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IMPACTS OF ENVIRONMENTAL CHANGES ON TREATY RIGHTS, TRADITIONAL LIFESTYLES, AND TRIBAL HOMELANDS

HEARING

BEFORE THE

COMMITTEE ON INDIAN AFFAIRS
UNITED STATES SENATE

ONE HUNDRED TWELFTH CONGRESS

SECOND SESSION

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IMPACTS OF ENVIRONMENTAL CHANGES ON TREATY RIGHTS, TRADITIONAL LIFESTYLES, AND TRIBAL HOMELANDS

THURSDAY, JULY 19, 2012

U.S. SENATE,
COMMITTEE ON INDIAN AFFAIRS,
Washington, DC.

The Committee met, pursuant to notice, at 2:34 p.m. in room 628, Dirksen Senate Office Building, Hon. Daniel K. Akaka, Chairman of the Committee, presiding.

OPENING STATEMENT OF HON. DANIEL K. AKAKA, U.S. SENATOR FROM HAWAII

The CHAIRMAN. I call this hearing of the Committee on Indian Affairs to order.

Aloha and welcome to all of you to the Committee's oversight hearing on impacts of environmental changes on treaty rights, traditional lifestyles and Tribal homelands.

Across this Nation, Native peoples were the first stewards of these lands we now call America. The relationship between Native nations and their environment is sacred. It is a foundation of their cultures and world view. Their knowledge is valuable to all of us, because it was acquired by studying this place over thousands of years and for hundreds of generations. In this way, Native cultures hold the oldest records of this environment and utilize the most sustainable practices for living in harmony with nature, with it, respecting nature and Mother Earth.

As a Native Hawaiian, we have a concept called malama 'aina, caring for the land. But it means more than this simple translation can convey. Malama 'aina teaches us that we must care for the land and nature so it can continue to care for us and also sustain us and our future generations, as well.

It means that the relationship between man and the environment is a reciprocal one. I learned as a young boy that malama 'aina is more than a good idea; it really is a foundation of how we live and who we are as a people.

This concept is not unique to my people. It is something all Native people share. The idea that we have a responsibility to steward our lands, fulfilling that responsibility is part of who we are as indigenous peoples.

As a result, Native people are often able to notice subtle changes in our environments well before the data exists to verify it. Native

communities have faced tremendous difficulties over time, but now they are facing perhaps their most daunting challenge: a changing environment.

While environmental changes are widespread, studies indicate that Native communities are disproportionately impacted because they depend on nature for traditional foods, sacred sites, and to practice ceremonies that pass on cultural values to future generations.

Although there is no easy solution, collectively we can address these issues.

Several Tribes and Native communities are leading the way by creating adaptation and mitigation plans. At the Federal level, agencies are providing resources and programs to address climatic changes.

Today I look forward to hearing from the EPA and NOAA about the resources and programs they offer to Native communities, and from Native leaders about their ideas on how to address environmental changes.

So I look forward to that with the Committee. As Chairman, it is my goal to ensure that we hear from all of you who want to contribute to the discussion. The hearing record is open for two weeks from today, and I encourage everyone to submit your comments through written testimony.

I want to remind the witnesses to please limit your oral testimony to five minutes today, and I would like to invite the first panel to the witness table. As I call you, please come forward.

Ms. Joann K. Chase, Director of the American Indian Environmental Office, U.S. Environmental Protection Agency, Washington, D.C. Welcome.

Ms. Margaret Davidson, Director of the Office of Ocean and Coastal Resource Management at NOAA in Charleston, South Carolina.

I want to welcome everybody here. As I take time to look at those who are present, it is so good to see so many of you that we have been able to work with over the years and continue to do so to help our people.

Thank you very much. Thank you, Ms. Chase. I would like to ask you to please proceed with your testimony.

STATEMENT OF JOANN K. CHASE, DIRECTOR, AMERICAN INDIAN ENVIRONMENTAL OFFICE, U.S. ENVIRONMENTAL PROTECTION AGENCY

Ms. CHASE. Good afternoon, Mr. Chairman.

The CHAIRMAN. Good afternoon.

Ms. CHASE. Thank you for the opportunity to be here today.

I have the good pleasure of serving as the Director of the American Indian Environmental Office at EPA, and I think that this is a very important opportunity to discuss with you some of the Agency's efforts to strengthen human health and the environment in Indian Country.

I would also like to, in the tradition of our people, just acknowledge the Tribal leadership that is here today, including my own Tribal chairman, Tex Hall. I, too, very much look forward to hearing the thoughts and recommendations, and perhaps even the con-

structive criticisms of the work that we are doing from the leadership that is presenting testimony today.

Thank you also, Mr. Chairman, just for reminding us of the unique perspectives that Tribes have on the environment. Protection and preservation of the environment is integral and important and essential to the continued survival of Tribal cultures and traditions. Indeed, the environment is sacred.

As a citizen of the Mandan, Hidatsa and Arikara Nation, I can say with confidence that the work of the Agency is an important factor in protecting this unique way of life. EPA has a long history of working with federally-recognized Tribes, and our commitment to strengthening Tribal partnerships begins at the very top of EPA. This, indeed, is one of Administrator Jackson's top seven priorities for the Agency, and one of her first actions was to reaffirm the 1984 Indian policy. This reiterates our unique legal relationship with Tribal governments.

Our primary goal continues to be to bring Tribes to the table as co-regulating partners with environmental authority and responsibilities for their communities.

In my capacity as the director, I have had the opportunity to engage extensively with Tribal leaders across the country and with environmental program directors of Tribes, and there are a few emerging—say emerging. They are not emerging. They are continuing themes that we have heard that are indicative of some of the concerns that the Tribes have, and we are doing our best as an Agency to be responsive to those concerns.

One of those is effective consultation. It is critical for Tribes and an essential component of the government-to-government relationship, and it is certainly essential in addressing the impacts of environmental changes. Since the implementation of the Agency's consultation policy, we have had over 100 consultations with Tribal governments.

This week the National Tribal Operations Committee and the NTC have been meeting, and yesterday the Agency's top leadership, along with our Tribal caucus advisors, had a vibrant and candid and, I think, very informative discussion about how we can continue our efforts to continue the implementation of this policy.

We also heard frustration expressed by many Tribal leaders that there is a need for Federal employees to have a better basic understanding of the fundamental principles of Federal Indian law and policy, and I am pleased to announce that very soon we will be instituting an annual mandatory training for all EPA employees. I am confident that this will create a better, more-informed EPA work force.

Another theme that we hear from Tribes is frustration over the lack of and a desire for better interagency coordination. Accordingly, EPA is working diligently within the Federal family to advance better coordination efforts and to leverage knowledge and resources.

Mr. Chairman, the impacts of environmental changes are indeed causing extraordinary challenges for Tribes across the Nation. These challenges include rising sea levels, loss of species, habitat degradation, and a host of other devastating impacts, including relocation of entire communities.

This past fall I visited several villages in Alaska and witnessed first-hand dramatic impacts of climate change on these vibrant cultures and traditional lifestyles. Addressing these issues requires cooperation between many partners. EPA is the leader in working diligently with our government partners, including Tribal governments, to ensure that we act now to address the impacts of climate changes that are currently faced by the Tribes. We have developed and submitted our climate change adaptation plan to fulfill our responsibility under Executive Order 13514. This blueprint will guide the development of specific adaptation planning activities. We are in the consultation process now. It is essential for us to have Tribes at the table and to hear and have their input into this adaptation plan.

We also have established the adaptation work group at the request of the Tribes. This is an active work group that will help to enhance the agency's work in this area. And the work group, itself, is supporting a workshop this fall that will leverage Tribal expertise to develop climate change adaptation strategies to ensure food security and protect traditional plant use.

As you know, traditional plant use is among the many examples of how Tribes have long relied on natural resources to sustain traditional lifeways. The United States has many treaties with Tribes that provide the right to these natural resources, such as the taking and gathering of plants and the right to take fish.

We are charged with protecting our environment. As such, we have a duty and responsibility to protect these natural resources alongside our Federal partners. For almost a year now we have been working very closely with NOAA, with USDA, and other agencies to address concerns raised by the western Washington treaty Tribes regarding habitat losses in the Puget Sound. Tribes have been providing input throughout this process and will continue to be critical leaders and partners in this important work.

Finally, as we address the impacts of environmental changes, we recognize that we must better incorporate centuries worth of traditional ecological knowledge into our work. Last year the Administrator embraced this as a priority in our work with Tribes.

Thank you, Mr. Chairman, again for the opportunity to appear before you. Mahalo for your many years of advocacy on behalf of Native peoples.

I will be happy to answer any questions that the Committee might have.

[The prepared statement of Ms. Chase follows:]

PREPARED STATEMENT OF JOANN K. CHASE, DIRECTOR, AMERICAN INDIAN ENVIRONMENTAL OFFICE, U.S. ENVIRONMENTAL PROTECTION AGENCY

Good morning Mr. Chairman and other members of the Committee and thank you for the opportunity to testify today. My name is JoAnn Chase and I am the Director of the American Indian Environmental Office in the United States Environmental Protection Agency's Office of International and Tribal Affairs. I'm pleased to be at this oversight hearing on the "Impacts of Environmental Changes of Treaty Rights, Traditional Lifestyles and Tribal Homelands" to discuss EPA's work to strengthen human health and environmental protection in Indian country within this context.

Tribal perspectives on the environment are unique. As so eloquently articulated by the National Tribal Environmental Council, there is no artificial separation drawn between air and water quality, between the "environment" and "natural resources"—all are seen as a whole which is connected, interrelated and participatory

in nature. Protection and preservation of the environment is integral to the continued survival of tribal cultures and traditions. The integrated relationship of land, water, humans, animals and plants is a central facet of tribal life. As a citizen of the Mandan, Hidatsa and Arikara Nation, I can say with confidence that the work of the Agency is an important factor in protecting this way of life.

EPA has a long history of working with the 566 federally-recognized tribes.

In summary, the nine points of the EPA 1984 Indian Policy are:

- EPA stands ready to work directly with Indian tribal governments on a one-to-one basis (the government-to-government relationship), rather than as subdivisions of other governments.
- EPA will recognize tribal governments as the primary parties for setting standards, making environmental policy decisions and managing program for reservations, consistent with EPA standards and regulations.
- EPA will take affirmative steps to encourage and assist tribes in assuming regulatory and program management responsibilities for reservation lands.
- EPA will take appropriate steps to remove existing legal and procedural impediments to working directly and effectively with tribal governments on reservation programs.
- EPA, in keeping with the Federal Trust responsibility, will assure that tribal concerns and interests are considered whenever EPA's actions and/or decisions may affect Reservation environments.
- EPA will encourage cooperation between tribal, state and local government to resolve environmental problems of mutual concern.
- EPA will work with other federal agencies which have related responsibilities on Indian Reservations to enlist their interest and support in cooperative efforts to help tribes assume environmental program responsibilities for reservations.
- EPA will strive to assure compliance with environmental statutes and regulations on Indian Reservations.
- EPA will incorporate these Indian Policy goals into its planning and management activities, including its budget, operating guidance, legislative initiatives, management accountability system and ongoing policy and regulation development processes.

Since that time we have adopted many other policies to support our work with tribes and maintain that work within our trust responsibility to tribes and the federal-tribal government to government relationship. As it has been since the adoption of the 1984 Indian Policy, EPA's primary goal is to bring tribes to the table as co-regulating partners with environmental authority and responsibilities for their communities.

One of the first actions EPA Administrator Jackson took as it related to Tribes was to reaffirm the Indian Policy. With this action, EPA reiterated its recognition that the United States has a unique legal relationship with tribal governments based on the Constitution, treaties, statutes, Executive Orders, and court decisions. EPA recognizes the right of tribes as sovereign governments to self-determination and acknowledges the federal government's trust responsibility to tribes. EPA works with tribes on a government-to-government basis to protect the land, air, and water in Indian country.

EPA's tribal program has evolved since the Indian Policy was first adopted. Many significant milestones and successes in the EPA-tribal environmental partnership during these years can be directly attributed to the EPA Indian Policy. These include, but are not limited to, the EPA Policy on Consultation and Coordination with Indian Tribes, announced last May, which reflects the principles of the 1984 Indian Policy.

Yet, we still face many challenges that require a strong federal-tribal partnership. These challenges include reducing carbon pollution and addressing the impacts of climate change on tribal communities. A clean energy environment is critical, and as America moves forward, tribes are essential partners in this future.

Strengthening Tribal Partnerships

The commitment to strengthening tribal partnerships begins at the very top of EPA. It is one of Administrator Lisa Jackson's seven priorities for the Agency. In this spirit of respect and cooperation with tribes, Administrator Lisa Jackson announced the release of the EPA Policy on Consultation and Coordination with Indian Tribes in May of 2011. We are proud to have just celebrated our one-year anniversary.

EPA's Policy serves as the overarching framework for consultation across EPA. It establishes consistent and transparent EPA practices developed through a consultation process with tribes. EPA standards for the consultation process, include defining the what, when, and how of consultation; designating specific EPA personnel responsible for serving as consultation points of contact in order to promote consistency in, and coordination of, the consultation process; and establishing a management oversight and reporting structure that will ensure accountability and transparency. Most importantly, the policy sets a broad standard for when EPA should consider consulting with tribes based upon Executive Order 13175 and the principles expressed in the 1984 EPA Policy. To ensure that tribes are aware of EPA's upcoming and current consultation opportunities, and to ensure that the tribes have all the necessary information to review and analyze prior to consultation, EPA developed the Tribal Consultation Opportunities Tracking System as a one-stop shop for all EPA consultations. This system, which is found on EPA's Tribal Portal website, allows tribal users to view EPA consultation information and to directly submit comments to EPA.

An additional example of tribal partnership is the Tribal ecoAmbassadors Program, piloted in 2011. Working closely with the American Indian Higher Education Consortium, a national organization comprised of the Presidents of all 37 Tribal Colleges and Universities (TCUs), EPA solicited project proposals for innovative, community-based solutions to an environmental issue. As a ground- breaking initiative, the Tribal ecoAmbassadors program engages professors, students and local communities on social science and natural science research including energy efficiency and innovative uses of technology for education. TCU professors serve as the principal investigators, and work with a group of their students, who earn college credit and a small stipend. Each Tribal ecoAmbassador is paired with an EPA scientist knowledgeable in the area of their proposal.

Now approaching the end of the pilot year, the eight selected Tribal ecoAmbassadors worked with a total of 63 students. Each student presented project results to their families and neighbors, garnering community involvement. Capitalizing on the use of technology, two online courses were developed that both promoted distance learning opportunities and used on-line applications to monitor and analyze project data. Moreover, each project is sustainable and transferable to other tribal nations, of which there are 566 nationwide covering approximately 56 million acres of our land base. Thousands of tribal citizens have increased their awareness of the role they play in protecting human health and the environment in Indian country and the broader community through both direct and indirect participation in the Tribal ecoAmbassadors program.

We are in the pilot year of this program, and our eight ambassadors are concluding their projects, ranging from non-point source pollution assessments to developing manufacturing techniques for carbon-negative building products. This past June the pilot program projects were presented to EPA's joint EPA-tribal Tribal Science Council. I am pleased to announce that this program will continue for the 2012–2013 academic year, with funding available for at least six new Tribal ecoAmbassadors projects.

Training the Agency

In addition to strengthening the work with external advisory groups, EPA has built upon its long tradition of internal staff training in tribal matters to launch its newest training program called Working Effectively with Tribal Governments, which was publically announced by the Administrator just yesterday. This is an annual, mandatory training for all EPA employees, that creates a better informed EPA workforce on how to work best on tribal issues and with tribes and includes a full understanding of the unique legal and historical relationship between the federal government and tribes. This latest version is based upon our previous versions of Working Effectively with Tribal Governments which were the foundation for the Office of Personal Management's federal work force-wide Working Effectively with Tribal Governments training.

Inter-Agency Partnerships

EPA is working closely with other federal agencies to more effectively address tribal concerns and to leverage knowledge and resources. Providing greater access to safe drinking water and wastewater facilities for tribes serves as an example of this work. EPA continues to play a major role within the federal Interagency Infrastructure Task Force to Improve Access to Safe Drinking Water and Basic Sanitation in Indian country. This task force examines concerns and develops solutions to those concerns regarding access to water and wastewater facilities. This active partnership includes the Department of Agriculture, Department of Health and Human

Services, Department of Housing and Urban Development and the Department of the Interior. Of course, the tribes are right there with us at the table.

The EPA has entered into a Memorandum of Understanding with the Department of Energy and the Department of the Interior to develop a multi-agency program to address the highest priority challenges associated with safely and prudently developing unconventional natural gas and tight oil resources. An important part of this group's mission will be to understand the implications of developing unconventional energy resources on tribal lands.

Climate Change

Mr. Chairman, we know the impacts of climate change are causing extraordinary challenges for tribes across the nation. In Alaska, climate change impacts are immediate. Rapid erosion and less protection from winter storms due to reduced coastal sea ice have forced tribal communities to prepare to abandon their homes and traditional lands in order to survive. Federal, state, and tribal officials have identified 31 villages that face imminent threats from these impacts. At least 12 of the 31 threatened villages have decided to relocate—in part or entirely—or to explore relocation options. Federal programs that could offer assistance to these threatened villages to prepare for and recover from disasters and to protect and relocate them are limited and unavailable to the majority of villages.

The Federal Emergency Management Agency has several disaster preparedness and recovery programs, but villages often fail to qualify for these programs because they may lack approved disaster mitigation plans or have not been declared federal disaster areas. Tribes are frustrated by the fact that there is no single comprehensive proactive federal program to assist villages with their relocation efforts, nor is there a designated lead Federal agency to provide a coordinated federal and state response to climate change related impacts, such as village relocations. However, individual federal agencies can assist villages on specific projects, such as funding the construction or relocation of homes.

Tribes are experiencing other impacts, including damage to traditional food cellars, permafrost melting, and dropping water tables. In many rural tribal communities, their water is drawn from tundra lakes and these are disappearing with the permafrost. Another potential impact of melting permafrost is the loss of a stable foundation, endangering the sewer and water infrastructure that EPA, and the American taxpayer, has invested billions of dollars in.

