplains;
- Reductions in suitable spawning gravels and juvenile rearing habitat;
- Ocean conditions; and
- Harvest (of some species).

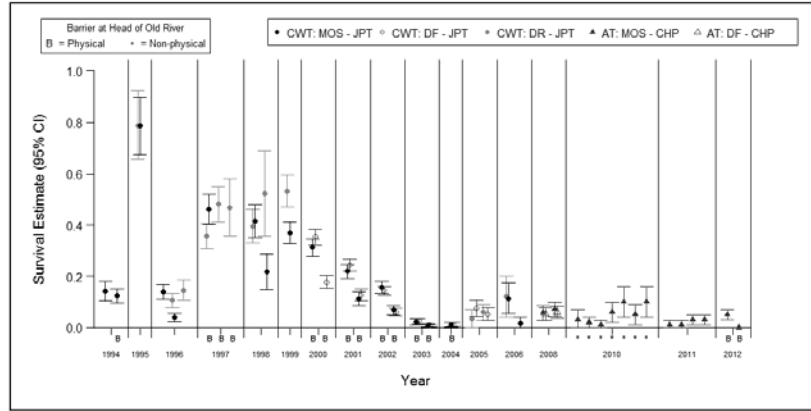
The relative importance of these and other factors affecting habitat quality and availability and survival of native fish interact in dynamic ways geographically and in response to within and between-year biologic and environmental conditions.

**Figure 3: Survival estimates for acoustically tagged late fall-run Chinook salmon in the Sacramento River.**



(Source: Michel 2010)

**Figure 4: Estimated survival of Fall-run Juvenile Chinook Salmon from Mossdale (MOS), Durham Ferry (DF), or Dos Reis (DR) to either Jersey Point (JPT; CWT) or Chipps Island (CHP; AT). Intervals are 95 percent confidence intervals, truncated to 0 if necessary.**



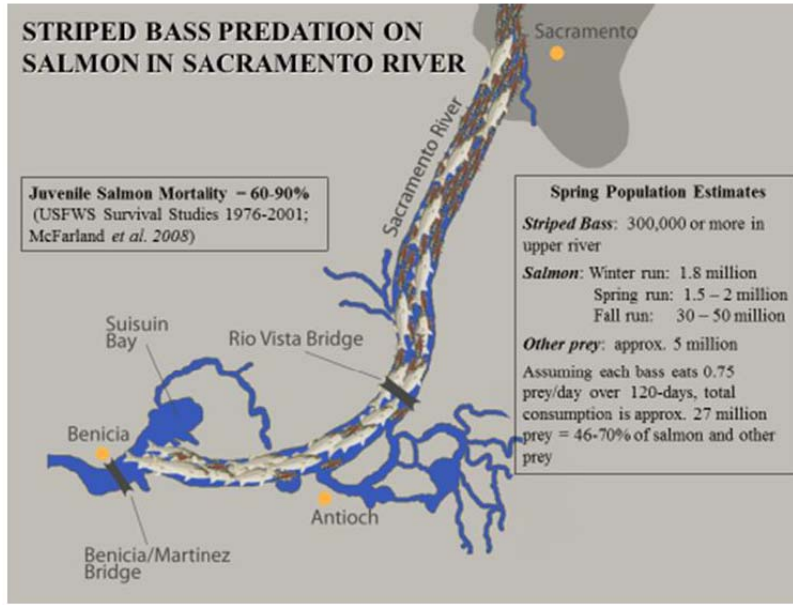
Source: SJRGA 2013, USFWS 2014

#### THREAT OF NON-NATIVE PREDATORS

Predation mortality has been identified as an important factor effecting juvenile salmon survival in the rivers and Delta. Primary predator fish species in the Delta include both striped bass and largemouth bass (both introduced species). The geographic and seasonal co-occurrence of adult striped bass and juvenile Chinook salmon (Figure 5) in the Sacramento and San Joaquin Rivers is one of the factors that increase bass predation on juvenile salmon. Adult striped bass migrate upstream into the rivers during the spring where they stage and forage prior to spawning (typically during April–May). During the spring months (typically during April–May) a majority of the juvenile Chinook salmon migrate downstream through the rivers on their way to the ocean. The adult striped bass actively forage on juvenile fish in the size range of juvenile Chinook salmon. The adult striped bass and the juvenile salmon are both limited to the channelized river approximately 500 feet wide where the juvenile salmon have little or no cover or protection from predators. The result is increased vulnerability of juvenile salmon to predation. High levels of juvenile mortality contribute to reduced adult salmon abundance.



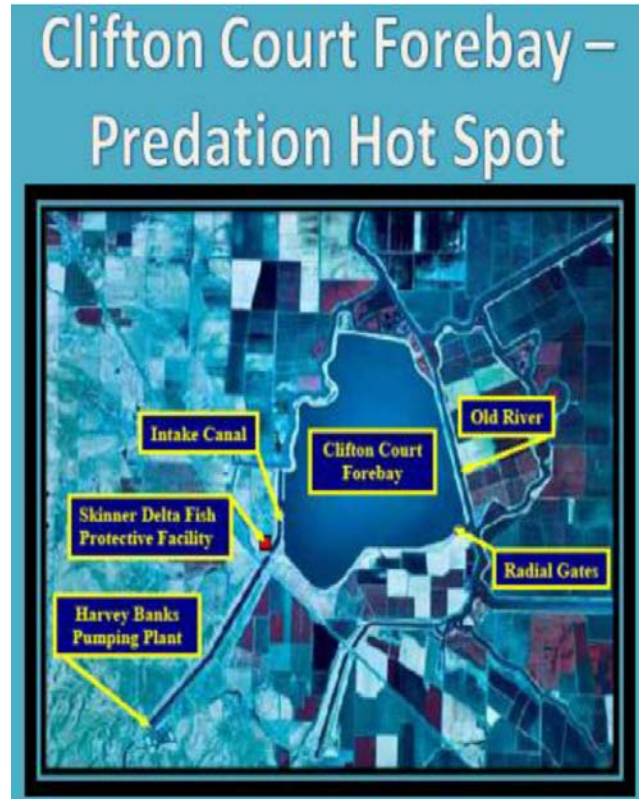
**Figure 5: Co-occurrence of adult striped bass and juvenile Chinook salmon in the Sacramento River during spring.**



#### SUBJECTING SALMON TO AMBUSH

In addition to predation that occurs throughout the rivers and Delta, specific locations have been identified where juvenile salmon are particularly vulnerable to predators. For example, observations of acoustic tags from juvenile salmon released into the San Joaquin River showed an unusual accumulation of tags in the vicinity of several bridge crossings that were thought to provide structure and ambush locations for predatory fish. In other studies, evidence showed increased predation mortality of juvenile salmon that were exposed to a scour hole in the river channel. High levels of predation on juvenile Chinook salmon and steelhead have been observed experimentally within Clifton Court Forebay (Figure 6), part of the State Water Project diversion facility, where juvenile mortality attributable to predation was estimated to be approximately 80 percent.

**Figure 6: Clifton Court Forebay: Juvenile salmon and steelhead predation mortality is approximately 80 percent between the radial gate and the Skinner Delta Fish Protective Facility.**



#### IS PREDATION A NEW PROBLEM?

There is no question that adult striped bass prey on juvenile Chinook salmon (Figure 7). The question that typically comes up is why would striped bass predation on juvenile salmon be a problem now if the fish have coexisted in the estuary for over 150 years? As noted above, there are a wide variety of factors that affect juvenile salmon survival in the rivers and Delta. Predation by striped bass is one of those factors. One potential scenario is that as a result of long-term degradation of aquatic habitats, in combination with a variety of sources of mortality, the Chinook salmon population resilience to adverse conditions has been degraded and the populations are now less able to withstand added stressors that result in greater mortality and further reductions in abundance. A second potential scenario is that salmon population resilience has declined as a result of cumulative stressors such as poor ocean rearing conditions, reduced river flows and increased water temperatures resulting from drought conditions, increased predator abundance, and other factors that reduce the ability of the population to withstand the incremental contribution of one or more stressors such as increased predation mortality. The low levels of survival observed for juvenile Chinook salmon migrating through the rivers and Delta are a major challenge in generating healthy and robust populations of salmon that contribute to ESA recovery and sustainable fisheries. Doubling the abundance of striped bass as part of CVPIA would be expected to contribute to an increase in the cumulative stressors affecting Central Valley Chinook salmon populations and would be expected to contribute further to low juvenile survival and reduced adult abundance.

**Figure 7: Juvenile Chinook salmon preyed upon by an adult striped bass.**



#### SWP AND CVP INFLOW:EXPORT RATIO OPERATIONS AND SALMON SURVIVAL

As part of the overall effort to improve juvenile salmon and steelhead survival in the Central Valley and Delta, the National Marine Fisheries Service (NMFS) has identified a number of management actions related to SWP and CVP export operations. One of those actions specific to the lower San Joaquin River is the regulation of export rates as a ratio of San Joaquin River flow at Vernalis during April and May. The action, which was outlined in the 2009 Biological Opinion, is intended to improve survival of juvenile steelhead produced in San Joaquin River tributaries. Although steelhead survival studies have been conducted in the lower San Joaquin River over the past 6 years, a complete set of results from these studies is not yet available for use in assessing a potential relationship between the I: E (San Joaquin River inflow: SWP and CVP export) ratio and juvenile steelhead survival. Available results from lower San Joaquin River juvenile salmon survival studies (Figure 4) have shown no improvement in survival (survival has been less than 5 percent) during the spring in every year since the mid-2000s despite variation in river flows, export rates, inflow-export ratios, and other environmental variables. Although more rigorous statistical analyses of the survival study results are currently underway, preliminary results suggest that the consistently low survival of juvenile salmon from the San Joaquin River over the past decade has occurred despite implementation of management actions targeting SWP and CVP export operations outlined in the 2009 Biological Opinion.

## CVPIA SHOULD SUPPORT SPECIES PROTECTIONS

The CVPIA specifically identifies striped bass as part of the goal of doubling abundance of anadromous fish inhabiting the Central Valley and Bay-Delta estuary. Policy and management priorities have changed, however, since enactment of CVPIA to include:

- In the later 1990s priorities shifted in response to the Endangered Species Act to emphasize protection of depressed native fish species;
- The Bay-Delta estuary provides spawning and rearing habitat for several ESA protected salmonid species;
- Results of juvenile salmon survival studies have shown low survival on both the Sacramento River (typically survival less than 10 percent) and San Joaquin River (typically survival less than 5 percent);
- A variety of factors interact to effect habitat conditions and survival of juvenile and adult salmonids including predation mortality;
- Striped bass are a predator of juvenile Chinook salmon and other listed fish species;
- Predation mortality by striped bass and other non-native fish has been identified as a major stressor;
- Research by California Department of Fish and Wildlife, U.S. Fish and Wildlife Services, NMFS, and others on predation is underway; and
- Increased striped bass abundance in response to CVPIA goals is expected to increase the risk of predation mortality for juvenile salmon and other protected species and contribute to reduced abundance of native fish species.

## CONCLUSION

In conclusion, increasing the population of non-native species that prey on protected species is counter-productive to species recovery efforts currently underway in the Sacramento-San Joaquin Delta and surrounding watershed. Therefore, striped bass, a known predator of endangered native species, should be excluded from the doubling goal for anadromous species in the CVPIA and initiatives should be undertaken to address other stressors impacting these protected species to improve their chance of survival.

Thank you for the opportunity to provide comments on this important topic. I would be happy to answer any questions.

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Dr. FLEMING. Yes, thank you, Mr. Hanson.

The Chair now recognizes Mr. Lowenthal for an introduction.

Dr. LOWENTHAL. Thank you, Mr. Chair. I am very pleased to introduce today, Jim Herberg. Jim Herberg is the General Manager of the Orange County Sanitation District, the OCSD, managing a staff of 626 employees and serving 2.5 million people, including many in my district.

Prior to becoming the General Manager, in 2013 Jim was the Director of Engineering responsible for OCSD's biosolids program, environmental compliance, and source control permitting, in addition to managing the planning, design, and construction of the agency's \$2.6 billion capital improvement program.

Jim has been with the Orange County Sanitation District since 1995. Jim is a registered civil engineer in the state of California, and is board certified as an environmental engineer by the American Academy of Environmental Engineers. He holds a bachelor of science degree in civil engineering from the University of Oklahoma, and a master's degree in engineering from my institution, Long Beach State, where I taught for many years.

Jim, we are happy to have you here today to talk about all the leadership role that OCSD has done in water recycling, and about how we can do even more in the future.

Thank you, Mr. Chairman.

Dr. FLEMING. I thank the gentleman. Mr. Herberg, you are now recognized for 5 minutes.

