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H.R. 200, "INLAND EMPIRE PERCHLORATE GROUND WATER PLUME ASSESSMENT ACT OF 2011"; AND H.R. 2842, "BUREAU OF RECLAMATION SMALL CONDUIT HYDROPOWER DEVELOPMENT AND RURAL JOBS ACT OF 2011"

LEGISLATIVE HEARING

BEFORE THE

SUBCOMMITTEE ON WATER AND POWER

OF THE

COMMITTEE ON NATURAL RESOURCES
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED TWELFTH CONGRESS

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LEGISLATIVE HEARING ON H.R. 200, TO DIRECT THE SECRETARY OF THE INTERIOR TO CONDUCT A STUDY OF WATER RESOURCES IN THE RIALTO-COLTON BASIN IN THE STATE OF CALIFORNIA, AND FOR OTHER PURPOSES. "INLAND EMPIRE PERCHLORATE GROUND WATER PLUME ASSESSMENT ACT OF 2011"; AND H.R. 2842, TO AUTHORIZE ALL BUREAU OF RECLAMATION CONDUIT FACILITIES FOR HYDROPOWER DEVELOPMENT UNDER FEDERAL RECLAMATION LAW, AND FOR OTHER PURPOSES. "BUREAU OF RECLAMATION SMALL CONDUIT HYDROPOWER DEVELOPMENT AND RURAL JOBS ACT OF 2011."

Wednesday, September 14, 2011
U.S. House of Representatives
Subcommittee on Water and Power
Committee on Natural Resources
Washington, D.C.

The Subcommittee met, pursuant to call, at 2:01 p.m. in Room 1324, Longworth House Office Building, Hon. Tom McClintock [Chairman of the Subcommittee] presiding.

Present: Representatives McClintock, Tipton, Gosar, Labrador, Napolitano, and Garamendi.

Also Present: Representative Baca.

Mr. MCCLINTOCK. The Subcommittee on Water and Power will come to order. The House has scheduled a vote sometime in the next 15 or 20 minutes. So we are going to try to plow through opening statements.

We will have to break. I am told it is a single vote that will be taken, and then we will come back to hear from witnesses. We meet today to hear testimony on H.R. 2842 by Mr. Tipton, and H.R. 200 by Mr. Baca.

Without objection, Mr. Baca will sit on the Committee today, and is on his way. We will begin with five minute opening statements, and I would like to welcome you all today.

STATEMENT OF HON. TOM McCLINTOCK, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. MCCLINTOCK. As I said, the principal focus of today's hearing is to examine obstacles that the Federal Government has placed in

the way of developing clean, cheap, abundant, and reliable hydropower through small generators on existing canals and pipelines.

Earlier this year, this Subcommittee heard dramatic testimony that we could add the equivalent of one large hydropower dam in a single State simply by placing small generators into existing Federal conduits.

But we learned the reason this isn't happening is solely because Federal regulations have made it economically infeasible to do so. We heard that endless regulatory delays and exorbitant permitting fees literally double the cost of these projects, making them cost prohibitive.

I want to commend our Subcommittee Members, Scott Tipton and Paul Gosar, who are spearheading the effort to clear away these bureaucratic obstacles that stand between this Nation, and literally thousands, if not tens of thousands, of megawatts of clean, cheap, abundant, and reliable hydroelectricity, and all of the jobs and prosperity they could produce.

It is truly mystifying that a nation suffering a prolonged recession, and plagued with increasingly scarce and expensive electricity, would adopt a willful and deliberate policy of obstructing construction of these inexpensive and innocuous generators in existing facilities.

I mean, think about the implications to farming is just one example. Some irrigation districts are forced to use diesel generators to pump water to the fields. Put these hydroelectric generators in existing canals and pipes, and they become virtually self-sustaining, while reducing air emissions.

In addition, sales of canal based electricity could generate local revenue for irrigators, which would help upgrade aging infrastructure, and create jobs, while relieving exhausted Federal taxpayers of these costs.

And yet we have received volumes of testimony telling of how the government smothers applications with endless delays to study the environmental impact of adding generators to existing facilities where there are no fish, fowl, or flora of any kind.

This simple and commonsense solution means vast quantities of hydroelectricity, without a single new dam, and at a cost to the government of precisely nothing. That means more jobs, cheaper and cleaner electricity, reduced reliance on fossil fuels, and less reliance on foreign sources of energy.

That is what this Administration is currently blocking, while all assuring us that they are really very sympathetic of this cause. All they have to do is get out of the way, and that is the one thing they won't do.

There is no environmental protection added by subjecting these simple installations to a costly and comprehensive NEPA review process. The canals and water delivery pipes are already off-river. They are utterly devoid of any species, endangered or otherwise.

Even FERC, a bastion of regulatory excess, agrees that these studies are necessary on similar non-Federal facilities. Our Nation desperately needs affordable electricity, and it desperately needs permanent jobs.

But to get them, it most of all desperately needs commonsense restored to its government. Congressman Tipton's bill does so by

providing a comprehensive authorization for the placement of these small hydroelectric generators in existing Bureau of Reclamation conduits.

It invites existing operators and users to invest in these generators at no public cost. It provides a streamlined, one-stop, permitting office within the Bureau of Reclamation to expedite these projects, and it exempts the installation of generators from the costly, time consuming, and pointless NEPA process where there is no conceivable environmental impact involved.

Let there be no mistake about the significance of this measure. At zero public expense, it has the potential to add the equivalent electricity of dozens of major hydroelectric dams all around the country.

Our second bill by Congressman Joe Baca has been heard and approved by this Subcommittee on a bipartisan vote in the One Hundred and Eleventh Congress. It is a well-intentioned effort to pressure the Administration to produce a long overdue perchlorate study in the Inland Empire of California arising from the manufacturing activities of Federal contractors.

A week ago, the President spoke about the need for more jobs. But yet somehow it does not appear that memo was received by the Interior Department that is still intent on producing full employment for bureaucrats at the expense of our Nation's prosperity and energy independence.

The public has had a bellyful of this nonsense, and it is now time for us to act, and with that, I will yield five minutes to the Gentlelady from California, the Ranking Member of the Subcommittee on Water and Power.

[The prepared statement of Mr. McClintock follows:]

Statement of The Honorable Tom McClintock, Chairman, Subcommittee on Water and Power, on H.R. 200 and H.R. 2842

The principal focus of today's hearing is to examine obstacles that the federal government has placed in the way of developing clean, cheap, abundant and reliable hydropower through small generators on existing canals and pipelines.

Earlier this year, this subcommittee heard dramatic testimony that in one western state alone, we could add the equivalent of one large hydropower dam simply by placing small generators into existing federal conduits. But, we learned, the reason this isn't happening is solely because federal regulations have made it economically infeasible to do so. We heard that endless regulatory delays and exorbitant permitting fees literally double the cost of these projects, making them cost-prohibitive.

I want to commend our sub-committee members Scott Tipton and Paul Gosar who are spearheading the effort to clear away these bureaucratic obstacles that stand between this nation and literally thousands—if not tens of thousands—of megawatts of clean, cheap, abundant and reliable hydroelectricity—and all the jobs and prosperity they could produce.

It is truly mystifying that a nation suffering a prolonged recession and plagued with increasingly scarce and expensive electricity would adopt a willful and deliberate policy of obstructing construction of these inexpensive and innocuous generators in existing facilities.

Think about the implications to farming, as just one example. Some irrigation districts are forced to use diesel generators to pump water to the fields. Put hydroelectric generators in existing canals and pipes and they become virtually self-sustaining while reducing air emissions. In addition, sales of canal-based electricity could generate local revenue for irrigators, which would help upgrade aging infrastructure and create jobs while relieving exhausted federal taxpayers of those costs.

And yet we have received volumes of testimony telling of how the government smothers applications with endless delays to study the environmental impact of add-

ing generators to existing facilities where there are no fish, foul, or flora of any kind.

This simple and commonsense solution means vast quantities of hydroelectricity—without a single new dam and at a cost to the government of precisely nothing. That means more jobs, cheaper and cleaner electricity, reduced reliance on fossil fuels and less reliance on foreign sources of energy—that's what this administration is currently blocking. All they have to do is get out of the way. But they won't.

There's no environmental protection added by subjecting these simple installations to a costly and comprehensive NEPA review process. The canals and water delivery pipes are already off-river. They are utterly devoid of any species—endangered or otherwise. Even FERC, a bastion of regulatory excess, agrees that these studies are unnecessary on similar non-federal facilities.

Our nation desperately needs affordable electricity, it desperately needs permanent jobs but to get them, it most of all desperately needs commonsense restored to its government.

Mr. Tipton's bill does so by providing a comprehensive authorization for the placement of these small hydro-electric generators in existing Bureau of Reclamation conduits, it invites existing operators and users to invest in these generators at no public cost and it exempts the installation of generators from the costly, time-consuming and pointless NEPA process when there is no conceivable environmental impact involved.

Let there be no mistake about the significance of this measure: at zero public expense, it has the potential to add the equivalent electricity of dozens of Glen Canyon-sized dams around the country.

Our second bill by Congressman Joe Baca, has been heard and approved by this sub-committee on a bipartisan vote in the 111th Congress. It is a well-intentioned effort to pressure the Administration to produce a long-overdue perchlorate study in the Inland Empire of California arising from the manufacturing activities of federal contractors.

A week ago, the President spoke about the need for more jobs, yet somehow that memo wasn't read by an Interior Department still intent on providing full employment for bureaucrats at the expense our nation's prosperity and energy independence.

The public has had a belly full of this nonsense and it is time for us to act.

STATEMENT OF HON. GRACE NAPOLITANO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mrs. NAPOLITANO. Thank you, Mr. Chair. Both pieces of legislation can focus on the need to maximize our water and power resources. H.R. 200 authorizes the study of contaminated and impaired ground water in the Rialto-Colton Basin, and I am going to say that we have many impaired water basins in our area in Southern California. This is just another one that has been more to the forefront and identified.

H.R. 2842 allows for the development of hydropower at existing canal facilities, something that we have been pushing for now for a number of years. Water is an important factor in our economy, and in the Inland Empire water constitutes about 79 percent of the drinking water supply.

H.R. 200 seeks to understand the extent of the perchlorate contamination of the basin, and help isolate the problem, and prevent this problem from spreading to other areas. Water contamination knows no boundaries. It does not know any political parties, and we must prevent the migration of contamination to other ground water resources.

H.R. 2842 looks to increase hydropower, the development of conduit in canal hydropower. There is lots of new technology that has evolved, and we think that we need to be able to ensure that we continue to look for ways to use to not only save funding money

that could be otherwise used in other areas in developing the electricity.

We do support H.R. 2842 and its general intent of increasing generation of existing facilities, but we also believe that this can be done without disregarding environmental protections. There has got to be a win-win for both.

Proponents for this national environment policy, that is, NEPA, the waiver, we will argue that this is regulatory red tape that is preventing the development of more hydropower.

The stopgap for development is not NEPA. There must be a clear process in place for the development of hydropower at Reclamation facilities. Developers are looking for clarity and certainty that the project can be de developed.

Waiving NEPA will not provide clarity and certainty, especially the protection for those folks that live nearby, or that are affected by those processes. A clear Lease of Power Privilege process will.

Deputy Commissioner Murillo, Reclamation must develop a clear, safe, and fast process for development of hydropower at Reclamation facilities. Thank you, witnesses, for traveling here, and for your testimony, and we look forward to working with all of you in the future on these great issues that affect our Western area. Thank you.

Mr. MCCLINTOCK. It is customary for the Subcommittee to recognize opening statements by those Members that wish to make them, and the Chair now recognizes Mr. Tipton for five minutes.

STATEMENT OF HON. SCOTT TIPTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF COLORADO

Mr. TIPTON. Thank you, Mr. Chairman, for convening today's hearing, and I would like to thank all of our witnesses for being here today, and particularly Chris Treese from Glenwood Springs, Colorado, for coming here to share his expertise.

At a time when our country needs to focus on domestic energy production and job creation, hydropower can play a critical role in providing clean renewable energy, while expanding job opportunities in America.

Hydropower is the cheapest and cleanest source of electricity available through modern technology. It is the highest source of noncarbon emitting energy in the world, and accounts for approximately 75 percent of the United States' total renewable electricity generation, making it the leading renewable energy source of power.

Canal-based hydropower can produce up to 1400 megawatts of power in Colorado alone. This is the equivalent of the power produced by the Glen Canyon Dam. Many rural water and irrigation districts, and electrical utilities in Colorado and other Western States, seek to develop hydropower on Bureau of Reclamation water canals and pipelines.

But overburdensome and unnecessary regulations stand in the way. Increased conduit hydropower serves a number of purposes. It produces renewable and emissions free energy that can be used to pump water or to sell electricity to the grid.

It can generate revenue for the hydropower developer to help pay for the aging infrastructure costs, and water power facility mod-

ernization, and it can create local jobs and generate revenue to the Federal Government.

One thing stands in the way of such commonsense development, outdated and unnecessary Federal regulations. H.R. 795, introduced in the House by Congressman Adrian Smith and Jim Costa, provides regulatory reform for non-Federal conduit hydropower generation.

And I believe that it is time to begin to reform hydropower development on the Federal conduits as well. As it stands, Federal regulations hinder this development on Federal projects and subject job creators to unnecessary requirements, which render all small hydropower projects virtually unfeasible.

For this reason, I recently introduced H.R. 2842, the Bureau of Reclamation's Small Conduit Hydropower Development and Rural Jobs Act of 2011. This legislation authorizes power development at the Agency's conduits to clear up multi-agency infusion, and duplicative processes, and reduces the regulatory costs associated with hydropower development.

This legislation seeks to remove one major economic handcuff, unnecessary environmental analysis. Even though Reclamation conduit hydropower units already would be on disturbed ground within existing facilities that have already gone through Federal environmental review, another National Environmental Policy Act analysis must still be done in this case under existing regulations.

This is done despite the fact that the Interior Department's current Reclamation manual allows for NEPA categorical exclusions for minor construction activities associated with authorized projects, which merely augment, or supplement, or are enclosed within existing facilities.

The legislation also substantially reduces administrative costs so that the projects are no longer cost prohibitive. Instead of the current process where Reclamation must painstakingly analyze each and every proposal for development, the bill gives the first development right to the entity or entities operating and maintaining a Federal conduit.

Most Reclamation irrigation and water supply projects have an arrangement whereby operation of maintenance activities are transferred to the local beneficiary as a way to be able to reduce paperwork and other costs.

The rationale for the legislation's first right of refusal provision is that the non-Federal operator knows the details of the facility, and is locally invested in the project. This provision would significantly decrease conduit hydropower planning costs.

The hydropower development encouraged by this legislation will not harm the environment since the generation units would be placed on already disturbed ground within existing facilities that have already gone through Federal environmental review.