These risks are increased by the open dumps that exist in close proximity to most rural communities. Human waste and solid waste are often comingled and when there are floods or storm surges from the loss of protective ice, viable bacteria and contaminants are carried through the community and into people's homes. Often, running water is not available for sanitation, and so consequentially contamination results in significant and dangerous impacts to both the environment and human health of rural Alaskan communities. Most dumps are unlined, but permafrost partially contains their toxic materials. Without permafrost, however, the untreated leachate can become a contamination risk for their water supply.

Tribes are more vulnerable to transboundary contaminants, and with the melting of glaciers, dioxins and pesticides previously retained for decades are now being released back into circulation. Researchers from Canada, China and Norway say some persistent organic pollutants (POPs) are being "remobilized" into the Arctic atmosphere. These pollutants accumulate in animal and plant species that tribes are dependent on to sustain themselves and their traditional way of life.

Tribes throughout the Pacific Northwest are facing similar issues. These similarities are especially acute in coastal Tribes that face erosion, sea level rise, salt water intrusion into coastal wetlands, invasive species encroachment, loss of species of traditional importance due to habitat changes, and changes in seasonal timing leading to traditional spiritual and cultural ceremonies no longer being aligned with animal and plant availability. There are also concerns over paralytic shellfish poisoning, ocean acidification, and impacts to water resources.

With a changing climate comes habitat and ecosystem changes. Northward migration of invasive species and pests is another issue that threatens both ecological and human health in Tribal coastal communities. Also, seasonal changes mean that some pests that used to die out in cold winter temperatures are now surviving to emerge in greater numbers the following spring. Some pests are able to add another reproduction cycle with the lengthening of the growing season due to warmer air temperatures. Many species, both plant and animal, are shifting to new ranges. This creates a problem for Tribes with fixed boundaries or traditional use areas, which no longer may be able to access the resources that sustain them.

Salmon of the Pacific Northwest are central to the lives of native peoples; they bring spiritual, physical and cultural well-being. Climate change is bringing pro-

found habitat challenges, from rapidly changing stream flows to warming waters. The consequences of agricultural runoff and clear-cut forest techniques further degrade water quality. Addressing these issues will require large scale cooperative restoration and enhancement projects between many partners. Also, some species loss will occur before solutions can be found and implemented.

For those tribes more inland, water may be a primary issue. They may be facing longer and hotter dry seasons and heavier seasonal and more frequent peak rainfalls events, creating a greater risk of flooding and erosion as the heavy rains fall on land too dry to absorb it. Habitat loss contributes to this.

Warming and inadequate water supplies may not sustain key fish species and may not fully recharge aquifers. Diminishing snow pack changes water availability drastically, making stream flows much more variable and dependent on rainfall. Without snow pack, the waters also do not stay cool enough, creating more stress for fish.

As aquifers are not recharged, wells could begin to fail, which may cause hardship to communities, farmers, and private landowners. This could also put more stress on the infrastructure, as more sediments are brought up, causing more wear and tear on the water system.

In direct response to these issues, and at the direction of EPA Administrator Lisa Jackson, several high-level initiatives have been created to coordinate EPA's work on climate change and specifically in regard to EPA's climate change work with tribes. EPA has developed and submitted a Climate Change Adaptation Plan as part of their 2012 Strategic Sustainability Performance Plan as required under Executive Order 13514. This plan serves as an Agency-wide blueprint for assessing vulnerably to climate change impacts and the associated plans for addressing those risks to EPA mission, program, and operations. This plan will guide the development of subsequent EPA regional- and program-level adaptation planning initiatives. Again, tribal input is critically important to us and we are actively seeking tribal input to make sure EPA adequately addresses tribal needs. During the development of the Agency Climate Change Adaptation Plan, EPA engaged the Tribes in three informal teleconference roundtable discussion and conducted three additional teleconference dialogues to provide formal briefings on the development of the Plan and to hear additional comment from Tribal leaders. Concurrent with review of the Agency's draft Plan by CEQ and OMB, EPA has opened a formal draft review and written comment period for the tribes to help the Agency craft an acceptable strategy for working with the Tribes on this issue. To further insure adequate consideration of tribal issues and concerns in agency adaptation planning, EPA has formed, at the request of tribes, a Tribal-EPA climate adaptation workgroup. The goal of this group is to improve tribal capacity, coordination, and engagement in climate change adaptation activities, and to develop proposals for additional work or more specific recommendations that would be most effective in Indian country.

To continue to elevate the issue of climate change with EPA's external tribal partners, just last week, on Tuesday, July 10, the Advisory Committee on Water Information (ACWI) FACA voted to establish a standing workgroup on Water Resources and Climate Change. Invitation letters will be sent out soon inviting non-federal organizations and federal agencies to join the workgroup. The National Tribal Water Council and the National Congress of American Indians are on the list to receive an invitation to join.

ACWI is a long-standing and important forum that includes many federal agencies and associations and citizen stakeholders. The ACWI represents the interests of water information users and professionals in advising the Federal Government on Federal water-information programs and their effectiveness in meeting the Nation's water information needs.

In addition to the agency adaptation plan and EPA's work with external partners, EPA is working with the Canadian government and an indigenous not-for-profit organization to host a workshop this fall that will leverage tribal expertise to develop climate change adaptation strategies to ensure food security and protect traditional plant use.

An example of the way in which EPA is currently acting to address tribal climate change concerns is found in EPA Region 10 located in Seattle, Washington. EPA is working with the state and tribal governments on a way to reduce temperature stress on salmon in the South Fork Nooksack River in Washington. EPA is working with the State of Washington's Department of Ecology, the Lummi Nation, and the Nooksack Tribe to identify the best way to integrate available climate change data into the State of Washington's Total Maximum Daily Load water parameters process. Examining the way temperature can be improved in the Nooksack watershed in order to support salmon restoration is a high priority for the Nooksack Tribe and Lummi Nation. This work will produce a number of models that include potential

future climate change scenarios and effects on salmon for 20 to 80 year periods. This cooperation is providing a case study of an effective process to use to support future tribal consultation on climate change science issues and the co-management of this invaluable resource.

Treaty Rights

Courts have long held that Indian treaties are binding on the United States unless abrogated by Congress. Many of these treaties provide certain rights to resources, for example, "a right to take" fish.

In an effort to protect tribal resources, EPA works with many federal agencies. For example, EPA recently funded the Puget Sound National Estuary Program (NEP) at approximately $160 million over the last five fiscal years. Approximately 21 percent of this funding has gone to tribal restoration and protection projects and to support tribal engagement in the governmental processes established to recover Puget Sound and to protect tribal resources. The remaining funding has gone to projects related to marine, nearshore and watershed protection, reduction of toxic, nutrient and pathogen pollution, education, outreach and stewardship and management.

In September 2011, the White House Council on Environmental Quality designated EPA, National Oceanic and Atmospheric Administration, and the Department of Agriculture, National Resource Conservation Service as co-leads for a renewed federal effort to contribute to the protection and restoration of Puget Sound and the Washington coast. This endeavor responds to concerns raised by Western Washington Treaty Tribes about continued habitat losses and associated diminishment of fishery resources. Under the leadership of the three co-chairs, federal agencies with authorities in Puget Sound and western Washington coastal river basins are re-focusing existing efforts and working better to protect and restore habitats important to salmon, shellfish, and other species. This improved interagency effort includes a critical review of existing policies, authorities and funding programs to contribute to the overall objectives for Puget Sound and western Washington coastal habitat restorations. A Puget Sound Region Federal Agency Action Plan was developed and specifically includes language that the federal partners, including EPA, will coordinate with each other, the state and the tribes to affirm commitments to the Treaty Tribes of western Washington. The Puget Sound Region Federal Agency Action Plan also creates a Tribal-Federal Habitat Forum for addressing unresolved priority habitat implementation measures.

EPA has undertaken several measures to address specific tribal habitat concerns including developing a summary of EPA's authorities regarding habitat protection and restoration. For each of these activities, EPA has developed roles, timeframes, geographic scope, and measures to provide for accountability. We have obtained this same set of information from the other 14 members of the Puget Sound Federal Caucus. This document was cross-walked with tribal information on barriers to salmon recovery in each watershed of tribal interest to determine the extent to which federal agencies' current activities and new commitments will address the tribal issues. This will help identify gaps in EPA efforts and authorities, and opportunities for better coordination of federal habitat work.

Use of Traditional Ecological Knowledge

By definition Traditional Ecological Knowledge is based on the acknowledgement that indigenous peoples who live on the land and harvest its resources have an intimate understanding of their environment grounded in a long-term relationship with the surrounding land, ocean, rivers, ice and resources. This understanding includes knowledge of the anatomy and biology of resources based on centuries of harvesting and processing, distribution of resources, animal behavior, seasons, weather and climate, hydrology, sea ice, currents, how ecosystems function, and the relationship between the environment and the local culture. EPA has acknowledged this definition and the bases that support it and has begun to use this invaluable resource in EPA work.

During development of the National Pollutant Discharge Elimination System (NPDES) General Permit for Oil and Gas Exploration, Development and Production Facilities located in State and Federal Waters in Cook Inlet, EPA contracted to collect Traditional Ecological Knowledge information to assist in understanding the linkage between oil and gas development and production in Cook Inlet and tribal subsistence uses. This effort was initiated in direct recognition of the value of Traditional Ecological Knowledge and the need for EPA decisionmaking to be informed in a meaningful way by Traditional Ecological Knowledge.

Traditional Ecological Knowledge data were collected from seven Cook Inlet area tribes by trained professionals through individual or workshop interviews within

tribal and subsistence communities on a set of focused questions developed by EPA [to assist EPA with obtaining information relevant to the action.] Tribal members from multiple villages, identified as spokespeople by their communities, expressed consistent observations, concerns and questions based on an informed traditional understanding of the Cook Inlet aquatic environment. Observations included Cook Inlet flow, current and waste deposition history, declines and changes in species availability and range, and health and safety concerns regarding traditional food quality and contaminant load. In general, concerns fit into two main categories: (1) the potential for environmental impacts from catastrophic events such as oil spills—especially considering the age of the platforms and associated pipelines, and (2) the effects from routine platform operations that include the discharge of contaminants.

EPA utilized the Traditional Ecological Knowledge observational data in reissuance of the Cook Inlet General Permit. The Traditional Ecological Knowledge process influenced the Cook Inlet General Permit issuances in the following ways: revised the setback distances for discharges from exploratory facilities by increasing the prohibition of the discharge of drilling fluids and drill cuttings within 1,000 meters of sensitive areas, such as coastal marshes, to 4,000 meters; eliminated discharges of produced water, drilling fluids, and drill cuttings from new sources; established new limits on both the amount of treatment chemicals added, and toxicity, for discharges such as water flood waste water and cooling water; established more stringent limits for total residual chlorine; required two new studies to gain a better understanding of the potential impacts of the discharges—specifically that operators of all new facilities are required to conduct baseline monitoring and large volume produced water dischargers are required to conduct a study of the water and sediment concentrations in the vicinity of the discharges.

I am happy to report that this use of Traditional Ecological Knowledge by EPA is not new. We used it in 2007 for the NPDES Cook Inlet General Permit reissuance and again during 2010–2011 for the reissuance of the Arctic Exploration NPDES General Permit which is ongoing.

Thank you, Mr. Chairman, for the opportunity to appear before you today and highlight some of the work EPA is accomplishing for, and with, tribes. I am happy to answer any questions you or the Committee may have.

The CHAIRMAN. Thank you very much, Ms. Chase.

Ms. Davidson, would you please proceed with your testimony?

STATEMENT OF MARGARET A. DAVIDSON, ACTING DIRECTOR, OFFICE OF OCEAN AND COASTAL RESOURCE MANAGEMENT, NOAA, U.S. DEPARTMENT OF COMMERCE

Ms. DAVIDSON. Aloha Senator Akaka and other members of the Committee, Senator Barrasso. Thank you for this opportunity to represent and speak a bit about NOAA's efforts to better understand the impacts of environmental change on the land, resources, and people of indigenous communities throughout this Country and the Pacific Rim.

My name is Margaret Davidson, and I am the acting Director of the Office of Ocean and Coastal Resource Management at the Department of Commerce of NOAA. I also want to acknowledge why so many people are here today. It was, in fact, the leadership of coastal indigenous people led by the Hoh, Makah, and Quileute Tribes, the Quinault Indian Nation, Tribes located in Washington State, that reached out to their colleagues in the Pacific island indigenous communities, as well as NOAA and the Nature conservancy and other Federal and non-Federal agencies, to convene the first steward symposium this week. This national event is an inaugural event, we anticipate that it will be but one in a series and provide an excellent forum to discuss how environmental and climate change affects traditional Tribal cultures and treary rights and how traditional ecological knowledge can provide insights about how these cultures and, indeed, the Country as a whole, can adapt to change.

NOAA remains concerned about the risks and vulnerabilities of the indigenous communities from a number of impacts of our changing environment and climate. Ms. Chase has just identified some. EPA and NOAA each have slightly different authorities, and, of course, areas of expertise and capabilities, but at the end we are all concerned about fundamentally the same issues that affect our communities and our economies.

At NOAA, although we are little bit smaller than EPA, we have a fairly long tradition of supporting people, what I call boots on the ground, to work with indigenous and other peoples. We started the regional climate centers in conjunction with State agencies back in the late 1980s. With our universities we have supported the RISAs. I know, Senator, that you are familiar with Sea Grant and its work throughout the Pacific islands and beyond. And then we have a host of, of course, university and State partnerships. More recently, we established the Regional Climate Service Directors to provide access to NOAA and its capabilities and work more effectively with our colleagues across all governments.

One of the areas that we have focused a lot on working with our colleagues is the whole issue of risk and vulnerability, and have worked with State and Tribal and local partners to collect data, assess vulnerability, a range of resources, and help communities to understand, plan, anticipate, and take action to reduce possible impacts. I want to mention a few of those.

Recently NOAA co-led, with the Department of Interior and the Association of Fish and Wildlife Agencies, the development of a national fish, wildlife, and plants climate adaptation strategy. There was very strong Tribal representation from several regions of the Country. This strategy is a key step towards addressing climate impacts on natural resources in the communities, cultures, and economies that so heavily depend upon them. We believe it is the first nationwide strategy, and it will help all of us to work more effectively to help safeguard important natural resources in the communities that depend upon them.

Also, the national climate assessment, which NOAA helps to deliver on a five-year basis, this year, for the first time ever, there will be new chapters about coasts, the oceans, and, most importantly, traditional knowledge is a whole chapter in and of itself. We had over 150 different entries from various Tribal communities and nations into that process. Those reports will be published this winter.

NOAA has also worked very closely with USGS and the Department of Agriculture on the National Integrated Drought Information system. Tribal groups have been key players in helping to identify the impacts of drought, as well as helping our scientists to be much more useful to people who are so dependent upon the landscape. Prototypes of that early warning system have been undertaken in the Colorado River basin and in the southeastern U.S. More recently, we have been working on western Native lands in Wyoming and with Tribes in the four corners region, as well.

Additionally, NOAA continues to collaborate with EPA as part of the national climate assessment. NOAA built on some earlier work, and EPA finished it off. We have developed a prototype for social vulnerability indices for coastal counties around the U.S. and the

Pacific islands. Not surprisingly, indigenous folks, as you well know, are among the most vulnerable.

Our Office of National Marine Sanctuaries, of course, has been active in many regions, as have Sea Grant and the Natural Estuarine Research Reserves, we have also worked closely with the NGO community, the Nature Conservancy, and other groups like the Moore Foundation, to develop a range of tools, capabilities, and training programs for Tribal communities and nations.

NOAA has many mandatory and statutory authorities that require us to look at the impacts of change on fisheries, estuarine resources, and coastal communities throughout the Country. We work closely also with other Federal and State governments on marine protected areas, which are some of the areas in which we are first beginning to observe some of these impacts most clearly, as well.

Climate impacts on federally-recognized Tribes and other indigenous people within this Country and our territories, of course, is already occurring. We need to work closely with our colleagues in the Native American community to provide tested experiences and lessons. We have created numerous partnerships specifically with indigenous groups. We are always looking for ways to establish more meaningful discussions. We welcome your insights, as well as your directions.

Thank you, Mr. Chairman, again for the opportunity to appear before you today. Mahalo.

[The prepared statement of Ms. Davidson follows:]

PREPARED STATEMENT OF MARGARET A. DAVIDSON, ACTING DIRECTOR, OFFICE OF OCEAN AND COASTAL RESOURCE MANAGEMENT, NOAA, U.S. DEPARTMENT OF COMMERCE

Introduction

Mr. Chairman and members of the Committee, thank you for this opportunity to testify on the efforts of the National Oceanic and Atmospheric Administration (NOAA) to better understand climate change impacts on the people, lands, and resources of Indigenous communities in the United States, including Alaska and the Pacific Rim. My name is Margaret Davidson, and I am the Acting Director of the Office of Ocean and Coastal Resource Management at the Department of Commerce's NOAA.

NOAA is concerned about the risks and vulnerabilities of Indigenous communities from a number of impacts resulting from our changing climate. Impacts of climate change such as higher temperatures, altered rainfall patterns, rising sea levels, increasing ocean acidification, and the loss of sea ice are causing widespread changes in the nation's terrestrial, coastal, and marine habitats, ecosystems, and communities that depend on them. These changes are driving increased frequency and intensity of wildfires; threatening tribal access to traditional habitats and species such as salmon, shellfish, crops, and marine mammals; and impacting cultural, economic, medicinal, and community health for countless generations.

NOAA is a leader in efforts to identify these risks and vulnerabilities. NOAA is working with federal, state, tribal, and local partners to collect data, assess the vulnerability of a variety of resources, and help communities to plan and take action to reduce possible impacts. I would like to take this opportunity to identify some impacts that tribal communities are currently experiencing as well as highlight the ways that NOAA is working with indigenous peoples to adapt to climate change.

Assessing Impacts on Tribal, Indigenous, and Native Lands and Peoples

NOAA conducts a variety of activities to measure, track, and assess the state of the climate and climate impacts on the nation. One of the most significant has been our work with the other agencies of the U.S. Global Change Research Program (USGCRP) to complete the next National Climate Assessment (NCA). For the first time ever, the 2013 Assessment will include a chapter specifically on impacts of cli-

mate change on tribal, indigenous, and native lands and peoples. To receive information from as broad a range of interested parties as possible, the USGCRP released a Request for Inputs in July of 2011. This request resulted in more than 150 technical inputs identified as pertinent to the Tribal, Indigenous, and Native Lands and Peoples chapter. These technical inputs focused on a number of key areas, including a significant decrease in water availability; ecological changes affecting traditional foods such as salmon, shellfish, crops, and marine mammals; declining sea ice in Alaska and its impacts on native communities; changes in community health and livelihood due to permafrost thawing; and forced relocation of indigenous communities in Alaska, Louisiana, and the Pacific Islands due to sea level rise, loss of sea ice, or permafrost thawing.