**STATEMENT OF JIM HERBERG, GENERAL MANAGER, ORANGE COUNTY SANITATION DISTRICT, FOUNTAIN VALLEY, CALIFORNIA**

Mr. HERBERG. Thank you, Mr. Lowenthal, for that introduction; and good morning, Chairman Fleming, Ranking Member Huffman, and members of the committee. I am Jim Herberg, and I appear before you today as the General Manager of the Orange County Sanitation District, located in Orange County, California. I want to express our appreciation for the opportunity to testify on the important need to accelerate the way in which we support water recycling.

I also want to acknowledge our partner agency, the Orange County Water District. Orange County Water District's first vice president, Dennis Bilodeau, is currently testifying before the Senate Committee on the Environment and Public Works on the vital role that water recycling and other innovations can play in delivering a safe and reliable water supply for the arid West.

It is also important to highlight that a number of other organizations, including the California Association of Sanitation Agencies, the National Association of Clean Water Agencies, the Water Environment Federation, Water Reuse, and the Association of California Water Agencies have worked to advance water recycling policy. Clearly, this is an issue that crosses the divide between water and wastewater.

The Orange County Sanitation District serves the needs of 2.5 million citizens in 20 cities. We are the sixth largest county in the United States, in terms of population. We believe that today's hearing into H.R. 2993 is especially timely because of the era of scarce water resources and the need to develop new ways to deliver sustainable water supplies.

As former Department of the Interior Secretary Luján noted, the last great river to tap is wastewater. At Orange County Sanitation District, working with Orange County Water District and the Federal Government, we are harnessing this resource.

Our commitment to using wastewater as a resource led us to partner with the Orange County Water District and construct the internationally acclaimed groundwater replenishment system. This would not have been possible without this committee's support, and we thank you for that support.

A little background on the project. In the midst of the drought of the late 1980s and early 1990s, facing population growth, groundwater depletion, seawater intrusion, and uncertain imported water supplies, we looked for an innovative solution. This is the groundwater replenishment system.

We took a valuable but underused resource, wastewater, and developed a breakthrough technological approach. Today the partnership between the two agencies delivers more than 100 million gallons of treated water each day, serving the needs of 850,000 citizens. And with the expansion, we plan to deliver up to 130 million gallons a day to more than 1.1 million citizens.

The system provides multiple benefits—most notably reducing our dependence on imported water supplies and improving the region's environment through the diversion of effluent that would have otherwise been discharged to the Pacific Ocean, and producing this highly purified water locally requires only one-half of the energy that it would take to move water from the Sacramento Delta to Southern California.

This accomplishment would not have been possible without a Federal partner. Congress appropriated \$20 million through Title XVI. This assistance helped us to reduce the product water costs and increase public acceptance. Our project is just one of the successes under Title XVI. Title XVI has contributed to the development of projects contributing \$369,000 acre-feet of water per year across the arid West.

One important lesson we learned was the sustainable water projects are not a one-size-fits-all solution. Different technologies will be required to address the new challenges that were not envisioned in the past. And this lesson is what makes us believe that the new approach needs to be implemented to fund promising solutions. This would be H.R. 2993.

H.R. 2993 provides a road map to restructure the partnership between the Bureau of Reclamation and local agencies like ours. This new approach would ensure that the most promising projects are funded. Under the old way of doing business, a project undergoes a feasibility study, and the study is reviewed to determine if it is feasible. Assuming a positive finding, then the project sponsor would seek a constructive authorization. Then, if successfully authorized, an appropriation from Congress would be sought. This is a several-year process with no certainty of success.

H.R. 2993 recognizes that we are in a changing world and we need to accelerate the process, and it is a responsible acceleration. If a project is deemed feasible, then the Secretary would have the authority to fund construction, assuming that Congress appropriated funding for the overall Title XVI program. This acceleration is a timely response to the new normal of heightened water scarcity. A series of criteria are spelled out to ensure that any project funded would be grounded in the purpose to support regionalism, multiple benefits, public acceptance, and water resource flexibility, among other purposes.

In short, this new competitive approach would ensure that the biggest benefit is gained for the dollars provided by the Federal Government. An annual report to Congress on the status of the program and its implementation would also be useful.

Again, we hope that the subcommittee and the committee will consider the value that H.R. 2993 would deliver to our shared interest of drought-proofing the West. I would be pleased to respond to any questions and, again, thank you for the opportunity to appear before you on this important and timely matter.

[The prepared statement of Mr. Herberg follows:]

PREPARED STATEMENT OF MR. JAMES D. HERBERG, P.E., GENERAL MANAGER,  
ORANGE COUNTY SANITATION DISTRICT, FOUNTAIN VALLEY, CALIFORNIA ON  
H.R. 2993

Chairman Fleming, Ranking Member Huffman and members of the subcommittee, I am Jim Herberg, General Manager of Orange County Sanitation District (OCS D). I appear before you today as one half of a local partnership that developed and constructed an internationally acclaimed sustainable water supply project known as the Groundwater Replenishment System or GWRS. Our partner agency, the Orange County Water District (OCWD) operates GWRS and I want to acknowledge their leadership on this effort. I also want to acknowledge OCWD's First Vice President Denis Bilodeau, who is currently testifying before the Senate Committee on Environment and Public Works on the vital role that water recycling and other innovations can play in providing a sustainable water future.

The Orange County Sanitation District is a public agency located in Fountain Valley and Huntington Beach that provides wastewater collection, treatment, and recycling for approximately 2.5 million people in central and northwest Orange County. OCS D is a special district that is governed by a 25 member Board of Directors comprised of 20 cities, four special districts, and one representative from the Orange County Board of Supervisors. Orange County is the sixth largest county by population in America. This distinction is important as it drives our priority to find sustainable water supplies for our growing region.

OCS D is pleased to be part of today's hearing to highlight ways in which we can develop cost-effective water recycling solutions. Indeed, in California, we have taken steps with the help of the Federal Government to tap what former Secretary of the Interior Lujan termed the last great river, wastewater. Today's hearing is especially timely because we are entering an era of water resources needs that demands a new way of developing sustainable water supply projects. Similar to the digital revolution, the technology revolution in water is changing the way we develop projects to meet our municipal, agricultural and environmental water demand. OCS D would like to note the efforts to advance the Nation's commitment to sustainable water practices through the activities and efforts of organizations including the California Association of Sanitation Agencies, National Association of Clean Water Agencies, Water Environment Federation, Association of California Water Agencies, WaterReuse, and its state chapter California WaterReuse.

OCS D has always taken pride in advancing the treatment of wastewater through the use of innovative technologies. In fact, it was this dedication that led us to a decision to work with our water agency, OCWD, to design and construct a sustainable water supply to address a growing population and changes in precipitation patterns. This commitment is demonstrated vividly by the expansion of the GWRS. The GWRS is the world's largest advanced water purification system for potable reuse. The project receives OCS D's treated wastewater that otherwise would be sent to the Pacific Ocean and purifies it using a three-step advanced process. I would like to express our gratitude for the committee's past support that helped make GWRS a reality.

Today, I would like to address how OCS D and its partner OCWD have developed a meaningful response to the drought conditions and what policies need to be implemented for the future to assure that projects can be constructed to address our changing environment. I want to emphasize that the past winter's El Nino has only served to validate the value of Federal programs and projects that we pursued. El Nino brought above average snowpack and almost brimming reservoirs to northern California. But in our region, the record rainfall we anticipated did not occur. Clearly, the new normal of rainfall and snowfall events along with accelerated evaporation and melting means that it is incumbent to develop and implement policy approaches to advance sustainable water supply. It has often been stated that California has always met challenges and succeeded, defying the conventional wisdom that our state is too big and the problems are too big to find a long-lasting solution. In our circumstance, OCS D and OCWD designed a solution and with the vital support of Congress and the U.S. Bureau of Reclamation, we constructed GWRS, a project that has won international acclaim and helped establish the United States as a leader in the field of sustainable water projects. This solution can be replicated throughout arid and semi-arid regions of our Nation and the world.

In Orange County, our climate is becoming more arid. The base flow of the Santa Ana River, our main source of surface water, continues to decline. Imported water supplies from Northern California and Colorado River are restricted. We expect droughts to occur 3 out of every 10 years. Population growth within our region is

expected to increase and so will water demands. There was and is a need to address these multiple matters.

In the late 1980s, it became apparent that to preserve our region's economic and social vitality, the challenges of our groundwater depletion, seawater intrusion and unreliable surface water supplies demanded an innovative solution. An aggressive program was implemented to develop a novel water treatment process with the GWRS.

Unlike traditional approaches to water treatment, our approach recognized that wastewater is a valuable resource. The ability to design a technological approach that would capture this resource, remove the impurities and recycle it back into the environment would address multiple needs ranging from supplementing water supply to protecting our natural resources.

The GWRS takes treated wastewater from OCSD that would otherwise be discharged into the Pacific Ocean. It implements a sophisticated process to purify this water. The process involves using a three-step advanced treatment system consisting of microfiltration, reverse osmosis, and ultraviolet light with hydrogen peroxide. This treatment and purification process produces high-quality water that exceeds all state and Federal drinking water standards. Let me emphasize this point. OCWD is able to exceed public health standards in developing a sustainable water supply.

GWRS was achieved through a partnership with Federal and state agencies that provided vital assistance in making this project a reality. The \$20 million in assistance under Title XVI leveraged over \$70 million in state and local funding to provide for the \$481 million construction cost of the GWRS. Today, the partnership is responsible for delivering enough drinking water for 850,000 people with a production of 100 million gallons of water per day. When GWRS became operational it was a project that delivered on the promise of providing a safe and reliable water supply.

There is no one-size-fits-all solution to water reuse. The GWRS establishes a technology foundation to design and build individual approaches to sustainable water supply needs. Water needs of a specific community, water sources, public health regulations, costs, and the types of water infrastructure in place, such as distribution systems, man-made reservoirs or natural groundwater basins, determine if and how your reused water becomes part of the drinking water supply. And these factors are driving our belief that we need a new approach to funding promising water recycling projects.

As the state of California and the entire West faces severe drought conditions, increased attention must ultimately turn to locally developed projects and programs like GWRS that provide reliable water supplies. But the risks in developing projects require partnerships and the Federal Government is a vital partner. The support provided through Federal assistance helps to reduce project costs through lower borrowing rates and public acceptance.

Today, the West faces challenges to our urban and rural economies that we never envisioned as drought conditions persist with greater frequency and extend for longer periods of time.

The changing hydrological conditions in the West demand a new model to spur on innovation that can lead to sustainable water supplies. OCSD and OCWD are currently in the process of taking on the challenge of finding new ways to develop the last river in the West. We recently completed a U.S. Bureau of Reclamation supported feasibility study to leverage our wastewater supply by reconfiguring and expanding our facilities to reuse nearly 100 percent of the wastewater generated by the 2.5 million residents of our service area. This final expansion would generate an additional 30 million gallons of water per day for groundwater recharge. When added to our current capacity, the total will be enough to serve a total population of 1.1 million. We are hopeful that the results of this study will position us to move forward with construction as our area continues to suffer the worst drought conditions since rainfall records have been recorded. I would also like to note that water agencies throughout California are currently generating approximately 750,000 acre-feet of water through reuse operations, and are planning for reuse projects that would more than double that total.

We seek to accelerate the development our project, however, the current Title XVI program imposes procedural delays on feasible projects at a time when expeditious project approvals would help us meet the water scarcity challenges that we face. Therefore, like changes in technology that have reformed and restructured the way in which we work, we need to reform and restructure the way in which the Federal Government supports the clear need for a meaningful partnership to develop water supply projects.

One approach that we believe offers a road map to restructure this partnership is the Water Recycling Acceleration Act of 2015 (H.R. 2993). Under H.R. 2993, the



old approach of conducting a feasibility study and then requiring project sponsors to secure an authorization for a project deemed feasible would be reformed to accelerate construction of critical water infrastructure. If a project is deemed feasible, it would then be allowed to proceed to actual construction with Federal assistance, if selected by the Secretary of the Interior assuming Congress approves the budget for such programs.

Any assistance must be targeted to achieve maximum benefits from Federal assistance to reduce the adverse consequences from today's water scarcity impacts. H.R. 2993 would facilitate this objective by establishing a series of criteria that address the challenges of today and thus to allow a project to receive construction assistance.

These criteria include:

- Deliver a reliable water supply
- Protect, restore, and enhance ecosystems
- Improve water resource flexibility
- Regional in nature
- Multiple stakeholders
- Multiple benefits including groundwater management and water quality improvements

Each of these criteria would create an approval process through the U.S. Bureau of Reclamation's Title XVI program. It would enable project sponsors to develop projects that would guarantee multiple benefits to the greatest degree possible. The criteria would also ensure that when a project is selected to proceed to construction, Congress would be assured that the investment of Federal resources would enjoy broad support from stakeholders and that the project has regional benefits.

Again, OCSD deeply appreciates the subcommittee convening today's hearing on this important policy issue and specifically H.R. 2993. OCSD and our sister agency OCWD look forward to working with you to advance H.R. 2993 through the legislative process.

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Dr. FLEMING. Thank you, Mr. Herberg. The Chair now recognizes Mr. Iseman for 5 minutes.