The bill also protects water users by specifically reaffirming hydropower development as a secondary to water supply and delivery purposes, and ensuring that there will be no financial or operational impacts to existing water and power users.

Furthermore, the bill protects agreements that water users have on existing conduit generation projects, and provides additional

safeguards to ensure that such projects do not undermine water deliveries.

I am proud to have the support of the Family Farm Alliance, and National Water Resources Association, and the American Public Power Association, among others. If enacted, this legislation will streamline the regulatory process, and reduced administrative costs for small hydropower development for Reclamation facilities, while supporting the creation of badly needed rural jobs. Thank you, Mr. Chairman, and I yield back.

[The prepared statement of Mr. Tipton follows:]

Statement of The Honorable Scott R. Tipton, a Representative in Congress from the State of Colorado, on H.R. 2842

Thank you Mr. Chairman for convening today's hearing on my bill, H.R. 2842. I also want to thank out witnesses for being here today, and I particularly want to welcome Chris Treese from Glenwood Springs, Colorado for sharing his expertise in this area

At a time when our country needs to focus on domestic energy production and job creation, hydropower can play a critical role in providing clean renewable energy while expanding job opportunities in rural America.

Hydropower is the cheapest and cleanest source of electricity available through modern technology. It's the highest source of non-carbon emitting energy in the world and accounts for approximately 75% of the United States' total renewable electricity generation, making it the leading renewable energy source of power. Canal based hydropower can produce up to 1400mw of power in Colorado alone. This is the equivalent of the power produced by the Glen Canyon Dam.

Many rural water and irrigation districts and electric utilities in Colorado and other western states seek to develop hydropower on Bureau of Reclamation water canals and pipelines, but over-burdensome and unnecessary regulations stand in the way. Increased conduit hydropower serves a number of purposes: it produces renewable and emissions-free energy that can be used to pump water or sell electricity to the grid; it can generate revenue for the hydropower developer to help pay for aging infrastructure costs and water/power facility modernization; and it can create local jobs and generate revenue to the federal government.

One thing stands in the way of such common-sense development: outdated and unnecessary federal regulations. H.R. 795, introduced in the House of Representatives by Congressman Adrian Smith and Jim Costa, provides regulatory reform for non-federal conduit hydropower generation, and I believe it's time to begin reform for hydropower development on federal conduits as well.

As it stands, federal regulations hinder this development on federal projects and subject job creators to unnecessary requirements which render small hydropower projects economically unfeasible. For this reason, I recently introduced H.R. 2842, The Bureau of Reclamation Small Conduit Hydropower Development and Rural Jobs Act of 2011. This legislation authorizes power development at the agency's conduits to clear up multi-agency confusion and duplicative processes and reduces the regulatory costs associated with hydropower development.

This legislation seeks to remove one major economic handcuff: unnecessary environmental analysis. Even though Reclamation conduit hydropower units would already be on disturbed ground within existing facilities that have already gone through federal environmental review, another National Environmental Policy Act (NEPA) analysis must still be done in this case under existing regulations. This is done despite the fact that the Interior Department's current Reclamation Manual allows for NEPA categorical exclusions for "Minor construction activities associated with authorized projects. . .which merely augment or supplement, or are enclosed within existing facilities."

The legislation also substantially reduces administrative costs so that the projects are no longer cost prohibitive. Instead of the current process where Reclamation must painstakingly analyze each and every proposal for development, the bill gives the first development right to the entity/entities operating and maintaining the federal conduit. Most Reclamation irrigation and water supply projects have an arrangement where operation and maintenance activities are transferred to the local beneficiary as a way to reduce paperwork and other costs. The rationale for the legislation's first right of refusal provision is that the non-federal operator knows the details of the facility and is locally invested into the project. This provision would significantly decrease conduit hydropower planning costs.

The hydropower development encouraged by this legislation will not harm the environment since the generation units would be placed on already disturbed ground within existing facilities that have already gone through federal environmental review. The bill also protects water users by specifically re-affirming hydropower development as secondary to water supply and delivery purposes and ensuring that there will be no financial and operational impacts to existing water and power users. Furthermore, the bill protects agreements that the water users have on existing conduit generation projects and provides additional safeguards to ensure such projects do not undermine water deliveries.

I'm proud to have the support of the Family Farm Alliance, the National Water Resources Association, and the American Public Power Association, among others. If enacted, this legislation will streamline the regulatory process and reduce administrative costs for small hydropower development at Reclamation's facilities while supporting the creation of badly needed rural jobs.

Thank you, Mr. Chairman.

Mr. MCCLINTOCK. Thank you, Mr. Tipton. The Chair now recognizes Mr. Gosar for an opening statement for five minutes.

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

Dr. GOSAR. Thank you, Chairman. First, I would like to acknowledge Mr. Lynch and Mr. Ward, some of the true workhorses in water policies out of Arizona for coming up, and thank you, Chairman McClintock, for holding this legislative hearing on the Bureau of Reclamation's Small Conduit Hydropower Development and Rural Jobs Act of 2011.

H.R. 2842 is important legislation that will restore commonsense to Federal regulations, and ultimately lead to the expansion of clean hydropower production at the Bureau of Reclamation facilities in Arizona and across the country.

My district, Arizona's Congressional First District, is home to some of the country's most important large scale multipurpose hydroelectric power generation infrastructure, such as the Glen Canyon Dam.

The Committee has spent a significant portion of its time examining excessive and burdensome Federal policies and regulations that are handicapping this infrastructure, and in some cases even threatening its livelihood.

These types of nonsensical regulations create man-made shortages, which in turn lead to higher unemployment, and increased water, energy, and food prices, and unnecessary taxpayer spending.

Unfortunately, it is not just our existing hydroelectric infrastructure that is hamstrung by excessive regulation. Our country is failing to fully tap its hydroelectric power generation potential.

However, this failure is not due to the desire to develop these resources. This Committee is going to hear from two Arizonans today that will say that the potential and the willingness in my State is there.

It is simply the failure of the Federal policies to facilitate an environment that is conducive to this type of development. Instead of working with communities of interest, the Federal Government is dictating to them, which has proven to be counterproductive.

Chairman McClintock should be commended for his commitment to bringing legislation before this Committee to address this failure of Federal policy. A couple of months ago the House Natural Resources Committee unanimously passed H.R. 795, the Small Scale

Hydropower Enhancement Act of 2011, legislation that I co-sponsored, that restores commonsense and rationality to Federal policy related to small scale hydroelectric power generation by removing bureaucratic paperwork that are making it too costly to install small facilities and water systems across rural Arizona.

Today we are examining equally important legislation, legislation aimed at increasing clean hydropower generation, further diversifying the country's renewable energy portfolio, and creating jobs via the expansion of production at the Bureau of Reclamation facilities.

The Bureau of Reclamation's Small Conduit Hydropower Development Rural Jobs Act of 2011, the H.R. 2842 legislation of Representative Tipton, is another step restoring sanity to our Federal policies.

In light of how important this is in my district and my State, I was proud to join Mr. Tipton on this bill. This bill authorizes more hydropower development in Federal canals and pipelines, and eliminates unnecessary paperwork associated with the National Environmental Policy Act, while allowing for environmental protection, and empowers the hardworking irrigators to develop conduit hydropower generation on the facilities that they already operate and maintain on behalf of the Federal Government.

Once again, I appreciate Chairman McClintock's commitment to examining and ultimately pushing an aggressive legislative agenda in this Subcommittee that will halt the endless litigation and regulation that inflates the price of water in my State, and across the West.

I am committed as a Representative of a rural district that struggles in-part because of the potential for these types of projects is stifled by unnecessary regulatory requirements and burdensome administrative costs.

I would hope that this commonsense legislation aimed at eliminating bureaucratic red tape would garner strong bipartisan support, much like did H.R. 795. Hydropower is a low-cost, clean, renewable, emissions free source of energy that provides low-cost electricity, and helps reduce carbon emissions.

It is an integral component of a long term energy plan for my State and the Nation. We must protect our existing hydropower infrastructure and find ways like the legislation before us to expand smaller scale hydroelectric power generation.

I look forward to continuing to work with Congressman Tipton to ensure H.R. 2842's passage in the House of Representatives. Mr. Chairman, I yield back the balance of my time.

[The prepared statement of Dr. Gosar follows:]

Statement of The Honorable Paul A. Gosar, a Representative in Congress from the State of Arizona, on H.R. 2842

First, thank you to Chairman McClintock for holding this legislative hearing on the Bureau of Reclamation Small Conduit Hydropower Development and Rural Jobs Act of 2011. H.R. 2842 is important legislation that will restore common-sense to federal regulations and ultimately lead to the expansion of clean, hydropower production at Bureau of Reclamation facilities in Arizona and across the country.

My district, Arizona's First Congressional District, is home to some of the country's most important large-scale multipurpose hydroelectric power generation infrastructure, such as the Glen Canyon Dam. The committee has spent a significant portion of its time examining excessive and burdensome federal policies and regulations that are handicapping this infrastructure, and in some cases, even threatening

its livelihood. These types of nonsensical regulations create man-made shortages, which in turn lead to high unemployment and increased water, energy, and food prices and unnecessary taxpayer spending.

Unfortunately, it is not just our existing hydroelectric infrastructure that is hamstrung by excessive regulation. Our country is failing to fully tap its hydroelectric power generation potential. However, this failure is not due to the desire to develop these resources; this committee is going to hear from two Arizonans today that will say the potential and willingness in my state is there. It is simply the failure of federal policies to facilitate an environment that is conducive to this type of development. Instead of working with communities of interest, the federal government is dictating to them, which has proven to be counterproductive.

Chairman McClintock should be commended for his commitment to bringing legislation before this committee to address this failure of federal policy. A couple months ago, the House Natural Resources Committee unanimously passed H.R. 795 the Small-Scale Hydropower Enhancement Act of 2011, legislation I cosponsored that restoring common-sense and rationality to federal policy related to small-scale hydroelectric power generation, by removing bureaucratic-paperwork that are making it too costly to install small facilities in water systems across rural Arizona.

Today, we are examining equally important legislation; legislation aimed at increasing clean hydropower generation, further diversifying the country's renewable energy portfolio, and creating local jobs via the expansion of production at Bureau of Reclamation facilities.

The Bureau of Reclamation Small Conduit Hydropower Development and Rural Jobs Act of 2011, H.R. 2842, legislation Representative Tipton introduced, is another step restoring sanity to our federal policies. In light of how important this is to my district and my state, I was proud to join Mr. Tipton on this bill.

This bill authorizes more hydropower development at federal canals and pipelines, eliminates unnecessary paperwork associated with the National Environmental Policy Act while allowing for environmental protection and empowers the hard-working irrigators to develop conduit hydropower generation on facilities they already operate and maintain on behalf of the federal government.

Again I appreciate Chairman McClintock's commitment to examining and ultimately pushing an aggressive legislative agenda in this subcommittee that will halt the endless litigation and regulation that inflates the price of water and power in my state and across the West. I am committed, as a representative of a rural district that struggles, in part because the potential for these types of projects is stifled by unnecessary regulatory requirements and burdensome administrative costs. I would hope this common-sense legislation aimed at eliminating bureaucratic red tape would garner strong bipartisan support, much like H.R. 795.

Hydropower is a low cost, renewable, and emissions-free source of energy that provides low-cost electricity. It is an integral component of the long-term energy plan for my state and the nation. We must protect our existing hydropower infrastructure and find ways, like the legislation before us to expand smaller scale hydroelectric power generation. I look forward to continuing to work with Congressman Tipton to ensure the passage of H.R. 2842 in the U.S. House of Representatives.

Mr. MCCLINTOCK. Thank you. The Chair recognizes Mr. Baca for an opening statement for five minutes.

STATEMENT OF HON. JOSEPH N. BACA, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. BACA. Thank you very much, Mr. Chairman, Tom McClintock, and Ranking Member Grace Napolitano, and thank you for allowing me to speak, even though my panel will be the next one up.

I also want to thank our witnesses and give a special thanks to our City Council Member and Mayor Pro Tem, Ed Scott, for being here today. He has worked hard on this issue, and is a member of the Perchlorate Task Force in the City of Rialto.

H.R. 200 directs the United States Geological Survey, USGS, to conduct a study, and I state to conduct a study, of water resources in the Rialto-Colton Basin in California. Not only is that study there, but it will also impact others throughout the United States, too, as well.

Last year, Congress had introduced this legislation, which was H.R. 4252, and this bill passed out of the Natural Resources Committee, and was unanimously approved by the House in March of 2010. That means that it received bipartisan support, not only out of this Committee, but also the House as a whole.

H.R. 4252 was approved by the Senate Committee as well on Energy and Natural Resources on a bipartisan fashion as well in July of 2010. Unfortunately, the bill did not come to the Floor of the Senate before the One-Hundred-and-Eleventh Congress came to an end.

So I hope this year that we will be able to have bipartisan support, get it out of here, and get it into the Senate, and hopefully get it on to the Floor, because it is important for all of us that we work jointly together on something that is going to impact a lot of us.

That is why I have reintroduced this legislation because I am deeply concerned about the well-being of families, not only in the Inland Empire, but throughout the State of California, and other portions of the State.

And having lived in Rialto for a decade, I am aware of the perchlorate contamination problem we have in our drinking water. That is why I have the blue here when I have clear water. You know that? This little pina here. I wanted it to be clean and good, because perchlorate is like a rocket additive.

It is an unstable organic compound that is found to be harmful for humans, and I state for humans, because it interferes with the thyroid functions, and many individuals in the City of Rialto, and Fontana, or surrounding areas, are even afraid to drink that water, and don't drink that water, and end up having to purchase water because they are also concerned with the effects it has—and especially on pregnant women and infants—in the area.

The EPA plans to use $18 million for a treatment system to clean the water in the Rialto-Colton Basin. This basin is the primary source of perchlorate contamination in the area.

I applaud the EPA for this effort, but I have concerns that the USGS has not conducted—and I state has not conducted—an in-depth analysis of the perchlorate plume in this basin, because when we allow it to flow from not only the Inland Empire, it goes through the Santa Ana River, and into Orange County, affecting that area as well.

For the efforts of the EPA and other agencies to be ultimately successful, we must know the full scope of the problem. The people in my district are hurting. The Inland Empire ranks fifth nationally in the rate of home foreclosure.

Unemployment in San Bernardino County is about 14.7 percent, and 24 percent of children in the county live in households that are below the Federal poverty level that can't do anything, that can't buy water, and yet rely on the water in that area.

Now, according to the EPA, the contamination at the Rialto site is measured at more than 1,000 times the drinking water standard. My constituents deserve to have clean water, and I say clean water for themselves, their families, and future generations, along with others that would be impacted.

They have already shouldered too much of the costs to fix this problem. They need help. Since 2001, families in Rialto have paid a $12 monthly surcharge, and that is an awful lot to even pay, a $12 surcharge, on water bills to cover the costs of the exchange for treatment process.