Another significant effort is the development of the pending National Fish, Wildlife, and Plants Climate Adaptation Strategy. NOAA co-led the development of the Strategy with the U.S. Department of Interior, Association of Fish and Wildlife Agencies, and tribal representatives. Development of this Strategy is a key step toward addressing climate impacts on the nation's natural resources and the communities, cultures, and economies that depend on them, including tribal, indigenous, and native peoples. The Strategy will be the first nation-wide climate adaptation Strategy developed by federal, state, and Tribal governments to help safeguard the nation's living natural resources and communities that depend on them. Over 90 natural resource professionals, including tribal representatives, have contributed to the Strategy. In addition, and representatives of a number of tribal groups are active participants on the Steering Committee for the Strategy.

NOAA Efforts to Assist Tribal, Indigenous, and Native Communities

Vulnerability Assessment, Monitoring, and Warning

NOAA's National Integrated Drought Information System (NIDIS, created under Public Law 109–430) is developing a number of tools to examine drought and its impacts in various regions of the country. Tribal groups have been key players in helping to identify the impacts of drought as well as to make the tools useful to end users and are part of the NIDIS implementation team. Prototypes of the national early warning system have been undertaken in several parts of the country most affected by drought, including the Colorado River Basin and the Apalachicola—Chattahoochee—Flint Basin of the Southeast. Two workshops and reports have been developed to specifically solicit the participation of native communities in the design of the system: Climate Change Drought and Early Warning on Western Native Lands in Wyoming in 2009, and Drought Preparedness for Tribes in the Four Corners Region in 2010. These have led to collaboration on drought impacts and monitoring in the Four Corners region. More recently, as a result of the agreement between the Western Governors' Association and NOAA, NOAA is working with the Columbia River InterTribal Fisheries Commission and other Federal and state partners on climate information needs for salmon management.

NOAA's Regional Integrated Sciences and Assessments (RISA) Program research has been directly involved in assisting tribes, and has carried out projects and research with tribal applications. One recent example involves the Climate Assessment for the Southwest (CLIMAS), which continually addresses tribal-related research, providing impact assessments, water management and policy recommendations, and data collection and drought monitoring support, working directly with NIDIS. In May 2009, CLIMAS, in affiliation with Arizona Cooperative Extension representatives, visited the Hopi Department of Natural Resources (DNR) to provide advisory and technical support to better understand, monitor, and record the extent and severity of drought conditions on Hopi lands. CLIMAS involvement with tribal members provides a framework for cross-agency and Tribal support. In Hawaii, the Pacific RISA program continues to play an advisory role in coastal issues affecting Tribes, while the RISA program in the Pacific Northwest, Climate Impacts Group (CIG), is involved with water quality and salmon fisheries tied to regional Tribes.

NOAA's Office of National Marine Sanctuaries has for the past several years been working with the four coastal treaty tribes on the Olympic Peninsula of Washington State in addition to mainland U.S. Indian Tribes, Alaska Natives, and Pacific Islanders to identify risks and vulnerabilities related to climate change. Results of these efforts show that climate change impacts are widespread. In the Pacific and the Gulf of Mexico, increased sea levels have caused salt water intrusion into drinking water aquifers of native peoples. In the Pacific Northwest, two tribes have asked to be moved to higher ground due to sea level rise and their increased vulnerability to tsunamis. Spring flooding caused by earlier snow melts have caused damage to fish and aquatic habitat, leading to loss of fertilized eggs and young salmon.

With National Sea Grant support, Washington Sea Grant led a collaboration among the West Coast Sea Grant programs, NOAA West, the Moore Foundation,

and the University of Washington's Climate Impacts Group to develop an innovative framework for assessing vulnerability of fisheries to climate change. The effort culminated in a workshop attended by federal, state, and tribal fisheries management agencies and members of the fishing, non-profit, and academic communities. The project laid the groundwork for West Coast fisheries managers and industry leaders to develop a more complete understanding and plan for management of the fisheries' vulnerability to climate change. NOAA's National Marine Fisheries Service (NMFS) is discussing its application to other U.S. and international fisheries, and the Olympic Coast National Marine Sanctuary is building on this approach to develop its Climate-Smart Sanctuary Action Plan.

Climate Change Adaptation Planning

NOAA's NIDIS will be holding a workshop in October 2012 to engage with tribal communities on how to develop a tribal climate adaptation plan and develop contacts between tribal leaders and resource managers who have successfully developed and implemented adaptation plans or are interested in doing so in the future. In addition, the workshop aims to convey information about tribal climate adaptation needs to federal agencies, highlight climate, energy, and drought policies that are relevant to tribal adaptation needs, and clarify support available for tribal adaptation planning.

With a grant from NOAA's National Sea Grant Office, Alaska Sea Grant will help the community of Shaktoolik, AK decide whether or not to relocate farther from the coast in the face of increasing shoreline loss. Alaska Sea Grant is leading a community-driven project that will build on efforts by Shaktoolik and other at-risk communities, mainly Alaska Native villages on the Bering Sea coast, to adapt to potentially devastating effects of climate change. The project will result in a well-defined process that may be replicated by other at-risk communities in the region. A final report will document lessons learned, adaptation methods for Shaktoolik, potential funding sources, and a step-by-step action plan to implement the community's decision. The primary objective is that Shaktoolik and its partners develop a final adaptation plan that identifies risks and responses to climate change. This adaptation plan will allow Shaktoolik to participate in the Alaska Climate Change Impact Mitigation Program and will be used by the State of Alaska in allocating financial and technical resources to implement the plan.

Through a 2010 Climate Engagement Mini-Grant from NOAA's National Sea Grant Office, Sea Grant supported a regional project to sponsor the Native Peoples and Native Homelands II Workshop to give NOAA and Sea Grant the opportunity to engage Native American, Alaskan and Hawaiian people on climate variability and impacts on tribal communities.

On a broader note, NOAA was actively involved in preparing the UN Report "Weathering Uncertainty: Traditional Knowledge for Climate Change" which was released earlier this year.

Coordination and Collaboration

NOAA has many management and statutory authorities that allows for the agency to interact with tribes in a number of ways, including addressing the impacts of climate change on fisheries, estuarine resources, and coastal communities throughout the country. These interactions range from formal consultation under treaty processes, executive order, and other interactions that support research, education, training, and resource protection through the National Estuarine Research Reserve System. A few examples of how NOAA is using its authorities to assist Tribes with climate change vulnerabilities are described below.

On July 3, 2012, the U.S. Department of Commerce (DOC) announced it is accepting public comments on a proposed policy, "Tribal Consultation and Coordination Policy for the U.S. Department of Commerce," establishing how DOC consults with federally-recognized Indian tribes on policies that have tribal implications. These consultations promote DOC's mission in part by supporting strong and stable tribal economies able to participate in today's national and global marketplace. The proposed policy responds to President Obama's 2009 White House Memorandum and the 2000 Executive Order 13175 by reaffirming the unique government-to-government relationship between the Federal Government and Indian tribal governments.

The Olympic Coast National Marine Sanctuary and the Hoh, Makah, and Quileute tribes, the Quinault Indian Nation, the State of Washington, and NOAA's Office of National Marine Sanctuaries created the Olympic Coast Intergovernmental Policy Council (IPC) in 2007. The first of its kind in the nation, the IPC provides a regional forum for resource managers to exchange information, coordinate policies, and develop recommendations for resource management for Washington State's Olympic Coast. One of the key successes of this collaboration has been the develop-

ment of a national symposium focusing on climate change and impacts on indigenous people being held July 16–19, 2012 at the National Museum of the American Indian. NOAA also played a role in the National Museum's meeting on "Conversations with the Earth: Indigenous Voices of Change" at the National Museum last year.

Rhode Island Sea Grant worked with the state's Coastal Resources Management Council and partners, including the Narragansett Indian Tribe, to develop and implement a coastal planning tool known as Special Area Management Plans (SAMPs). SAMPs are scientific ecosystem-based management plans that comprehensively review ecosystems, regulatory environments, and social structures, and propose guidance on regulations to be adopted by the state. After adoption and approval by NOAA, the SAMP becomes a part of the state's coastal management program. On July 22, 2011, Rhode Island's 7th SAMP became the largest ever, covering nearly 1,500 square miles. The SAMP incorporates extensive research and input from state, federal, tribal and local agencies that address healthy habitats, commercial and recreational fishing, cultural heritage, recreation and tourism, renewable offshore wind energy, and global climate change.

Reducing Impacts Related to Coastal Development

NOAA OCRM is currently coordinating with Pacific Northwest Tribes (primarily through the Northwest Indian Fisheries Commission (NWIFC) to address tribal concerns with state and local decisionmaking related to coastal development and the ensuing environmental impacts that may affect water quality and salmon habitat. By addressing these activities through the local land use plans, environmental impacts may be avoided. Local government plans become part of Washington's NOAA-approved CZMA program and Washington's Coastal Nonpoint Source Pollution Program, and thus enforceable policies.

NOAA, in cooperation with the Alaska Native Tribal Health Consortium, is working with tribal environmental professionals in the Bristol Bay region of Alaska to understand ongoing and future impacts of climate change to community infrastructure. In early 2011, the cooperation resulted in a climate change short course, offered as a continuing education module through University of Alaska—Fairbanks Bristol Bay Campus. This training was a three-day intensive class, providing both background material on the biophysical and socioeconomic dimensions of climate change, and concluding with examples of adaptation planning approaches as well as exposure to how tribal environmental professionals can contribute through citizen-science to our understanding of climate change impacts in Alaska's coastal zone.

Managing Resources

The largest dam removal in the Northeast began on July 2, 2012 in Maine. The removal of the Great Works dam will kick-off a larger effort that will improve access to 1,000 miles of river habitat on the Penobscot River, which is the traditional homeland of the Penobscot Indian Nation. This will open up the river to eleven species of migratory fish, such as endangered Atlantic salmon, sturgeon, and river herring. Estimates show that river herring, which once numbered roughly 14–20 million-but are now reduced to just a few thousand—could rebound to 4–6 million once the removals are complete. The removal of the Great Works Dam, which was partially funded by NOAA through the American Recovery and Reinvestment Act, will yield nearly $5 million in jobs for the region including engineering, hydrology, construction, science, and local contracting services. The project is part of collaboration between the Penobscot River Restoration Trust, NOAA and other federal and state agencies, the Penobscot Indian Nation, and seven conservation groups.

The National Marine Protected Area Federal Advisory Committee (supported by NOAA's National Marine Protected Area Center) has recommended a Cultural Landscape Approach to management in the National MPA System. This approach is analogous and complementary to ecosystem-based management, and will help MPA managers nationwide to identify and adopt policies and practices that manage cultural and natural resources in an integrated manner at the ecosystem and landscape level. The ecosystem-based management called for in the National Ocean Policy recognizes that the connections between living things and the physical environment are multifaceted and often inseparable. Managing places using an ecosystem-based approach requires the simultaneous understanding of cultural and natural factors and resources. This approach can bring together all available knowledge of cultural heritage resources, including the incorporation of tribal and indigenous sources. A Cultural Landscape Approach can also integrate traditional knowledge of landscape-level changes with Western science to assess climate change impacts on natural, cultural and heritage resources, and contribute to developing appropriate adaptation strategies.

Oregon's South Slough National Estuarine Research Reserve (NERR) and the Coquille Indian Tribe hosted members of eight sovereign tribal nations from Oregon, Washington, and California at the South Coast Lamprey Summit held May 22–24, 2012 in Charleston, Oregon. The objectives of the summit were threefold: (1) to share scientific information about the species through presentations and discussions; (2) to consider ways to share scientific information among a consortium of tribes, without raising privacy concerns for the data; and (3) to cement working relationships between tribes in the Coos Bay region and South Slough NERR. South Slough hosted scientific presentations with the aim of sharing information among tribal scientific programs and interested state and federal agencies about the status of efforts to conserve native species that are of particular importance to sovereign tribal nations in the Pacific Northwest, including Pacific Lamprey, California Condors, and marine and freshwater native shellfish species that live in Oregon waters.

Education, Outreach, and Capacity Building

Hawaii Sea Grant, the NOAA Integrated Data Environmental Applications (IDEA) Center, and the Joint Institute of Marine and Atmospheric Research provided funding to the Hawaiinuiakea School of Hawaiian Knowledge and Awaiaulu, a 501(c)3 nonprofit organization that is dedicated to the publication of scholarly texts in Hawaiian, to hire 6 graduate students with backgrounds in Hawaiian language training to translate selected articles on weather and climate from the Hawaiian Language Newspaper archive. Over 4,000 articles were identified and ranked on their relevance for containing weather and climate related information in the previous reporting period.

NOAA, through the RISA Program, contributed curriculum regarding climate change scenarios and basic concepts regarding vulnerability assessment and adaptation planning to a day-long Climate Change Adaptation Planning training workshop organized by the Institute for Tribal Environmental Professionals (ITEP) and delivered concurrently with the 2011 meeting of the Alaska Council of Tribal Environmental Professionals.

Conclusion

Climate change impacts on the Federally-recognized tribes and other indigenous people within the United States and our Territories are already occurring. NOAA is working hard to help these indigenous communities understand the risks and vulnerabilities related to sea level rise, drought, and other factors. NOAA is also looking for different ways of knowing and practices to help the nation respond to a varying and changing environment. We have created numerous partnerships specifically with indigenous groups and are always looking for ways to establish meaningful discussions with additional communities.

Thank you, Mr. Chairman, for the opportunity to appear before you today. I look forward to answering any questions that you or the Committee may have.

The CHAIRMAN. Thank you very much, Ms. Davidson.

Now I would like to ask our Vice Chairman to provide his opening statement.

STATEMENT OF HON. JOHN BARRASSO, U.S. SENATOR FROM WYOMING

Senator BARRASSO. Thank you very much, Mr. Chairman, and thank you to all the witnesses for coming here today. Today's hearing brings up some very important topics.

I note that many of our witnesses today come from coastal areas of the Pacific northwest. They will describe what we have heard, the effects of erosion, flooding, and other environmental conditions on their coastal homelands. We will hear more.

I understand and appreciate the challenges that all of these folks are facing, and know that they are looking for ways to adapt to environmental changes.

We must not forget that Federal policies that are supposed to address environmental conditions almost always have other consequences. Some of these consequences can negatively affect people, negatively affect communities, and even entire regions. Those kinds

of consequences deserve just as much attention and just as much scrutiny as any other of the consequences of Federal policy making.

Mr. Chairman, one of our witnesses here today is Chairman Tex Hall of the Fort Berthold Indian Reservation in North Dakota. Tex will tell the Committee about some of the impacts that Federal policy has had in his homelands in North Dakota. Excessive regulation can and often does unduly burden the economy and interferes with economic growth. It can cost jobs. It can affect productivity. It can impact the standard of living of whole communities—Indian and non-Indian communities, alike.

The Navajo generating station on the Navajo Indian Reservation in northern Arizona, Mr. Chairman, is another example. The EPA is considering requiring that this state be fitted with what they call the best available emission control technologies. It is debatable whether these requirements will have any improvement on the environment of the four corners region, but what is less debatable is the drastic and dramatic effect that too much regulation will have on the Navajo Nation.

In a recent letter to the Washington Post an EPA official in Washington, D.C., wrote that these proposed regulations will actually, they say, create jobs. She said that the new regulations will require hiring workers to install the new pollution control equipment on the Navajo generation station. Mr. Chairman, her argument reveals a fundamental misunderstanding of how our economy works. What she fails to mention is that somebody actually has to pay for that equipment and the salaries of the people who will install it. It may cost the Navajo generating station more than $1 billion to implement the emission control technology. This cost will have to be absorbed by someone, probably ratepayers, the households, and the businesses within that service area. Someone always has to pay the costs from regulations. Always.

Increased regulatory costs can impact the profitability or even the viability of these businesses that use this power. These costs impact their ability to provide a community with jobs.

Just last December this Committee received testimony about how the EPA's regulations might affect the Navajo power plant. That testimony spoke to how the proposed regulations could have very serious consequences for the Navajo Nation in terms of the employment of hundreds of Navajo citizens who work in the region's power plants or the coal mine that serves them, and in terms of vital revenues used to run the Tribal government.

Mr. Chairman, I understand environmental responsibility. I know how very important it is. We must be careful—we must know what our policies will do to people and their livelihoods.

Thank you, Mr. Chairman, for holding this hearing.

The CHAIRMAN. Thank you very much, Senator and our Vice Chairman.

I would like to now call on the Senator from Alaska, Ms. Lisa Murkowski, for her opening statement.

STATEMENT OF HON. LISA MURKOWSKI,
U.S. SENATOR FROM ALASKA

Senator MURKOWSKI. Thank you, Mr. Chairman. I appreciate the opportunity to hear today's witnesses, to welcome them, and to

hear their observations, their concerns about the impact of climate change on our Native communities.

In my State of Alaska we see a changing climate, particularly in our coastal communities. I note on the map that has been passed out to each of us and is on the chart board up there, in the State of Alaska we highlight Shishmaref. Shishmaref is just but one coastal community that faces the threats of erosion. Erosion comes about because we see the sea ice receding further, the multi-year ice moving further from the shore, that allows for a level of build-up with the waves that batters our coastline and erodes the shore, putting some of our communities in threat and danger. Shishmaref is just one of many.

We did a study some years ago to evaluate the threats, and unfortunately there are a significant number of small Native villages that are in threat, danger. How we act to provide for a level of reinforcement, adaptation to move, these are significant struggles for us because it is moving individuals from a place that they may have been for thousands of years, but also the cost is extraordinary. It is monumental and most daunting.

I am pleased that the Committee will have an opportunity to hear from one of our leaders in the State on not only the issue of climate but in other issues, as well. Mike Williams will be joining the second panel. He is from Akiak, Alaska. He is a noted dog musher, an Iditarod veteran many times over, and he has passed that heritage down to his son, Mike Jr., who is an accomplished musher in his own right. It is good to be able to welcome Mike here.

In addition, he has been a leader in the sobriety movement in the State of Alaska, an issue that, unfortunately, takes far too many of our fine young men and young women.