**STATEMENT OF TOM ISEMAN, DEPUTY ASSISTANT SECRETARY OF WATER AND SCIENCE, U.S. DEPARTMENT OF THE INTERIOR, WASHINGTON, DC**

Mr. ISEMAN. Thank you, Chairman Fleming, Ranking Member Huffman, and members of the subcommittee. I am Tom Iseman, Deputy Assistant Secretary for Water and Science at the Department of the Interior. I appreciate the opportunity to testify on two of the three bills before the subcommittee today: H.R. 2993 and H.R. 4582. I will briefly summarize my written statements, which have been submitted for the record.

H.R. 2993, the Water Recycling Acceleration Act, would amend Title XVI of Public Law 102-575, the Reclamation, Wastewater, and Groundwater Studying Facilities Act. Under that statute, the Bureau of Reclamation works with local partners to investigate opportunities for the reuse of municipal, industrial, and agricultural water. Reclamation administers Title XVI as a competitive grant program incorporated into the WaterSMART program. Funding opportunity announcements are posted every year, and project sponsors apply for finite amounts of planning, design, or construction funding that are awarded once appropriations are received.

Since 1992, Reclamation has provided approximately \$637 million in Federal funding to congressionally authorized Title XVI water recycling and reuse projects. This funding has been

leveraged with non-Federal cost share of over \$2.4 billion to make available almost 370,000 acre-feet of water in 2015.

A central requirement of that program is that the applicant projects must be authorized for construction funding by Congress. H.R. 2993 would remove that requirement by amending Title XVI to state that any project for which funding may otherwise be made available shall not be required to have been previously authorized for such funding.

The Department believes it is timely to examine program eligibility as contemplated by H.R. 2993. A wider base of Title XVI applicants could bring more worthy projects into the program. Given that no new Title XVI projects have been authorized since 2009, it is possible that newer projects can enhance the effectiveness of Title XVI in addressing drought, reducing dependency on imported water, and making local water supplies more reliable.

That said, it must be noted that Title XVI is an over-subscribed program, and each year brings many more applicants for Reclamation funding than can be accommodated. There are presently 53 authorized Title XVI projects, 21 of which are active projects that have not yet received their full Federal cost share.

If H.R. 2993 were enacted, it should be made clear to project sponsors that competition for limited resources would increase, and the dollar value of awards per project may need to be revisited.

H.R. 4582, the Save our Salmon Act, would amend the Central Valley Project Improvement Act, or CVPIA, to remove striped bass from the fish doubling goal provisions of the CVPIA. While the striped bass is an anadromous fish, it is not native to the Sacramento San Joaquin Bay Delta, or even to California. Implementation of the CVPIA has focused on improving populations and habitat for native fish, and the striped bass is a predator of native Delta fish species, including Delta smelt and various runs of salmon and steelhead.

Given that the striped bass contributes to mortality for listed species and is not native to the Bay Delta or even California, the Department does not object to the removal of striped bass from the CVPIA's fish doubling goals.

My written statement contains recommendations for some technical modifications to conform the bill to striped bass references contained in the CVPIA statute, and better assure that the bill's intention is met. The Department would be glad to work with the subcommittee and Representative Denham to provide more detail on these recommended changes.

In closing, Reclamation and the Department appreciate the interest in reducing threats to the survival of listed fish in the Bay Delta. We believe that the CVPIA has been successful in promoting the recovery of fish species in the Bay Delta and its tributaries. With the changes noted in my written statement, the Department would be pleased to support H.R. 4582.

Again, thank you for the opportunity to appear before the subcommittee today. I would be pleased to answer questions at the appropriate time.

[The prepared statement of Mr. Iseman follows:]

PREPARED STATEMENT OF TOM ISEMAN, DEPUTY ASSISTANT SECRETARY FOR WATER  
AND SCIENCE, U.S. DEPARTMENT OF THE INTERIOR

STATEMENT ON H.R. 2993

Chairman Fleming, Ranking Member Huffman and members of the subcommittee, I am Tom Iseman, Deputy Assistant Secretary for Water and Science at the U.S. Department of the Interior (Department). I am pleased to provide the views of the Department on H.R. 2993, the Water Recycling Acceleration Act of 2015. With consideration for the points described in my statement, the Department supports the goals of H.R. 2993.

Title XVI of Public Law 102-575 created the Reclamation Wastewater and Groundwater Study and Facilities Act (43 U.S.C. 390h et seq.). That statute authorizes the Department, acting through the Bureau of Reclamation (Reclamation), to investigate opportunities for the reuse of municipal, industrial, and agricultural wastewater, and fund the planning, design, and construction of demonstration and permanent facilities. The statute has been amended several times, and, in general, Title XVI projects are funded at 75 percent or greater local funding, with a Federal cost-share of no more than \$20 million or 25 percent of the total project cost. Some projects, including six of the original Title XVI projects, have been authorized with a Federal cost share that exceeds \$20 million. And while Congress provided blanket authorization for the funding of feasibility studies and demonstration projects under Title XVI, the statute and subsequent amendments contemplate that Federal funding for actual project design and construction must be individually authorized.

Today, Reclamation administers Title XVI as a competitive grant program incorporated into the WaterSMART Program. Funding opportunity announcements (FOAs) are posted every year and project sponsors apply for finite amounts of planning, design, or construction funding that are awarded once appropriations are received. Eligibility criteria and prioritization measures for the award of funding are public and part of every FOA, and the total funding request has exceeded the available appropriations in every year since 2011. Applicant projects must be authorized for construction funding by Congress.

H.R. 2933 would remove that requirement by amending Title XVI to state that any project for which funding “may otherwise be made available” shall not be required to have been previously authorized by law for such funding. The bill also directs that priority for the award of funding be given to projects located in areas experiencing drought, or having been a designated disaster area between 2014 and 2018. Section 2 also provides for criteria to be applied to applicant entities.

The Department believes it is timely to examine expanding program eligibility to any projects that are determined to be feasible and which compete well under Reclamation’s existing prioritization criteria. These criteria were submitted for public review in 2010, and are consistent with the program’s statutory origins in Public Law 102-575.

Title XVI is an integral part of the Department’s efforts through the WaterSMART Program to increase water supply sustainability. Over the past 20 years, projects have been developed under the Title XVI program that are now contributing an estimated 369,000 acre-feet of water annually to address water demands in drought-stricken states like California. This has reduced demands on the oversubscribed Colorado River and Sacramento-San Joaquin Bay Delta, and proven to be one tool in building regional resilience to drought.

The Department recognizes that a wider base of Title XVI applicants potentially brings more merit to the limited pool of projects eligible for funding. With no new Title XVI projects having been authorized since 2009, it is possible that newer projects can further enhance the effectiveness of Title XVI in addressing drought, reducing dependency on imported water, and making local water supplies more reliable.

Having said that, it must be noted that Title XVI is an oversubscribed program, and as stated above, each year brings many more applicants for Reclamation funding than can be accommodated in this era of limited budgets and Federal deficits. There are presently 53 authorized Title XVI projects, 21 of which are active projects that have not yet received their full Federal cost share. If H.R. 2933 were to be enacted, it should be made clear to project sponsors that competition for limited resources would increase and the dollar value of awards per-project may need to be revisited.

This concludes my written statement. I would be pleased to answer questions at the appropriate time.

## STATEMENT ON H.R. 4582

Chairman Fleming, Ranking Member Huffman and members of the subcommittee, I am Tom Iseman, Deputy Assistant Secretary for Water and Science at the U.S. Department of the Interior (Department). I am pleased to provide the views of the Department on H.R. 4582, the “Save our Salmon Act”. My statement today will detail technical changes that should be amended into H.R. 4582 in order to assure that it meets the bill’s stated intent. The issues addressed by H.R. 4582 are significant, and if amended, the Department could support the enactment of this bill.

The Central Valley Project (CVP) is one of the largest and water management projects in the United States—extending from the Cascade Range in northern California to the semi-arid but fertile plains along the Kern River in the south. Initial features of the project were built primarily to protect the Central Valley from water shortages and floods, but the CVP also improves Sacramento River navigation, supplies municipal and industrial water, generates electricity, conserves fish and wildlife, and creates opportunities for recreation. The CVP serves farms, homes, and industry in California’s Central Valley as well as major urban centers in the San Francisco Bay Area; it is also the primary source of water for much of California’s wetlands.

In October 1992, President George H.W. Bush signed Public Law 102–575, which included Title 34, the Central Valley Project Improvement Act (CVPIA). The CVPIA amends the previous authorizations of the CVP to include fish and wildlife protection and mitigation as project purposes having equal priority with irrigation and domestic uses, and makes fish and wildlife enhancement a project purpose equal to power generation.

Section 3406 of the CVPIA directs the Department to implement a “fish doubling goal” for anadromous fish, and this provision is addressed by H.R. 4582. Anadromous fish are defined in Section 3403(a) as those stocks of salmon, steelhead, striped bass, sturgeon, and American shad that ascend the Sacramento and San Joaquin rivers and the Sacramento-San Joaquin Delta to reproduce after maturing in San Francisco Bay or the Pacific Ocean. The statute directs that the Department “implement a program which makes all reasonable efforts to ensure that, by the year 2002, natural production of anadromous fish in Central Valley rivers and streams will be sustainable, on a long-term basis, at levels not less than twice the average levels attained during the period of 1967–1991[.]” An Anadromous Fish Restoration Program and associated Restoration Plan guides the implementation of the CVPIA’s fish doubling goal.

Implementation of the CVPIA by Federal agencies and their non-Federal partners has focused on improving populations and habitat for native fish, which are key to a healthy ecosystem. While the striped bass is an anadromous fish, it is not native to the Sacramento-San Joaquin Bay Delta,<sup>1</sup> and it is actually a predator of native Delta fish species, including Delta smelt (threatened under the Endangered Species Act, or ESA) and various runs of salmon and steelhead. As has been noted in the U.S. Fish and Wildlife Service’s biological opinion for the operation of the CVP, striped bass are likely the primary predator of juvenile and adult delta smelt given their spatial overlap in pelagic habitats.<sup>2</sup> The National Marine Fisheries Service (NMFS) has also noted that striped bass show a strong preference for juvenile salmon in their studies.<sup>3</sup> In testimony before this subcommittee on February 10, 2016, NMFS detailed the impacts of predation on Pacific coast salmon, including ESA-listed salmon in the Bay-Delta. And a wide body of evidence from the California Department of Fish and Wildlife shows similar findings that point to striped bass as a stressor on fish species that are threatened or endangered under the ESA.

In consideration of the striped bass’s function as a fish that contributes to mortality for listed species and is not native to the Bay-Delta or even California, the Department has no concern with the removal of striped bass from the CVPIA’s fish doubling goals.

<sup>1</sup> [www.wildlife.ca.gov/Fishing/Inland/Striped-Bass#35540374-history](http://www.wildlife.ca.gov/Fishing/Inland/Striped-Bass#35540374-history).

<sup>2</sup> Page 183 and throughout, U.S. FWS Biological Opinion for the Proposed Coordinated Operation of the Central Valley Project and State Water Project. 2008. [www.fws.gov/sfbaydelta/documents/SWP-CVP\\_OPs\\_BO\\_12-15\\_final\\_OCR.pdf](http://www.fws.gov/sfbaydelta/documents/SWP-CVP_OPs_BO_12-15_final_OCR.pdf).

<sup>3</sup> Page 147 and throughout, National Marine Fisheries Service Biological Opinion for Proposed Long Term Operations of the Central Valley Project and State Water Project. 2009. [www.westcoast.fisheries.noaa.gov/publications/Central Valley/Water%20Operations/Operations,%20Criteria%20and%20Plan/nmfs\\_biological\\_and\\_conference\\_opinion\\_on\\_the\\_long-term\\_operations\\_of\\_the\\_cvp\\_and\\_swp.pdf](http://www.westcoast.fisheries.noaa.gov/publications/Central%20Valley/Water%20Operations/Operations,%20Criteria%20and%20Plan/nmfs_biological_and_conference_opinion_on_the_long-term_operations_of_the_cvp_and_swp.pdf).

However, in order to address the intent of the proposed legislation, there are some technical modifications that are necessary. First, the introduced wording of H.R. 4582 requires changes to conform to the enacted language of the CVPIA. For example, the bill only amends Section 3406(b)(1) of CVPIA, and makes no change to other relevant subparagraphs such as Sections 3406(b)(18), (19), and (21), which also provide for taking actions to protect and assist “anadromous” fish. Section 3406(b)(18) states that, if requested by the state of California, the Bureau of Reclamation will assist in management measures to restore the striped bass fishery of the Bay-Delta estuary and its tributaries. While no agency has requested that Reclamation perform this action, a change to this subsection would seem to be intended by the language of H.R. 4582.