According to the USGS ground water makes up about 79 percent of the available drinking water supply in the Inland Empire, and in the Inland Empire, I am sorry to say, are all working jointly together, because I am the only Democrat, surrounded by seven Republicans, and they all support this as well, which is nice, you know.

The contamination is spreading all over to other areas that may suffer. The USGS study would benefit all areas struggling with unsafe drinking water. It would help better understand the nature of perchlorate contamination.

The City of Rialto has done what it can to protect those who are most vulnerable to perchlorate contamination. I want to commend the Rialto Perchlorate Task Force, led by Council Member Ed Scott and Joe Baca, Junior, for their efforts on the perchlorate.

And with that, Mr. Chairman, I look forward to bipartisan support in doing what we did last year in getting it out of this House, and getting it into the Senate, and ultimately getting it to the Floor on the Senate side. Thank you very much for allowing me to say a few words. I yield back whatever time I didn't have.

Mr. MCCLINTOCK. We will dock you 39 seconds on the next round. Mr. Garamendi, do you wish to make an opening statement?

Mr. GARAMENDI. No, thank you.

Mr. MCCLINTOCK. Then we will plow right ahead with our first panel, who is here to provide testimony on H.R. 2842 by Congressman Tipton. The Committee is pleased to welcome first Mr. David Murillo, Deputy Commissioner and Director of Operations for the U.S. Bureau of Reclamation, for five minutes.

STATEMENT OF DAVID MURILLO, DEPUTY COMMISSIONER AND DIRECTOR OF OPERATIONS, UNITED STATES BUREAU OF RECLAMATION, WASHINGTON, D.C.

Mr. MURILLO. Thank you, Mr. Chairman. Chairman McClintock, and Members of the Subcommittee, I am David Murillo, Deputy Commissioner of Operations at the Bureau of Reclamation. I am pleased to provide the Department of the Interior's views on H.R. 2842, the Bureau of Reclamation's Small Conduit Hydropower Development and Rural Jobs Act of 2011.

I am happy to introduce Bill Werkheiser, USGS Associate Director for Water, who is prepared to respond to any technical questions on H.R. 200, the Inland Empire Perchlorate Ground Water Plume Assessment Act of 2011.

The USGS has the capability to complete a two year study to address the issues of concern presented in H.R. 200 for the Rialto-Colton Basin. The Department notes, however, that the activities called for in H.R. 200 are already authorized by existing authorities.

Any study conducted to fulfill the objectives of the bill, are like the objectives that would be needed to compete for funding with

other administrative priorities. My written statement has been submitted for the record, and I will summarize it here.

The Department supports the goals of H.R. 2842, which aims to increase the generation of hydropower in existing canals and conduits. My statement will summarize the areas where the Administration supports the objectives of H.R. 2842, as well as discuss where we believe improvements could be made.

H.R. 2842 would clarify that Reclamation is responsible for authorizing conduit hydropower development and on Reclamation-owned facilities through the Lease of Power Privilege through LOPP contracts.

As the Subcommittee knows, hydropower units added to water projects are either permitted by Reclamation or FERC, depending on jurisdiction. Reclamation and FERC continue to work together to improve the process of establishing jurisdiction, and we understand the intent of this bill to settle that question.

Section II of H.R. 2842 would also require the Reclamation offer preference in the award of LOPPs to irrigation districts or water users associations, with Reclamation having an existing contract for operations and maintenance.

Reclamation already provides preference to existing irrigation districts and water user associations pursuant to the Reclamation Project Act of 1939. Additionally, Section II of H.R. 2842 would provide that NEPA shall not apply to small conduit hydropower development, excluding siting of associated transmission on Federal lands.

This language is in contrast to the existing provisions of the Federal Power Act that allows FERC to approve an application to develop hydropower within conduits located on non-Federal lands, but only subject to certain conditions.

H.R. 2842 has no such conditions. The Department's view is that low impact hydropower can be efficiently by using existing environmental reviews, without unduly delaying project development.

The Department believes that environmental protections should continue to apply in the context of new construction undertaken on Federal lands, and will continue to apply NEPA through the use of categorical exclusions or environmental assessments.

The Department understands the importance of expedient environment review and believes that the development of hydropower within Reclamation's existing conduits and canals can be officially analyzed utilizing these existing review processes.

I would also like to address concerns raised by language in Section II specifying that the Power Resources Office of the Bureau of Reclamation shall be the lead office of small conduit hydropower activities conducted under this subsection.

Project specific expertise recites first at the field level, where ownership responsibilities for the specific infrastructure resides. It is preferable for developers to approach the appropriate Reclamation regional area office with proposals to develop conduit hydropower, and contact the power resources offices needed.

Finally, H.R. 2842 would amend 9[c] of the Reclamation Project Act of 1939, which in addition to providing LOPP authority, authorizes the Secretary to enter into contracts for municipal water supply and miscellaneous purposes.

Several of the definitions in H.R. 2842 as drafted would affect the other authorities in the 1939 Act, and we recommend improvements which are detailed in my written testimony.

Reclamation will continue to review and assess potential new hydropower projects that provide a high economic return for the Nation, are energy efficient, and can be accomplished in accordance with protections of fish and wildlife, the environment, or recreation.

This concludes my statement. I am glad to answer questions at the appropriate time. Thank you.

[The prepared statement of Mr. Murillo follows:]

Statement of David Murillo, Deputy Commissioner of Operations, Bureau of Reclamation, U.S. Department of the Interior, on H.R. 2842

Chairman McClintock, members of the Subcommittee, I am David Murillo, Deputy Commissioner of Operations at the Bureau of Reclamation (Reclamation). I am pleased to provide the views of the Department of the Interior (Department) on H.R. 2842, the Bureau of Reclamation Small Conduit Hydropower Development and Rural Jobs Act of 2011. The Department supports the goals of H.R. 2842, which aims to increase the generation of clean, renewable hydroelectric power in existing canals and conduits. As noted in previous hearings, the Department has an aggressive sustainable hydropower agenda, which we continue to implement under existing authorities. My testimony today will summarize the areas where the Administration supports the objectives of H.R. 2842, as well as detail the areas in the bill where we believe improvements could be made.

Before I share the Department's views on H.R. 2842, I want to highlight some of the activities underway at the Department to develop additional renewable hydropower capacity. Last week, Secretary Salazar and the U.S. Department of Energy Secretary Steven Chu announced nearly $17 million in funding over the next three years for research and development projects to advance hydropower technology. The funding included ten projects that will receive a total of $7.3 million to research, develop, and test low-head, small hydropower technologies that can be deployed at existing non-powered dams or constructed waterways. The funding will further the Obama Administration's goal of meeting 80 percent of our electricity needs from clean energy sources by 2035.

In March, the Department released the results of an internal study, the Hydropower Resource Assessment at Existing Reclamation Facilities, that estimated the Department could generate up to one million megawatt hours of electricity annually and create jobs by addressing hydropower capacity at 70 of its existing facilities. In addition, Reclamation will complete the second phase of its investigation of hydropower development, as referenced in the 2010 Hydropower Memorandum of Understanding (MOU)[1] between the Department of the Interior, the Department of Energy, and the Army Corps of Engineers. While the first phase, completed in 2011, focused primarily on Reclamation dams, the second phase will focus on constructed Reclamation waterways such as canals and conduits.

In summary, H.R. 2842 would do four things: 1) provide a blanket authorization for the installation of small hydropower units on all Reclamation-owned canals and conduits; 2) require that Reclamation offer preference to water user organizations for the development of canal/conduit hydropower under a Lease of Power Privilege (LOPP); 3) exempt small canal/conduit hydropower projects below 1.5 MW from the requirements of the National Environmental Policy Act (NEPA) and; 4) designate Reclamation's Power Resources Office as the lead point of contact for requests to develop canal/conduit hydropower under an LOPP.

Section 2 of H.R. 2842 would clarify that Reclamation is responsible for authorizing conduit hydropower development on Reclamation-owned facilities through LOPP contracts. As background, Reclamation is authorized by existing law to issue LOPP contracts that utilize Reclamation-owned facilities for private hydropower development under Section 5 of the Townsites and Power Development Act of 1906, 43 U.S.C. § 522, and Section 9(c) of the Reclamation Project Act of 1939, 43 U.S.C. § 485h(c). Statutes that are specific to individual Reclamation projects may also apply. Similar to the LOPP process, the Federal Energy Regulatory Commission (FERC) may also issue licenses for hydropower development under the authority of

[1] http://www.usbr.gov/power/SignedHydropowerMOU.pdf, 2010

the Federal Power Act, 16 U.S.C. § 791 *et seq*. To resolve potential confusion over whether a Reclamation LOPP contract or a FERC license should govern hydropower development at Reclamation facilities, Reclamation and FERC entered into agreements in 1981, 1992, and 2010 to address hydropower development. In particular, a 1992 memorandum of understanding between Reclamation and FERC (1992 MOU)[2] established a process to resolve questions of jurisdiction over hydropower development at Reclamation facilities. Reclamation and FERC continue to work together to improve that process and make the process more efficient.

Section 2 of H.R. 2842 would specifically authorize Reclamation to develop or enter into LOPP contracts for the development of new hydropower on conduits or canals on Reclamation-owned projects. This language would streamline the issuance of LOPP contracts by simplifying the Reclamation-FERC jurisdictional consultation that was established in the 1992 MOU. This language also could provide Reclamation with an opportunity to discuss programmatically resolving jurisdiction over hydropower development on Reclamation conduits with FERC, thus creating the potential to eliminate case-by-case jurisdictional consultations for development on Reclamation conduits.

Section 2 of H.R. 2842 would also require that Reclamation offer preference in the award of LOPPs to "irrigation districts or water users associations" with which Reclamation has an existing contract for operations and maintenance of that project or project feature. Reclamation already provides preference to existing irrigation districts and water user associations pursuant to Section 9(c) of the Reclamation Projects Act of 1939. Reclamation would be happy to work with the sponsor of the bill and the Committee to resolve any concerns regarding preference.

Section 2 of H.R. 2842 would provide that NEPA "shall not apply to small conduit hydropower development, excluding siting of associated transmission on Federal lands[.]" The Department opposes a waiver of NEPA. Furthermore, this language is in contrast to the existing provision in Section 30 of the Federal Power Act (16 U.S.C. 823a) that allows FERC to approve an application to develop hydropower within conduits located on non-federal lands under certain conditions. Accordingly, as provided in FERC's regulations at 18 CFR § 380.4(a)(14), FERC is not required to prepare an environmental assessment or environmental impact statement for certain conduit hydropower projects that meet the statutory and regulatory criteria and do not have the potential for significant environmental impacts.

The Department understands the intent of H.R. 2842 to be that conduits and canals are existing, man-made structures where environmental impacts associated with construction have already occurred and/or been mitigated. However, the Department's view is that low-impact hydropower, particularly in conduits and canals, can be efficiently developed by utilizing existing environmental review provisions that will not unduly delay project development and ensure environmental health and safety. Environmental analysis for many LOPP contracts has, for example, been addressed through categorical exclusions or environmental assessments rather than environmental impact statements. The Department believes that environmental protections should continue to apply in the context of new construction undertaken on federal lands, and will continue to apply NEPA through the use of categorical exclusions or environmental assessments.

Reclamation is also investigating the application of an existing categorical exclusion under NEPA for minor construction projects and for water service contracts that involve minor amounts of long-term water use or temporary or interim water use where there are no significant environmental impacts. Reclamation believes that low-impact hydropower developed in conduits or canals may be appropriately analyzed under those same procedures, which are documented in the Departmental Manual at 516 DM 14.5(C)(3) and (D)(4). The Department understands the value and importance of expedient environmental review and believes development of hydropower within Reclamation's existing conduits and canals can be efficiently analyzed utilizing these existing review processes.

I would also like to address concerns raised by language in Section 2 specifying that "the Power Resources Office (PRO) of the Bureau of Reclamation shall be the lead office of small conduit hydropower activities conducted under this subsection." The Department understands the bill sponsor's desire to simplify points of contact for entities seeking to develop hydropower. However, in practice, project-specific expertise concerning Reclamation facilities resides first at the field level where ownership responsibility for the specific infrastructure resides. It is preferable for developers to approach the appropriate Reclamation regional or area office with proposals to develop conduit hydropower, and contact the PRO as needed. There is a robust channel of communication between the PRO, other Denver Offices, and Reclamation

[2] The 1992 MOU is available in the Federal Register at: 58 Fed. Reg. 3269 (Jan. 8, 1993).

regional and field offices that allows for successful implementation of a Lease of Power Privilege agreement. The Department would be happy to work with the Committee on this language. Reclamation organizes its workforce as appropriate to maximize the efficiency and expertise of personnel.

Finally, H.R. 2842 would amend 9(c) of the Reclamation Project Act of 1939, which in addition to providing LOPP authority, authorizes the Secretary to enter into contracts for municipal water supply and miscellaneous purposes. Several of the definitions in H.R. 2842 as drafted would affect the other authorities in the 1939 Act. In particular, the proposed definition of "transferred work" is too narrow to refer to all works affected by subsection 9(c) of the 1939 Act, since that subsection authorizes contracts involving works other than conduits. Either the definition would need to be broadened to include all affected works, or the term defined narrowed from "transferred work" to "transferred conduit." Also, the existing 1939 Act has a definitions section. Any definitions that are of general application should be included in the existing definitions section, rather than in subsection 9(c). Definitions that apply solely to conduit hydropower need to do so explicitly, to avoid misapplication or confusion. Lastly, the 1939 Act definitions section already includes a definition of "Secretary". The Department would be happy to work with the Committee on these technical changes to the language of the proposed definitions and their placement within the existing 1939 Act.

As referenced above, Reclamation has procedures in place through the LOPP process for the sites where Reclamation has the authority to develop hydropower. We are currently reviewing our LOPP policies and processes to look for ways to expedite and improve the process, especially for conduits and canals.

In conclusion, as stated at previous hydropower hearings before this subcommittee, Reclamation will continue to review and assess potential new hydropower projects that provide a high economic return for the nation, are energy efficient, and can be accomplished in accordance with protections for fish and wildlife, the environment, or recreation. As the nation's second largest hydropower producer, Reclamation strongly believes in the past, present and bright future of this important electricity resource.

Thank you for the opportunity to discuss H.R. 2842. This concludes my written statement, and I am pleased to answer questions at the appropriate time.

Mr. MCCLINTOCK. Thank you very much for your testimony. The Committee is pleased to welcome back Mr. Robert Lynch, of Robert Lynch and Associates, Phoenix, Arizona, for five minutes.

STATEMENT OF ROBERT LYNCH, ATTORNEY, ROBERT S. LYNCH AND ASSOCIATES, PHOENIX, ARIZONA

Mr. LYNCH. Mr. Chairman, Ranking Member Napolitano, and Members of the Subcommittee, and Mr. Baca, for the record, I am Bob Lynch, an attorney in Phoenix, Arizona. I am pleased to have the opportunity to appear here today to support H.R. 2842.