I appreciate that he has traveled this far to speak to the Committee on an issue that, as Alaskans, we are all aware of our surroundings and remain concerned about how we address them—address them in a manner that meets the needs of the community but, again, does not put us in a situation where our economy falters because of the costs associated with them.

So I thank you, Mr. Chairman. I look forward to better conversation here.

The CHAIRMAN. Thank you very much, Senator Murkowski.

I would like to now ask Ms. Chase, you state that there is no designated lead Federal agency to provide a coordinated Federal and State risk response to climate change related impacts. Will you please describe some of the issues this creates? Would having a lead Federal agency lead to more efficiency?

Ms. CHASE. Mr. Chairman, as my colleague from NOAA noted in her testimony, we, as Federal agencies involved in addressing the impacts of environmental changes, have a variety of different authorities. There are a number of different agencies involved in addressing these issues. So one of the challenges really is how we, as a Federal family, better coordinate and how we still fulfill our statutory obligations and responsibilities. So I think the burden is on us to continue to engage with each other and to continue to hear from the Tribes on ways that we can more effectively collaborate.

I mentioned some work that is being done in Washington with the western Washington treaty Tribes between EPA, NOAA, USDA, and several other entities, including some State agencies. We have been looking very closely at this model, and assessing the work that is being done will help to inform how we as a Federal family can continue to step up our efforts with improved coordination in addressing the magnitude and multitude of Tribal issues that are before us.

The CHAIRMAN. Ms. Davidson, in your testimony you mention a wide array of services offered to Tribal nations by NOAA. My question to you: what is the best way for Tribes to become aware of and utilize these resources?

Ms. DAVIDSON. I presume, Mr. Chairman, that you mean specifically the services and capabilities that NOAA provides. I do want to say that over the last three years all the agencies worked together to provide a draft interagency climate adaptation plan so that we better understood how we all fit together as an ecosystem of Federal capabilities to address impacts and strategies at the landscape level, which is where everything from the economy to our cultures is the most meaningful.

Within the Department of Commerce, the Secretary of Commerce has recently appointed a senior advisor for Native American affairs. My colleague, Dee Alexander, is right here. She is the principal point within the whole of the Department of Commerce. And there are resources within Commerce beyond NOAA, as you are certainly aware.

Commerce has drafted and is now apparently accepting public comment on a proposed Tribal consultation and coordination policy, and we do need your input on that. Of course, the purpose of that is to formalize a process that ensures that we are having the engagement with the Tribal communities and that folks in D.C. and beyond are also aware of proposed policies and actions that have Tribal implications.

In addition, NOAA, itself, has over the last few years established two different kinds of individuals. We have established regional coordinators within each region that—well, it is kind of complex, because we have weather service regions and we have fishery regions, and they may not look exactly the same, but we have regional coordinators, one for Alaska, for instance, one for the Pacific islands, one for the west coast, just to name a few of seven. So these folks can help to access the range of NOAA services and capabilities.

And then very specifically within each of those regions we have also, in the last year, identified someone to serve as a regional climate service coordinator so that you can access not just NOAA directly, but also those programs that we support with other Government entities and throughout the university communities, as well, sir.

The CHAIRMAN. Thank you very much.

Let me call on our Vice Chairman for questions he may have.

Senator BARRASSO. Thank you very much, Mr. Chairman.

Ms. Chase, before issuing or implementing regulations, Federal agencies should consider the effects of such regulations on, among other things, the businesses that will be regulated. Implementation

of the regulations can cause delays or perhaps even shut down energy development on Indian reservations.

What kind of economic analysis does your agency conduct on the negative effects that regulations such as the proposed regional haze rule will have on Tribal businesses?

Ms. CHASE. Mr. Vice Chairman, in order, I think, to provide you the thorough and comprehensive answer that you deserve to that question, what I would like to propose to do is to engage with my colleagues at the agency that are on the lead positions on this issue and provide the Committee with a thorough, comprehensive written answer.

Senator BARRASSO. Yes or no. Do you do an economic analysis of negative effects of regulations on businesses?

Ms. CHASE. I believe we do, but I cannot say with absolute certainty, which is, again, why I would like to confer with my colleagues in the appropriate media to provide you with a more informed and more comprehensive answer.

Ms. CHASE. It certainly doesn't sound like it is a big priority if you can't even answer whether it is a yes or no with certainty, so it certainly is not a priority of the Administration or the EPA to show concern for the economic needs of the communities that are impacted by the regulations.

Let me go on. Many of the natural resources on Indian reservations are held in trust by the United States for the benefit of either a Tribe or Tribal member. As we will hear in testimony later today, the Tribes are interested in developing their resources for cultural, traditional, and even financial purposes. How does your agency factor in the trust nature of these resources before implementing regulations that apply to how those resources can be developed?

Ms. CHASE. We certainly have a long history of respecting the government-to-government relationship and the trust responsibility that the agency has, and certainly one of the most important exercises in engaging this relationship is in consultation with the Tribes. So we have engaged and we engage in extensive consultation with Tribes. We take the input of Tribes very seriously in the consideration and deliberation of our decisions.

Senator BARRASSO. Ms. Davidson, the Committee has received testimony that Federal regulations purporting to address environmental changes or conservation in fact create more burdens for Tribal resource development. Burdens, not help, but burdens. Moreover, prior testimony has stated that the regulatory compliance would be so costly that resource development could be effectively stopped on some reservations.

Do you think that a good approach for addressing risks or vulnerabilities to Tribal resources is to stop or to burden their development?

Ms. DAVIDSON. I personally do not think that unduly burdening development is a good strategy for any community. I do think that, as indigenous people would have us do, we should consider our relationship to the landscape and how we can maintain those assets and derive, if you will, the interest from them into the future. So I would take almost a banking approach to this issue.

Senator BARRASSO. Your written testimony states that NOAA has been collaborating with Native communities, including Tribes

in my home State of Wyoming, in designing what you called an early warning system for upcoming drought. You mentioned that. Your testimony also mentioned that this system has already been undertaken in several parts of the Country. Could you talk about how that works and what successes you have had?

Ms. DAVIDSON. Certainly. The original prototype was developed for the upper Colorado River basin at the specific direction and support of the Western Governors Association because, as you may know, the Colorado River feeds a lot of real estate from its headwaters to the sewer ditch down near Los Angeles, so it is a problem throughout the whole of the watershed. We began in the upper watershed, and that does, of course, require that we consult with local communities and governments, the idea being that drought is a natural phenomena. A steep and deep drought, however, imposes a whole range of complex decisions about planting of specific crops. Are they crops that are drought resistant, particularly forage crops. As you know, in your State there is a fair amount of livestock. You have to be concerned both about the plants' response to drought, as well as the livestock response to drought.

So these kinds of early warnings of continuing drought allows particularly farmers and other communities to make some choices based upon the best knowledge that they have, which often proves to be better than just continuing to do what they had been doing.

Senator BARRASSO. Thank you, Mr. Chairman. My time has expired.

The CHAIRMAN. Thank you very much, Vice Chairman Barrasso.

Let me now ask our Senator from Alaska for any questions she may have.

Senator MURKOWSKI. Thank you, Mr. Chairman.

Ms. Chase, Senator Barrasso has brought up the issue of Tribal consultation. Last year the administrator announced the release of the EPA policy on consultation and coordination with the Indian Tribes. In Alaska we have got about 40 percent of all federally-recognized Tribes, and then, pursuant to AKNSA, our land claim settlement, the resources are managed by our Alaska Native corporations.

Can you tell me what your agency has done to implement the EPA's policy in Alaska? What future plans might be underway for further coordination with the Alaska Tribes?

Ms. CHASE. Certainly. Actually, Senator, I have actually had the good privilege of maybe five times now in just over a year as the director of the American Indian Environmental Office, been to Alaska and engaged directly with the Tribes on a variety of issues, including the very important general assistance program that is utilized by Tribes in Alaska to build capacity.

So we take very seriously our commitment to Tribal consultation. We have a very broad standard, which is what may affect Tribal governments. And we certain comply with the Executive Order, as well, in recognition of the Alaska Native corporations.

So I have very much enjoyed my opportunities to engage with the Tribes there. I think we have a very open and productive relationship. The consultations that we have conducted, whether it be myself or the regional administrator, Mr. McClaron, or other officials in the agencies, we continue to receive positive feedback from the

Tribes that we are doing a good job and we are addressing the concerns of the Tribes in Alaska.

Senator MURKOWSKI. I appreciate the outreach that you have made personally to go to Alaska. I do think that is important. I have raised the issue of consultation and the failure within certain agencies to fulfill that obligation pursuant to the Executive orders that have been issued. I think you talk to anybody up north and they would say that, well, consultation is required. Unfortunately, they are not seeing enough of it. So I would encourage you to make sure that when we talk about consultation, not only in your area but as you have an opportunity to speak with others, that we are not dropping the ball there.

Ms. CHASE. Absolutely.

Senator MURKOWSKI. I want to ask about the consultation then with our Alaska Native corporations. Within OMB it states that Alaska Native corporations should be consulted with on the same basis as Indian Tribes pursuant to Executive order. You have got a draft policy out of the Department of Interior that provides that Federal agencies are required to consult and coordinate with the Tribes.

Again, because the land resources are managed by our ANCs, I think it is important that our Native corporations be apprised of EPA decisions, the actions that could impact the Native corporation interests. So I would ask if you could tell the Committee whether or not EPA has included the Alaska Native corporations within the consultations that you have conducted and what the plans are.

Ms. CHASE. With respect to the consultations that I have personally been involved in, they have been directly with the Tribal governmental entities. I believe certainly that the agency has taken every step to fulfill its obligations under the Executive order, and beyond what is required by the Executive order. I would be happy to go back again and confer with my colleagues, ask across the agency and within the region if there have been some specific consultations that have involved the Alaska Native corporations.

Senator MURKOWSKI. Again, I would just cite you to the Department of Interior and the draft policy on consultation that they have advanced. Again, when you have the resources, the land resources that are managed by the ANCs, I think it is important that, through every step of the process, all those that are involved have an opportunity to weigh in as part of that consultation process.

Another question for you, and then I have one quick one for Ms. Davidson. This relates to the EPA's decision on the draft watershed assessment of Bristol Bay. I had asked the Administrator for additional time for comment on that decision. She decided not to extend it beyond July the 23rd. It is a somewhat arbitrary deadline. It is not anybody's deadline other than within EPA. As most who know Alaska, this is the time of year, certainly within Bristol Bay, that everybody is out fishing.

Ms. CHASE. Sure.

Senator MURKOWSKI. And so my concern was that there not be a full opportunity for Alaskans and particularly those out in the affected region to weigh in. I have heard from many Alaska Tribes and Tribal organizations that the amount of time given for public comment was inadequate. The Administrator has ruled on this, but

I would ask whether or not you can inform the Committee what specific steps the EPA has taken in consultation with the Tribes and the ANCs to make sure that they really did have adequate time to review a pretty substantive draft there before the public comment period closes on the 23rd.

Ms. CHASE. Sure. Obviously, this is a very significant undertaking. The assessment has been one that the agency has taken very seriously. There have certainly been a number of consultations that have taken place.

I personally have not been involved in those consultations, and I can appreciate that there has been a significant amount of consideration in the agency to ensure that there is ample time for the Tribes to engage in the consultation process.

I would be happy to, again, confer with the lead on the Bristol Bay issues, work more closely with our region, and provide you with a more thorough answer after I confer with our colleagues.

Senator MURKOWSKI. Well, I would appreciate a response. Our dilemma here is that July 23rd is just around the corner.

Ms. CHASE. Just around the corner. Absolutely.

Senator MURKOWSKI. Again, a lot of folks are still out fishing. So what I am interested in learning is whether or not there was truly that consultation with our Tribes and some of the ANCs to ensure that they really did have adequate time. So if you could help me out on this I would appreciate it.

Ms. CHASE. Sure. I would be happy to help you out.

Senator, let me just again underscore the importance that the agency, EPA, places on the consultation with Tribes. This is a fundamental tenet of the government-to-government relationship. It is a critical factor in our relationship with the Tribes, and we take very seriously the implementation of that policy and every step that we can take to ensure full participation by the Tribes is something that we will continue to aggressively pursue. So I will look forward to getting back to you and providing you an answer in a timely way. I realize that the time is just around the corner.

Senator MURKOWSKI. Thank you, Mr. Chairman. My time is expired.

The CHAIRMAN. Thank you very much, Senator Murkowski.

I would like to thank our first panel.

Do you have any further questions for this panel?

Senator BARRASSO. Just briefly, Mr. Chairman.

With regard to this early warning system for upcoming drought, I think I would like to submit some questions in writing. I understand how early warning systems work for flash floods like we had here in Washington yesterday, and how early warning systems work for things like tornadoes and hurricanes. It sounds like if they are seeing already drying crops, that is maybe not an early warning system, so I am going to have some additional written questions to see if actually there is some value in this or if actually this is just another episode of taxpayer money being wasted on projects of limited value.

Thank you, Mr. Chairman. I will submit those questions in writing.

The CHAIRMAN. Thank you. We will submit questions. I have further questions, also.

Thank you very much for being here and telling us some of your programs.

Ms. CHASE. Thank you.

Ms. DAVIDSON. Thank you.

The CHAIRMAN. That will certainly help the Tribes and the indigenous people in our country.

Thank you.

Ms. CHASE. Thank you. Mahalo.

The CHAIRMAN. Now I would like to invite the second panel to the witness table.

Serving on our second panel will be The Honorable Mike Williams, Chief of the Yupiit Nation in Akiak, Alaska. It is good to see you again, Mike.

And The Honorable Tex "Red Tipped Arrow" Hall, Chairman of the Mandan, Hidatsa & Arikara Nation in New Town, North Dakota. It is good to see you, Tex. Good working with you over these years, too.

Mr. HALL. Absolutely.

The CHAIRMAN. Also The Honorable Thomas Dardar, Jr., Principal Chief of the United Houma Nation in Golden Meadow, Louisiana. Welcome. Good to have you hear.

Mr. Billy Frank Jr., Chairman of the Northwest Indian Fisheries Commission in Olympia, Washington. Good to see you, Billy.

Mr. FRANK. Good morning.

The CHAIRMAN. And Malia Akutagawa, assistant professor of law at the University of Hawaii at Manoa in Honolulu, Hawaii. Good to have you here, Malia.

I want to welcome all of you, our panelists. Please proceed with your testimony.

I would like to call first on Chairman Williams to proceed with his testimony.

Chairman Williams?

STATEMENT OF HON. MIKE WILLIAMS, CHIEF, YUPIIT NATION

Mr. WILLIAMS. My name is Mike Williams. I am a Yupiaq from the small village of Akiak, Alaska, located in western Alaska. Currently I am the Chief of the Yupiit Nation, a Consortium of federally-recognized Tribes in the Kuskokwim River, and also the secretary-treasurer of the Akiak Native Community, a federally-recognized Tribe.

Climate change is having substantial and adverse impact on Alaska's indigenous peoples. Our temperatures are increasing, our ice is melting, our animals are becoming diseased and dislocated, our oceans are acidifying, our sea levels are rising, and our villages are sinking. These impacts are affecting our daily existence and every other facet of life, such as traditional and customary hunting and fishing and gathering practices, travel, and consequently viable future for our homelands.

Our elders, in particular, are deeply concerned about what they are witnessing. In Alaska, unpredictable weather and ice conditions make travel and time-honored subsistence practices hazardous, endangering our lives. Coastal impacts, sea level rise, greater storms, storm surges, flooding, and erosion, all tied to climate change, are endangering my people, the Yupiaq and Cupiaqs.

Alaska's indigenous villages are literally being swept away into the sea because of coastal erosion. According to the U.S. Corps of Engineers, at least three Tribes—Shishmaref, Kivalina, and Newtok—must relocate, while over 180 other communities are also at risk.

Two reports prepared for Congressional requesters by the U.S. Government Accountability Office indicate that 86 percent of Alaska indigenous villages are threatened by erosion and flooding due to warming temperatures. Yet, Alaska's indigenous villages cannot access some Federal program assistance due to prohibitive funding criteria. There are no over-arching Federal plans or lead agencies to address the fact that many of the residents of these villages are becoming climate change refugees.

Everything is changing so quickly. Lakes are drying. New insects are appearing. Permafrost is melting. Berries are disappearing. Storms are fiercer. Animal populations are changing. Our fish are spawning on drying racks. And polar bears are drowning. Our ice is so much thinner that it is entirely gone in some areas. And our coastlines are eroding, washing away ancient artifacts, gravesites, as well as modern infrastructure.

Those are the coastal impacts. Inland impacts are, in the summer of 2009 the interior of Alaska had the driest July in 104 years. And 2.9 million acres of forest burned, and the salmon runs are the weakest in memory. Just this summer some started to fish even during the closed subsistence fishing due to the need for survival.

A warming climate contributes to increased forest fires, devastating millions of acres of forests. Many lakes and ponds on the tundra are rapidly drying up as a result of warmer temperatures. Melting of permafrost compounds climate change by releasing additional CO2 and methane into the air. A loss of permafrost also reduces habitat and increases energetic demands on migrating wildlife.

Warming events have altered the route and time migration for the porcupine caribou herd, thereby impacting the subsistence lifestyle of such peoples as the Gwich'in Athabascan. The forage habitat of caribou is shrinking with increased forest fires and shifting tundra. The increased frequency of freezing rain due to rising temperatures has resulted in crust covering lichen, which has diminished the caribou's ability to forage for their primary food source.

With respect to adaptation, communities like Newtok, Alaska, have already taken action to move from dangerous sites to higher ground. It is important for Congress to recognize that the adaptation needs are very great. We require planning assistance, Federal coordination, and significant financial resources to execute these crucial relocations and to fund other adaptation needs. In all instances, it is important that our traditional knowledge be incorporated and respected, that they be consulted, that we be consulted, and that our values needs to be honored.

Alaska's indigenous villages and Indian Tribes as a whole have borne the disproportionate and negative impacts of climate change. I implore you to consider the circumstances unique to our villages by mandating climate change legislation, that Federal agencies help develop, fund, and implement a strategic plan that addresses the climate change impact on our villages and Tribal communities.