In addition, Section 3406(b)(19) requires re-evaluation of operational criteria at the CVP’s Sacramento and Trinity River Reservoirs to protect and restore the anadromous fish in accordance with the requirements of 3406(b). Section 3405(b)(21) requires Reclamation to assist the state of California in efforts to develop and implement measures to avoid losses of juvenile anadromous fish resulting from unscreened or inadequately screened diversions. The language in H.R. 4582 adding the “except striped bass” language to the fish doubling goal does not impact these other provisions, thereby creating an internal conflict in the language of the CVPIA and in the responsibilities of Reclamation toward all anadromous fish. In order to fulfill the legislative intent, the bill should be modified to address these potential conflicts. The Department would be glad to work with the committee to provide more detail on these recommended changes.

In closing, Reclamation and the Department appreciate the interest in reducing threats to the survival of listed fish in the Bay Delta. We believe that the CVPIA provides a useful framework for promoting the recovery of fish species in the Bay Delta, and its tributaries, and with the changes noted above, the Department would be pleased to support the CVPIA amendment provided by H.R. 4582.

This concludes my written statement. I would be pleased to answer questions at the appropriate time.

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Dr. FLEMING. Thank you, Mr. Iseman.  
Mr. Downen, you are recognized.

**STATEMENT OF BO DOWNEN, SENIOR POLICY ANALYST,  
PUBLIC POWER COUNCIL, PORTLAND, OREGON**

Mr. DOWNEN. Good morning, Chairman Fleming, Ranking Member Huffman, and members of the subcommittee. Thank you for the opportunity to testify today on H.R. 1869, the Environmental Compliance Cost Transparency Act of 2015.

I am here today representing consumer-owned utilities of the Pacific Northwest with statutory first rights known as preference rights to purchase power that is generated by the Federal Columbia River Power System and marketed by the Bonneville Power Administration.

These preference rights were granted to publicly- and cooperatively-owned utilities because they have a mandate to pass the benefits of the system through to the citizens of the Northwest, the consumers who are their owners, and as consumer-owners are responsible for the costs of BPA power, not the American taxpayer.

These utilities, being both some of the largest and smallest in the Northwest, serve approximately 40 percent of electricity consumers in the region. And these utilities are committed to preserving the value of the Columbia River System for clean, renewable hydropower, and for the system’s multiple other uses.

We appreciate the initiative of Representatives Gosar and Newhouse in proposing this bill as the consumer-owned utilities of the Northwest have a long history of support for fish and wildlife mitigation for the dams of the Columbia River system, and we be-

lieve this legislation would result in the production of useful information that would offer greater understanding of that mitigation.

The fish and wildlife costs associated with the rates BPA charges for wholesale power are approaching \$1 billion annually. At \$757 million last year, this single category of costs accounted for about 30 percent of the power costs charged in BPA rates. While customers in the Northwest often ask about the nature of the costs that make up their electricity rates, some have little to no knowledge about the level of fish and wildlife costs affecting these rates.

Local control over management of the utility is a fundamental priority of each consumer-owned utility in the Northwest, and this bill offers the opportunity for ratepayers to be better informed managers and consumers. While this bill is narrowly tailored to require that power marketing administrations display costs related to compliance with Federal environmental laws impacting fish and wildlife conservation on the monthly wholesale power bill sent to utilities, it is then up to the local utility to decide what to do with that information.

Support for this bill should not depend on whether or not you believe these expenditures in the name of fish and wildlife should be lower, higher, or just about right. The issue here really is information. More knowledge about fish and wildlife costs is not an impetus to do less for fish and wildlife. Rather, it is an opportunity to create ownership in the efforts currently underway, and serves as an inducement to create better, more effective means of assisting fish and wildlife in the future.

Highlighting the costs on power bills could lead to more scrutiny over the effectiveness of fish and wildlife mitigation measures. But that is a good thing. Better information yields greater understanding, and the resulting information discussion would improve the processes in place where programmatic decisions related to fish and wildlife are made. That would benefit fish and wildlife, as well as ratepayers, by ensuring the greatest impact for the funds being spent.

There may be a question of why fish and wildlife costs are of specific interest. Well, there are very few, if any, costs in BPA's power rates that are both of this magnitude and this level of volatility. In addition, these costs are particularly driven by Federal laws that do not directly relate to the business of producing power. This distinguishes them from many of the cost categories that flow into the rates of power marketing administrations.

H.R. 1869 is a straightforward approach to providing more information and accountability regarding a major factor in the power rates of consumer-owned utilities. Timely release of useful information is a worthy goal, in and of itself. Just as important is the potential that this information may create incentives for better management of our natural resources that could benefit fish and wildlife and ratepayers alike.

Thank you for this opportunity to testify today, and I look forward to working with you on this matter and addressing any questions.

[The prepared statement of Mr. Downen follows:]

PREPARED STATEMENT OF CHRISTOPHER (BO) DOWNEN, SENIOR POLICY ANALYST,  
PUBLIC POWER COUNCIL ON H.R. 1869

INTRODUCTION

Good morning Chairman Fleming, Ranking Member Huffman, and members of the subcommittee. My name is Bo Downen. I am a Senior Policy Analyst of the Public Power Council. Thank you for the opportunity to testify today on H.R. 1869, The Environmental Compliance Cost Transparency Act of 2015.

The Public Power Council is a trade association representing the consumer-owned electric utilities of the Pacific Northwest with statutory first rights (known as “preference”) to purchase power that is generated by the Federal Columbia River Power System and marketed by the Bonneville Power Administration (BPA). These preference rights were granted to publicly and cooperatively owned utilities because they have a mandate to pass the benefits through to the citizens of the Northwest, the consumers who are their owners. Our member utilities have service territories in portions of seven western states and serve approximately 40 percent of the electricity consumers in the region.

These utilities, being both some of the largest and the smallest in the Northwest, are committed to preserving the value of the Columbia River system for clean, renewable hydropower and for the system’s multiple other uses. Customers pay for all of the power costs incurred by BPA; the agency is a pass-through entity of its costs and obligations. Because the utility members of PPC are owned by and answer directly to their customers, they are very sensitive to the rates they pay for wholesale power and transmission of electricity.

We appreciate the initiative of Representatives Gosar and Newhouse in raising this issue, and for proposing this legislation. H.R. 1869 is narrowly tailored to require the power marketing administrations to display costs related to compliance with Federal environmental laws impacting fish and wildlife conservation on the monthly wholesale power bill sent to utilities. Local utilities can then decide what to do with that information.

Local control over management of the utility is a fundamental priority of each consumer-owned utility in the Northwest, and this bill offers the opportunity for ratepayers to be better informed consumers. Our members provide retail electricity service to millions of citizens throughout the Northwest, including Washington, Oregon, Idaho, and parts of Montana, California, Nevada, and Wyoming. While these consumers often ask about the nature of the costs that make up their electricity rates, some have little knowledge about the level of fish and wildlife costs affecting those rates.

FISH AND WILDLIFE COSTS

In the case of BPA, the fish and wildlife costs in the rates the agency charges for wholesale power are inordinately large. At \$757 million last year alone, this single category of costs accounted for about 30 percent of the BPA power costs charged in rates. The total BPA ratepayer cost for fish and wildlife since 1980 is more than \$15 billion. That does not count the amounts contributed through other Federal, state, and local entities.

The latest assumption for fish and wildlife annual costs in the BPA power rates for the period that started on October 1, 2015 is likely to include \$736 million annually, broken down as follows:

- \$271 million for direct expenditures under the Integrated Program;
- \$6 million for internal costs of the Northwest Power and Conservation Council related to fish and wildlife;
- \$33 million for the U.S. Fish and Wildlife Service;
- \$49 million for the U.S. Army Corps of Engineers;
- \$6 million for the Bureau of Reclamation;
- \$200 million of indirect operational costs; and
- \$171 million in capital investments.

The efficiency and effectiveness of some of the specific projects and methods for salmon recovery are questions with which the region has struggled significantly over the last two decades as the underlying science continues to develop. Certainly, highlighting the costs on power bills could lead to more scrutiny over the effectiveness of salmon mitigation measures. If it does, then that would be a useful byproduct of H.R. 1869 that would benefit fish and wildlife as well as ratepayers. In the meantime, the Federal agencies overseeing salmon recovery efforts, along with most of the states and tribes in the region, have collaborated in support of a scientifically

sound plan ("biological opinion") under the Endangered Species Act. This biological opinion commits to an enormous sustained effort for the region's salmon and steelhead.

More knowledge about fish and wildlife costs is not an impetus to do less for fish and wildlife. Rather, it creates ownership in the efforts underway and serves as an inducement to create better, more effective means of assisting fish and wildlife in the future.

#### PROVIDING VALUABLE INFORMATION

Support for this bill should not depend upon whether you believe these expenditures in the name of fish and wildlife should be lower, higher, or are just about right. The issue here is information. Certainly, it would make the understanding of these costs clearer if they were displayed directly on the power bill each month. What happens to the information after that, or to the opinions of consumers receiving that information, will vary greatly from utility to utility and from customer to customer.

Some may argue that a utility and its ratepayers could gain this information without this bill. This is not necessarily the case. In the case of BPA, only the agency itself is in the best position to determine with accuracy the costs it expends on fish and wildlife. The processes in place to determine those costs and inform customers about them are lengthy and complex. Utilities would benefit from having one official estimate that is produced by the agency and disclosed on the actual power bill.

Some might question why only fish and wildlife related costs should be displayed on the bill. There are very few costs in BPA's power rates that are of this magnitude and this level of volatility. In addition, these costs are particularly driven by Federal laws that do not directly relate to the business of producing power. This distinguishes them from many of the cost categories that flow into the rates of power marketing administrations. Existing accounting systems would allow the agency to produce the amount of fish and wildlife costs with little additional administrative burden.

#### DEFINING COSTS RELATED TO COMPLIANCE WITH FEDERAL ENVIRONMENTAL LAW

Under H.R. 1869, some may argue about whether the number that a power marketing administration displays is the correct reflection of fish and wildlife costs. Those arguments are inevitable, and there are plenty of venues in the region for all of us to voice our concerns to the agency. That discussion, however, should not inhibit the agency from making a final determination and getting that information to customers.

H.R. 1869 correctly includes the indirect costs as well as the direct costs of compliance with Federal environmental laws. To a ratepayer they are one and the same. Water spilled over a dam rather than creating electricity impacts ratepayers just as much as direct projects, capital costs, or operations and maintenance. Whether the action causes a loss of generation or whether it is a direct expenditure, the impact is pressure on rates to be higher than they otherwise would be.

#### CONCLUSION

H.R. 1869 is a straightforward approach to providing more information and accountability regarding a major factor in the power rates of consumer-owned utilities. Timely release of useful information is a worthy goal in and of itself. Just as important is the potential that this information may create incentives for better management of our natural resources that could benefit fish and wildlife and ratepayers alike. Thank you for this opportunity to testify today. I look forward to working with you on this matter and addressing any questions.

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Dr. FLEMING. Thank you, Mr. Downen. The Chair now recognizes Dr. Gosar to introduce our final witness.

Dr. GOSAR. Thank you, Mr. Chairman. It is my pleasure to introduce Mr. Patrick Ledger, the Senior Vice President and Chief Executive Officer of Arizona's G&T Cooperatives.

Patrick Ledger oversees 250 employees and \$200 million in annual revenues. He is also the Executive Manager for three associated electric generation cooperatives. Patrick received his law and



master's degree from the University of Arizona. He has served on multiple boards and has presented at professional conferences throughout the country.

As a corporate counsel and then the CEO of multiple cooperatives, Patrick has a wealth of experience and can provide a unique perspective on both regulatory and technical challenges.

Throughout his career, Patrick has improved management structures, reduced base rates, and streamlined efficiencies. It is an absolute pleasure to have his testimony here before this committee, and I yield the floor to Mr. Patrick Ledger.

**STATEMENT OF PATRICK F. LEDGER, CEO, ARIZONA G&T  
COOPERATIVES, BENSON, ARIZONA**

Mr. LEDGER. Thank you very much, Vice Chairman Gosar, Mr. Chairman, Mr. Ranking Member Huffman. On behalf of Arizona Electric Power Cooperative, I am appearing today to discuss H.R. 1869, the Environmental Compliance Cost Transparency Act of 2015. I have provided a written statement, as well, that will be submitted into the record.

As the Chief Executive Officer and a customer of the Western Area Power Administration, which is what we call Western—we are both a hydropower customer and a transmission customer of Western—I am supportive of the objectives of the legislation and encourage its passage.

Arizona Electric Power Cooperative is a not-for-profit wholesale power and transmission provider for six Class A cooperative members, with service territories in Arizona, California, and New Mexico. We provide transmission and energy services to multiple cities and districts around Arizona, as well.

Based in Benson, Arizona, we own and operate a 605 megawatt power plant. We operate over 600 miles of transmission. We schedule over 1,000 megawatts of energy throughout the state. We are also a power and transmission customer of Western.

In recent years, Arizona electric power, like much of the electric utility industry, has faced some serious challenges, particularly on the regulatory front with ever-widening compliance requirements to increasingly strident environmental regulations. We face the difficult task of managing mounting cost impacts resulting from these challenges, while continuing to ensure that our customers have a reliable and affordable electric power supply.