You already have my written testimony, and so I will not review it. Instead, I would like to briefly mention three subjects; waste, jobs, and red tape. Concerning waste, yesterday, in driving to the airport, I crossed two of the larger Phoenix area canals and numerous laterals, and I saw what wasted energy flowing in these conduits, unused, and on its way to be dissipated upon delivery of the water to its destinations.

This has to stop. We are wasting tens of thousands of kilowatts of clean renewable small hydropower capacity each day in hundreds of these existing conduits throughout the West.

The clean renewable energy each of these unused sites could produce is admittedly small, but taken together can match any major power plant in our area. The potential is enormous and we need to unleash that potential.

As to jobs, most of the West canals are in rural areas serving farms. Rural jobs of building and maintaining these small hydro-

power sites are an obvious and necessary side benefit of a vigorous Federal small hydro development program. You need to add that vigor with H.R. 2842.

As to red tape, in this bill, Congress will confirm that these small hydro installations and existing conduit do not need screening through the National Environmental Policy Act. Congress will be agreeing with the Bureau of Reclamation and the Federal Energy Regulatory Commission that these one-and-a-half megawatt smaller turbines are categorical exclusions under existing Federal regulations.

Indeed, both agencies provide for these in much larger facilities to be categorically excluded from NEPA review. I refer you to Reclamation's minor construction in existing facilities, and FERC licensed categories, as well as FERC's 15 megawatt in conduits, and 40 megawatt in pipes exclusion under their regulations.

Congressional concurrence in H.R. 2842 excluding just the very smallest of these turbines from NEPA is just the red tape cutting this program needs to jumpstart Reclamation into a small hydro development role that it should be playing.

Thank you for the opportunity to support this important clean energy bill. I would be happy to answer any questions that you may have at the appropriate time.

[The prepared statement of Mr. Lynch follows:]

Statement of Robert S. Lynch,
Robert S. Lynch & Associates, on H.R. 2842

Chairman McClintock, Ranking Member Napolitano, Members of the Subcommittee, I am pleased to have the opportunity to present testimony in support of H.R. 2842, the Bureau of Reclamation Small Conduit Hydropower Development and Rural Jobs Act of 2011. I am presenting this testimony both on my own behalf and that of our clients and also on behalf of the National Water Resources Association (NWRA).

Our firm, among other clients, represents a state association, the Irrigation & Electrical Districts Association of Arizona (IEDA). Numbered among its 25 members are most of the special districts that manage water delivery systems in Arizona as well as several of the municipalities that provide water service to their citizens. Each of these water service entities as well as other municipalities and water service entities in Arizona are potentially small hydropower generators.

When I last appeared before the Subcommittee on June 23, 2011 to support H.R. 795, I mentioned to the Subcommittee that, in Arizona, and in all of the so-called Reclamation states in the West, the bulk of the significant canal systems that move our water supplies are owned by the federal government and under the jurisdiction of the Bureau of Reclamation ("Reclamation"). A number of these systems are managed and operated by non-federal entities, typically irrigation districts and water users associations authorized to do so under Reclamation law. For instance, the Central Arizona Project ("CAP") is operated by the Central Arizona Water Conservation District ("CAWCD"), a multi-county water conservation district specifically authorized for this purpose by Arizona law. CAP's main system, as well as associated delivery facilities such as the Santa Rose Aqueduct, are available targets for hydropower development. Indeed, the Santa Rosa Aqueduct, managed by the Maricopa Stanfield Irrigation and Drainage District, is primed for that possibility. The local District managers have identified numerous sites on this aqueduct that are optimal locations for small hydropower development.

For us in the West, H.R. 2842 is the flip side of H.R. 795. If we can minimize red tape and streamline the processes of the Bureau of Reclamation in granting leases of power privilege on facilities they manage in the West, that streamlining will create tremendous incentives for not only the Bureau but for the irrigation districts and water users associations that manage many of these facilities to move forward on small hydropower development. We are literally sitting on a hydropower gold mine waiting for the needed clarifications and streamlining that will cut costs and make this program more attractive.

IEDA and other NWRA members are ready and willing to get started. Indeed, one of our members has already suffered the agonies of trying to get an exemption from the Federal Energy Regulatory Commission for one of its own canals. The difficulty that this district encountered has caused many others to pause, waiting for Congress to complete the streamlining embodied in H.R. 795 and this bill.

There are tremendous advantages that can spring from this legislation. The untapped potential that lies out there waiting is typified by the Department of Energy report that identified some 1,400 megawatts of unused capacity in canals and ditches in the State of Colorado where small hydropower units at below 5 megawatts could be installed. The nameplate capacity of Glen Canyon Dam on the Colorado River is 1,400 megawatts. Thus, these small hydropower units installed in existing ditches and canals could effectively replicate the maximum output of Glen Canyon Dam all by themselves.

We and others in the West are ready to get started. We need Congress to streamline the processes, both for Reclamation facilities and for non-federal facilities. This companion enterprise will open up the West to a whole new product line of small hydropower facilities that can tap the energy in flowing water that is currently being wasted. If the red tape can be cut down, the cost of installing these units can be amortized. These are existing facilities and will have no impact other than to provide additional clean renewable hydropower in small quantities all over the western United States. Congress has the opportunity not only to create, in very small increments, a considerable new clean renewable resource but to stimulate a fledgling industry that can bring jobs to depressed rural areas throughout the West. The interest is there. The need is there. The missing pieces to give this potentially significant program its push to success are embodied in this legislation and H.R. 795. The Subcommittee has already successfully dealt with H.R. 795. We urge you to quickly deal with H.R. 2842 and send this legislation speedily on its way so that we can get to work.

Thank you for the opportunity to appear today and testify on this important legislation.

Mr. MCCLINTOCK. Thank you for your testimony. Our next witness is Mr. Christopher Treese. He is the External Affairs Manager for the Colorado River District, Glenwood Springs, Colorado. Welcome to the Committee.

STATEMENT OF CHRISTOPHER TREESE, EXTERNAL AFFAIRS MANAGER, COLORADO RIVER DISTRICT, GLENWOOD SPRINGS, COLORADO

Mr. TREESE. Thank you, Mr. Chairman, and Ranking Member Napolitano, and Members of the Subcommittee, and Mr. Baca, good afternoon. My name is Chris Treese, and I work for the Colorado River Water Conservation District in Western Colorado.

I thank you for this opportunity to express my support for Mr. Tipton's H.R. 2842. I offer my testimony on behalf of my employer, the Colorado River District, and the many members of the District Family Farm Alliance, a grassroots organization of family farmers, ranchers, and supporting water districts in 16 Western States.

H.R. 2842 would provide much needed clarity and certainty to vital criteria for every water manager and every investor. H.R. 2842 provides clarity to the Bureau of Reclamation, Reclamation project operators, local water boards, and potential public and private investors, clarity that project operators have the right of first refusal for small hydropower development on Reclamation canals and conduits, and continued involvement to protect operations if they choose to relinquish that first right.

Clarity that conduit hydro development and operation is a secondary purpose incidental to Congressionally authorized primary purposes. H.R. 2842 provides certainty by providing a common-

sense categorical exclusion for small capacity hydro that is retrofitted into existing reclamation conduits.

This dramatically reduces costs and time uncertainties associated with project permitting. My district's most recent NEPA process experience is approaching two years and $1 million for just an environmental assessment, or EA, on a project that involves absolutely no construction.

With this added certainty, H.R. 2842 dramatically improves the economics of hydro development, and while operating margins for hydro development are attractive, returns on invested capital are razor thin.

The current NEPA uncertainties are frankly chilling for public and private investors alike. There is a tremendous opportunity in the West for converting potential energy in our canals and conduits into valuable, renewable, clean energy.

As Mr. Tipton mentioned, the DOE estimates that in Colorado alone that there is a total of 1400 megawatts of hydropower potential represented by water currently flowing in canals and conduits.

Please unleash this potential, encourage public and private investment in small conduit hydropower, and pass H.R. 2842. I look forward to answering any questions.

[The prepared statement of Mr. Treese follows:]

Statement of Chris Treese, Manager, External Affairs, Colorado River Water Conservation District, on Behalf of The Family Farm Alliance, on "Bureau of Reclamation Small Conduit Hydropower Development and Rural Jobs Act of 2011"

Dear Chairman McClintock, Ranking Member Napolitano, and Members of the Subcommittee:

Thank you for the opportunity to present testimony today.

My name is Chris Treese, and I represent the Colorado River Water Conservation District (River District) and the Family Farm Alliance (Alliance), of which my district is a long-time member.

I am testifying today in support of the "Bureau of Reclamation Small Conduit Hydropower Development and Rural Jobs Act of 2011" (H.R. 2842). This bill seeks to streamline burdensome and unnecessary federal regulations and rules encountered by many irrigation/water districts and electric utilities that seek to develop hydropower on Bureau of Reclamation (Reclamation) owned water canals and pipelines. And perhaps more importantly, it streamlines the process for entities that have rejected hydropower because of the time, resources, and risks associated just with the current permitting process. Earlier this year, the Alliance formally supported H.R. 795 (Adrian Smith/Costa), which similarly provides regulatory reform for non-federal conduits hydropower generation.

Organizational Background

The Colorado River District is the principal water policy and planning agency for the 15 counties in northwest and west central Colorado. The River District is responsible for the conservation, use, protection, and development of Colorado's apportionment of the Colorado River. The River District provides legal, technical, and political representation regarding Colorado River issues for our constituents. The River District is comprised of all or parts of 15 Western Colorado counties—approximately 29,000 square miles—roughly 28% of the land area of Colorado.

The Family Farm Alliance is a grassroots organization of family farmers, ranchers, irrigation districts and allied industries in 16 Western states. The Alliance is focused on one mission: To ensure the availability of reliable, affordable irrigation water supplies to Western farmers and ranchers.

There is considerable potential to pursue hydropower development within my district. There are 13 Reclamation projects within the River District. Some already have hydropower included in their authorizations. However, I believe, all could benefit from this legislation. I also know of several districts that have considered hydropower projects, but never seriously, as they are discouraged by the regulatory uncertainty and costs currently imposed by the existing permitting process.

Many Western water users operate existing irrigation canals and ditch systems that may provide opportunities to develop in-canal, low-head hydroelectric projects that have tremendous potential for producing significant amounts of renewable energy with virtually no negative environmental impacts. Necessary irrigation control and delivery structures can be retained while the conduit system is updated with modern clean-energy producing technologies. Increased revenues from the sale of this renewable energy can result in lower water delivery system operating, maintenance, and rehabilitation costs to farmers. And importantly, irrigation water delivery services can continue while utilizing flows for clean, emissions-free "green" energy production.

Challenges

Some Western canal systems and other water delivery facilities are owned by Reclamation but operated and maintained by local entities like irrigation districts and water user organizations. Unfortunately, widespread uncertainty currently exists over canal-based hydropower at the agency's facilities.

A few key examples demonstrate how this uncertainty is evidenced in the world Western water managers operate in:

- Some Western irrigation districts operate and maintain Reclamation canals where the debt has been fully paid by the operating district. Even if a local district determines that it will pay 100% of a proposed conduit hydropower project, it is not clear currently how revenues from these projects would be shared between the district and Reclamation, including the need and expense for a "lease" of power privilege issued by Reclamation.
- "Environmental reviews under NEPA are universally time-consuming and expensive. Even "just an Environmental Assessment" will require considerable time and expense. The River District's current experience with an EA on a non-construction action has taken over a year and nearly $1 million in outside expenses (not including substantial "unbillable" district time and expense.)
- The margins on small hydro are very small. Districts need to be able to make timely investment decisions without the prospect of environmental reviews of undetermined length and expense. Additionally, western water districts share the nation's desire to make investments that can put people to work immediately. Environmental reviews of small hydro on existing conduits represent an unnecessary and often chilling uncertainly for an economically marginal investment.
- Finally, local water managers continue to have concerns about time delays and recent examples of receiving conflicting information from Reclamation on development of hydropower on conduits. With that said, I want to stress that many of our members have found Reclamation employees genuinely interested in helping to get low-head hydropower systems off the ground and enthusiastic about developing this type of renewable energy.

Solutions Offered by H.R. 2842

H.R. 2842 seeks to address the challenges noted above by:

- Adding "power" as an authorized activity on all of Reclamation's conduits. This authorization makes clear that Reclamation would oversee conduit hydropower development at its facilities.
- Exempting small conduit hydropower generation projects under the National Environmental Policy Act (NEPA), with the exception of transmission siting on federal land.
- Designating the Power Resources Office in Reclamation's Denver headquarters as the lead office for small conduit development. This provision intends to set up a centralized location for uniformity purposes, yet does not prohibit area offices from implementing specific conduit development.
- Establishing hydropower as a secondary project purpose subservient to Congressionally-authorized project purposes, which should also reduce concerns about potential environmental impacts, because water delivery, as a primary purpose, will continue as it has historically.

We support H.R. 2842 and believe it will reduce costs to foster more conduit hydropower at federal facilities and empower irrigation districts involved in the operation and maintenance of these Reclamation canals to develop this generation. We further believe it will clarify issues of federal authority on these projects, which will improve and stream line the decision-making processes.

Recommendations

The River District and Alliance members have closely tracked the development of this bill over the past several months. We thank Mr. Tipton and others for inviting

our input and addressing our concerns. We are pleased to see that it even reflects some of the testimony provided by our members on similar legislation earlier in this Congress. Like most legislation, however, it is not everything that everyone wants. It does represent a giant first step towards facilitating the development of clean, renewable energy on Reclamation projects. With that philosophy in mind, we recommend some further constructive thoughts on the bill.