In conclusion, I would like to share my own personal experience with climate change and its impact on one of my great loves. We have used dogs for transaction for thousands of years. Since 1992, I have had the good fortune of participating in the Iditarod, widely referred to as the last great race on earth. As a participant, I have seen the race change in a number of ways; notably, the lack of snow covering in recent years. On one occasion the race was moved to Fairbanks. It has been permanently moved to Willow from more southerly Wasilla. Since the days are now too warm, we have to run mostly at night to keep our dogs cool, and myself.

There is much at stake. I implore you to take meaningful action to address climate change and resource development now to help assure that the traditions of Alaska's indigenous people and American Indian Tribes, which have withstood the test of time, continue for generations into the future.

Quyana.

[The prepared statement of Mr. Williams follows:]

PREPARED STATEMENT OF HON. MIKE WILLIAMS, CHIEF, YUPIIT NATION

My name is Mike Williams. I am a Yupiaq from a small village of Akiak, Alaska, located in western Alaska on the Kuskokwim River. Currently, I am the Chief of the Yupiit Nation, a consortium of Federally Recognized Tribes and Secretary/Treasurer of the Akiak Native Community, a Federally Recognized Tribe. I also serve on the National Tribal Environmental Council.

Climate change is having substantial and adverse impacts on our Alaska Indigenous Peoples. Our temperatures are increasing, our ice is melting, our animals are becoming diseased and dislocated, our oceans are acidifying, our sea levels are rising, and our villages are sinking. These impacts are affecting our daily existences and every other facet of life, such as traditional and customary hunting and fishing, and gathering practices, travel, and consequently a viable future for our homelands. Our elders, in particular, are deeply concerned about what they are witnessing. In Alaska, unpredictable weather and ice conditions make travel and time-honored subsistence practices hazardous, endangering our lives.

Coastal Impacts

Sea level rise, greater storms, storm surges, flooding, and erosion—all tied to climate change—are endangering my People, the Yupiaq/Cupiaqs. Alaska's Indigenous villages are literally being swept away into the sea because of coastal erosion. According to the U.S. Army Corps of Engineers, at least three tribes—Shishmaref, Kivalina, and Newtok—must relocate, while over 180 other communities are also at risk.

Two reports prepared for congressional requesters by the U.S. Government Accountability Office (GAO), indicate that 86 percent of Alaska Indigenous villages are threatened by erosion and flooding due to warming temperatures. Yet, Alaska's Indigenous villages cannot access some federal program assistance due to prohibitive funding criteria. There are no overarching federal plans or lead agency to address the fact that many of the residents of these villages are becoming climate change refugees.

Everything is changing so quickly. Lakes are drying; new insects are appearing; permafrost is melting; berries are disappearing; storms are fiercer; animal populations are changing; our fish are spoiling on drying racks; and polar bears are drowning. Our ice is so much thinner or entirely gone. And our coastlines are eroding, washing away ancient artifacts, gravesites, as well as modern infrastructure.

Inland Impacts

In the summer of 2009, the interior of Alaska had the driest July in 104 years. 2.9 million acres of forest burned and the salmon runs are the weakest in recent memory. Just this summer, some started to fish even during the closed subsistence fishing due to the need for survival. A warming climate contributes to increase forest fires and devastating millions of acres of forests. Many lakes and ponds on the tundra are rapidly drying up as a result of warmer temperatures. Melting of permafrost compounds climate change by further releasing additional CO2 and methane into the air. The loss of permafrost also reduces habitat and increases energetic de-

mands on migrating wildlife. Warming events have altered the route and time of migration for the Porcupine Caribou Herd, thereby impacting the subsistence lifestyle of such peoples as the Gwich'in Athabascan. The forage habitat of caribou is shrinking with increased forest fires and shifting tundra. The increased frequency of freezing rain due to rising temperatures has resulted in a crust covering lichen, which has diminished the caribou's ability to forage for their primary food source.

Larger Patterns

Throughout the nation in Indian Country, traditional foods are declining, local landscapes are changing, rural infrastructure is being challenged, soils are drying, and lake and river levels are declining. Tribes are experiencing droughts, loss of forests, fishery problems, and increased health risks from heat strokes and from diseases that thrive in warmer temperatures. If climate change is not addressed, the impacts on Alaska Indigenous Peoples and American Indians will be immense. Models and the best scientific data and traditional knowledge indicate that if we don not reduce greenhouse gas emissions, the entire Arctic ice cap will melt, endangering the culture and subsistence needs of the Indigenous Peoples of the North. Furthermore, flooding, sea level rise, storm surges, and greater storms will endanger my people, the Yupiaqs, as well as tribes in Florida and elsewhere. Hotter temperatures threaten American Indians, but especially in the southwest and Florida, where we often do not have adequate means of escaping the heat. Increased global warming will also endanger salmon in the Pacific Northwest, which are crucial to tribes there, as well as Alaska. Finally, on almost all tribal lands, enhanced global warming will threaten our sacred waters, essential to our physical and cultural survival. Clearly, climate change presents one of the greatest threats to our future, and must be addressed by Congress as soon as possible.

Low Carbon Opportunities and Initiatives

There are many economic opportunities for Alaska's Indigenous Peoples and American Indians in a low-carbon future, especially renewable energy. Tribes offer some of the greatest resources for helping the nation with renewable energy development, particularly wind, solar power, biomass, and geothermal power.

In Alaska, for example, we are installing wind power in very remote communities that has also been installed on Indian reservations. Some of the small villages are assessing biomass facilities using forestry waste. Some are analyzing geothermal power plants. They are installing systems in the southwest for solar power.

To achieve Indian Country's and Alaska's renewable energy potential, however, we need investment capital, infrastructure, and technical capacity. Any renewable energy program must include opportunities and incentive for tribes. Also, with training, American Indian and Alaska Indigenous youth and adults can be actively engaged in renewable energy jobs, from engineering, to manufacturing, to installation. There are also economic opportunities associated with energy conservation. We would welcome tribal based initiatives to better insulate our homes, to convert our lighting, and to educate our members regarding energy efficiency practices. We want jobs that save us money and reduce our carbon footprint. In general, we believe that a low-carbon economy will provide multiple local benefits by decreasing air pollution, creating jobs, reducing energy use, and saving money.

Actions Needed

In recognition of tremendously serious impacts that global warming poses to American Indians, Alaska Indigenous Peoples, our most important organizations have passed resolutions outlining problems, threats, and needed actions by Congress. These organizations and tribal governments are Akiak Native Community, Alaska Federation of Natives, Rural Community Action Program, the National Congress of American Indians, and various non-profits and native corporations.

With respect to adaptation, communities like Newtok, Alaska are already taking action to move from dangerous sites to higher ground. It is important for Congress to recognize that the adaptation needs are very great. We require planning assistance, federal coordination, and significant financial resources to execute these crucial relocations and to fund other adaptation needs. In all instances, it is important that our traditional knowledge be incorporated and respected, that we be consulted, and that our values and needs be honored. Alaska's Indigenous villages and Indian Tribes as a whole have borne the disproportionate and negative impacts of climate change. I implore you to consider the circumstances unique to our villages by mandating climate change legislation that federal agencies develop, fund, and implement a strategic plan that addresses the climate change impacts on our villages and tribal communities.

The plan could need to be developed in consultation with Alaska's Federally Recognized Tribes with our free, prior, and informed consent and include the

prioritization and coordination of assistance to our villages; the permanent relocation of qualified Alaska Indigenous villages in a manner that obtains our free, prior, and informed consent in the planning and implementation of such relocations (and removal of barriers for accessing federal funds for such efforts), and also include the mitigation of climate change impacts upon the traditional and subsistence practices of Alaska Indigenous Peoples.

In addition, Alaska Indigenous villages should be provided with adequate apportionment of the allowances made available for domestic adaptation purposes, if any.

Conclusion

Alaska's 231 Federally Recognized Tribes are being seriously threatened by climate change and it impacts. It is therefore imperative that Congress take action to protect the nation's many tribal communities against such impacts and help protect and preserve our lands, cultures, and our existence for the current generations and those to come. Many non-renewable resources development projects will also impact our languages, cultures, health impacts, housing, and our ancestral lands, waters, and air. We must be at the table to have meaningful input before development occurs.

In conclusion, I'd like to share my own personal experience with climate change and its impact on one of my great loves. We have used dogs for transportation for thousands of years. Since 1992, I have had the good fortune of participating in the Iditarod, widely referred to as the "Last Great Race on Earth." As a participant, I have seen the race change in number of ways, most notably the lack of snow cover in recent years. On one occasion, the race was moved to Fairbanks. It has been permanently moved to Willow from the more southerly Wasilla. Since the days are now too warm, we have to run mostly at night now to keep dogs cool.

There is much at stake. I implore you to take meaningful action to address climate change and resource development now and to help assure that the traditions of Alaska Indigenous Peoples and American Indian Tribes, which have withstood the test of time, continue for generations into the future.

Quyana.

The CHAIRMAN. Thank you very much, Chief Williams.

Chairman Hall, will you please proceed with your testimony?

STATEMENT OF HON. TEX "RED TIPPED ARROW" HALL, CHAIRMAN, MANDAN, HIDASTA AND ARIKARA NATION

Mr. HALL. Thank you, Chairman Akaka, Senator Murkowski, Senator Cantwell. I want to have Rollie pass out a picture. They say a picture is worth a thousand words.

One of the first things I am going to talk about is the impacts of the Garrison Dam hydroelectrical dam. This is our Tribal chairman in 1948. He is crying due to the forced flooding and destruction of 156,000 acres of lands of our homelands. So we hang this in our Tribal chambers today so our young council members never forget the impacts of what happened to us.

I appreciate this hearing today on the impacts of environmental changes on our treaty rights, our traditional lifestyles, and Tribal homelands. My testimony is focused on impacts of these changes to our homelands.

The impacts of climate change and environmental impacts on Native peoples are a serious and growing issue. It is an issue that I believe Congress and this Nation needs to address. One of the most important things we can do today to address climate changes is to listen to Native people, Native leaders, listen to our elders, and learn how Tribal management practices sustained these lands for thousands of years before our Federal agencies attempted to do so.

We need the Federal Government to work in partnership with Indian Tribes and Indian nations to restore full Tribal authority over our lands. If we had full Tribal authority, this picture would

have never happened. We had Tribal resolutions opposing this dam. There were studies that said that the dam should have been higher up, closer to Williston, which is northwest of us, yet the Army Corps of Engineers and our elders—they renamed that agency the Army Whore of Engineers—did not listen, and instead destroyed all this 156,000 acres. So that is why my number one recommendation is to restore Tribal authority. It has to happen. This is an era of self-determination. This is not an era of Federal agencies like the Army Corps tell us this is what we are going to do, and if you don't accept this we are going to condemn your land, so here is ten cents on the dollar. It divided our people right down the middle.

My family was part of the no bunch. They didn't believe the Government and they didn't trust the Government, and a portion of our people said we'd better take what we can, and so they did, and we received a clinic like 60 years later, a 20 million clinic, and it flooded our hospital. So we know full well as the Mandan, Hidatsa, and Arikara the impacts of a Federal agency decision to wipe you out, to flood you out. We know that.

Again, we need to restore full Tribal authority so that we can protect our homelands from further environmental impacts, and also so that we can provide leadership to the Nation on these issues of climate change.

I want to make sure I spend some time on the oil and gas issues. I think one of the second important reason or issue the Federal Government can do is to stop treating Indian lands as public lands. So when we are talking about oil and gas today on Fort Berthold, EPA will issue an air quality minor source rule, and we will get it. We received it August 31, 2011. No time to actually really provide our comments that hey, maybe we want to have our own rule. The Bureau of Land Management is now in a hydro fracking rule, and again we as a Tribe never had full consultation until I asked for it to come to Fort Berthold. They wanted me to go to Farmington. They wanted me to go to Oklahoma. They wanted me to go to Billings. I said the Bakken oil formation is not in New Mexico, Oklahoma, or Montana; it is in North Dakota. You need to come to Fort Berthold.

I was also shocked that many of the people at BLM had actually never saw hydro fracking actually occurring on an oil well, so I said July 12th I am going to actually host on an oil rig a hydro fracking tour, because people who are making rules need to at least see and witness first-hand an actual hydro fracking on an oil rig. And the depths of these are 10,000 feet. These are deep oil wells, deep depths. And our water aquifer is, like, 2,000 feet. So this is 8,000 feet below.

So I asked the BLM, I said, what if our Tribe wants to put our own hydro fracking rule that meets or exceeds yours? EPA doesn't regulate North Dakota. North Dakota is treated as its own State. I said the Tribes are not treated as their own separate sovereign. You need to allow our Tribe—because this is our homelands. The State has no jurisdiction there. Needs to be treated the same, and give us that ability, give us that right. And the Blackfeet Nation in Montana has its own hydro fracking rule. Our Tribe passed its own environmental code. It is a $1 million offense if any oil com-

pany dumps on our reservation. No Federal agency gives that to us. Nobody helped draft it. We did it on our own to protect our own homelands because we live there.

So I find it kind of odd that Federal agencies will tell us, well, we are trying to protect you. Well, if you are trying to protect us, why didn't you do that in the first place? But they didn't.

And one of the reasons BLM and EPA will say this rule applies to you is because you are part of the public lands. I said, We are a treaty Tribe. We have never consented to be treated as public lands. Where did you get your authority? And the answer will be either FLPMA, which is the Federal Land Policy Management Act of 1976, or they will say it is the 1938 Indian Mineral Lease and Oil and Gas Leasing Act.

Well, we haven't found that authority in any one of those two pieces of legislation, so I have asked BLM to answer that question. Just answer the question. Don't tell us how many times you have consulted with us, because you haven't. Simply answer the question of where do you get your authority to treat us as public lands.

That is why my testimony is like let's go back to providing that Tribal authority so Tribes can do its own regulation, its own energy codes, its own rules, and protect our own environment, because we know full well what happened to us.

That is where I will close, Mr. Chairman. We know. We lived it. We have seen what Federal policies that we had opposing Tribal resolutions didn't matter and divided our people. So this is like 60 years later. This is a new era. We need to go in and finally have full taxation authority. Governments don't tax governments, and we have to share disproportionately a bigger percentage of our oil and gas proceeds to the State of North Dakota, which is not fair. They have received about $180 million and we received about $90 million. That is not a fair tax agreement.

But we didn't want to impose our own 11.5 percent oil and gas production and extraction tax. If we did, that would be a 23 percent tax. There is no oil company that is going to come out. So we are protecting our oil and gas development so we can have an economy that will not be destroyed. We had an agricultural economy in 1948 and it was destroyed on us. So that is why we are protective of this economy, this oil and gas economy, so it is not destroyed.

So we are going to be at the forefront, but we need help from the Committee, legislation from the Committee to provide Tribes to be not treated as public lands like our treaty said, but to be treated as Tribal and Indian lands, and so these rules do not apply for us.

And if Tribes want a Federal rule, then fine. I am just saying if Tribes do not want a Federal rule and you have your own rules then those should be allowed to opt out of the federal rule if Tribal rules meet or exceed federal rules.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Hall follows:]

PREPARED STATEMENT OF HON. TEX "RED TIPPED ARROW" HALL, CHAIRMAN, MANDAN, HIDASTA AND ARIKARA NATION

Introduction

Good afternoon Chairman Akaka, Vice Chairman Barrasso and members of the Senate Committee on Indian Affairs. My name is Tex Hall, or Ihbudah Hishi, which

means "Red Tipped Arrow." I am the Chairman of the Mandan, Hidatsa and Arikara Nation of the Fort Berthold Reservation (MHA Nation). I appreciate the opportunity to present this testimony and I hope that the Committee will take legislative action in response to the testimony presented today.

Environmental changes have had a tremendous impact on our treaty rights, traditional lifestyles and tribal homelands. The most significant and disastrous environmental changes we face have been at the hands of the Federal government treating our lands as public lands. First, the Federal government flooded our most valuable homelands and economic resources for the public purposes of navigation, irrigation and flood control on the Missouri River. Then, the Federal government expanded its authority over our lands, displacing tribal authority and, in some significant cases, applying public lands policy to Indian lands.

Despite these actions, we all know that Indian lands are not public lands. Fort Berthold Reservation lands are not public lands. Our lands were set aside by treaty for the use and benefit of the MHA Nation. Our treaties intended that we would manage our lands and use our resources for the benefit of our communities as we see fit. Outside Environmental groups or other members of the public have no right to dictate or influence how we develop our land or our resources. Unfortunately, the Federal government often violates this basic principle. Whether flooding our lands for public purposes or imposing public lands policy, the Federal Government caused disastrous environmental changes and displaced traditional tribal authority for managing our lands. We need greater protection from these environmental changes and we need to restore tribal authority so that we can adapt to the ongoing environmental impacts we face.

Congress and this Committee must do more to support us in this effort. We have long been living in the era of self-determination, yet Federal actions, laws and policies continue to unnecessarily intrude on tribal governments or limit our ability to utilize our resources. We need this Committee to lead Congress and propose legislation that will prevent our lands and resources from being treated as public lands and will promote returning authority over our lands to our tribal government. Only with these protections and authorities will we be able to adapt to the environmental changes we face and be able to manage our resources to sustain our rights, lifestyles and homelands.

Impacts from Environmental Changes

Little more than a generation ago, in the 1950's, the MHA Nation's most abundant and fertile resources were flooded by the massive Garrison Dam, one of a number of dams constructed as a part of the Pick-Sloan Missouri River Basin Project. Originally authorized by the Flood Control Act of 1944, Pub. L. No. 78–534, § 9, 58 Stat. 891 (1944), the Pick-Sloan Project was intended to fulfill national public purposes of flood control, navigation and irrigation. However, from the MHA Nation's perspective the Project was an appropriation of Indian lands and resources for public purposes.

The MHA Nation was pressured and steam-rolled into signing away our prime river bottom lands in the 1940s to make way for Garrison Dam. Other sites were available to construct the Dam, but the site that would flood the most Indian lands and have the least impact on non-Indian towns was selected. Even with tribal resolutions opposing the Dam, by May of 1948, MHA Nation Chairman George Gillette had little choice but to travel to Washington, D.C. to sign the final agreement with the Department of Interior. A photograph of that event shows Chairman Gillette weeping as Interior Department officials sign away our trust lands to be flooded for public purposes by Garrison Dam's giant reservoir, Lake Sakakawea. Chairman Gillette said, "Right now, the future does not look too good for us." I have attached to my testimony an article from a North Dakota historical foundation that describes those events and that includes this photograph.