Unlike investor-owned utilities, every cost impact on real cooperatives or public power utilities is passed on directly to our customers, residents of rural parts of Arizona who are already struggling. Our responsibility, therefore, is to do everything in our power to manage these risks and costs. Arizona Electric Power has generally succeeded in managing external threats and controlling costs with one recent exception: our relationship with the Western Area Power Administration.

We have a long history with Western, stretching back more than 50 years. More than just a long-standing partner, they are intertwined in our business model, because historically we could rely on them, just as many other cooperatives and public power utilities do to help us manage risks and keep costs down.

Today, however, we can no longer rely on them in the ways we once did. They have become one of our more significant risks. In recent years, we have seen rates for power and transmission services charged by Western increase with little correlation to market fundamentals. Unlike a traditional power supply counter-party that relies on the same market fundamentals that we can observe, we do not have the insight into their fundamentals that underlie the Western operations.

For example, we cannot adopt a hedging or trading strategy to compensate for Western price increases. Our best option to address Western price increases is to anticipate when and how prices will increase, and plan our internal strategies accordingly. This approach, however, is limited by the information that Western provides in support of its rates. We do not have details on certain trends, such as the need for staffing increases at headquarters or adjustments in the use of budget authority. Moreover, we also do not have a sense of how operational changes within Western's sister generating agencies are affecting power supply and associated pricing.

While many of the dedicated personnel at Western are willing to share anecdotal information on how environmental compliance affects hydro-generation, the precise cost breakdown is missing from the public domain. H.R. 1869 would help address this information gap by requiring the disclosure of compliance costs with Federal environmental laws impacting the conservation of fish and wildlife.

In this context, we believe it is important to gather and disclose both direct and indirect costs. Moreover, because the legislation will require a line item in each monthly billing, customers, including APCO, would have a better understanding of the true cost of the resources they are buying.

My fundamental concern with Western in recent years has revolved around transparency and understanding the basis for rate increases that I must pass along to my members and eventually to their customers. Western faces many of the same compliance costs that my organization has to shoulder, but it is not always clear to me or other Western customers how these costs are calculated. A paragraph or two in the Federal Register notice does not always reveal the same impact that a line item in a bill would convey. Indeed, the proposed legislation would provide valuable insight into an important cost driver that has affected Western's power marketing in recent years, and Arizona Electric Power encourages its passage.

This concludes my testimony.

I thank the subcommittee for the opportunity to appear today, and I am happy to answer any questions that Members may have.

[The prepared statement of Mr. Ledger follows:]

PREPARED STATEMENT OF PATRICK LEDGER, CHIEF EXECUTIVE OFFICER, ARIZONA  
ELECTRIC POWER COOPERATIVE ON H.R. 1869

Mr. Chairman and Mr. Ranking Member, on behalf of Arizona Electric Power Cooperative, I am appearing today to discuss H.R. 1869, the Environmental Compliance Cost Transparency Act of 2015. As the Chief Executive Officer of a customer of the Western Area Power Administration's ("Western") marketing area, I am supportive of the objectives of the legislation and encourage its passage.

Arizona Electric Power Cooperative ("AEPSCO") is a not-for-profit wholesale power and transmission provider for six Class A cooperative members with service terri-

tories in Arizona, California, and New Mexico. Based in Benson, Arizona, we own and operate a 605 MW power plant and over 620 miles of transmission lines. We are also a power and transmission customer of Western.

Over the course of a year, we purchase about \$2.4 million in energy from Western that is generated at Bureau of Reclamation ("Bureau") projects. To serve our distribution members and wheel the power supplied by the Bureau projects, we also buy transmission service from Western. Over the course of a year, we pay Western about \$5.5 million for transmission services. They are a significant partner in our operations.

In recent years, AEPCO, like much of the electric utility industry, has faced serious challenges, particularly on the regulatory front, from ever widening compliance requirements, to increasingly strident environmental regulations. We face the difficult task of managing mounting cost impacts resulting from these challenges while continuing to ensure that our customers have a reliable and affordable electric power supply.

Unlike investor-owned utilities, every cost impact on rural cooperatives or public power utilities is passed-on directly to our customers—residents of rural areas who are already struggling. Our responsibility, therefore, is to do everything in our power to manage these risks and costs. When, several years ago, the railroads doubled our fuel transportation costs, we fought them at the Surface Transportation Board and won. When the EPA unexpectedly imposed a Federal implementation plan on Regional Haze that would have forced us into bankruptcy, we developed an alternative that was \$180 M less costly and produced better results. And, when new compliance responsibilities required significant operational changes, rather than adding new full time employees, we shifted staff and found a way to make those changes cost neutral.

AEPCO has generally succeeded in managing these external threats and controlling costs, with one recent exception. We have had a relationship with one power and transmission supplier that goes back more than 50 years. More than just an important partner, this supplier is intertwined in our business model because historically we could rely on them, just as many other cooperatives and public power utilities do, to help us manage risk and keep costs down. Today, however, we can no longer rely on this supplier in the ways we once did, rather they have become one of our more significant risks. This power and transmission supplier is the Western Area Power Administration. In recent years, we have seen rates for power and transmission services charged by Western increase with little correlation to market fundamentals. Western is a one of its kind power supplier in the West. Its statutory mission is to market and deliver power to customers in Western's marketing area from a broad fleet of largely paid for hydropower projects.

Yet, today, Western customers, including AEPCO, face any number of challenges in addressing costs. Unlike a traditional power supply counterparty that relies on the same market fundamentals that we can observe, we do not have the insight into the fundamentals that underlie Western's operations. For example, we cannot adopt hedging or trading strategies to compensate for Western price increases. Our best option to address Western price increases is to anticipate when and how prices will increase and plan our internal strategies accordingly.

This approach, however, is limited by the information that Western provides in support of its rates. We do not have details on certain trends such as staffing increases at headquarters or adjustments in the use of budget authority. Moreover, we also do not have a sense of how operational changes with Western's sister generating agencies are affecting power supply and associated pricing. While many of the dedicated personnel at Western are willing to share anecdotal information on how environmental compliance affects hydropower generation, the precise cost break down is missing from the public domain.

H.R. 1869 would help address this informational gap by requiring the disclosure of compliance costs with Federal environmental laws impacting the conservation of fish and wildlife. In this context we believe it is important to gather and disclose both direct and indirect costs. Moreover, because the legislation would require a line item in each monthly billing, customers including AEPCO would have a better understanding of the true cost of the resource that they are buying.

My fundamental concern with Western in recent years has revolved around transparency and understanding the basis for rate increases that I must pass along to my members and eventually their customers. Western faces many of the same compliance costs that my organization has to shoulder but it is not always clear to me or other Western customers how those costs are calculated. A paragraph or two in a Federal Register notice does not always reveal the same impact that a line item in a bill will convey. Indeed, the proposed legislation would provide valuable insight

into an important cost driver that has affected Western's power marketing in recent years.

Before concluding my testimony today, I should note that in the last few months Western's focus does appear to have shifted toward greater transparency. They have, for example, developed a page on their Web site called "The Source." While it is a work in progress, it may show promise in providing some of the information that we have long been requesting. Western has also indicated that they are assembling background cost information and some of the underlying data that have driven rate increases in recent years. These are positive developments that may help us understand some of the fundamentals driving the rate increases. The passage of H.R. 1869 would provide another important tool in helping us manage costs for our customers and we would encourage its passage.

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Dr. FLEMING. OK. Thank you, Mr. Ledger. And we thank you, panel, for your valuable testimony today. At this point we will begin our questions of our witnesses. To allow all Members time to participate, we will limit questions to 5 minutes.

If we have further questions we may do a second round, just depending on the time and amount of questions and interest. I now recognize myself for 5 minutes.

Mr. Iseman and Mr. Hanson, the subcommittee heard a few months ago that non-native striped bass predation has a substantial direct impact on native species like salmon and Delta smelt. In some parts of California, up to 97 percent of ESA-protected juvenile salmon were consumed by striped bass. Yet we have a Federal law that has a goal of doubling these non-native predators in California. Do you believe that increasing the population of non-native species that prey on endangered species is counterproductive to recovering that species? Mr. Iseman and Dr. Hanson?

Mr. ISEMAN. Yes. In this case, as we testified, we agree that the striped bass is causing predation on endangered species, and we think it is appropriate to remove them from the fish doubling goals in the CVPIA.

Dr. FLEMING. OK. Dr. Hanson?

Dr. HANSON. And I agree with that position. But just to be clear, you cite some numbers with regard to incremental survival, or mortality. And it is difficult. Those mortality rates vary substantially from year to year, so it is very difficult to attribute a certain mortality rate to striped bass predation. We know that they are a predator, we know that they consume juvenile Chinook salmon. They are an incremental stress on the population, as a whole. And, therefore, I agree that doubling the abundance of striped bass would be counterproductive to recovery of ESA-listed species.

Dr. FLEMING. OK. Does this bill help reverse the counter-productivity at the Federal level?

Dr. HANSON. This bill would remove the incentive to achieve a doubling goal. And, therefore, I think it would shift the priorities within the CVPIA with regard to allocation of resources and the types of resources that get allocated to improving fishery habitat and other conditions.

Dr. FLEMING. OK. Mr. Iseman?

Mr. ISEMAN. Currently, our priorities do focus on trying to restore the native fish species, and that is where we are investing our resources. As I said, I think it makes sense to remove the striped bass from the doubling goals. But I don't think it will

significantly change the way that we are investing in recovery activities in support of the CVPIA.

Dr. FLEMING. OK. Again, back to Mr. Iseman. The Central Valley Project Improvement Act, which has a fish doubling goal for both non-native striped bass and native ESA-listed salmon, has perpetuated one stressor to salmon and smelt. This bill proposes one change to that Act. You suggest making additional changes to that Act.

You testified in support of the intent of the bill, but would the Administration support that bill if we made the additional changes to that 1992 law that you suggested?

Mr. ISEMAN. I believe the only change that we suggested was to agree with the legislation, which would remove striped bass from the doubling goals in the CVPIA. If you wanted to engage in a discussion on broader amendments or changes to the CVPIA, we would be willing to have that discussion. We would need to involve our departmental leadership, certainly, including Deputy Secretary Connor and Commissioner Lopez, as well as other parts of the Department. And I think it is appropriate that that conversation would need to include many other stakeholders, as well.

Dr. FLEMING. OK, thank you. The Chair now recognizes Mr. Huffman for questions.

Mr. HUFFMAN. Thank you, Mr. Chairman. So we are here talking about a 26-year-old goal that was in the Central Valley Project Improvement Act signed by President Bush in 1992 that refers to doubling of all anadromous fish. And by the fact that it did not exclude striped bass, that included the striped bass.

And Dr. Hanson, it is good to see you again.

Dr. HANSON. Nice to see you, as well.

Mr. HUFFMAN. I think I agree with the premise of your testimony, which is that if we have these very low salmon populations, and we are trying to increase striped bass populations, knowing that it is one of many stressors, the predation issue, that that does not make any sense.

Dr. HANSON. Correct.

Mr. HUFFMAN. But we are having that discussion as if that is happening. The working premise of this discussion is that we are actually trying to increase striped bass population, when, in fact, since the passage of that law in 1992, we have never done a single thing to try to increase striped bass population.

Now, I am happy to have a witness correct me on that, but I know that the law originally called for the development of a fish-doubling plan that never happened. I know that still on the books we have this standard that says we have a goal of doubling all anadromous fish. Yet, I am not aware of a single thing the Department of the Interior or any other Federal agency has ever done in a program or even a single activity to increase striped bass population.

So, let me start with you, Mr. Iseman. Can you correct me if I am wrong about that?

Mr. ISEMAN. I cannot correct you. I agree with the point, certainly, that recently our activities have focused on enhancing native fish populations, and that some of those may have incidental

benefits for striped bass. But that certainly has not been our focus or our intention—investing in striped bass doubling.

Mr. HUFFMAN. Dr. Hanson, did I miss something? Are there Federal programs or activities underway right now that are focused on increasing striped bass population?

Dr. HANSON. There are a couple of activities that have been implemented. There are certainly regulations that have been imposed on recreational harvest of striped bass, in part intended to protect the population. And specifically—

Mr. HUFFMAN. Those would be state—

Dr. HANSON. Those are state regulations.

Mr. HUFFMAN. Right. So this is not—

Dr. HANSON. Not at a Federal level.

Mr. HUFFMAN [continuing]. Federal activity or program, as I believe to be the case. So—

Dr. HANSON. I think that is true.

Mr. HUFFMAN [continuing]. It is really an interesting discussion, but it is also an enormous strawman, because we are not doing anything to increase striped bass. So, my friend, Mr. Gosar, if this makes your top 10 list of government dysfunction outrage, it is a pretty hollow list, because there is nothing going on. And as much as I am glad to be talking about salmon here in this subcommittee, it would be great if we could focus on real threats to salmon, instead of fictional ones like increasing striped bass population when, in fact, there is nothing like that happening.