- H.R. 2842 affirms Reclamation using its "Lease of Power Privilege" for conduit generation facilities but requires Reclamation to offer the Lease of Power Privilege first to the entity/entities operating and maintaining the conduit ("right of first refusal"). This is encouraging, but we are concerned about how these provisions will mesh with ongoing administrative efforts by Reclamation to develop a policy that will set forth a process for making determinations on lease of power privilege. Reclamation has been considering changes to its Lease of Power Privilege process for some time, but it is time for the agency to publish specifics to understand how it intends to carry out this process. We understand that this process will determine how much to charge on Lease of Power Privilege as it relates specifically to different Reclamation facilities, including conduits. Some of these unanswered questions will need to be addressed in the legislative process, and our organization looks forward to working with you towards that end.
- Some of our members are also concerned that recent federal policies encouraging the development of new hydropower facilities in existing irrigation canal systems have attracted outside developers who sometimes do not share the same management objectives as irrigation districts. This can result in a situation where outside entities develop power facilities on water delivery systems that irrigation districts are responsible to operate and maintain. It can be very difficult to make arrangements like this work. Importantly, H.R. 2842 seeks to protect water users by specifically re-affirming hydropower development as secondary to water supply and delivery purposes and ensures that there will be no financial or operational impacts to existing water users. Furthermore, the bill protects agreements that the water users have on existing conduit generation projects and provides additional safeguards to ensure such projects do not undermine water deliveries. Of course, the Bureau of Reclamation's adherence to these values will be critical to the actual execution of these provisions of H.R. 2842 on the ground. We believe Reclamation should consult with the districts affected at all times before, during, and after the lease, development, and operation of these conduit hydropower projects commence.
- On the opposite end of the spectrum from the point just raised, some of our members have concerns that the bill may negatively impact a lead private entity from working with an irrigation district on a small conduit hydropower project. The Family Farm Alliance believes that the first right-of-refusal provisions could give local districts considerable leverage to either develop these projects on its own or in partnership with a private entity that may have the capital and unique expertise. Again, without the details on yet to be determined Reclamation policies establishing how the lease of power privilege would be first offered to districts, we cannot determine whether or not such arrangements would be workable, let alone viable, in developing these conduit hydro projects. We look forward to working collaboratively with Reclamation to institutionalize workable procedures.
- The bill directs the Secretary of the Interior to determine a "reasonable time frame" for the irrigation districts or water users associations to accept or reject a Lease of Power Privilege offer. We recommend that "reasonable" be more specifically defined in terms of days or months. In some cases, feasibility studies will need to be completed to determine whether a proposed project is worth pursuing or not. Time should be allowed for that process to occur before the local district is required to reject or accept a Lease of Power Privilege offer. Again, without the details of yet-to-be-determined Reclamation policies establishing how the lease of power privilege would be first offered to districts, we cannot determine whether or not such arrangements would be workable, let alone viable, in developing these conduit hydro projects.

Again, the organizations I represent strongly support H.R. 2842, and we hope that these additional recommendations are considered in the constructive manner in which they are offered. We are confident Reclamation will work with us, as they have in the past on many other issues, to address our further recommendations, and that this legislation will serve as an appropriate vehicle for continued discussions.

Conclusion

Thank you for this opportunity to testify in favor or H.R. 2842. This legislation is very important to the family farmers and ranchers of our membership and to the beneficiaries of the federal projects within the Colorado River District. We greatly appreciate the cooperation of your Subcommittee staff, who solicited our input as this bill was being conceptualized and drafted. I respectfully urge the Subcommittee's favorable consideration of H.R. 2842.

I would be happy to answer any questions you may have about this testimony.

Mr. MCCLINTOCK. The Chair would like to thank the witnesses for their brevity. Our final witness on this panel is Mr. Grant Ward, a Water and Power Consultant for the Maricopa-Stanfield Irrigation and Drainage District, and Electrical District Number 3, in Maricopa, Arizona. Welcome to the Committee.

STATEMENT OF GRANT WARD, WATER AND POWER CONSULTANT, MARICOPA-STANFIELD IRRIGATION AND DRAINAGE DISTRICT AND ELECTRICAL DISTRICT NO. 3, MARICOPA, ARIZONA

Mr. WARD. Chairman McClintock, Ranking Member Napolitano, and Members of the Subcommittee, thank you for allowing me to present testimony in support of H.R. 2842. In addition to representing our own district, I speak today on behalf of the Advisory Committee of the Family Farm Alliance.

From 1995 to 2008, I served as the general manager of the Maricopa-Stanfield Irrigation and Drainage District, and since then have been serving as their water and power consultant.

On May 4th of this year, I had the opportunity to come before you to give testimony on low head hydro possibilities on Bureau systems in the West. At that time, we noted that we had spent two years trying to get answers to the very points made in this bill.

Sometimes one area would determine one answer based on their existing history, only to have someone else look at the answer and state that it would not be amenable to their region.

We asked questions, number one, about ownership, including who owned the right to the unit to be built. Number two, about the Lease of Power Privilege, and number three, about the need for an environmental assessment, especially when one has been done in the past 20 years, and the construction of the unit would be within the existing walls and boundaries of the conduit itself.

And, four, about the need for a FERC permit, especially when FERC already exempts the size of most of the units once one applies for the permit. Last, number five, we raised the issue of one central office that all answers would go through for clearance.

That was significant to us, and we did not want to ignore the expertise of regional offices, but the problem is that the regional office doesn't have the right to give the final answer unless something is written and placed in front of them, and so we didn't get the same answer from each office.

This bill before you today answers those questions enough so that we on the ditch bank can have information to rely on so that we can forward with the planning of the projects, including costs, and time to construct such units, as well as some idea as to the time and costs required to meet Bureau requirements.

As I noted in my earlier testimony, our district has a potential of building 14 to 17 units, and we won't know for sure until some of these questions are going to be answered through working with the Bureau, and as a result of this bill.

Of those 17 units, we can generate a total of approximately 2200 kilowatts, which provides enough electricity to power 550 to 1,000 homes, or about 6 to 7 of our deep well pumps primarily used for irrigation.

Also, having low head hydro available to our districts gives us options in efficient and economic operation, when, in the middle of the 100 degree summers in central Arizona, we can use the systems to reduce the requirement from the electrical district so they can avoid overloads or brownouts on their lines, and we can also generate income from the sale of the power to offset operational costs to the district.

As a final note, please understand that from our discussions with a number of the Bureau of Reclamation personnel, including Deputy Commissioner Murillo, and up to the Commissioner, Mike Connor, they have expressed an interest in getting something started in low head hydro systems, but there has been difficulty and confusion in determining where to start, and recognizing that all districts are not created as they were in 1939, or as a one size fits all.

This bill is a major step toward that end. Thank you for this opportunity.

[The prepared statement of Mr. Ward follows:]

Statement of Grant R. Ward, Water and Power Consultant to Maricopa-Stanfield Irrigation & Drainage District, on H.R. 2842

Chairman McClintock, Ranking Member Napolitano, Members of the Subcommittee, thank you for allowing me to present testimony in support of H.R. 2842. In addition to representing our own district I am speaking today on behalf of the advisory committee of the Family Farm Alliance. From 1995 to 2008 I served as the General Manager of the Maricopa-Stanfield Irrigation & Drainage District, (MSIDD) and since then have been serving as their Water and Power consultant. MSIDD includes 87,000 acres or irrigated farmland, located in western Pinal County of Arizona. It was formed primarily to take Colorado River water from the Central Arizona Project (CAP) system, when it became available, by connecting with the CAP's Tucson aqueduct and delivering the water through more than 250 miles of concrete-lined canals, laterals, pipelines, pumping plants and related works. The system is also used to deliver groundwater operated with pumps powered by electricity from Hoover Dam, Glen Canyon Dam, and Parker-Davis Dam as well as supplemental purchased power, all provided by its sister district, Electrical District No. 3, Pinal County.

On May 4th of this year I had the opportunity to come before you to give testimony on low head hydro possibilities on Bureau systems in the West. At that time we noted that we had spent two years trying to get answers to the very points made in this bill, sometimes one area would determine one answer based on old history, only to have someone look at the answer and state that it would not be amenable to their region. We asked questions 1) about ownership, including who owned the right to the unit to be built, 2) about lease of power privilege, 3) about the need for an environmental assessment, especially when one has been done in the past twenty years and the construction of a unit would be within the existing boundaries and even in the conduit itself, and 4) about the need for a FERC permit (especially when FERC already exempts the size of most of these units once one applies for the permit). We lastly 5) raised the issue of one central office that all answers would go through for clearance. This bill before you today answers those questions, enough so that we, on the ditch bank, can have information to rely on so that we can go forward with planning of projects, including costs, and time to construct such units, as well as some idea as to the time and costs required to meet Bureau requirements.

As I noted in my earlier testimony our district has a potential of building 14 to 17 units (we won't know for sure until some of the questions which will be answered in this bill will come to light). Of those 17 units we can generate a total of approximately 2200kws, which could provide enough electricity to power 550 to 1000 homes, or about 6 to 7 of our deep well pumps, primarily used for irrigation. Also, having low head hydro available to our districts gives us options in efficient and economic operations: when, in the middle of the 110 degree summers in central Arizona, we can use the systems to reduce the requirement from the electrical district so they can avoid overloads or brownouts on their lines, and we can also generate some income from the sale of the power to offset operational costs to the district.

As a final note, please understand that from our discussions with a number of the Bureau of Reclamation personnel, including Deputy Commissioner Murrillo and up to the Commissioner, Mike Connor, there has been an interest in getting something started in Low Head Hydro Systems, but there has been difficulty and confusion in determining where to start, and recognizing that all districts are not created as "one size fits all". This bill is a major step towards that end.

Thank you for this opportunity to appear before you and testify on the importance of H.R. 2842.

Mr. McCLINTOCK. Thank you for your testimony and brevity. The bad news is that we have been called to the Floor for a vote. The good news is that I believe it is a single vote, which should not detain us on the Floor for more than about 10 minutes. We will recess and resume as soon as a quorum is reestablished. So the Committee will stand in recess.

[Recess.]

Mr. McCLINTOCK. We will now go to questioning of the witnesses. The Chair will begin, and I would like to ask Mr. Treese, Mr. Lynch, and Mr. Ward, if any of you could just walk us through the current permitting maze that these projects currently must go through, and what it does to add to the costs and the feasibility of the projects.

Mr. TREESE. Thank you, Mr. Chairman. Chris Treese. Permitting obviously will depend on the project itself and just what is involved. However, if NEPA is involved, NEPA itself of course is not a permit.

It is a process that is triggered by a discretionary action by a Federal Agency, generally associated in this circumstance with a permit that is required for the project. It could be a Clean Water Act. It might be an Endangered Species Act.

But the process, however, once NEPA is triggered, is first the determination of some level of impact, and a further determination of whether or not an environmental assessment, or an environmental impact statement, is required.

Mr. McCLINTOCK. Now, again, these projects are on existing facilities, right, that have likely already gone through the NEPA process; is that correct?

Mr. TREESE. Projects that are the subject of this legislation, yes, they are all Bureau projects. They may or may not have preceded in construction the National Environmental Policy Act.

Mr. McCLINTOCK. But they are existing facilities?

Mr. TREESE. But they are existing facilities.

Mr. McCLINTOCK. So they have either predated NEPA, or they have gone through the NEPA process?

Mr. TREESE. That is correct, and even predating have gone through the NEPA process subsequently for one or other reasons.

Mr. MCCLINTOCK. And you are simply placing a small generator in these canals and pipelines that either predate NEPA, or already have been approved through the NEPA process, and you are not making any other impacts on the environment. Is that correct?

Mr. TREESE. Yes, sir.

Mr. MCCLINTOCK. And what does the NEPA process do to add to the delays and expense of these projects, and does that make the difference between them being cost effective and cost prohibitive?

Mr. TREESE. The NEPA process is timely, and it is expensive. It is also uncertain.

Mr. MCCLINTOCK. And by timely, you mean time consuming?

Mr. TREESE. Time consuming, thank you. So the process is at least a year now, or two years from our current experience, and it also is the uncertainty associated with third-party lawsuits, and I think the Agencies have all acknowledged that their concern is with third-party lawsuits and they tend to be as conservative as possible, in-part for looking out for the applicant.

And they tend to go to the most restrictive, the most exhaustive evaluation, which is an environmental impact statement, and the most costly, and the most time consuming.

Mr. MCCLINTOCK. How much does this add to the cost of a small generator?

Mr. TREESE. If it is just an environmental assessment, it might be as little as a half-a-million dollars. It certainly can be over a million if it is an environmental impact statement.

Mr. MCCLINTOCK. Half-a-million dollars per generator? How much does it cost to actually install the generator?

Mr. TREESE. I would like to defer to Mr. Lynch on that.

Mr. LYNCH. The experience that one of our districts had was the facility installation was about $20,000, and this was for a FERC exemption, and if I remember it correctly, the studies necessary to get the exemption were somewhere between 30 and $50,000.

Mr. MCCLINTOCK. OK. So on this particular project, $20,000 to actually install the device, and it is $30,000 to $50,000 to get it approved. Mr. Treese, you are saying that it could be as much as $500,000 to $1 million just for the approval?

Mr. TREESE. Yes, sir.

Mr. MCCLINTOCK. Of a $20,000 small generator put in an existing facility?

Mr. TREESE. Yes, sir.

Mr. MCCLINTOCK. Is there any environmental protection that this process is offering for between $50,000 and $1 million?

Mr. WARD. Well, maybe I can answer that. We have tried to get a feel for how much depth we should go on an EPA program. They have to study it first to determine whether it is an EA, a very simple thing, or whether it is a full-blown protection, and you do what is required that they tell you to do on your permit.

But I will tell you that on our own system that the cost to do the EPA is estimated—and this was by the Bureau folks—about $60,000.

Mr. MCCLINTOCK. Does this make a difference by the way between it being cost effective and cost prohibitive?

Mr. WARD. It could be very close. You have to have it all together before you know.

Mr. MCCLINTOCK. Yes, and potentially could you give us just a ballpark estimate of potentially how much electricity is not being generated because of this process?

Mr. WARD. I can only tell you that on our own system, and that is about 2200 kilowatts.

Mr. MCCLINTOCK. Well, Mr. Tipton has already pointed out 1400 megawatts, the capacity of a Glen Canyon Dam, just in Colorado alone. So I would assume extrapolating from that, we are talking about the equivalence of dozens and dozens of Glen Canyon Dams, and tens of thousands of megawatts of lost electricity generating precisely because of these bureaucratic impediments by an Administration that is always assuring us that they very much want to help. That is appalling. Ms. Napolitano for five minutes.

Mrs. NAPOLITANO. Well, thank you, Mr. Chairman. There are a couple of questions that I would want to ask Mr. Treese. In your testimony, you mentioned the district's experience with an environmental assessment as a costly and time consuming endeavor.

Does this environmental assessment involve the Lease of Power Privilege process or conduit development project?

Mr. TREESE. No, Ma'am.

Mrs. NAPOLITANO. Thank you. What is the project for water as part of the HCP?

Mr. TREESE. This is a project to provide water from two different existing facilities for the recovery of the endangered fish. It is a change of water uses, and no construction involved at all.

Mrs. NAPOLITANO. But wouldn't you agree that there is a substantial difference in the scope for an EA regarding the project that you just mentioned and an EA for a conduit, and comparing an EA for this project?

Mr. TREESE. No, Ma'am, I respectfully would not agree with that. I think that both involve existing facilities, and both involve little or no construction. Both involve essentially no environmental impact.

Mrs. NAPOLITANO. Thank you. Mr. Murillo, is it necessary to waive NEPA in order to expedite the hydro projects?

Mr. MURILLO. We don't believe so. We believe that part of the NEPA process does include the categorical exclusion.

Mrs. NAPOLITANO. OK. But can we be certain so that we can allay some of the concerns that these entities are expressing to this Committee, this Subcommittee; is the fears that it is going to going to be costly, and cost prohibitive?

Is there something working with Reclamation to be able to work on reducing not only the time frame, but also reducing the costs?