As a result of this Project and its public purposes, the MHA Nation's land and most of our social and economic resources were devastated. The Garrison Dam flooded more than 156,000 acres of our Reservation. It flooded much of our prime agricultural lands, 84 percent of our roads network, more than 400 homes, our Hospital, schools and churches, and 90 percent of our tribal membership was forced to relocate to higher ground. The Dam also flooded forests and wildlife that MHA Nation members harvested.

The Missouri River and its rich bottom lands provided infrastructure and an economy that sustained us. These days, the Missouri riverbed is used to produce hydroelectricity, the water is used by municipalities and for irrigating the Great Plains, commerce travels up and down the river, and flat water recreation is provided. Promises were made that the MHA Nation would also receive many new benefits with the construction of this Project, but these promises have not been fulfilled.

Compensation provided to the MHA Nation was far too little to make up for what was lost and did not compensate us for the use of our lands to provide hydroelectric power and navigation. In addition, projects to make the MHA Nation whole were promised but not fulfilled, including: irrigation and drinking water systems, preferential electric power, financial assistance for reservation farms, development of recreational shoreline opportunities, and replacement of infrastructure that was flooded. These promises remain unfulfilled and the new economy brought by Garrison Dam provides little benefit to the members of the MHA Nation, yet we live daily with the most impacts.

To adapt to these changes, the MHA Nation is forced to develop new economic opportunities while we continue to seek the recovery of our traditional economic resources. However, impacts from the flood persist. For example, the flooding divided our Reservation into six isolated segments, making it difficult and costly to provide basic government services. Currently, we use the funding that was intended to compensate us for the flooding to pay for the shortfall in federal programs providing services to the Reservation. The failure of the Federal government to fulfill promises of electric and irrigation infrastructure, as well as a lack of full compensation, damaged the MHA Nation's economy to the point where we are still working to recover.

Impacts from Treating Indian Lands as Public Lands

While the MHA Nation is working to overcome these ongoing environmental impacts and restore our tribal economy and authority, the Federal government continues to treat Indian lands as public lands by imposing public lands laws and policies on our lands. This has two negative consequences for Indian lands. First, the Federal government is replacing its own trust responsibility for Indian lands and with public interest standards that violate both our treaty rights and the federal trust responsibility to the MHA Nation. Second, tribal authority is displaced and limited by these federal authorities. The result is that our lands are managed according to public interest standards by federal bureaucrats who are influenced by a powerful environmental lobby that seeks to impose its views on how we develop our resources. Meanwhile, the MHA Nation is denied the tools and authorities we need to reestablish our rights, maintain our lifestyles, and regrow our economy.

The best example of this is the MHA Nation's efforts to rebuild its economy with the energy resources located on our Reservation. In these times, our most abundant economic resources come from the Bakken Shale Formation underlying the Reservation. The Bakken Formation is the largest continuous oil accumulation within the lower 48 states. In 2008, the United States Geological Survey estimated that the Bakken Formation contains between 3 billion and 4.3 billion barrels of recoverable oil or more.

In the past four years, oil and gas development on the Fort Berthold Reservation went from zero producing wells to almost 300. In 2012, we expect more wells to be drilled on the Reservation than were drilled in the first four years combined. In 2013, we expect another 300 wells to be drilled.

The economic benefits of this oil and gas development are far reaching and will have short term and long term benefits. The MHA Nation and other Great Plains Tribes often face with unemployment above 70 percent. These days our unemployment is at an all-time low of 6 or 7 percent. In much of Indian Country unemployment levels that low are unheard of. More importantly, many of our members have become entrepreneurs, establishing their own businesses to support the oil and gas industry and hiring and supporting both tribal members and nonmembers alike.

At last count, we have 905 vendors providing services directly to the oil and gas industry. Each of those vendors employs between 4 and 24 people. Based on an average employment of 12 jobs per company, that is in excess of 10,000 jobs. Our energy development will result in hundreds of millions of dollars in direct and indirect economic activity and provide the MHA Nation and our members with a substantial opportunity to fund government operations and invest in our communities.

Even with these successes, the MHA Nation still struggles for every single oil and gas permit. Although we live with environmental impacts from the flooding like few have experienced, our ability to succeed and sustain ourselves is further impacted by Federal laws and policies that treat our Indian lands as public lands. Our lands are supposed to be set apart for our benefit and managed according to the trust responsibility and tribal standards. Yet, the most pervasive standards imposed in the oil and gas development process are public interest standards.

Public lands policies and standards are imposed on the MHA Nation through the National Environmental Policy Act (NEPA), the Clean Air Act, the Clean Water Act, and Bureau of Land Management (BLM) oil and gas permitting regulations. These Federal laws have a variety of impacts on the MHA Nation and our ability to manage our resources.

In some cases, these laws allow people from across the Nation to comment on and influence federal decisions on our Reservation. The MHA Nation's treaty and trust relationship is with the Federal government. The Federal government even prohibits the states and individual citizens from interfering in this Federal-Tribal relationship. But, these days, under NEPA, the CAA or the CWA, a private citizen living in Anytown, U.S.A. can file comments and impact our ability to manage and use our resources.

In other cases these Federal laws, actually impose public lands policy on Indian lands. I believe the Federal government needs to keep its public lands policies separate from its trust responsibility for Indian lands. This kind of confusion about the management of Indian lands and resources can lead to the mismanagement of our trust resources and potential litigation.

For example, the BLM is currently developing new regulations for hydraulic fracturing used in the oil and gas development process on public lands. Because the Department of the Interior has delegated some permitting responsibilities on Indian lands to the BLM, the BLM intends to apply its public lands regulations to Indian lands. This is a serious mistake. Indian lands should not be managed according to public interest standards. Indian lands should be managed according to the federal government's trust responsibility and, even better, should be managed in cooperation with tribes in a manner that promotes tribal authority.

Even Congress was clear on this point. When Congress passed the Federal Land Policy and Management Act of 1976 and created the BLM, Congress specifically stated that the BLM does not have authority on Indian lands. Congress provided BLM with authority over "public lands" and specifically said that "lands held for the benefit of Indians" are not a part of "public lands." The MHA Nation should have the right to be excluded from BLM regulations for public lands. If we do not have the right to determine for ourselves if a public land regulation is in our best interest or not, then it will result in our treaty rights and our sovereignty being made subordinate to public lands policies, in violation of the federal government's trust responsibility and our treaty rights.

Finally, the application of NEPA and other Federal public land laws and policies on our lands displaces the authority of MHA Nation to manage and regulate its own resources. The MHA Nation should have the right to make its own decisions on how our resources are used and developed. We know how best to protect our land. We have done it for centuries. When we need the help of our federal trustee we have always asked for it. In the case of the BLM's proposed rule which would add an additional layer of regulation to hydraulic fracturing, I am not convinced that it is necessary in light of the existing safeguards. What does concern me is the potential chilling effect these additional regulations could put on development of our oil and gas resources, because the federal regulations impose more expensive requirements than those that industry is subject to just outside of the Fort Berthold Reservation.

Legislation Needed to Address Impacts and Promote Tribal Authority

In order to ensure that MHA Nation and other tribes can adapt to environmental changes and revitalize their economies and build new markets, Congress and the entire federal government must fulfill their solemn trust responsibility and take steps to promote the true self-determination of tribes. Congress and Federal Government must support laws and policies that:

- affirm and protect our treaties and our tribal government's civil and regulatory authority over its own territory, including the authority to tax without the ever-present threat of economy killing dual state taxation of Reservation commerce;
- reduce regulatory burdens that limit tribal economic development;
- provide appropriate funding levels for tribal infrastructure needed to facilitate economic development;
- provide low interest loans and grants large enough to allow tribes to invest in the types of businesses which will enhance our long term economic growth; and
- give industry and investors incentives to partner with the MHA Nation in building and owning its own energy resources.

The MHA Nation's struggles to develop its energy resources into long-term economic prosperity demonstrate the need for these kinds of laws and policies. Congress needs to enact legislation to clarify and reaffirm that Indian lands are not public lands. This would prohibit federal land managing agencies from regulating activities on Indian lands according to public lands policies and ensure that Indian lands are managed for the exclusive use and benefit of Indian tribes.

Alternatively, legislation could allow the Secretary of Interior to delegate authority to the BLM to regulate oil and gas activities on Indian lands, but require that

BLM develop separate and specific regulations in consultation with Indian tribes according to timelines, requiring meaningful involvement of tribes and promotion of the federal trust responsibility, treaty rights, and federal and tribal policies unique to Indian Country for any regulations or permitting processes.

To remove public involvement from the management of Indian lands, we need changes to NEPA and other environmental laws. First, Indian lands should, at the election of a Tribe, be specifically excluded from the public application of NEPA. Second, authority similar to "treatment-as-a-state" authority that is successfully used under the CAA and the CWA should be extended to all environmental laws including NEPA, and the unnecessary regulatory restrictions on achieving this status must be removed, with deadlines put in place that require federal agencies to act in a timely manner. Third, Congress should provide for the ability of Indian tribes to "contract" these environmental functions under the Indian Self-Determination and Education Assistance Act, Public Law 93–638, to obtain resources needed to implement these "treatment-as-a-state" provisions. Fourth, Congress should limit NEPA participants and participants in other permitting decisions to the affected area or reservation boundary. An environmental activist from Pennsylvania should not have a say in how we can chop our wood.

Finally, and most important, Indian tribes need the same tax revenue that other governments rely on to oversee energy development and provide infrastructure and services needed to support the energy industry. Current federal case law allows states to impose dual taxes on certain activities on Indian lands without regard to the chilling effect such a burden puts on Reservation energy development. Legislation should prohibit dual state taxation where a tribe taxes the same activity. To protect the states interests, such legislation could, under the supervision of the Secretary of the Interior, require tribes to fairly reimburse states for any substantiated services that have a nexus to oil and gas production impacts on Indian lands.

We need Congress to affirm the exclusive authority of the MHA Nation to raise tax revenues on our Reservation so that we can rely on the same revenues that state and local governments use to maintain infrastructure and support economic activity. The MHA Nation needs to maintain roads so that heavy equipment can reach drilling locations, but also so that our tribal members and others who use our roads can safely get to school or work. We also need to provide increased law enforcement, fire, emergency response, ambulance and other services to protect tribal members and the growing population of oil workers. And, we need to develop tribal codes and employ tribal staff to regulate activities on the Reservation.

Under current federal case law, the MHA Nation must share its tax revenues with the State of North Dakota to avoid development killing dual taxation even though the State provides few services on the Reservation. To avoid double taxation and encourage energy development, the MHA Nation had no choice but to enter into a one sided tax agreement with the State. While the State is sitting on more than a $1 billion in surplus revenue, the MHA Nation struggles to make ends meet and keep up with demand.

Just on our Reservation, in 2011, the State collected more than $75 million in taxes from oil and gas development on the Reservation, but spent less than $2 million of that for state roads on the Reservation and $0 for BIA and tribal roads. If the Tax Agreement is not corrected, projections are that the State will get more than $100 million in oil and gas tax revenues from the Reservation in 2012. This is funding that the MHA Nation needs to maintain Reservation infrastructure so that we can support energy and economic development on our lands the same as the State.

The MHA Nation has current unmet needs, including the need to repair damages and pay for the impacts that the same companies that the State is taxing are causing. If we raise our tribal tax rates to meet these needs, the oil and gas businesses who are currently operating on our Reservation can simply move off the Reservation to avoid any dual taxation, and if we do not raise our tribal tax rates, we cannot pay for the actual governmental costs we are incurring and the actual damage our roads and other infrastructure is sustaining. To put an end to this problem, Congress should clearly affirm the exclusive tribal authority to tax activities on Indian lands. Where the State provides services on the Reservation, the State can be fairly reimbursed out of that tribal tax revenue.

Conclusion

Chairman Akaka and members of the Committee, thank you again for the opportunity to testify today on the environmental changes the MHA Nation has suffered at the hands of the Federal government. We hope that you will propose legislation that will ensure that tribal lands will never be used again to fulfill public purposes

and return to us the authorities we need to protect our rights, homelands and life-styles.

Attachment

THE PAST TIMES

SPRING NEMIX, DAKOTA TERRITORY — VOLUME XVI, NO. 1

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Defending Their Lands

The Struggle of Three Tribes to Save Their Reservation in the 1940s

By Robert J. Hanna

"The principles that we fought for in this last war, right beside you, was for the very homes, lands, and freedoms that you are trying to take from us today."

–Mandan, Hidatsa and Arikara Nation Councilman Mark Mahle, Washington, D.C., July 17, 1947.

It was a bitter irony. During World War II, while 350 Mandan, Hidatsa and Arikara Indians—half the adult men from their reservation—were away fighting to protect their country and homes, their country was making plans to destroy their homes instead. In 1944, Congress approved a plan to build a dam that would flood the core of the Fort Berthold Reservation and the homes of 90 percent of the reservation's people.

These three tribes had lived along the Missouri River for hundreds of years. They built their culture around the river, locating their earthlodge villages on bluffs overlooking its banks and farming the river bottoms. Every spring they depended upon the Big Muddy to flood its banks, laying sediments as fertile soil and watering the ground. The Mandan, Hidatsa and Arikara were divided into matrilineal clans, each with its own religious ceremonies and traditions. Each clan was matched at formal feasts where the women raised enough corn, beans, squash, and sunflowers to feed their families and trade with other tribes. Tens of thousands of people thrived here until the late 1700s. Then, beginning in 1781, a series of smallpox epidemics began that killed all but a few hundred people within a century. Still the tribes persevered. In 1862, they banded together to form what is now called the Mandan, Hidatsa and Arikara Nation.

Photograph Courtesy of the Associated Press

Fort Berthold Tribal Council Chairman George Gillette weeps as U.S. Congress the contract to purchase reservation lands for the construction of Garrison Dam.

At that time, their reservation history was beginning. The

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The Battle of the Washita

The following article was originally published in the New York Times on Feb. 14, 1869.

"The St. Louis Democrat publishes the following private letter from a participant in the battle of Washita, Idaho, which gives some of the secret history of that fight, and accounts for the fate of Maj. ELLIOTT and his men being reported missing.

Fort Cobb, I.T., Dec. 22, 1868.

MY DEAR FRIEND: I write to you from Camp Supply, which place we left on the 7th, arriving at this post on the evening of the 18th. On the 11th we camped within a few miles of our 'battle of the Washita,' and Gens. SHERIDAN and CUSTER, with a detail of one hundred men, mounted, to assist, were out with the view of searching for the bodies of our murdered soldiers, comrades, including Maj. ELLIOTT.

The bodies were found in a small circle, stripped as naked as when born,...and nearly all had been horribly mangled in a way delicacy forbids me to mention. They lay scarcely two miles from the scene of the fight, and all we know of the manner they were killed we have learned from Indian sources. It seems that Major ELLIOTT's party were pursuing a well-mounted party of Cheyenne in the direction of the Grand Village, where nearly all the tribes were encamped, and were surrounded by the reinforcements coming to the rescue of the pursued before the Major was aware of their position. They were then out of sight and hearing of the Seventh Cavalry, which had remained at

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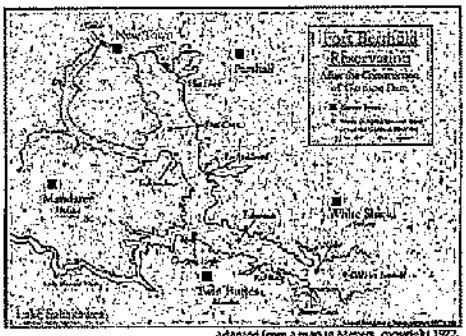
government and the tribes signed the Fort Laramie Treaty of 1851, in which the government agreed to recognize much of the traditional lands of the tribes as belonging to them—an area of 12.6 million acres. But, over the years a process began in which more and more reservation lands were taken away and the very concept of the reservation itself was degraded. In 1870, the reservation was arbitrarily reduced by executive order. It was reduced again in 1880, down to 1.2 million acres, to allow the government to give free land to the Northern Pacific Railroad, which it was to sell to settlers. Then, in 1887, the General Allotment Act determined that the tribes would no longer hold the reservation in common, but rather each head of household would be assigned a 160-acre plot from the reservation. Any reservation lands left over—indeed the majority of the reservation—could be sold to the government. The tribes were essentially stampeded into doing so several times until 1910. By then, the reservation was one twelfth its original size, with more less of its land under the ownership of Three Tribes members.

But, if any comfort was left to them it was that they still had the river bottomlands. Their towns of Elbowoods, Nisher, Red Butte, Charging Eagle, Lucky Mound, Independence, Shell Creek, Beaver Creek and Square Butte punctuated long stretches of farmland and beautiful cottonwood forests. The soil there was among the most fertile on the Great Plains. The tribes carried on their thousand-year tradition of farming in the river valley, adding wheat to their more traditional crops. Many also invested in cattle and trade ranching the reservation's second main industry. They did so well that during the depression of the 1930s, even though they also faced poverty, their economy survived better than that of surrounding white areas—many impoverished white people survived the depression by getting jobs on Three Tribes farms and ranches. Even during the Second World War, while so many of the men were away, the farms managed to increase production.

But, for downstream, things were not going well. The year 1943 saw one of the largest floods recorded along the Missouri, claiming several lives and destroying millions of dollars of property. The Missouri had always been an unpredictable river prone to flood one year and drop so low another that it was unnavigable. The nation was persuaded to do anything necessary to stop it, and when the waters started lapping into the streets below the Omaha office of Colonel Lewis Pick of the Army Corps of Engineers, no one was more persuaded than he. Sent away to Omaha after bungling the design of an Army Air Corps training facility (it had to be shut down after it was determined that the runway was impossible to land on), Pick now found himself called upon to design a flood-control plan for the entire Missouri basin. Developed in just 98 days and only 10 pages long, the Pick Plan called for almost the entire length of the upper Missouri River to be converted to a series of five artificial lakes, with the intended result of not only controlling flooding, but also ensuring enough water for permanent navigation on the lower Missouri. The plan naturally won the favor of downstream states.

Meanwhile, Glenn Sloan of the Bureau of Reclamation office in Billings, Mont., had been working for the last three years on another proposal for controlling the Missouri. The Sloan Plan did not provide for downstream navigation, but it did provide for irrigation of otherwise arid farmland upstream and, of course, the control of flooding. It involved three fewer dams on the main stem of the Missouri and more small ones on its tributaries. Naturally it was favored by the upstream states.