I want to turn, Mr. Iseman, to the issue of Title XVI. And actually, let me start with Mr. Herberg. Thanks for joining us from Orange County. I am a big fan of the recycling and advance water treatment work you have done there. You mentioned 21 active authorized projects that are waiting for their Federal cost share. Do you have any approximation of how much water could be generated if we would step in and provide that cost share?

Mr. HERBERG. For those 21 projects? I think that might be a better question for Mr. Iseman.

Mr. HUFFMAN. I am happy to direct it to Mr. Iseman, so thanks.

Mr. ISEMAN. I am sorry, I don't actually have that number with me. We did look at that list, but I don't recall that number. I would be happy to provide that number for the record.

Mr. HUFFMAN. OK. Fair to say that we are probably looking at well over 100,000 acre-feet of water, maybe in the multiple hundred thousands of acre-feet?

Mr. ISEMAN. Yes, I think that is fair to say, but as I said, I would like to check and confirm.

Mr. HUFFMAN. There has been some criticism by the Chair and others of this program for the lack of beneficiary pays, a sort of fiscal concern that has been levied at it. But my understanding is that 75 percent or greater of the cost of every one of these projects is borne by the locals. Is that correct?

Mr. ISEMAN. Yes, Representative Huffman. As I mentioned, at least 75 percent would be borne by the local participants. And in fact, our cost share has actually exceeded that.

Mr. HUFFMAN. I think that is important, because if we are concerned about beneficiary pays, that is a pretty strong beneficiary pay component, much greater than we see for the surface storage

and other traditional Federal water projects that my colleagues across the aisle consistently support.

In the case of those projects, we are continually looking to redefine public benefits, which creates a subsidy that does not have a local cost share. We are giving them generous repayment terms over long periods of time at zero percent interest, and we are forgiving those repayments when there is no ability to pay. None of that applies in Title XVI.

So, I think it is important to note, if beneficiary pays and fiscal responsibility is a concern, this program is a shining light. And I appreciate your testimony.

Dr. FLEMING. The Ranking Member yields. Dr. Gosar is recognized.

Dr. GOSAR. Thank you very much.

Mr. Ledger, your testimony refers to the associated risk and lack of transparency from Western. How would H.R. 1869 help customers like Arizona Electric Power Cooperative?

Mr. LEDGER. As I said in testimony, Western's costs are unique in the industry. They have to supply power and transmission services at cost. But they are driven by costs that sometimes are not transparent.

So, whereas in the market we are often able to ascertain the direction of costs based on fuel prices, for example, the costs at Western are very unique. So, it is very difficult for us to sort of unpack the components of those costs. And as cost increases occur, we are sometimes befuddled by the origins of those cost increases.

Dr. GOSAR. Are the Endangered Species Act compliance costs one of the top concerns for your organization?

Mr. LEDGER. It is among the top concerns. We, as a utility that operates transmission throughout the state, from time to time, as we site new transmission or we are doing O&M work, we have to be very attentive to the ESA. Obviously, we are concerned about the ESA impacts, the analysis that is done and the management of the hydropower projects that we are customers of, particularly the Crist project. But it is among a sort of a myriad of compliance requirements that we have and we operate every day. So it is certainly very important to us.

Dr. GOSAR. My next question is to both you and Mr. Downen.

Much of the West has experienced multiple consecutive years of drought, and oftentimes releases from the dams for ESA-listed species and other environmental mandates further constrains and already-dwindling supply of water. This bill mandates that the Federal power agencies report costs due to spills, fish flows, and other actions that cause loss of hydropower generation.

When the generation is lost, replacement power has to be found. That replacement power is almost always more expensive and/or fossil fuel based. Are these costs borne by the utilities you represent?

Mr. DOWNEN. Representative, yes they are, is the short answer. All Bonneville Power costs are recouped by their ratepayers, and/or paid for.

Mr. LEDGER. I would repeat that.

Dr. GOSAR. And are these fixed costs? Do they fluctuate from year to year?

Mr. DOWNEN. Yes, they do, in large part due to these fish and wildlife costs.

Mr. LEDGER. Yes, they can be volatile.

Dr. GOSAR. Now, both Mr. Ledger and Mr. Downen, some claims here have been made that your rates are subsidized, and that these so-called costs should be listed on customers' bills. What are your thoughts on that claim?

Mr. Downen first, and then Mr. Ledger.

Mr. DOWNEN. Well, subsidization, we don't see that at all. In fact, all the costs that Bonneville has are paid for by their ratepayers. So, I suppose that if we want to go back historically during the work project era over 75 years ago, the dams were built in assistance with the Federal Government. But those have long been paid out by the region's ratepayers. So, every cost borne by Bonneville is actually borne by that end-of-line ratepayer.

Dr. GOSAR. Would you agree with that, Mr. Ledger?

Mr. LEDGER. I would.

Dr. GOSAR. Mr. Downen, you testified—and I quote—"In the case of BPA, the fish and wildlife costs in the rates the agency charges for wholesale power are inordinately large. At \$757 million last year alone, this single category of costs accounted for about 30 percent of the BPA power costs charged in rates. The total BPA ratepayer cost for fish and wildlife since 1980 is more than \$15 billion. That does not count the amounts contributed through other Federal, state, and local entities."

These costs are passed down to the consumer-owned electric utilities you represent, correct?

Mr. DOWNEN. That is correct.

Dr. GOSAR. Now, while I personally disagree, some people in this room may think these costs are not high enough, and that we should be spending more on fish and wildlife at taxpayer expense. My bill does not repeal a single environmental law or take a position on the amount of money being spent. All it says is customers have a right to know these costs. Is there anything wrong with allowing those paying the bills to better understand what they are actually paying for?

Mr. DOWNEN. No, Representative. I don't think there is anything wrong with that. In fact, as I had mentioned, the ratepayers of the Northwest are proud of the investment made in fish and wildlife mitigation. However, we believe that greater transparency would lead to better management of the resources and longer partnership between fish and wildlife mitigation and the ratepayers that cover those costs.

Dr. GOSAR. Mr. Downen, I thank you so very much. I yield my time.

Dr. FLEMING. The gentleman yields. The Chair recognizes Mr. Lowenthal.

Dr. LOWENTHAL. Thank you, Mr. Chair. And thank you to our witnesses for being here today, and the Chair for including H.R. 2993 in this hearing, which I believe is vital legislation to stimulate new water recycling projects in the West.

Let me reiterate a few of the many reasons why water recycling is so important to California and the arid states of the West.



First, recycling is a secure and resilient source supply. This is a time of changing and more variable precipitation patterns: hotter and dryer years, as we know, and reduced snow packs. On the other hand, water from reclamation and recycling is not, and I repeat not, subject to supply disruptions in the ways that imported waters can be.

Recyclable water is one of—and I think this is critical across the aisle—is one of the cheapest ways to increase water supplies, as was recently found by the non-partisan Congressional Research Service. It is important for our side of the aisle, also.

Finally, recycling water can be done with minimal ecological impact, compared to increasing other kinds of supply sources. So, I fully support water recycling as a key piece of the water solutions in the West.

I also want to take this opportunity to really highlight the true leadership work that my local communities have accomplished. It has been said, but I want to repeat the Orange County Sanitation District, in particular with the Orange County Water District, have built the largest potable water reuse facility in the world—in the world. The system now produces 100 million gallons per day of local drought-proof water supply, which is enough water for 850,000 people.

Other nations come all the way to Orange County to understand the engineering feat accomplished in Southern California. And just to the north, Long Beach Mayor Robert Garcia is working to increase storm water capture in the San Gabriel River, and to complete a recycled water purification plant that will reduce imported water demands by 1.9 billion gallons per year.

These investments have helped to protect my district in Southern California from drought and import dependence, and I have set up an internationally-recognized standard for sustainable water use. But these infrastructure achievements took time, planning, and lots of capital, and many times Federal Government support.

Mr. HERBERG, my question to you is, under bill H.R. 2933, what is your understanding of how the new process would look for authorizing and funding new water recycling project constructions that have a Federal cost share? What would happen to the existing authorized projects?

Mr. HERBERG. Thank you, Congressman, for that question. As I understand it, there would be a solicitation for projects, and agencies, such as the Sanitation District would submit our projects for consideration by the Secretary. Those projects would be considered alongside the projects currently residing in the backlog, and those projects would be evaluated based on the criteria that are contained in H.R. 2993.

Dr. LOWENTHAL. How would this bill affect your future plans? Do you think it would stimulate more water recycling projects in the future and in the West?

Mr. HERBERG. I think it has the potential to do that because the bill, as we read it right now, would accelerate the approval process, and there would be more certainty as to the ability to get grant funding. That grant funding is important in reducing the cost per acre-foot of recycled water, so that it would not take as long as the

current process. I think it would give us more certainty, going forward.

Dr. LOWENTHAL. I want to thank you, and I want to thank the Chairman for holding this hearing on H.R. 2993, and I hope to see our committee act on a bipartisan manner in a markup on this bill soon.

Thank you, and I yield back the balance of my time.

Dr. FLEMING. The gentleman yields back. Mr. LaMalfa is recognized.

Mr. LAMALFA. Thank you, Mr. Chairman. A couple of issues are really important for my area, as well.

Much money is being spent on the CVPIA to improve conditions for salmon. One such plan that is even touted was, like, a \$50 million idea to truck salmon around the Shasta Dam, put them above in Lake Shasta, which is something I think even environmental groups have said would not be very successful.

We are seeing that there was a threat earlier this year to not allow diversions from the Sacramento River to senior contractors until June 1 if the Lake did not reach a particular level. Then they started dumping water out of the lake to keep it from reaching the level so that farmers would not receive diversions until June 1. And if anybody knows anything about the spring and when you plant, that is an extreme hardship.

Now, the lake reached the level they needed to, so the water will be delivered. But there was a threat that it may not happen. So, bringing up an earlier subject, under CVPIA, again, it is tasked with doubling the population of striped bass. How much is being done on that, I am not sure how much our striped bass deniers want to dispute that, but there is a very robust population of them, and they have devastating effects on the salmon population that we are trying to save.

So, any effort that would continue to want to double that striped bass population, whether it is being expended, or whether the government is following its law or not, we have a problem as is.

So what I would like to ask is, Mr. Iseman, what actions are Federal agencies already taking to address the predation of salmon in the river, whether it is striped bass or other means? What proactive actions are being done to do that?

Mr. ISEMAN. Well, we know, under the CVPIA and the biological opinions, that we are taking a suite of actions to try to recover the fish species that includes dealing with predation, but also other activities to promote habitat and recovery of the species.

If you would like more information about specific investments in dealing with predation on endangered species, we could provide that for the record.

Mr. LAMALFA. Well, just off the top of your head on predation itself, can you give an instance of efforts that are being used on the predation of the salmon?

Mr. ISEMAN. Well, as I said, I would prefer to consult with our biologists in the field and get you a more complete and accurate response on our—

Mr. LAMALFA. OK. So nothing for the committee today. All right.

Mr. ISEMAN. Sorry.

Mr. LAMALFA. What additional actions that are not being done that you know of could be done on the predation?

Mr. ISEMAN. Again, I would like to consult with our biologists, I apologize. I am just not the expert on non-native predation.

Mr. LAMALFA. All right. Very good. Do you think that fishing regulations, if they were allowed to be updated in order to increase the take, removing or opening up the number of striped bass that can be taken by fishermen, would that be a positive component of the overall need?

Mr. ISEMAN. Well, we know, as I said, predation is a significant issue. Fishing regulations are decided by the state——

Mr. COSTA. Would the gentleman yield?

Mr. LAMALFA. Certainly.

Mr. COSTA. To your point, as was noted earlier, there is a state regulation on the limits of catch, as you are noting. But, for the record, I think we should state that the catch is two fish per day, and the length is 18 inches. That is the current limit.

Mr. LAMALFA. Yes. Thank you, Mr. Costa. That is kind of where I am going with that, is that maybe that catch number should be larger, and the type of fish you could take, the size should be expanded as well, if we want to make significant gains. So I appreciate that.

Switching gears to a different topic under CVPIA. Western Power, their administrator testified just a few weeks ago that environmental costs by the CVPIA have driven the power prices to twice the market rate of approximately \$30 per megawatt. Constituents that I have in Reading, Gridley-Biggs, and other contractors are paid approximately \$60 per megawatt, and yet have little information, which alludes to Mr. Gosar's bill about how revenues are used, or even less input on the decisionmaking process. So, over a billion dollars spent, and I better hurry here.

Mr. Downen, do you think these purchasers of Federal power have made clear to them what the value is in knowing these costs? Or should they be in on knowing what these costs are?

Mr. DOWNEN. I think any transparency creates a lot better discussion in the Northwest or any region of the country. So, yes, I think that these costs should be put on the PMA power bill.