Mr. MURILLO. We are currently working on that now. We are developing a directive and standard, and in that directive and standard, we are pointing out that for conduit power development and conduits, to take a look.

Mrs. NAPOLITANO. How long is it going to be before you become ready to hand it out to these individuals?

Mr. MURILLO. We hope to have that directive and standard out for public review within a month.

Mrs. NAPOLITANO. Thank you. Your testimony mentions Reclamation's plan to finish the second phase of the Bureau's inves-

tigation of hydropower development that focuses on conduits and canals.

And I can tell you that for the last few years, I have been espousing that we need to look at solar placement of panels on pumps, et cetera, to save electricity, or to save costs essentially.

But when can we expect this report to be completed for this investigation of hydropower development?

Mr. MURILLO. That will address conduit drops, an we are looking to get that report out within the year, within the next year.

Mrs. NAPOLITANO. Can it be expedited? This is critical stuff.

Mr. MURILLO. Yes, we hope to—we are trying to do that, and we are hoping to get it out within the next several months, the report.

Mrs. NAPOLITANO. OK. And once that is completed what would be the followup? What would be the next steps that you feel that Reclamation has to do to be able to ensure its implementation and support to the entities?

Mr. MURILLO. So what we will do next is similar to what we do to hydro resources assessment. We will go out, and we will have an outreach program to where we go out to the stakeholders, and inform them of the study that is going on, and we will also include that in our internet site.

Mrs. NAPOLITANO. OK. But do you post it on your—I forget what the term is for being able to know what you are doing. Sometimes the Federal Register does not always become readily available, or it comes out later.

Is there another way, maybe a list of emails of the people who are working these projects for immediate notification, so that then they can move forward?

Mr. MURILLO. Yes, there are a number of things that we do with outreach. Some of them, we put them on a CD and pass them out to the stakeholders, or we will put it on our internet site.

But there are a variety of steps that we take to ensure that people are aware that this study is ready.

Mrs. NAPOLITANO. I would like to see the steps, because sometimes I understand that the notification is not as timely as it could be, and it saves them one day, one week, one month, and it can save them time and money.

Mr. MURILLO. Yes, we will provide you those steps.

Mrs. NAPOLITANO. Thank you. Also, H.R. 2842 contains provisions for the right of first refusal to water districts operating the facilities, and then there are some instances, like the Ready Reservoir in Colorado, where the operating district is the Southeast Colorado Water Conservancy District, with headquarters in Pueblo.

Yet, the local municipalities are in Basalt, Colorado. Do you think this provision should take into consideration both the operating district, as well as the local entities?

Mr. MURILLO. Yes, I do. I think that we should also look not only at them, but also any non-profit organization.

Mrs. NAPOLITANO. You made provisions for that, I assume?

Mr. MURILLO. Absolutely.

Mrs. NAPOLITANO. OK. Mr. Lynch, in your testimony, you mentioned that there is a tremendous opportunity for the development of conduit hydropower, with some estimates as high as 1,400 megawatts, equivalent to the name plate of Glen Canyon Dam.

Wouldn't these type of non-carbon based projects help to lessen our dependence on carbon based energy resources, like the Navajo Generation Station?

Mr. LYNCH. Well, I don't know about Navajo, but it would, depending on where you could develop this, it would help many rural areas. The problem with Navajo is that it is in an isolated location doing a specific job, and not anywhere near the canal systems that you would put these small units on, and you would never be able to transmit that kind of power to the Navajo generating station area for use in the system for CAP water delivery, and other uses that Navajo provides now.

Mrs. NAPOLITANO. Thank you, Mr. Chair, but with new technology, I think that bears looking into. Thank you.

Mr. MCCLINTOCK. The Chair recognizes the Gentleman from Colorado, Mr. Tipton.

Mr. TIPTON. Thank you, Mr. Chairman, and panel. Thank you for taking the time to be able to be here this afternoon. Mr. Lynch, I have a question. It sounds to me that when we read through the bill that this will be eliminating paperwork requirements, not environmental laws.

Would you maybe clarify for us whether the Endangered Species Act, and Clean Water Act, State water laws, and others, be eliminated in these hydropower projects?

Mr. LYNCH. Mr. Chairman, and Mr. Tipton, no. All this does is eliminate the need to do some sort of report. As you know, NEPA is a reporting statute, and not an action statute.

The statutes that actually provide protection and enforce action are the statutes like the Clean Water Act, and the Endangered Species Act, the Clean Air Act, the National Historic Preservation Act, that require Federal action.

These are not touched at all in this bill, and none of their protections are in any way inhibited in this legislation.

Mr. TIPTON. Well, I appreciate that, and I think that it is important to note that these are not natural waterways, correct? These are man-made canals that have already gone through the process. It is going to be inserted into those man-made canals, and there won't be any additional impact, right?

Mr. LYNCH. Yes. The bill—the Smith bill both model themselves after the definitional constructs that are already in the Federal Power Act, and used by the Federal Energy Regulatory Commission.

So we are dealing in all instances with the exact same subject that is a man-made structure whose primary purpose is not power generation, but water delivery.

Mr. TIPTON. Right. And this is for everyone, and if you wouldn't mind answering it. Isn't it true that NEPA has already completed a lot of Bureau of Reclamation water projects when it came to other processes, such as renewal of contracts with water users and other processes; is that correct?

Mr. TREESE. Yes.

Mr. LYNCH. Yes. For instance, the Central Arizona Project, and Mr. Ward's delivery canal that feeds off of that, started environmental impact statements on its construction in the early 1970s. I

know because I was there doing them with the Bureau of Reclamation.

So the screening on most of these things, even pre-NEPA facilities that have had later significant adjustments, or repairs, is in place in almost every one of these situations. Even transfers of title, and things like that, go through this same kind of screening.

So, the West is pretty well covered by NEPA already, in terms of our irrigation facilities.

Mr. TIPTON. Mr. Murillo, that is accurate, correct?

Mr. MURILLO. Yes, a lot of the screening and the post-NEPA Act have already been looked at, and so we agree.

Mr. TIPTON. Great. Well, I would like to follow up a little bit with maybe Mr. Lynch and Mr. Ward given that. Why is it necessary for Reclamation to perform another NEPA assessment on a facility that has already been analyzed for environmental impacts?

Mr. WARD. I guess the short answer to that is that we don't think they do.

Mr. LYNCH. OK. I don't know what happened to Grant's voice, but it is not my fault.

Mr. WARD. Yes, it is.

Mr. LYNCH. The slightly longer answer is that we are only talking about waiving the need to do a report, and not take action, under a process law, and only as to the very smallest of these turbines.

I mean, the kinds of things that you could build with an outboard motor propeller. So, there is nothing being sacrificed here in terms of environmental protection, and just paperwork.

Mr. TIPTON. Great. So we are standing up for the environment, and we are being able to generate electricity, in a clean, carbon free environment we possibly can. That sounds pretty positive, but maybe if you all would just like to answer this question. Will this bill harm the environment? Mr. Murillo, do you want to start?

Mr. MURILLO. I didn't hear the question.

Mr. TIPTON. Will this bill harm the environment?

Mr. MURILLO. Well, we want to make sure once again that the NEPA process is followed.

Mr. TIPTON. Certainly, but will this bill harm the environment?

Mr. MURILLO. One again, like I said, we want to make sure that we follow the NEPA process to ensure that there are no negative impacts to the environment.

Mr. TIPTON. Mr. Lynch, would you care to take that up?

Mr. LYNCH. I don't see how it could since FERC already has a much larger categorical exclusion than this bill offers.

Mr. TIPTON. Great. Mr. Treese.

Mr. TREESE. The Colorado River District and the Family Farm Alliance simply would not be supporting it if that were true.

Mr. TIPTON. Thank you. Mr. Ward, I don't want to strain your voice.

Mr. WARD. It is my feeling that if they were to pick up the report that was made on our canal when it was designed and built, they would not change that NEPA one iota, because we don't change anything in the canal.

Mr. TIPTON. OK. Thank you so much. I yield back, Mr. Chairman.

Mr. MCCLINTOCK. Thank you. I understand that Mr. Baca yields. Mr. Gosar of Arizona.

Dr. GOSAR. Mr. Lynch, Mr. Tipton's bill updates a 1939 law governing how Reclamation produces power and other things. What has changed since 1939 in the hydropower world, and does this bill bring this law up to date?

Mr. LYNCH. Mr. Chairman, and Mr. Gosar, I don't think that we have enough time today to talk about all of the things that have changed since 1939, but let me tell you a couple of very important ones.

Number one, in 1939, irrigation districts and water user associations, the only two entities entitled under Reclamation law to take over O&M on canals were not in the electric business. They are now.

In 1939, they weren't operating Reclamation facilities. Reclamation was. They are now. It is a whole different world, and we need to modernize this section of the Reclamation Project Act of 1939 to recognize that the boots on the ground are our folks now, and that Reclamation has not only encouraged, but in some cases virtually mandated that local facilities be managed by local beneficiaries.

It gets the O&M responsibility off their back and their budget, and it puts the boots on the ground with the people who are taking the water, and this bill recognizes that very important construct. So, yes, it is time for some updating.

Dr. GOSAR. Well, I want to follow that up. Mr. Murillo seemed to be concerned about the definition of the term transferred works in the bill. Do you see a problem with that definition?

Mr. LYNCH. No, I don't. The definition in this bill is there just to be used in Section 9[c]. It is there just to be used for the purposes of this bill. Reclamation has other entities, municipalities, who manage some of their facilities.

They do it typically under repayment contracts, and it is not a Lease of Power Privilege mechanism, and this bill in no way interferes with or disturbs that. I mean, I think that their concern is that we have created a definition that didn't exist in Reclamation law just for this purpose, and it is not a Reclamation law by definition.

None of their lawyers should have any problem with that. They ought to be able to sort it out. The definition works for the bill. It does not impact any other part of reclamation law.

Dr. GOSAR. Mr. Ward, has there been uniformity in confusion within the Bureau of Reclamation regarding answers on how to get and develop conduit power?

Mr. WARD. Just turn those words around, confusion in uniformity. There is confusion. I have mentioned in my testimony that we spent two years trying to get some basic answers in order for us to put this system in, and we are ready to go now.

In order for us to put it in, we couldn't get an answer from the Bureau on who owns it, and what kind of a lease it should be. Lease of Power Privilege is something that can control it, and we would not be able to build the system ourselves.

Mr. TIPTON. And I am right there with you. I had to actually submit a bill on behalf of establishing jurisdiction between the Depart-

ment of Agriculture and the Department of the Interior over a pipeline, and who had jurisdiction to repair it, which is ridiculous.

Mr. Ward, will the provision that allows the Power Resources Office to be a clearinghouse for information on this development be helpful to others seeking such answers in the future?

Mr. WARD. I think it would be helpful to us right now, but the thing is that I appreciate the areas of the Bureau, and their needs to know what is happening, and where to go, but when they need an answer, they need to go somewhere to get that answer, and we all need to be able to rely on that answer, whether it is a power energy office, or whether it is a regional office, or an area office. So it would be very helpful.

Dr. GOSAR. Mr. Murillo, in the timelines that we are talking about, tell me the time that it is currently taking, the average time that it is taking, for an EA or full-blown NEPA?

Mr. MURILLO. Well, we are currently going through some Lease of Power Privileges right now at some of our facilities, and right now what I am being told is that it is taking anywhere from five months to seven or eight months to complete some of the EAs.

Dr. GOSAR. For reassessment. How about for a new one?

Mr. MURILLO. What is that?

Dr. GOSAR. How about a new one?

Mr. MURILLO. Oh, boy, I don't know.

Dr. GOSAR. Well, let me ask the next followup question because I am running out of time. Is this time frame shorter or longer than it was 10 years ago? How about we answer that longer.

In my district, all it has been doing is growing longer and longer with delays. Would you see that as being consistent, Mr. Ward, that they are growing longer and longer with delays?

Mr. WARD. I would.

Dr. GOSAR. How about you, Mr. Lynch?

Mr. LYNCH. Definitely.

Dr. GOSAR. You know, Mr. Murillo, trust is a series of promises kept, and call me a skeptic, but I see the bureaucratic mess becoming even more entangled, and more entangled for people to try to come up with solutions not being problematic. Thank you.

Mr. MCCLINTOCK. Thank you. That concludes the testimony and questions of the first panel. I want to thank our witnesses for their guidance and expertise today, and I would now ask our second panel to take his seat.

Our second panel is on H.R. 200. It consists of The Honorable Ed Scott, Mayor Pro Tem of the City of Rialto. Also with us, I understand for questions only, is Mr. William Werkheiser. So, the Chair recognizes Mr. Scott for five minutes. Welcome.

STATEMENT OF HON. ED SCOTT, MAYOR PRO TEM, CITY OF RIALTO, CALIFORNIA, ACCOMPANIED BY WILLIAM WERKHEISER, U.S. GEOLOGICAL SURVEY, ASSOCIATE DIRECTOR, WATER, RESTON, VIRGINIA

Mr. SCOTT. Thank you. Thank you, Chairman McClintock, for the invitation, and Members of the Subcommittee. Thank you for this opportunity to come before you today and show my city's support for Congressman Joe Baca's bill, H.R. 200.

I am Ed Scott, Mayor Pro Tem, from the City of Rialto, California. I not only speak for my residents in a city of 96,000 people, but also approximately 400,000 residents who reside in the neighboring cities, and are affected by chemicals which have polluted the Rialto-Colton Basin.

The Rialto-Colton Basin was once an underground water source which was pristine and precious, but today it is a source of drinking water which has been contaminated by TCE, perchlorate, and other possible harmful chemicals.

Perchlorate, a salt used in the manufacturing of missiles, ammunition, and fireworks, has been determined to affect thyroid functions of persons exposed to it. Perchlorate is especially dangerous to pregnant women, their fetuses, and small children.

The State of California has set the maximum allowable level at six parts per billion. Rialto has detected levels as high as 10,000 parts per billion. This level of perchlorate contamination is perhaps the highest in the Nation.

Perchlorate contamination of the Rialto-Colton Basin has had a severe impact on the City of Rialto and its residents. It has eliminated Rialto's best quality water supply, as well as its cheapest.

It has required Rialto to shift its reliance to water sources of lesser quality, requiring expensive treatment systems for the removal of contaminants. It has disrupted Rialto's ability to ensure that service to its current and future customers is reliable and uninterrupted.

As Members of this Subcommittee know all too well, a clean, affordable, reliable water supply is the life blood of a community like Rialto. The perchlorate plume in the Rialto-Colton basin is believed to be more than six miles long, and one mile wide, although the full extent of the plume is not known.

The shutdown of 13 of Rialto's wells has reduced production capacity by nearly 48 percent. The shutdown loss is around 12 million gallons per day, which exceeds the average daily pumping demand for all of Rialto's customers.