The two competing plans led to long and loud debates between Pick and Sloan, between the Army Corps and the Bureau of Reclamation, between the downstream and the upstream states, and between their corresponding congressmen. Finally, President Franklin D. Roosevelt ordered the corps and the bureau to design a compromise plan. Quickly realizing that neither side would give ground, they decided in a one-day meeting to simply combine all the proposed dams and projects of each side without even considering whether there would be enough water in the Missouri Basin for the combined goals of both agencies. The resulting Pick-Sloan Plan was approved by Congress as part of the Flood Control Act of 1944.



Adapted from a map in Meyer, copyright 1977.

The construction of Garrison Dam flooded several Fort Berthold communities and resulted in the creation of five new towns, all many from the newly flooded river bottoms.

Neither side gave much consideration to Fort Berthold or the many other reservations that would be affected by the dams. Taking land for a public works project from Indian reservations was very different from using eminent domain laws to take it from private citizens. Reservation land was protected by treaties in which the government had promised to recognize the lands of the Three Tribes as theirs forever. According to the legal situation in force by that time, much of the land to be flooded was held in trust by the United States Government for the tribes. But four of the five artificial lakes to be created from the Missouri would fall on reservations, and the Three Affiliated Tribes would be hit hardest. Ninety percent of the people lived on land that was to be flooded by the Garrison Dam, not to mention every one of their towns. The July 1, 1943, issue of the *Scouts Scouted* quoted a memo from Department of the Interior Solicitor Felix S. Cohen to Indian Commissioner William Brophy as saying, "the Garrison site was selected by reason of the fact that a large proportion of the inundated area would be composed of Indian lands."

The Three Tribes' first indication that their homeland was in danger was in the spring of 1943 when engineers and small red surveyors' flags were noticed around Garrison and Elbowoods. The *Stanley Sun* was the first to break the news to the tribes that the government was planning a dam. The *Sun* reported that the engineers were trying to determine where exactly it would be built.

Once the Pick-Sloan plan was approved, the Army Corps unleashed major advertising efforts to populate the dams in Missouri Basin states. Newspapers in North Dakota reported that the Garrison Dam, the first of the new dams, would be a wonder of the modern age, providing flood control, irrigation, recreation, cheap electricity and, eventually, an industrial paradise for the state, not to mention a crystal-clear sparkling blue lake in place of the muddy Missouri. A text

was even written for the state's public schools so that school children could be informed in class about the benefits of the dam, presented as a monumental work of human technology and ingenuity.

The Three Tribes tried to defend their homes, land, cities and economic base. As early as November, 1943, the tribal council passed a resolution opposing construction of the dam because of the "untold material and economic damage" it would cause to the Three Affiliated Tribes. Members of the tribal council traveled back and forth to Washington many times in the following years to plead their case. They did not have travel money or even professional suits to wear, so dances and other fundraisers were held throughout the reservation to pay for their tickets and hotel bills, while other members sought out used suits of clothing for them in church donation barrels. The tribes hired a civil engineer named Daniel C. Waiser to propose an alternative dam site. He developed a design for a dam in the northwestern part of the reservation, which would have left the majority of the reservation bottomlands intact. According to Waiser, it would have achieved the same flood-control and irrigation results as the Garrison Dam, generated electricity even more efficiently, cost $1 million less to build, and saved perhaps $20 million in relocation costs. The Three Tribes even offered to give this land to the government for free, but the Army Corps would not reconsider it. Many have blamed longstanding rivalry between the corps and civil engineers.

Having approved the Pick-Sloan plan in 1944, Congress finally authorized funding for it in 1946 under the stipulation that the tribes be offered land of sufficient size and comparable quality to replace the lands to be destroyed by the dam. It looked as if the most likely area would be the land just south of the dam, in the Washburn area. However, an outcry from the local non-Indian residents quickly dampened the idea.

In May of 1946, Colonel Pick, North Dakota Governor Fred Aandahl and other officials involved with the dam met with Three Tribes members in Elbowoods. The corps hoped to persuade the Three Tribes to accept replacement lands outside of the current reservation, but the tribes hoped to persuade the corps to consider their other dam location. One Three Tribes man expressed sympathy for the white settlers who would have to be removed to give the Three Tribes additional river bottom land. "The residents of the fee area are pioneers of the country, and I do not think it right to compel them to leave their home." The consensus of the tribes was that they could not duplicate their former lifestyle in other riverside areas. Both the tribes and the Bureau of Indian Affairs ultimately rejected the offer.

Finally, in 1947, the tribes were offered $5,165,825 along with irrigation and free electrical power as a take-it-or-leave-it settlement for the lands to be inundated. Tribal Council Chairman George Gillette, literally in tears, signed the agreement on May 21, 1948. The *Sunset Sentinel* quoted him as saying that day, "The truth is, as everyone knows our Treaty of Fort Laramie, made in 1851 and our tribal constitutions are being torn into shreds by this contract."

Once work began on the dam, it was every bit the amazing spectacle of human might and technology the Army Corps literature had promised. An entire planned town, named Riverdale, with its own church, school, stores and recreation centers was built next to the site to house all the workers. A bridge was built over the river from which dump trucks poured stone and earth to form the dam while earthmovers worked the sides of the site. Massive turbines were constructed for the electrical generators. Meanwhile, Three Tribes members were haphazardly relocated from their precious river bottom to lands on the desolate high plains. Frequently, entire houses were moved on trailers, leaving behind ghost towns of gaping basements. Other Three Tribes members were given new housing with woefully inadequate insulation that no North Dakota resident would voluntarily choose against the harsh winters. Tribal members were not permitted to salvage the wood of the cottonwood trees. On the high plains they would no longer have access to their usual wood and coal veins as sources of fuel and heat. Government representatives told them that they would receive sufficient electricity from the dam generators as a replacement, but the promise was never followed through.

Finally, in 1954, the dam was finished. President Dwight D. Eisenhower himself came to oversee the dam-closing celebration. After he left and the festivities died down, the Mandan, Hidatsa and Arikara watched the water slowly back up against the earth-filled wall and swallow up a little more of their doomed homeland every day for the next two years.

In addition to never receiving the power benefits, the promise of irrigation for the people's new lands never materialized. Furthermore, the swollen Missouri now divided the reservation into five distinct sections that could not be accessed except by driving many dozens of miles outside the reservation to the nearest bridges. The combined force of all these factors threw the once-growing Three Tribes economy on its side for decades. Despite repeated attempts at justice, none got very far. With their economic base destroyed and no help establishing a new one, the tribes struggled on for over 30 years.

In 1986, a Joint Tribal Advisory Committee was formed under orders from the Secretary of the Department of the Interior to examine the effects of the Garrison Dam on the people of the Fort Berthold Reservation as well as the effects of other Pick-Sloan dams on the people of the Standing Rock Reservation. In a carefully-researched, 90-page document, the committee reported that the Three Affiliated Tribes had borne most of the expense of a dam of which they had not voluntarily accepted construction, and brought them no benefits whatsoever. Even though written in straight-forward, objective legal terminology, the document is deeply moving as one reads the long list of injustices done to the tribes. The committee pointed out that justly compensating the Three Tribes for the taking of their lands required much more than reimbursing them for the fair market value of their farmland. The river bottomland was also the essential raw material of their economy—an economy that could not be replicated on the dry high plains. Adequate compensation should consider what it would take for the people to form some completely new kind of economic base. Furthermore, the document pointed out how the dividing of the reservation had led to serious difficulties in reaching emergency medical care, how the taking of the trees and coal veins had eliminated the tribes' energy sources in ways that the failed promise of electricity had never restored, while shabbily-insulated government-provided houses often forced families at the time to pay electrical bills of $400 or $500 per month in the winter. Because the land was taken in square chunks, a considerable amount of excess land around the reservoir had been taken that was not needed for the running of the dam. Health care facilities, an important bridge, schools, highways and access roads had been removed that were never replaced, despite Army Corps promises. Furthermore, the tribes were not allowed to develop picnic shelters, marinas and other recreational facilities along the lakeshore that might help their economy. Altogether, the document listed 16 changes that Congress should make to improve the fairness of the land-taking of 1948.

Once the report was sent to Secretary of the Interior Donald P. Hodel, however, he allowed it to sit on his desk for over a year. It appeared that the document would be ignored indefinitely until President Ronald Reagan, during a meeting with then-tribal chairman Ed Lone Fight and several other Native American leaders, heard about the situation and personally requested Secretary Hodel to look into the document right away. This began a long legislative process, lasting until late 1992, in which Congress agreed to pay the tribes $149.3 million dollars to help them recover from the damages caused by the dam. Money from the electricity generated by the Garrison Dam was to be placed into a trust fund and the interest from it had to be sent to the tribal government at regular intervals.

This amount was less than half the minimum suggested by the Joint Tribal Advisory Committee.

Of course, no amount of money or improvements will ever bring back the memories, the beauty or the thousands of acres lost to the flood.

The CHAIRMAN. Thank you very much, Tex, for your testimony, Chairman Hall.

Now I will call on Principal Chief Dardar for your testimony. Please proceed.

STATEMENT OF HON. THOMAS DARDAR, JR., PRINCIPAL CHIEF, UNITED HOUMA NATION

Mr. DARDAR. Thank you. Bonjour, and good afternoon Chairman Akaka and Vice Chairman Barrasso and other members of the Committee. My name is Thomas Dardar, Jr. I am Principal Chief for the United Houma Nation. I am humbled and honored to be here to provide this testimony on behalf of our Tribe.

At the end of the 18th century, in our effort to live peacefully with settlers and avoid relocation, the United Houma Nation made the coast of southeast Louisiana our homeland. Today, the majority of our 17,000 citizens reside in six parishes that span from St. Mary to St. Bernard however, to live in harmony with the land and water.

The abundant wildlife, seafood, plant life have always provided for our families. It is how we survived. However, due to the rapid environmental changes affecting our communities, we are faced with the reality that our culture and our way of life is threatened. Today our people are fighting an invisible enemy. We cannot fight this enemy alone. Our communities, homeland, and our very life blood is disappearing from under our feet.

The first act that caused this crisis was the damming of the Mississippi River in 1920 to protect the settlers who chose to live along the river's path. By damming the river, the estuaries were left to starve and were cut off from the vital nutrients, the silt that naturally feeds and builds up these lands.

The second incident was the discovery of oil and gas along the coastline of Louisiana. Here the oil companies dredge miles of checkerboard canals and waterways to transport their product further inland. These manmade waterways allowed for saltwater intrusion that sped up the erosion problem that has gone unchecked for nearly 70 years.

Since 1930, the coast of Louisiana has lost area the size of Manhattan Island. Scientists currently estimate that we loose a football field every half hour. These football fields are where our Tribal communities live. We are the front line of this crisis.

Today there are more complications that even further escalate our land loss. The repetitiveness of the assault of hurricanes, sea level rise, is bringing the Gulf of Mexico closer to our communities. Louisiana's coastal sea rise is rising at a faster rate than any other coastal areas, bringing the problem to crisis proportion.

With the Deepwater Horizon oil spill when millions of gallons of crude oil and dispersants spilled into the Gulf of Mexico in 2010, the coastal estuaries received a huge blow. Marshlands that once served as protection is dying. Wildlife reserves are deteriorating. The seafood life cycle was disrupted. Not only does this further threaten our home, but it also threatens our livelihood.

However, in all this havoc, the biggest obstacle we face is lack of Federal recognition. United Houma Nation submitted our petition for Federal acknowledgment in 1985 and we are still in the same process today. We have testified before Congress repeatedly on how the system is broken, but in all that time our people still suffer.

It is the lack of this acknowledgment that leaves our people on the outside of the decision-making. It is what has allowed our homeland and communities to bear the brunt of the environmental injustice being played out along the coast of Louisiana. Federal acknowledgment would mandate that our people have a seat at the table. We would be protected and we could not be arbitrarily dismissed.

In looking to the future, I want to first thank Senator Landrieu and the Louisiana delegation on their hard work in pushing the

RESTORE Act forward. However, this alone is only the beginning of the work that needed to be done.

I would first urge to invest and protect the existing United Houma Nation homeland, thus preserving our culture, tradition, and way of life.

Secondly, I would ask to support the legislation to protect and support Louisiana's wetlands.

Finally, the Houma people ask you to evaluate and implement the necessary changes needed to the Federal recognition process.

In conclusion, I would like to leave you with a story of one of our elders. He remembers outsiders visiting our community when he was a child. The outsiders were offering aid, believing that our people were poor. In return, our people sent the outsiders away with even larger amounts of fur, baskets, seafood, homegrown fruits, and vegetables. So he always ended with a laugh and said that he never knew he was poor until the outsiders told him he was poor.

You see, ladies and gentlemen, our way of life may not seem much to outsiders, but to us it is something beyond value, precious, and worth fighting for. I urge you to fight with us.

On behalf of the United Houma Nation, I thank the Committee and those of you here today sharing your own experience. We look forward to working with you in addressing these issues.

[The prepared statement of Mr. Dardar follows:]

PREPARED STATEMENT OF HON. THOMAS DARDAR, JR., PRINCIPAL CHIEF, UNITED HOUMA NATION

Introduction

Halito, Bonjour, and good afternoon Chairman Akaka, Vice Chairman Barrasso and members of the committee. I am honored to be able to provide this testimony on behalf of the United Houma Nation.

Background and Brief History of Tribe

I serve as the Principal Chief of the United Houma Nation, located in South Louisiana. My tribe consists of over 17,000 members, many of whom live in the coastal bayous and swamps of Terrebonne, Lafourche, Jefferson, St. Mary, St. Bernard and Plaquemines parishes, which lie south of the city of New Orleans. The vast majority of our citizens continue to reside and trace their family roots to Terrebonne Parish. Stemming from the French culture, the word Terrebonne means "good earth," but this earth is disappearing below our feet. This pressing assault is what I'd like to talk to you about today.

As the Chief of my Nation, I am charged with the responsibility of maintaining and fostering our Houma culture and traditions. In ensuring the long-term well-being and continued existence of our Tribe, I must admit that I feel overwhelmed by that responsibility due to the rapid environmental changes affecting our communities. The Houma homelands and people are the frontline of the environmental disaster facing coastal, southeast Louisiana.

As I stand here today before you, I am fighting an invisible enemy that we cannot fight alone. Our homeland is disappearing and with it our culture is at risk of fading as well. Disappearing with that land are the stories of our elders, the bones of our ancestors and the very cultural fabric that makes up our nation. Today, I respectfully ask that you lend your time, turn your eyes, and open your ears to the plight of my people. I ask that you help me to uphold my duty to my people—the continued existence of the Houma people, our way of life and the preservation of our homeland.

For hundreds of years, tribal members have not just lived, but thrived, off these low-lying lands where we carved our way of life off of the land and water. Rich in natural resources, our homelands are rich in trapping, hunting and fishing grounds as well as bountiful vegetation. In fact one of our elders fondly tells the story of how when he was a child outsiders visited his community to offer aid believing our people were poor. In return for the "gifts" brought, our people sent those outsiders away with large amounts of furs, baskets, seafood and homegrown fruits and vege-

tables above and beyond what was received. By living off the land, the Houma people have always been rich.

Common wildlife located in our homeland that historically provided for our people included rabbits, ducks, deer, and other wild game as well as fur bearing animals such as the mink and muskrat. Additionally crawfish, crabs, shrimp, oysters and many varieties of fish have always been plentifully available. Naturally growing plants include sage, roots, palmetto and other plants that we've gathered for our traditional medicine and basket-weaving. From this land comes many traditions we still practice today. 'Traiteurs' or Treaters provided our members with spiritual guidance, advice, and medical treatment from roots and plants of the area. Our people made baskets from the heart of the Palmetto plant, mattresses and dolls from Spanish moss, and canoe-style boats, called pirogues, made from dugout cypress trees to navigate the bayous and swamps.

The irony of this situation is that our ancestors sought haven in this rich area to escape enslavement or forced relocation after French and Spanish settlers came to the area and Congress passed the 1830 Indian Removal Act. To avoid conflict from the increasing number of settlers and to escape the plight of many of our Indian counterparts who would be removed from their homelands, our ancestors chose to flee deeper and deeper south into areas that were believed to be uninhabitable by these settlers, but we called home. Today, we are facing a different relocation, not enacted by Congress, but equally forceful, as the very land that once provided a haven is now disappearing from under our feet.

Environmental Changes to the Complex Ecosystem of Our Region

To get a better understanding of why climate change is having such disastrous effects here, some background in our geography and the many forces affecting it, is necessary.

First, the rich swamps and estuaries our people thrived upon were created from thousands of years of build-up from the Mississippi river carrying deposits of silt and mud. In the 1920's, when the Mississippi River was dammed and canals built off of it, the flow ceased. This had the desired effect of preventing floods to the settlers who built settlements along the banks of the river, but it robbed the marshland of the necessary sediment. After the flow ceased, the estuary could not naturally rebuild and sustain itself leaving it vulnerable to the next onslaught.

The next blow to our area was the oil and gas industry, which dredged ten thousand miles of channels through the wetlands beginning in the 1930s. With the invasion of these man-made waterways, the landscape rapidly changed and coastal Louisiana became a checkerboard. Unfortunately, the vast majority of these dredged waterways took place well before oil and gas companies were environmentally regulated and required to mitigate the damage caused by their efforts. As a result, these channels have been allowed to grow wider and wider and opened the door to saltwater intrusion creating further encroachment of waters further and further into tribal homelands.

Now, the rising sea level is adding to an already destructive problem. We are now seeing water levels at the highest they have ever been. At the same time that our land is sinking, the water level is rising. What you have as a result is an environmental crisis with rapid land loss and coastal erosion taking place at phenomenal rates. The average sea level in southeast Louisiana is rising at a rate of three feet every 100 years, which is an unusually high level. Scientists state that, as the planet's temperature increases, the oceans also warm causing the water to expand. This dilemma is at crisis proportions. The combination of rising oceans and sinking land means that Louisiana's coastal sea level is rising at a higher rate than any other coastal areas. All of these factors interplay to create a dire situation of land loss and sinking wetlands with the people of the United Houma Nation trapped in the center of this battle.