Mr. LAMALFA. My understanding is that these contracts could run out fairly soon, and they can see other contractors to get this power from, leaving the CVP.

Mr. Chairman, I will yield back. Will we have a second round a little bit later?

Dr. FLEMING. We do not have a plan for a second round.

Mr. LAMALFA. OK.

Dr. FLEMING. Do you have a quick question you want to go ahead and dispatch, or we will go to Mr. Costa next, but I want to make sure you are——

Mr. LAMALFA. Thank you. I appreciate the indulgence on that.

Dr. FLEMING. Yes.

Mr. LAMALFA. So, as it is, the contractors who CVPIA—they receive little more than just a bill. If there was greater transparency—do you think the ratepayers receive enough information, as is?

Mr. DOWNEN. I think that this additional information would be very useful, because per your earlier comment, the ratepayers, the utilities in the Pacific Northwest currently have long-term contracts that are 20-year contracts but 12 years from expiring. And at that time, yes, they can leave Bonneville Power to have their electricity loads met in other ways. If we continue to see these cost trajectories with fish and wildlife, utilities could leave Bonneville Power and that would essentially negate a fish program, because without ratepayers to pay for the fish program, it is very difficult for Bonneville to find funding. So, yes—

Mr. LAMALFA. So, perhaps they would feel a little bit better about the process if it was disclosed and maybe continue to be contractors in the future. All right. Thank you, Mr. Chairman, I appreciate the extra time.

Dr. FLEMING. OK. Mr. Costa is recognized.

Mr. COSTA. Thank you very much, Mr. Chairman and Ranking Member. I want to confine my comments and questions to the Save our Salmon Act, H.R. 4582, that Congressman Denham has introduced, and that Congressman Garamendi and I are co-sponsors of. And my comments or questions will be confined to Dr. Hanson and to Mr. Iseman.

As we deal with the salmon recovery, Salmonid Recovery Act, that was noted by Mr. Iseman, that NOAA has been attempting to implement with the CVPIA program, what are the percentage of numbers that you used for native and non-native species within the Sacramento-San Joaquin Delta? How much are native, how much are non-native? Dr. Hanson?

Dr. HANSON. In terms of abundance, I would say there are probably 80 percent non-native species and about 20 percent native species, currently.

Mr. COSTA. Would you agree with that number, Mr. Iseman?

Mr. ISEMAN. I don't have any reason to disagree, and I could check with our biologists in the field for the record.

Mr. COSTA. All right. When we talk about the Save our Salmon Act and the predator problem that we are dealing with, and in essence, acknowledging that 80 percent of the fisheries there are non-native to the Sacramento-San Joaquin River systems and that 20 percent are native, this makes a very difficult challenge that we face.

Richard Pool with the Salmon Fisheries Federation testified last month before the committee that there had been 31 pilot programs proposed. I believe that was the number. And none of them have been implemented. Dr. Hanson, Mr. Iseman, can you indicate why none of these predator control programs, as part of the recovery plan, have been implemented? Mr. Iseman?

Mr. ISEMAN. Representative Costa, I was trying to address this question earlier. I am not aware of the specific information—

Mr. COSTA. Well, become aware of it and provide the information to us—

Mr. ISEMAN. Yes, we will provide the information for the record.

Mr. COSTA [continuing]. Because I want to enter it for the record. I have here the winter-run Chinook salmon stressor matrix that is part of the recovery plan that was prepared by NOAA in July 2014. This is part of the recovery plan. And it states in here the various

impacts of trying to deal with native species and recovery. It lists them very high or high, in terms of the overall stressor category. And high on the list are loss of habitat, predation, predation, loss of habitat, water quality, water temperature, loss of spawning availability, water temperature, harvesting and angling impacts. Although it is an impact, and we have always acknowledged it as an impact, it is 24th on the list before you get to the level of entrainment by the Delta pumps, either the Central Valley or the State Water Projects.

So, it is amazing that we have a recovery plan, but all the other impacts as a part of recovery plan are not being done. We are using one management tool, as I was told yesterday by the head of the U.S. Fish and Wildlife, and that is the pumping issue that is a problem.

Do you think politics might be a problem with this, Dr. Hanson? You are familiar with legislation that was introduced in the State legislature to increase the catch, and that did not go anywhere.

Dr. HANSON. That did not go anywhere. We have had a number of discussions with Dick Pool and others regarding these various actions, and there is support for these actions. But I do believe there are politics—

Mr. COSTA. Why do you think we could implement either our politics—and, Dr. Iseman, we have predator programs on the Columbia River that have been implemented, but not on the Sacramento-San Joaquin River. I am at a loss to figure out why. When you are responding to us, could you do that comparative analogy?

Mr. ISEMAN. Absolutely, we will provide that information.

Mr. COSTA. Yes. It is very frustrating, because we look at trying to do all the tools in our management toolbox during devastating drought conditions that have affected the San Joaquin Valley, ground zero, and yet we continue to play politics with this, in terms of our regional approach.

My time is running out, but Peter Moyle, noted biologist, has indicated that, in his view, as a result of climate change, which we have not even talked about, that a lot of the native species in this area, the Sacramento-San Joaquin River, will probably go extinct in the next 20 to 40 years. Do you agree with that, Dr. Hanson?

Dr. HANSON. I agree with Dr. Moyle, that climate change is a huge issue facing salmonid populations in the Central Valley. I do not have an opinion with regard to the specific time frame. But Chinook salmon in the Central Valley are on the southern edge of their geographic distribution. Hydrology, drought, and water temperature are all major drivers of population success. And to the extent that climate change, over time, increases seasonal water temperature, that will be devastating to Chinook salmon spawning.

So, I agree with the philosophy, I just don't know specifically about the time frame.

Mr. COSTA. Which begs the question, what are we trying to do here in a recovery plan, it seems to me, in terms of logic?

My time has expired, but just a note for the subcommittee, because Congressman LaMalfa and I get into the weeds in this kind of stuff, along with my other California colleagues. Last year, we stopped the movement of water because of 1 degree of temperature

on the Sacramento River between 56 and 57 degrees of water temperature in which we had to curtail our ability to move water.

So, it begs the question. How do we make this thing work, given the constrictions that we are facing in trying to provide water for an entire state?

Thank you. I yield back.

Dr. FLEMING. The gentleman yields back. Mr. Newhouse is recognized.

Mr. NEWHOUSE. Thank you, Mr. Chairman. Thank you all for being here this morning and discussing these three important bills. I want to focus first on H.R. 1869, which I think is a good step in transparency.

I have heard some people claim that this potentially could, as it requires reporting of costs, be considered an attack on the Endangered Species Act and would question also why other costs are not included in this bill.

So, to Mr. Downen, could you respond to those claims? Are they valid, in your opinion?

Mr. DOWNEN. No, we do not see this as an attack on the Endangered Species Act. We realize that is a Federal law, and the biological opinion on the Columbia River meets the requirements of that law and is a federally-created plan for mitigating for the dams there. So, there is no effort to shirk any duties that we have regionally to comply with the ESA.

I apologize, your second question?

Mr. NEWHOUSE. Well, I just want to let you expound, I think I heard you say that people in the Northwest take some ownership or pride in the fact that we are doing some good things.

Mr. DOWNEN. Yes. The Northwest does take some pride and ownership in that. And I believe that, by exhibiting this on the Bonneville Power bill, there would be greater discussion as to what is actually being accomplished for those ratepayer dollars, and there would be greater efficiencies made if that conversation was held a little more broadly across the region.

Mr. NEWHOUSE. So, if people actually knew what their money is being used for. Some may also argue that a utility and its ratepayers could find this information without this kind of a requirement. Is that the case? And do some utilities maybe not even possess this information?

Mr. DOWNEN. There is currently no specific codified process in place that allows utilities to find this information out. Bonneville, to its credit, does like to work with its customers to help its customers be as informed as possible.

However, we do believe that this bill would be beneficial to the Northwest in codifying this, as well as our neighbors to the south and elsewhere who do not perhaps have that same opportunity to work with their PMAs and find out this information in a more transparent manner.

Mr. NEWHOUSE. OK. And then just quickly, Mr. Downen, public utilities face a certain amount of litigation from environmental groups. But I would think that most of the public at this point, maybe because they do not see what they are paying for, is unaware of the work that is being done by public utilities on fish recovery.

I don't know if that is a fair statement in your estimation, but could you talk a little bit about some of that work, some of the survival rates of some of the fish species in Central Washington, and maybe highlight ways in which the BPA and the mid-Columbia PUDs are actually pretty good stewards of our natural resources?

Mr. DOWNEN. Thank you, Congressman. The utilities in the Northwest make a huge investment in that federally-designed plan that I was talking about, and are good stewards of the river and the region. I cannot give you, off the top of my head, survival rates of passage, both for juveniles and adults at each project along the Columbia and Snake Rivers, but the biological opinion requires those to be in the high 90 percent. And to date, those are being met or close to being met at all of the projects.

There are miles of stream that have been improved over the last several years for fish. There are spawning grounds that have been improved. A number of things are being done by the state and Federal agencies, but funded by the utilities in the Northwest.

Mr. NEWHOUSE. Good. Thank you very much.

And with that, Mr. Chairman, I would like to yield some of my time to Mr. LaMalfa, if that is possible.

Thank you, Mr. Downen.

Mr. DOWNEN. Thank you.

Mr. LAMALFA. I will go ahead and yield the time back. Mr. Denham is here. I think he would like to probably weigh in pretty well on his bill, so I will defer back. Thank you, Mr. Newhouse.

Dr. FLEMING. Yes, well, we are out of time for Mr. Newhouse. So the Chair now recognizes Mr. Denham.

Mr. DENHAM. Thank you, Mr. Chairman. Just a couple of quick follow-up questions.

Mr. Iseman, in your written testimony you indicated a few other changes to the CVPIA that would be necessary to accomplish my bill's intent to remove the striped bass doubling goal. Can you please explain?

Mr. ISEMAN. Yes. We believe there are other references to anadromous fish throughout the bill that we would want to correct. We think these are minor technical corrections, and we would be happy to work with you and your staff to help provide those proposed changes.

Mr. DENHAM. Thank you. Is it your understanding that the Administration would support the bill if we made the additional suggested changes that you have offered in your written testimony?

Mr. ISEMAN. Yes, that is correct. We would support the bill if we made those additional changes.

Mr. DENHAM. Thank you. I yield back.

Dr. FLEMING. The gentleman yields back.

Again, we thank the panel for your participation, your valuable testimony, and for answering questions. There could be follow-up questions in writing. We would ask that you respond within 10 days.

If there is no further business before this subcommittee, we are hereby adjourned.

[Whereupon, at 11:37 a.m., the subcommittee was adjourned.]

## [ADDITIONAL MATERIALS SUBMITTED FOR THE RECORD]

## PREPARED STATEMENT OF DAVID GUY, PRESIDENT, NORTHERN CALIFORNIA WATER ASSOCIATION ON H.R. 4582

Chairman Fleming, Ranking Member Huffman, and members of the subcommittee, my name is David Guy. I am the president of the Northern California Water Association (NCWA), representing the water suppliers, rural communities and landowners that beneficially use both surface and groundwater water resources in the Sacramento Valley. The precious water resources in this region are managed for multiple beneficial uses, including domestic deliveries to cities and rural communities and supplying water for farms and habitat for the magnificent fish and birds that grace the region. Nowhere are the natural and human resources more closely integrated and cared for than the Sacramento Valley.

For the past several decades, water resources managers, conservation organizations and Federal and state agencies have been collaborating and working hard to advance both environmental and economic stewardship across this special region. This includes an aggressive implementation program to recover endangered and threatened salmon and steelhead, including the National Oceanic and Atmospheric Administration (NOAA) Recovery Plan and the Sacramento Valley Salmon Recovery Program.

We appreciate the opportunity today to submit this testimony in support of the Save Our Salmon Act (H.R. 4582) as an important incremental step forward for the recovery of salmon and steelhead. From our perspective, removing striped bass from the Central Valley Project Improvement Act's (CVPIA) doubling goal is important for several reasons. The Save Our Salmon Act will:

1. Acknowledge that predation is a serious problem affecting endangered salmon and steelhead. It is well known and documented that striped bass, which are not native to California, prey on native salmon and steelhead and thus pose a serious threat to their existence and survival. Both the NOAA Fisheries and independent research has shown that predation from non-native species, such as the striped bass, is a significant stressor on salmon and steelhead populations and threatens the existence of these species. It is therefore important that Federal policy reflect this dynamic and not encourage the proliferation of these introduced predators.
2. Make the Federal fish doubling objective more consistent with the state of California's salmon doubling objective in Water Code § 6902.
3. Help protect the significant investments that will continue to be made to recover endangered and threatened salmon and steelhead in the Sacramento Valley.

To be sure, predation is not the *only* stressor on salmon and steelhead and this bill will not recover salmon as a stand-alone measure. The Save Our Salmon Act, however, is an important incremental step forward to address one of the obvious stressors on salmon and steelhead during various life-stages. Until significant progress is made to address predation issues, we will not realize the full benefit of upstream actions that have and will continue to be taken in the Sacramento Valley as part of the Sacramento Valley Salmon Recovery Program.