In other words, the basin pumping capacity has been currently lost to perchlorate contamination, which is around 12,000 to 15,000 acre-feet per year. The city has lost its ability to have a backup water source.

Unless we are able to attack this problem at its source, wellhead treatment may be necessary for years to come. The sobering fact is that this chemical could affect the lives of my residents, and many others, for generations to come.

Rialto has spent $32 million dealing with this problem, and there is no end in sight. The need for Congressman Baca's bill is compelling. Our aquifer is a very complicated one, surrounded by earthquake faults and requires a comprehensive study to further understand how to deal with this problem and commit to an effective clean up.

In order for the cleanup to be effective, however, the plume must first be adequately characterized ideally, and the perchlorate contaminated water plume can be pumped out of the ground, water treated, and then used.

The study purpose of H.R. 200 will help us answer these questions, and put us in a position to resolve this once and for all. Only

upon completion of such a study can we fully implement a plan to contain its movement, and put a plan in place to effectively clean up the precious drinking water source.

In closing, I want to express my city's sincere thanks to Congressman Baca, Congresswoman Napolitano, and yourself, Mr. Chairman. I stand ready to answer your questions.

[The prepared statement of Mayor Pro Tem Scott follows:]

Statement of The Honorable Ed Scott, Mayor Pro Tem, City of Rialto, California, in Support for H.R. 200

Mr. Chairman and Members of the Subcommittee, thank you for the opportunity to come before you today and show my City's support for Congressman Joe Baca's bill, H.R. 200, the Inland Empire Perchlorate Ground Water Plume Assessment Act of 2011. I am Ed Scott, a Council Member from Rialto, California. I not only speak for my residents in a City of 96,000 people but also approximately 400,000 residents who reside in the neighboring cities and are affected by chemicals which have polluted the Rialto-Colton Basin.

The City of Rialto relies on groundwater from the Rialto-Colton Basin, its most important water source, to deliver water to its residents, schools, hospitals, parks and businesses. The Rialto-Colton Basin was once an underground water source which was pristine and precious. But today it is a source of drinking water which has been contaminated by TCE, perchlorate and other possible harmful chemicals.

Impact of Contaminated Basin

Contamination of the Rialto-Colton Basin has had a severe impact on the City of Rialto and its residents. It has eliminated Rialto's best quality water supply as well as its cheapest; it has required Rialto to shift its reliance to water sources of lesser quality, requiring expensive treatment systems for the removal of contaminants; it has disrupted Rialto's ability to ensure that service to its current and future customers is reliable and uninterrupted 100 percent of the time, through normal, dry, and drought years; it has reduced or eliminated Rialto's ability to call upon its neighbors for emergency supplies, because their water supplies have been similarly strained; it has impaired Rialto in the flexibility of its use of existing facilities, effectively stranding some of them; and it has reduced the reliability of Rialto's overall water supply. As members of this Subcommittee know all too well, a clean, affordable, reliable water supply is the life-blood for a community like mine.

Perchlorate

Perchlorate, a salt used in manufacturing of missiles, ammunition, and fireworks, has been determined to affect thyroid functions of persons exposed to it. Perchlorate is especially dangerous to pregnant women, their fetuses and small children.

In adults, the thyroid helps to regulate metabolism. In children, the thyroid plays a major role in proper development in addition to regulating metabolism. Impairment of thyroid function in expectant mothers may affect the fetus and newborn and result in effects including delayed development and decreased learning capability. Impairment of thyroid function in nursing mothers may have similar effects on their newborn.

A December 11, 2006 National Institute of Environmental Health Sciences report titled "The Evaluation of the U.S. EPA's Preliminary Remediation Goal for Perchlorate in Groundwater: Focus on Exposure to Nursing Infants," concludes that the unborn child may be particularly vulnerable to perchlorate toxicity and that the U.S. EPA Preliminary Remediation Goal of 24.5 ppb should be evaluated in light of these exposures.

California has set a Public Health Goal of 6 ppb and has proposed a Maximum Contaminant Level for perchlorate in drinking water of 6 ppb. The United States Environmental Protection Agency has adopted a reference dose for perchlorate of 0.0007 milligram/kilogram-day, which leads to a Drinking Water Equivalent Level of 24.5 ppb. The reference dose and its corresponding Drinking Water Equivalent Level are respectively the recommended "to be considered" value and the preliminary remediation goal for perchlorate.

The State of Massachusetts, on the other hand, has set a maximum allowable level in its water at 2 parts per billion (ppb), virtually a non-detect level. Based on the fact that there is no agreement within the scientific community, let alone by lawmakers, on just how much perchlorate can safely be ingested, the Rialto City Council has adopted its "Zero Tolerance Policy." Under the City's policy, if a well tests positive for detectible levels of perchlorate, that well is shut down and taken

out of service. Its water is not placed into the City's water system unless and until it is outfitted with treatment equipment and the water tests "non-detect" for perchlorate using state-approved testing methods. In this manner, no detectable perchlorate is allowed into the Rialto Water System and the citizens served by Rialto may rest assured that their water is safe.

Rialto Contaminated Wells

The perchlorate plume in the Rialto-Colton Basin is believed to be more than 6 miles long and about 1 mile wide, although the full extent of the plume is not known. Seven of Rialto's thirteen wells have been removed from service for some period due to detections of perchlorate. The shutdowns of these wells have reduced Rialto's production capacity by nearly 48 percent. The City has lost its ability to have a back up source of water when emergencies occur, such as well failures, surrounding agencies needing additional water, and not having enough water to meet future growth within our own service area.

Of Rialto's 13 production wells, seven have been removed from service for some period because of perchlorate contamination. The shutdown loss is around 12 million gallons per day (mgd), which exceeds the average daily pumping demand for all of Rialto's water customers. The Rialto Basin pumping capacity that has been currently lost to perchlorate contamination is around 12,000 to 15,000 acre feet per year.

The City has had to take other measures to ensure the residents and its customers needs will be met. The City spent $100,000 to construct an emergency tie-in with Riverside Highland Water Agency to provide an additional 2,000 gallons per minute of water to the City if needed. This replaces one well out of 7 impacted by perchlorate contamination.

Wellhead Treatment

Currently, there are two primary treatment technologies in the United States for removing perchlorate in water: ion exchange and biological remediation technologies. Rialto's wellhead treatment facilities use ion exchange.

While the City Council's "Zero Tolerance Policy" is the only responsible action we can take as elected officials, removing perchlorate from our groundwater is an expensive undertaking borne by the City and its ratepayers. For example, the installation of ion exchange treatment equipment costs approximately $1 million per water well, and it costs up to $500,000 per year to operate the perchlorate removal equipment at each well. Research is currently underway to develop other newer, cheaper technologies but they are not yet available.

Rialto has installed wellhead treatment facilities on three of its wells in and around the Rialto-Colton Groundwater Basin. It has increased its pumping in those wells, and left the other polluted wells out of service. Rialto is treating the water drawn from those wells until it tests "non-detect" for perchlorate, using state-approved testing methods verified through a state certified laboratory. The City has its wells tested on a monthly basis for perchlorate contamination at an average cost of $65 per sample which adds an additional $27,000 a year to its sampling budget. Thus far, the City has spent $32 million dealing with the perchlorate issue—an enormous sum of money for a working class community.

Wellhead treatment is a temporary and very expensive measure that has allowed Rialto to continue to meet demand on a short-term basis. Wellhead treatment does not come close to replacing what Rialto has lost due to the contamination of the Rialto-Colton Basin.

The City spends an average of $335,000 per year for treatment cost for reginerable resin at one well site and needs to lease land next to the site to accommodate the large footprint needed to house the treatment vessels. The City is in the process of drilling an additional well to replace the loss of wells in the Rialto-Colton Basin at a cost of $1.5 million dollars. The City continues to look at other resources to provide additional water for the needs of its community such as recycled water to lessen the demands on potable water, however, providing the irrigation water the large landscape areas are in need of. To expand the current system it is estimated to cost $5 million to contract and convey the recycled water to the high demand areas within the City.

The principal goals of Rialto's water department are to serve safe, affordable, and reliable water every day, including having sufficient redundancy in its system to meet all contingencies and to plan to meet anticipated demand over the next 20 years in normal, dry, and multiple dry years. The Rialto-Colton Basin is the linchpin of the City's water supply system. Because the Basin plays a central role in the City's long-term water supply planning, perchlorate contamination is not adequately remediated by the provision of wellhead treatment.

Sources of Contamination

We have learned that perchlorate contamination began in the 1940s through actions of the U.S. military, continued into the 1960s through the work of U.S. defense contractors, and was added to by firework companies until 1996. The City discovered high levels of contamination in our drinking water in 1996 and stopped all sources from further pollution. The State of California has set the maximum allowable level of perchlorate at 6 parts per billion—Rialto has detected levels as high as 10,000 parts per billion.

Investigations to date have identified several areas where discharges of materials containing perchlorate salts have either occurred or are likely to have occurred in the northern section of the Rialto-Colton Basin. These sites include: the former U.S. military's Rialto Ammunition Backup Storage Point (RASP) bunker complex; the B.F. Goodrich/Black & Decker site; the San Bernardino County Mid-Valley Sanitary Landfill site; and an area occupied by firework companies, called the Stonehurts site, which consists of five acres located immediately south of the former RASP munitions bunker complex. These sites are believed to be the hot zones feeding the two identified perchlorate plumes in the Rialto-Colton Basin.

Basin Characteristic

Our aquifer is a very complicated one surrounded by earthquake faults and requires a comprehensive study to further understand how to deal with this problem and commit to an effective clean up.

The Rialto-Colton Basin is an elongated basin with the long axis oriented northwest-southeast, and lies within the Santa Ana River Watershed. The San Gabriel Mountains and Barrier J form the northwestern boundary of the Rialto-Colton Basin while the badlands area to the south forms the southeastern boundary. The Rialto-Colton Fault forms the southwestern boundary of the basin and impedes flow into the neighboring Chino Basin for much of the length of the basin. In the southern portion of the basin, the Rialto-Colton Fault no longer acts as a barrier to groundwater flow and groundwater migrates into the Chino and Riverside Basins. The northeastern boundary of the basin is formed by the San Jacinto Fault and Barrier E, which separates the Rialto-Colton Basin from Lytle and Bunker Hill Basins. Groundwater in the Rialto-Colton Basin flows from the northwest to the southeast. In the southern part of the basin, groundwater flows westward towards the Chino Basin. If left alone, the perchlorate plumes will eventually migrate into these adjacent basins, threatening the water supply of countless of communities in Southern California.

Before a comprehensive cleanup plan can be developed, additional data must be collected at source sites and regionally. Although we have a substantial amount of information through EPA and other monitoring wells, information gaps still remain that must be resolved prior to finalizing and implementing an effective cleanup plan to restore the aquifer and protect the public's interest. As listed in a study released by the City in 2007 regarding the development of a comprehensive cleanup strategy, issues that still remain to be addressed are:

- The plume has not been fully delineated, either horizontally or vertically;
- The extent of commingling of the plume emanating from several source sites has not been completely characterized and modeled.
- The chemical migration rates within the contaminated zones have not been fully tested.
- It is not known what basin recharge rates will be necessary to support the treatment system.
- It is not known what is causing the recent surge in perchlorate concentrations in groundwater, whether significant sources are being flushed through the vadose zone, or if perchlorate is being remobilized.
- The impacts and extents of all source areas that contribute to the regional plume must be fully characterized.

H.R. 200 will help us better understand these issues so that we can mobilize scarce resources in developing the most cost-effective cleanup strategy for the Basin.

Need for H.R. 200

Perchlorate has been present in the Rialto-Colton Basin for over 65 years and the problem is getting worse, not better. The dilemma we face today is the plume of contamination continues to move southeasterly at a high rate of speed (possibly 2 feet per day) towards the County of Riverside and eventually Orange County. This frightening possibility could affect the water source for hundreds of thousands of people. The perchlorate plume will likely remain indefinitely in the Rialto-Colton Basin until removed through implementation of a clean-up and abatement plan.

In order for the cleanup to be effective, however, the plume must first be adequately characterized, and then additional wells, treatment facilities, possibly reinjection wells and similar other facilities and techniques will be required before the plume can be fully remediated. Ideally, the perchlorate-contaminated water plume can be pumped out of the ground, the water treated and then either used or reinjected back into the ground. In some cases removal of contaminated soil may be required. These questions will begin to be answered more fully as the plume is characterized more definitively. The study purpose of H.R. 200 will help us answer these questions and put us in a position to resolve this once and for all. Only upon completion of such a study can we fully implement a plan to contain its movement and put a plan in place to effectively clean up this precious drinking water source.

In closing, I want to express my City's sincere thanks for the assistance we have received up to this point from Senators Dianne Feinstein, Barbara Boxer, Congressman Joe Baca and Congresswoman Grace Napolitano, all of whom have been leaders on water issues in California.

I stand ready to answer your questions.

Mr. MCCLINTOCK. Thank you for your testimony, and again the Chair also welcomes Mr. William Werkheiser from the United States Geological Survey. I just have two concerns. This measure has gone through the Subcommittee, and was passed by the House Natural Resource's Committee in the One Hundred and Eleventh Congress by bipartisan support.

And as Congressman Baca said, it cleared the House and so we have heard this before. I just have two quick concerns. Number one is the Federal nexus. Perchlorate is a salt compound as you pointed out, and it is created by both manufacturing of rocket fuels, as well as fireworks.

Rialto is the fireworks capital of California. How much of this was through fireworks manufacturing, and how much of it was through Federal contractors actually developing rocket fuel?

Mr. SCOTT. In our research, we have determined that there are actually three major responsible parties. Two of those are DoD related companies, and one is a fireworks manufacturer.

Mr. MCCLINTOCK. The other concern that I have is that the EPA sets a tolerance level at 24.5 parts per billion. The State of California, which—well, let us just say they have some eccentricities when it comes to their public policy—is at six parts per billion.

And I understand from your written testimony that Rialto also has a zero tolerance policy of zero parts per billion. You are not asking Federal taxpayers to shoulder the costs for anything that would involve treating of water below EPA standards, correct?

Mr. SCOTT. That would be correct, but I would add that the EPA currently is looking at lowering their standard, and it has been suggested that it would be right around six parts per billion.

Mr. MCCLINTOCK. All right. Thank you. Mr. Werkheiser, the Congressional Budget Office estimates that the study in the bill would cost about $4 million in taxpayer funding. Under what program could USGS fund this research from existing funds?

Mr. WERKHEISER. Yes, this work would be funded under our cooperative water program, which requires at least a 50 percent match from a non-Federal source, and it is how most of the work has been funded there today.

Mr. MCCLINTOCK. OK. Why isn't this happening?

Mr. WERKHEISER. We have done a fair amount of work. That work has included characterizing the aquifers in the area, but what I would say is that when you go from characterizing aquifer water

supply, or artificial recharge, to looking at contaminates in water, that requires a level of detail much greater than what we have been able to do. So we have been doing work as we can afford it.