The CVPIA's requirement to protect both introduced predatory striped bass and federally-protected native salmonids is a contradiction of statute and science. Recovery efforts for endangered and threatened salmon and steelhead will continue to be undermined by contradictory and counterproductive striped bass recovery objectives as long as the Federal agencies are required to support a top-level non-native predator that is devastating the species the Federal Government is obligated by law to protect.

We respectfully urge the subcommittee's favorable consideration of this important bill to end the contradictory doubling goal for striped bass. Thank you for the opportunity to provide our perspective through this testimony.



## LETTERS OF SUPPORT FOR H.R. 4582

ASSOCIATION OF CALIFORNIA WATER AGENCIES

April 6, 2016

Hon. Jeff Denham  
*U.S. House of Representatives*  
*Longworth House Office Building*  
*Washington, DC 20515*

Re: ACWA Support for H.R. 4582, "Save Our Salmon Act"

Dear Representative Denham:

The Association of California Water Agencies (ACWA) is pleased to support your legislation, H.R. 4582, the "Save Our Salmon Act." ACWA appreciates your leadership on this issue. As you know, ACWA's 430 public water agency members supply over 90 percent of the water delivered in California for residential, agricultural, and municipal uses.

H.R. 4582 eliminates the doubling requirement established by the Central Valley Project Improvement Act of 1992 (CVPIA) for striped bass, a known predator fish of threatened and endangered salmon and steelhead. By eliminating the doubling requirement for striped bass, federal policy will no longer spend money on both fish that need to be saved and fish that want to eat them.

Again, ACWA is pleased to provide support for H.R. 4582 and we look forward to working with you to secure its passage.

Sincerely,

DAVID L. REYNOLDS,  
*Director of Federal Relations.*

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THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

April 5, 2016

Hon. Jeff Denham  
*U.S. House of Representatives*  
*Longworth House Office Building*  
*Washington, DC 20515*

Dear Representative Denham:

Metropolitan is pleased to support H.R. 4582, the Save our Salmon Act of 2016 which would exclude striped bass from the anadromous fish doubling requirement in the Central Valley Project Improvement Act of 1992 (CVPIA). This legislation helps advance California's co-equal goals of improving water supply reliability and ecosystem restoration and is consistent with our Board's previous policy directive to reduce stressors impacting listed species in the Delta in accordance with Metropolitan's Delta Action Plan.

Metropolitan has long advocated for legislative policies to reduce predation among the many stressors harming California's native and endangered species, including helping to advance state legislation, AB 2336, in 2010 by then Assembly Member Jean Fuller.

The striped bass in the Bay-Delta region is a non-native species and a major predator of several listed species in the Delta and Delta watershed, including salmon and Delta smelt. Predator control and effective reduction will help protect these species and achieve significant conservation objectives within the scope of California WaterFix and California EcoRestore objectives.

Removing striped bass from the anadromous fish doubling goal in the Central Valley Improvement Act of 1992 would also remove from Federal law a goal that is inconsistent with the Endangered Species Act and the California Endangered Species Act, which aim to take all conservation measures to recover listed species to the point they can be de-listed.

Metropolitan, along with other Delta water stakeholders, believes the current requirement for doubling this predator could lead to the extinction or extirpation of listed prey species. If striped bass populations were doubled in the Delta, it could lead to additional pumping restrictions for the State Water Project and Central Valley Project as listed prey species further decline, further reducing water supply reliability for urban and agricultural water providers.

It is our hope that H.R. 4582 will move expeditiously through the 114th Congress and be enacted into law this year.

Sincerely,

JEFFREY KIGHTLINGER,  
*General Manager.*

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MODESTO IRRIGATION DISTRICT  
& TURLOCK IRRIGATION DISTRICT

March 9, 2016

Hon. Jeff Denham  
*U.S. House of Representatives  
Longworth House Office Building  
Washington, DC 20515*

Re: Support for H.R. 4582, the Save Our Salmon Act of 2016

Dear Representative Denham:

The Modesto Irrigation District (MID) and Turlock Irrigation District (TID) support your newly introduced H.R. 4582, the Save Our Salmon Act of 2016. Predation by striped bass and other non-native fish is causing a significant decline in the number of native salmon migrating from the Tuolumne River, and we appreciate your continued efforts to identify common-sense solutions to this problem.

Though MID and TID are not involved in the Central Valley Project, we support your efforts to remove the doubling requirement for striped bass from the Central Valley Project Improvement Act. H.R. 4582 will bring greater awareness of the impact of predation on native salmon evident throughout California. This is critical to addressing—and hopefully reversing—the ongoing salmon decline in the Sacramento-San Joaquin Delta, as well as the Sacramento and San Joaquin Rivers.

MID and TID are currently in the process of relicensing the Don Pedro Project with the Federal Energy Regulatory Commission (FERC). Through the relicensing process, we have conducted 33 studies to provide an accurate representation of the current condition of the reservoir and the lower Tuolumne River. One study to note is our 2012 predation study, which FERC required us to perform in order to evaluate the impact that predation by non-native fish is having on the migration of salmon from the lower Tuolumne River. This study determined that more than 90% of the out-migrating smolts were consumed by non-native largemouth, smallmouth and striped bass prior to reaching the San Joaquin River. MID and TID continue to advocate for solutions that rationally address the proven threat of predation.

Again, we strongly support H.R. 4582, and appreciate your ongoing efforts to curb the effects of predation on the salmon population. We look forward to working with you and your staff on this legislation.

Cordially,

GREG SALYER, INT. GENERAL  
MANAGER,  
*Modesto Irrigation District.*

CASEY HASHIMOTO, GENERAL  
MANAGER,  
*Turlock Irrigation District.*

NORTHERN CALIFORNIA WATER ASSOCIATION

March 31, 2016

Hon. Jeff Denham  
*U.S. House of Representatives*  
*Longworth House Office Building*  
*Washington, DC 20515*

Re: Support for the Save Our Salmon Act (H.R. 4582)

Dear Representative Denham:

The Northern California Water Association (NCWA) would like to express its support for the Save Our Salmon Act (H.R. 4582). Water suppliers, conservation organizations, and federal, state and local governments have invested millions of dollars into the recovery of endangered and threatened salmon and steelhead in the Sacramento River basin and we will continue to advance the Sacramento Valley Salmon Recovery Program. By removing the Central Valley Project Improvement Act's (CVPIA) doubling goal for striped bass, the Save Our Salmon Act will help ensure that investments made to recover endangered and threatened salmon and steelhead in the Sacramento River basin are not undermined by contradictory and counterproductive striped bass recovery objectives.

Striped bass, which are not native to California, prey on native salmon and steelhead and pose a serious threat to their survival. Both the National Marine Fisheries Service and independent research has shown that predation from non-native species such as the striped bass is not only a significant stressor on salmon and steelhead populations but also a threat to the existence of the species. Until significant progress is made to address predation issues, many benefits of upstream actions, such as those taken by NCWA, Sacramento Valley water suppliers and conservation organizations.

Removing striped bass from the CVPIA's doubling goal will also make the federal fish doubling objective more consistent with the State of California's salmonid doubling objective in Water Code section 6902.

The CVPIA's requirement to protect both introduced predatory striped bass and federally-protected native salmonids is a contradiction of statute and science. Recovery efforts for endangered and threatened salmon and steelhead will continue to be hindered so long as the federal government is required to support a top-level non-native predator that is devastating the very species the federal government is obligated by law to protect.

Predation is not the only stressor on salmon, but the Save Our Salmon Act is an important step toward addressing the serious predation problem affecting important native anadromous fish populations in the Sacramento River basin. We appreciate your efforts to end the arbitrary doubling goal for striped bass and will continue to express our support for this important legislation.

Sincerely yours,

DAVID J. GUY,  
*President.*

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OAKDALE IRRIGATION DISTRICT  
 & SOUTH SAN JOAQUIN IRRIGATION DISTRICT

February 29, 2016

Hon. Jeff Denham  
*U.S. House of Representatives*  
*Longworth House Office Building*  
*Washington, DC 20515*

Re: Save Our Salmon Act

Dear Representative Denham:

Our agencies commend you for the introduction of the Save Our Salmon Act of 2016, which provides necessary and responsible relief from illogical goals for striped bass populations in California. You have our full support in your effort to remove the doubling requirement for striped bass contained in the Central Valley Project Improvement Act of 1992.

As H.R. 4582 states, the CVPIA mandated doubling the population of all anadromous fish as part of an effort to protect fish. That may have made sense in 1992, but certainly does not today. The CVPIA is not supported by the science that has been conducted that clearly shows striped bass to be a voracious predator and a prime contributor to the decline of endangered salmon and steelhead populations in California. In fact, a study on the Tuolumne River indicated that striped bass eat more than 90% of young salmon and steelhead before they can make their way to the Pacific Ocean.

We also agree with you that the CVPIA has required millions of acre-feet of water to be wastefully sent down Central Valley rivers to the ocean. By itself, more water is not the solution to helping endangered fish populations. Efforts to reduce predation and restore spawning habitat are equally vital.

Finally, during a time of serious drought in California, we join with other agencies in support of sensible water management policies that balance the needs of agriculture, families and environmental needs.

We applaud your consistent efforts to combat predation that devastates salmon and steelhead populations as well as your ideas to responsibly manage California's water system.

Please let us know what else we can do to assist you.

Respectfully,

STEVE KNELL,  
*Oakdale Irrigation District.*

PETER RIETKERK,  
*South San Joaquin Irrigation District.*

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April 11, 2016

Hon. Jeff Denham  
*U.S. House of Representatives  
Longworth House Office Building  
Washington, DC 20515*

Dear Representative Denham:

We are writing to inform you of our collective support for your bill, H.R. 4582, the Save Our Salmon Act. We believe your bill represents much-needed common sense reform to the Central Valley Project Improvement Act (CVPIA).

As you know, the enactment of CVPIA in 1992 set a goal of doubling the number of striped bass, a non-native species that, ironically, feeds on endangered listed species. This predation is one of the primary stressors that negatively affects the effort to recover endangered Chinook salmon and Delta Smelt. Additionally, regulatory actions associated with this doubling mandate and the desire to "save" other Delta species has resulted in the startling and absurd mismanagement of California's water supply at a time when project operators should be maximizing water deliveries to enable the state to recover from the past three years of drought. Therefore, as you rightfully stated in your press release, "We must stop the crazy cycle of spending money on both the fish we want to save and the fish that kill them."

We appreciate your bipartisan efforts to bring this issue to light and look forward to working with you to move the legislation through the Congress.

Sincerely,

THOMAS W. BIRMINGHAM, GEN.  
MANAGER,  
*Westlands Water District.*

STEVE CHEDESTER, GENERAL  
MANAGER,  
*SJR Exchange Contractors.*

CURTIS CREEL, GENERAL MANAGER,  
*Kern County Water Agency.*

DAVE ORTH, GENERAL MANAGER,  
*Friant North Authority.*

JASON PELTIER, EXEC. DIRECTOR,  
*San Luis & Delta-Mendota Water  
Authority.*

JASON PHILLIPS, CEO,  
*Friant Water Authority.*

DAN VINK, EXECUTIVE DIRECTOR,  
*South Valley Water Association.*

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TEHAMA-COLUSA CANAL AUTHORITY

March 8, 2016

Hon. Jeff Denham  
*U.S. House of Representatives  
Longworth House Office Building  
Washington, DC 20515*

Re: Tehama Colusa Canal Authority for H.R. 4582—The Save Our Salmon Act

Dear Representative Denham:

On behalf of the Tehama Colusa Canal Authority (TCCA), I wish to report the unanimous vote of my Board of Directors in support of your recent legislation, H.R. 4582—The Save Our Salmon Act. We applaud your efforts to pursue this simple, straightforward, but desperately needed, common sense reform to the Central Valley Project Improvement Act (CVPIA).

The continued statutory mandate in the CVPIA to set a goal of doubling the number of striped bass, a non-native, predator fish species, that feeds on listed fish species, and is one of the primary stressors that is negatively impacting California's effort to recover endangered populations of Chinook salmon and Delta smelt, is an exercise in the absurd. Regulatory actions associated with recovering these endangered species have crippled the effective management of our water supplies in California. Yet, unbelievably, we continue to retain a legal requirement to increase their numbers. This irrational policy is the equivalent of "trying to fix a leaky roof by punching more holes in it."

The TCCA greatly appreciates your efforts to reform this outdated and misguided policy. Also, we greatly applaud your bipartisan approach to effectuate this reform, and likewise thank your cosponsors: Congressman Costa, Congressman Garamendi, and Congressman McClintock. In conclusion, TCCA again reiterates its unwavering support of H.R. 4582—The Save Our Salmon Act.

Sincerely,

JEFFREY P. SUTTON,  
*General Manager.*