Mr. MCCLINTOCK. Well, on average, how much does this program receive annually?

Mr. WERKHEISER. The Cooperative Water Program receives—this year it was $63 million.

Mr. MCCLINTOCK. So, $63 million, and you need $4 million to do this study?

Mr. WERKHEISER. Right.

Mr. MCCLINTOCK. Now, according to a document taken from your website, the Cooperative Water Program spends taxpayer dollars at, quote, 750 interpretative projects, annually targeted at specific issues, such as the effects of urbanization, and dam removal, agricultural practices, and it goes on. Is that true?

Mr. WERKHEISER. Yes, we do include those type of works. It also funds a large part of our stream gauging.

Mr. MCCLINTOCK. Here is the concern that I would like to express, not with respect to this bill, but with respect to this Administration's priorities. We just heard a lot of testimony about the benefits of more hydropower from small hydroelectric generators.

We have agencies using taxpayer dollars to study dam removal, tearing down perfectly good hydroelectric dams that are generating hundreds of megawatts of electricity. Meanwhile, while we are doing that, and spending money through your program for such purposes, we have communities like Rialto who are begging for USGS action to help provide clean drinking water.

And I just wonder is that an appropriate setting of priorities? I will offer that as a rhetorical question, because I certainly don't want to put you on the spot. With that, I will yield back and recognize Mr. Baca for five minutes.

Mr. BACA. Well, thank you very much, Mr. Chairman, an thank you very much for the promotion that I now have gotten to be the Ranking Member on the Committee, since she stepped out temporarily.

Mr. MCCLINTOCK. Temporarily Acting Ranking Member.

Mr. BACA. But I do appreciate that very much. And thanks for your last question, because I think the priority that needs to be done, it seems like, in a city like Rialto, has been impacted not only now, but for many, many years.

And it seems like, Mr. Chairman, you have asked some of the questions that I think are very important. Right now, it seems like we have put a priority in some of the dams, or in some of the areas in tearing them down, when what we need to do is to improve the quality of life for individuals that are being affected that need clean water.

And as we see the growth in the Inland Empire, and maybe I will start with the Major Pro Tem from the City of Rialto, do you see future growth in population? I know that you stated in your statement that it impacts 4,000 residents, but it could impact a lot more based on the growth of the population, because more and more people are moving into the City of Rialto.

There is a probability of additional growth, and those individuals would be impacted. Is that not so the case?

Mr. SCOTT. That would be correct. We predict over the next 20 years that our rooftops, housing rooftops, will double.

Mr. BACA. And, Mr. Werkheiser, getting back, William, to one of the questions that was asked earlier by the Chair of the Committee, and it seems like we should not need this bill, and it should have already been done without this bill.

But it seems like you have not set a priority in this area, and that you could have already have done and had the cooperation, not only in terms of the matching funds, or the funds that are needed there, because the monies were already allocated and set aside.

It is just that we need USGS to do a study, and so why not, and why wasn't it done, and why is it that we are waiting for a bill to come before us when the Administration should have taken action in this, and I think that is what the Chairman said as well; is that correct?

Mr. MCCLINTOCK. I am not providing testimony, Mr. Baca.

Mr. BACA. But I wanted you to back me up.

Mr. WERKHEISER. I guess what I would say is that we actually have done a fair amount of work in the area, and we recognize that it is not enough, and that it is not all that is required.

We share the interest. Again, with a $63 million program that has to fund 50 States, and the State of California probably gets a little over $2 million in Cooperative Water Program funds, and how they are used.

But I will point out that just recently that we talked about the sources of perchlorate. I think we are in the midst of a study now to look at the isotopic composition, which will help evaluate what those sources are, and where they are from.

So there is ongoing work, but we can't do it at the rate quickly enough, and with the necessary resources to get an effort at this level started right away.

Mr. BACA. But also, William, will this study by the USGS, can you expand on your comments in reference to the study, and why would the study authorize an HRB to benefit communities throughout the Southwest? Because it would also impact, and it would help, Southwestern States throughout the United States.

It would help Colorado, and it would help Arizona, and it would help Nevada, and the surrounding areas, and not only in our area where we don't have to rely on the other areas.

And then we know that the contamination has a probability if we don't do anything, and the impact that it could have not only in San Bernardino County, Riverside County, and then on into the Orange County as well.

Could you elaborate on it? Would it help the Southwestern States, the study?

Mr. WERKHEISER. Yes, I think there is a lot of transfer value for such a study. I think right now there have been in 18 States where perchlorate has been detected at above the six parts per billion level at least.

So there is transfer value to such a study, but the main benefit is to the complexity within the aquifer, and the main benefit would accrue to that area, but there is certainly transfer value to other areas.

Mr. BACA. And, again, you know, I want to thank Mayor Pro Tem Scott, Ed Scott, for coming here and testifying, and caring about the community. In your experience how significant is the economic loss that Rialto and the Inland Empires have had to cope with due to the perchlorate contamination in the ground water of the Rialto-Colton Basin?

Mr. SCOTT. Well, Rialto has really had to go elsewhere for water, and we are paying more for that water than we would normally be paying. Additionally, as you had stated in your original statement, we have put a perchlorate surcharge on all of our residents.

And while $12 a month doesn't seem like a lot, it has gone on for 10 years.

Mr. BACA. And $12 is very difficult when you are trying to put food on the table, and you are trying to live within your own means.

Mr. SCOTT. Right.

Mr. BACA. Twelve dollars is a lot when you add that up to every other bill that you have. It makes it very difficult on someone in the area who basically says, you know what, we should have clean water. We should have good water, and we shouldn't have to worry about the effects that it is going to have not only on thyroids, but infants and others in the immediate area.

So I thank you for coming, and taking the time, and giving your testimony on behalf of not only the citizens of Rialto, but the impact that it would have in the State of California and the Southwestern States, too, as well.

Mr. SCOTT. Thank you for the invitation.

Mr. BACA. I yield back the balance of my time.

Mr. MCCLINTOCK. Well, I would like to thank our witnesses for their testimony. Members of the Subcommittee may have additional questions for witnesses, and we would ask that you respond to these in writing.

The hearing record will be kept open for 10 business days to receive those responses, and if there is no further business, without objection, the Committee stands adjourned.

[Whereupon, at 3:40 p.m., the Subcommittee was adjourned.]

[Additional material submitted for the record follows:]

Statement submitted for the record by U.S. Geological Survey, U.S. Department of the Interior, on H.R. 200

Chairman McClintock and members of the Subcommittee, thank you for the opportunity to provide the Department of the Interior's views regarding U.S. Geological Survey (USGS) scientific capability relevant to the Inland Empire Perchlorate Ground Water Plume Assessment Act of 2011 (H.R. 200).

USGS Science in Support of Groundwater Management and Contaminants

The USGS serves the Nation by providing reliable scientific information to describe and understand the Earth; minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; and enhance and protect our quality of life. The specific mission of the USGS California Water Science Center is to collect, interpret, and provide unbiased and timely scientific information of the highest quality for the responsible planning, use, and management of California's water resources in cooperation with local, State, and other Federal agencies. Scientific issues related to the occurrence and movement of groundwater and contaminants, such as perchlorate, fall within the scope of the USGS mission.

Perchlorate issues in Rialto Colton and the "Inland Empire"

The Rialto-Colton Basin is located in western San Bernardino County in California, about 60 miles east of Los Angeles in the upper Santa Ana River watershed (the Inland Empire). The Rialto-Colton Basin is bounded on the northeast by the Bunker Hill and Lytle Creek Basins and on the southwest by the Chino and North Riverside Basins. Groundwater presently constitutes about 79 percent of the drinking-water supply in the Inland Empire. Perchlorate has been detected in the main water-producing aquifers within the Rialto-Colton and adjacent basins and has contaminated water in more than 20 production wells that supply the communities within the Rialto-Colton Basin and surrounding area.

Perchlorate (ClO_4) has both synthetic and natural sources. Synthetic perchlorate is a residual of the manufacture and use of rocket propellants, fireworks, flares and other pyrotechnic devices. Minor concentrations of natural perchlorate have been measured in mined Chilean nitrate fertilizers. Perchlorate is extremely soluble and is carried in groundwater without retardation or absorption. The two major sources of synthetic perchlorate in the area are San Bernardino County's Mid-Valley Sanitary Landfill and a 160-acre site near the landfill. These two sites were used for storage and destruction of perchlorate-containing compounds such as explosives, propellants, and pyrotechnic devices. Chilean nitrate fertilizer was commonly used in the Basin in the early part of the 20th century. In addition, imported water from the Colorado River contains measurable perchlorate and also may be a source of perchlorate in the Inland Empire. Recent data collected by the USGS indicates that low levels of perchlorate have accumulated naturally in unsaturated zones in arid and semiarid areas of the southwestern United States, such as the Mojave Desert, likely as a result of atmospheric deposition.

Perchlorate contamination is of concern to water managers because of the importance of groundwater in this region. Water managers need to know the source, fate, and transport of perchlorate within the Rialto-Colton Basin and adjacent basins in order to effectively mitigate the contamination. Major uncertainties facing water managers include: 1) the source(s) of perchlorate in specific wells; 2) the hydrologic and geologic controls on the migration of perchlorate within the Rialto-Colton Basin; 3) the effectiveness of the Rialto-Colton Fault as a barrier to perchlorate migration from the Rialto Colton basin to the adjacent Chino and North Riverside basins; and 4) the potential vertical movement of perchlorate through long-screened wells.

What is the USGS doing in the area?

The USGS has a long history of hydrologic work in the Rialto-Colton area and adjacent areas in the Inland Empire going back as far as the early 1900s. This work has been updated periodically and collectively forms the basis of our scientific understanding of the regional hydrogeologic setting, the movement of water within aquifers pumped for public supply, and water-quality issues in the area. The USGS operates an extensive groundwater-monitoring network providing the public with real-time information on water levels and water quality. The USGS has developed predictive models in the Rialto-Colton Basin (Woolfenden and Kadhim, 1997; Woolfenden and Koczot, 2001) and the adjacent Lytle Creek and Bunker Hill groundwater basins (Danskin and Freckleton, 1989; Danskin and others, 2006) to assist in the management of the water resources in the area. These models are based on the current scientific understanding of the geology and hydrology in the area, including the areal and vertical extent of aquifers, hydraulic properties, recharge and discharge of groundwater, and the interaction between groundwater and surface water. Most of the USGS research done in the Inland Empire has been in cooperation with local water management agencies such as the San Bernardino Valley Municipal Water District under the auspices of the USGS Cooperative Water Program. In the past five years, about 70 percent of the cost of these studies has been borne by local agencies.

In recent years, the USGS has been working with local water agencies to help them understand the sources, distribution, and migration of perchlorate in the Inland Empire. A recent study completed as part of the USGS Groundwater Ambient Monitoring and Assessment (GAMA) Program (Belitz and others, 2003) sampled 99 drinking water wells throughout the Inland Empire and identified perchlorate in about 67 percent of the wells at the reporting level of 0.5 micrograms per liter (μg/L); about 10 percent had perchlorate concentrations in excess of the California maximum contaminant level of 6 μg/L, but no well had concentrations in excess of the EPA health reference level (Kent and Belitz, 2009). Woolfenden (2008) used a particle-tracking model to determine the susceptibility of an aquifer to perchlorate contamination in the Rialto-Colton Basin. Izbicki (2008) collected wellbore flow and depth-dependent water-quality data from a public supply well near Highland, CA located in the northern part of the Inland Empire. Water-quality and isotopic data

indicated that the source of perchlorate was Chilean nitrate fertilizer. Fram and Belitz (2011) have evaluated the occurrence of naturally occurring perchlorate in the Rialto-Colton Basin and across California.

The USGS is participating in two studies funded by the Department of Defense Environmental Security Technology Certification Program (ESTCP). The first study uses state-of-the-art chemical and multiple-isotope techniques to identify the source of perchlorate within the Inland Empire. The second study uses more traditional hydrologic data to define water-level contours and groundwater movement within the basin. An important component of these studies is to evaluate the effect of well-bore flow on the vertical distribution of perchlorate within aquifers. A total of 28 wells have been sampled and are being analyzed for perchlorate, perchorate isotopes, and other tracers in the Rialto-Colton Basin and Chino Basin adjacent to the Rialto-Colton Fault. Six wells have been sampled with depth to evaluate well-bore flow and changes in chemistry in aquifers with depth across the Rialto-Colton fault. Data collected in these studies are intended to 1) identify the areal and vertical extent of perchlorate contamination near the margin plumes in areas having high background perchlorate concentrations from fertilizer or other sources, and 2) evaluate the potential for water and contaminant movement across the Rialto-Colton fault. The studies have identified areas where additional work would be beneficial to the understanding of water flow and perchlorate transport within the Rialto-Colton basin and adjacent areas.

Rialto Colton Basin, California Water-Resources Study

The key issues of concern identified in H.R. 200 are:

A. The delineation, either horizontally or vertically, of the aquifers in the Basin, including the quantity of water in the aquifers;
B. the availability of groundwater resources for human use;
C. the salinity of groundwater resources;
D. the identification of a recent surge in perchlorate concentrations in groundwater, whether significant sources are being flushed through the vadose zone, or if perchlorate is being remobilized;
E. the identification of impacts and extents of all source areas that contribute to the regional plume to be fully characterized;
F. the potential of the groundwater resources to recharge;
G. the interaction between groundwater and surface water;
H. the susceptibility of the aquifers to contamination, including identifying the extent of commingling of plume emanating within surrounding areas in San Bernardino County, California; and
I. any other relevant criteria; and
J. characterization of surface and bedrock geology, including the effect of the geology on groundwater yield and quality.

The USGS has the capability to complete a 2-year study to address the issues of concern presented in H.R. 200 for the Rialto-Colton Basin. The tasks required are within the scope of the USGS mission and expertise and could be accomplished under existing authorities.

H.R. 200 focuses on perchlorate issues in the Rialto-Colton Basin; however, perchlorate is a concern throughout the Inland Empire. If requested, the USGS could consider options for studying this issue throughout the region.

Conclusion

The USGS has the scientific capacity to address issues of concern identified in H.R. 200, a strong working relationship with many of the people currently working on groundwater quality issues in California's Inland Empire, and a reputation for providing unbiased information.

The problem of groundwater quality affecting drinking water supplies is not unique to communities in Rialto-Colton or the Inland Empire. Perchlorate is an issue throughout the southwestern U.S. Therefore, methods developed to understand the perchlorate contamination in the Rialto-Colton could be useful to water managers in other basins.

The Department notes, however, that the activities called for in H.R. 200 are already authorized by existing authorities. Any study conducted to fulfill the objectives of the bill would need to compete for funding with other Administration priorities.

Thank you, Chairman McClintock, for the opportunity to present the views of the Department on H.R. 200.

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