Land is disappearing below our feet at an astonishing rate. Since 1930, the Louisiana coast has lost 1,900 square miles of land equal to the size of Manhattan every year. Each year, 25 square miles of wetlands—or a football field every half an hour—is lost. In less than the time that we will sit in this room, talking about climate change, we will have lost that much land. Places where our tribal members used to walk to visit a neighbor, they now have to boat. Roads once built up on land are now covered in water. Electricity poles that were once along that road are now in water. Coastal erosion affects our Tribe more than it does any other group of people. It is our tribal members that live along those swamps, fish these waters, hunt this marshland and depend on the land that is disappearing. Years before Hurricanes Katrina and Rita, Gustav and Ike we knew this was a critical problem. I remember hunting on lands that are now underwater as a child. As a grandfather,

my heart hurts that I will never be able to share that land and experience with my grandchildren.

Alone, these factors would be enough to wreak havoc on any tribe. Now, add two more factors: hurricanes and man-made disasters. Our people always knew how to live in balance with nature and hurricanes have always been part of that balance. However, with so many environmental changes the intensity and damage caused by hurricanes today is very different and a huge challenge for our people today. There's scientific evidence that shows that hurricanes have become more and more intense in the last 50 years. Due to escalated erosion along the coast, hurricane winds and flooding are reaching further inland than ever before. Our people don't need scientific evidence to prove it. With every storm, our members lose their homes, they lose their boats, their livelihood to the repetitive flooding waters and the damaging winds. Everyone here saw the devastation that Hurricanes Katrina and Rita brought to our area in 2005. What was not as publicized were hurricanes Gustav and Ike in 2008, which brought an additional 10 feet of water in areas that were still struggling to recover. We are faced with a horrible cycle here. Stronger hurricanes—the storm surge, the rushing, flooding waters, and the saltwater intrusion—cause and escalate the land loss. At the same time, the more land we lose, the less protection our homelands have from hurricanes leaving our communities vulnerable to the damages caused. Scientists estimate that every 2.7 miles of marsh reduces storm surge by roughly a foot.

Just as our communities were recovering from these Hurricanes and our people had felt some sense of normalcy back in their lives, repaired their boats and were returning to shrimping and crabbing, the United Houma Nation was hit with another environmental disaster, a man-made disaster—Deepwater Horizon Disaster and oil spill on April 20, 2010. As a result of the spill, 600 miles of the Gulf coastline was oiled and over half of that was in Louisiana. According to NOAA Fisheries Services, less than 2 months from the date of the oil spill 88,522 square miles of waters were closed to fishing equating to 36.6 percent of the Gulf of Mexico coverage area, resulting in an estimated $2.5 billion loss for the fishing industry. While it is too early to know the long term effects of the spill and how the oil and the dispersants will affect our ecosystem, we do know already that many of our tribal members have lost their jobs and subsistence lifestyle as a result. Now many who were exposed to the oil and chemicals are suffering from things like upper respiratory infections, headaches, seizures and abdominal pain. Our people are very concerned that the health affects of this disaster are only just beginning.

Today the Houma people find ourselves in a perfect storm. With less land, our members, their homes and boats are less protected from these spills and hurricanes. Today's weakened marshes allow oil to penetrate more deeply, killing vegetation and destroying habitat deep within the wetland. As the vegetation dies, the natural eroding forces of the ocean quickly churn the soil into open water, eroding Louisiana's natural buffers from storm surge and leaving our tribal communities in even greater danger from erosion and hurricanes. As you can see Louisiana's coast is in an environmental crisis and the United Houma Nation is at the frontline of that crisis. If Louisiana cannot overcome this looming disaster, the heart of our Houma Nation, the land and our way of life, will disappear as quickly as the land.

Effect of Environmental Changes on the Tribe

I probably don't have to tell the people in this room that Indian people, our culture, the very fabric of our being is tied to the land. It is what binds us as indigenous people. When we lose our land, land the size of a football field every half hour, we are losing our culture just as quickly.

First, the physical loss of land is a huge detriment to our Tribe. Many tribal members own much land that has been in their families for many years. Losing this land means less ownership of our own property and area available for practicing tribal traditions. There is no way to get this back.

Second, the loss of land causes a loss of traditional wildlife and plants critical to our traditional way of life. The wildlife, plants, animals, and the bayous themselves are critical to so much of our traditional knowledge, whether it comes from palmetto leaves to weave baskets or passing on the trade of shrimping that our tribe has done for hundreds of years, the loss of such practices is invaluable. Because we have limited access to these resources, our people are challenged in their ability to pass this traditional knowledge on to our children. These environmental changes are stealing those things that are crucial to our survival as Houma people.

In addition to the loss of wildlife, plants, and land tied to our traditional way of life, these factors have already forced many tribal members to leave the area taking our people away from their homeland and distancing them from their culture. So many people lost so much and, instead of choosing to rebuild again in the path of

repetitive hurricanes, many are choosing to relocate. Without these elders to teach the culture and children to learn it, how can we carry it on? Without the people and tie to the area, our culture is challenged to survive.

All of this is exponentially more difficult to deal with because of the fact that the United Houma Nation is not a federally acknowledged tribe. We are recognized by the state of Louisiana, but not the federal government. For instance, in the recent Deepwater Horizon Oil Spill, the United Houma Nation reached out to British Petroleum (BP) for assistance to help tribal citizens adapt and recover from the disaster. In the response from BP was that although they valued their relationship with the UHN, because we are not a federally acknowledged tribe, the oil pollution act and mandated assistance to tribal governments did not apply to our Tribe.

Additionally, when Louisiana passed recent legislation including a $50 billion plan over 50 years to restore the coast, the State in the planning phase disclosed that some coastal communities were going to be sacrificed or trade-off communities in order to save other communities. Many of our tribal communities, including our most treasured, oldest communities that the vast majority of our citizens trace their roots to, are left out of these plans. The State's explanation is that these communities are too costly to protect; however, our people contend that our culture and homelands were not duly valued. We do not believe that the State of Louisiana considered the cultural loss. In contrast, had the United Houma Nation been federally acknowledged we would not be so easily dismissed and would be afforded federal protections guaranteed to state recognized tribes.

Unfortunately the United Houma Nation's pursuit of federal recognition is closely tied to the repetitive disasters we faced. At this time, the UHN's petition for federal acknowledgement with the Bureau of Indian Affairs is on hold due to our Tribe being under a state of emergency following Hurricane Katrina. When our citizens are still fighting a daily struggle to get back on their feet after these environmental disasters, you can imagine this is a difficult choice to make. Moreover, it is incredibly draining on my people to have to fight these battles for our homes, while at the same time, fighting a battle here to simply be recognized as "Indians." My hope is that our people have a reprieve from these disasters and focus our full efforts and resources towards recognition as that status is a major barrier in fighting the environmental onslaught.

What Is Being Done to Address These Issues?

Just recently, less than 2 weeks ago, President Obama signed the RESTORE Act, which directs 80 percent of any Clean Water Act penalties paid by BP for the spill to be placed in a trust fund for restoration efforts in the five coastal states damaged by the spill. The RESTORE Act will establish the Gulf Coast Restoration Trust Fund. According to the act's language, the funds are supposed to be used to restore the ecosystem, establishing a Gulf Coast Ecosystem Restoration Counsel and to support research on coastal wetland restoration and protection, wildlife and fisheries monitoring, mapping and recovery, improving the safety in exploration and development of oil and gas resources and other key areas. While this Act is very necessary for our area, the main problem is that we do not see any of these funds unless and until BP is fined. Also, the amount we get is dependent on how much BP is fined. That means we have to wait until a settlement or a trial to determine if BP was negligent and to decide how much money, if any, we will received as part of this fine. Time is not something that is on our side, especially now that another hurricane season is upon us. In addition although our homeland sits at the frontline, there is no guarantee that our tribal communities will benefit from the RESTORE Act without the protections of federal acknowledgement.

The UHN is working hard to work collaboratively with the many other efforts being made as a result of local researchers and truly joint community efforts. Last year, our tribe took part in the Restore America's Wetland Foundation, Terrebonne Parish Government and several community agencies to deploy a new technology developed in Baton Rouge that could help to rebuild the land. Volunteers went out in the marshland and placed hundreds of floating mats of marsh grass in critical areas where the marsh is being eroded. The grass is supposed to send down roots through the mats and form new land as soil and plant material attach to these manmade marsh islands. We are pleased with the results thus far and are waiting to see the long-term results. The nature of our people is to roll up their sleeves and get to work. It is projects like this that give us hope that the environmental damage can be stopped and potentially corrected.

Recommendations for the Committee

While there is some movement in the right direction, especially after the passing of the RESTORE Act, there are still areas where we can use your help and support.

First, investments must be made to protect our existing areas so that we can protect that land that we do have left. Second, we ask for your support in legislation to protect and restore the wetlands. We also would like to extend our utmost gratitude for your support of the RESTORE Act, but we also ask that you ensure that these funds are properly allocated. Third, we need more support for research into the long-term effects of the oil spill and how it will affect the eroding wetlands, our ecosystem and the wildlife, plants and animals that live in these waters. We need efforts toward not just the short-term, but monitoring the long-term health of the Gulf. Finally, we ask that you evaluate and implement changes to the Federal Recognition process. As I stated earlier, many tribes such as ours, are fighting battles at home just to keep our members and culture afloat. Getting federally recognized should not be the complicated process that it is. Our tribes are facing enough battles and need the same federal protections as our brothers and sisters.

Conclusion

Why stay on sinking lands in hurricane alley? That is a question our people have been asked many times in recent years and you may have even thought so yourself. But to us, this land is paradise. Our Tribe migrated to what we now refer to as our homeland generations ago in an effort to avoid the encroachment of settlers and avoid relocation. This land has provided us with a haven, sustenance, homes, and our traditions and culture. The thought of ever leaving is heartbreaking and a final move I don't think our people can survive without a huge loss to our way of life and culture.

A very famous American Indian proverb says, "Treat the earth well: it was not given to you by your parents, it was loaned to you by your children. We do not inherit the Earth from our Ancestors, we borrow it from our Children."

We are failing to live up to this wisdom. Because of the environmental changes we are facing right now, this land has been taken from our children, and with no efforts to correct it, we will leave them nothing. Ladies and gentlemen something needs to be done and I hope and respectfully request that you consider some of these recommendations I discussed today. Our children are depending on you.

On behalf of the United Houma Nation, I thank the Committee and those of you here today sharing your own experiences. We look forward to working with you in addressing these issues.

The CHAIRMAN. Thank you very much, Chief Dardar.

Before I call on Mr. Frank, I would like to call on our Senator from Washington, Ms. Cantwell, to make an introduction to our next witness.

STATEMENT OF HON. MARIA CANTWELL, U.S. SENATOR FROM WASHINGTON

Senator CANTWELL. Well thank you, Mr. Chairman, and thank you for holding this important hearing. I would like to thank one of our witnesses, although it is good to see all of our witnesses here today, including those Tribes that have had TV recognition for their incredible roles that they play in their communities.

We are going to hear from the chairman of the Northwest Indian Fisheries Commission, Billy Frank, Jr. He certainly is a legend in the northwest and has worked all throughout Indian Country and was part of an event to focus on first stewardship, what to do to help with impacts of climate change.

So our northwest economy counts very much on salmon, as does the Ranking Member's. I am sure that Mr. Frank will give us a lot to think about as it relates to planning and moving forward, but he has been involved in these efforts for quite a long time. I am sure there are many other members of northwest Tribes in the audience today that will be looking forward to his testimony.

So thank you, Mr. Chairman, and welcome, Mr. Frank.

The CHAIRMAN. Thank you.

Please proceed, Mr. Frank.

STATEMENT OF BILLY FRANK, JR., CHAIRMAN, NORTHWEST INDIAN FISHERIES COMMISSION

Mr. FRANK. Thank you, Mr. Chairman, Senator Cantwell, and Senator Murkowski. Good morning. I am really glad to be here. This hearing is very important to the northwest Tribes.

The 20 Tribes that I represent ceded the land from Canada on the western side of the mountain in the State of Washington, right here, ceded all of that land from Canada clean to the Columbia River to the United States Government in 1855. The United States forgot about us. They turned their authority over to the State of Washington and they forgot who the hell we are.

We are Indian Tribes. We signed a treaty with the United States and we had to fight our way back into existence on recognition, and we did that throughout 1960 all through the 1960s clear up until 1974 when U.S. v. Washington, United States took the State of Washington to court and won that case and interpreted our treaties and made us co-managers with the State of Washington and with the Federal Government.

So now I am 81 years old and I have been back here for over half my life testifying right here in front of the United States Senate, United States Congress across the way, House of Representatives. But now today we put a treaty at risk paper together, because I have not seen any change in the United States Government. They still have their authority, the State of Washington has their authority. Our Country, our Pacific salmon is declining. It is going down. Not unless the United States changes, makes the institutional change—and you hear the change right here today—that has to take place; otherwise, our Pacific salmon is gone in Puget Sound and along the Pacific coast.

We are seeing right now poison in the ocean. The Pacific Ocean is poisoned from Claylock Beach in the State of Washington to Oregon coast. Salmon, everything is coming to shore dead. This happened over five years now. No oxygen out in the ocean.

The weather is changing. You see it right here in Washington, D.C. Yesterday we witnessed it, you know.

Senator Ted Stevens, before he left, he used to protect the Pacific salmon along the Pacific coast, and I would ask him to protect our salmon, and he would do that. Senator Inouye the same. Senator Cantwell, Senator Murry, yourself, Senator Murkowski now. These are very important things that I am talking about.

We have dead zones in Hood Canal, dead zones in south Puget Sound, where I live, where our salmon is migrating out to the ocean and heading up into the great Alaskan cold water in the Aleutian Islands and then comes home after five, six, seven years. These are important things that we talk about.

The ocean is important to all of us. It is dying. And who in the hell is in charge? Nobody that I see. There is no change to the ocean. There is no plan out there 100 years to tell us that we are going to be here, that we are going to be able to eat that salmon in clean water and quantity and quality. Nobody is telling us that.

Right now they are telling us that they turned over the State of Washington, the recovery of salmon to the State of Washington. They are broke. They don't have no money. We are the only ones that are natural resource people. We manage salmon from Mexico

to Alaska. We belong on all the committees—the Halibut Commission, the Whaling Commission, all our committees, as everyone else does. We are on them committees. Two hundred miles off the ocean. We need a change. Treaty rights at risk. We took it to Washington, D.C., last July, to the President. We went to CEQ. We went to our delegation—Senator Murray, Senator Cantwell, Congressman Norm Dixon, our delegation in the House of Representatives—making them aware of what we are doing right now. And we are here to tell you that we are in trouble.

Who do we go to? If this Committee could tell me who we can go to? We can't go to the United States Supreme Court any more. They are not on our side. They don't understand treaties. We can't go to the President, the past President. This President has helped us in natural resource. I hope we get another four years with him, but who knows.

So here we are today making a statement to our great Senator Akaka and our Committee. We need help. We need help on a change. We need somebody in charge to tell the Federal agencies what they have to do to make a change. That change has to happen. The salmon is declining, Pacific salmon. And if the change comes, we will go out 100 years to put the habitat back, clean the water up, the quantity, get the poison out of Puget Sound along the ocean. We have got to make that change. It has got to happen, or otherwise our salmon is gone, and that is our culture, our way of life.

I eat salmon. I am 81 years old now. Damn, I eat a lot of salmon.

[Laughter.]

Mr. FRANK. Thank you.

[The prepared statement of Mr. Frank follows:]

PREPARED STATEMENT OF BILLY FRANK, JR., CHAIRMAN, NORTHWEST INDIAN FISHERIES COMMISSION

Introduction

Mr. Chairman and members of the Committee, I appreciate the opportunity to provide testimony on the Impacts of Environmental Changes on Treaty Rights, Traditional Lifestyles and Tribal Homelands. My name is Billy Frank, Jr. and I am the Chairman of the Northwest Indian Fisheries Commission (NWIFC). The NWIFC is composed of the 20 tribes with rights reserved by treaties with the United States and that are party to *United States vs. Washington (U.S. vs. Washington* [1]*).*

Treaty Rights at Risk

Last summer we launched our Treaty Rights at Risk (TRAR) initiative to call on the federal government to take charge of salmon recovery in western Washington. The treaty rights of the western Washington treaty tribes to harvest salmon are in imminent danger. The danger exists due to diminishing salmon populations, which limits or eliminates our right to harvest. This is due to the inability to restore salmon habitat faster than it is being destroyed.

We have called on the federal government to implement its fiduciary duties by better protecting salmon habitat and assuring that our salmon recovery plans are implemented. The federal government has a trust responsibility to the tribes and the tribes' treaties are constitutionally-protected. It is imperative that we are successful with this initiative as salmon are critical to the tribal cultures, traditions and their economies.

In summary, we requested that the federal government:

[1] *United States vs. Washington*, Boldt Decision (1974) reaffirmed western Washington tribes' treaty fishing rights.

- Assume federal control and responsibility over the implementation of salmon recovery plans in the region to assure that the federal obligation to the tribes to protect their treaty-reserved rights is met.
- Direct all federal agencies to stop allowing their other statutory obligations to supersede their obligations to the tribal treaty rights by applying disparate conservation burdens on the tribes.
- Support the tribes by initiating litigation to declare the treaty-reserved right for instream flows needed for protection and restoration of salmon.
- Conduct a White House summit in the northwest to identify the state of salmon recovery and the solutions for achieving protection and recovery. We also requested that Congressional hearings be held to clearly identify the factors that are threatening the tribes' treaty rights and the impediments to achieving recovery.

Meaningful change needs to happen soon as our economies, culture, traditions and way of life don't exist without these natural resources. Without these natural resources our treaty rights are meaningless. Salmon are disappearing due to the continued loss of habitat and federal agencies are using the Endangered Species Act as a tool to place a disparate conservation burden on tribes. They are applying more stringent conservation standards to tribal fisheries and hatchery programs than to those in the region that degrade salmon habitat. The federal government needs to enforce its own laws and stop placing an inequitable application of the conservation burden for recovery on the tribes.

The federal government has not focused sufficient attention on improving the habitat. These resources are dependent on good habitat. Our habitat is on a downward spiral and we need to reverse this trend. Despite millions of dollars being spent on salmon recovery, we are losing habitat faster than we can restore it. Our resources are disappearing because the state and federal governments are allowing critical habitat to be damaged and destroyed.

With that said, we are encouraged by the initial response from the federal government. We all agree on the need to strengthen the tribal and federal relationship to address obstacles to salmon recovery. We have already developed recovery plans and identified barriers to salmon recovery in most watersheds. Now we need a commitment from the federal government to coordinate the effort to tackle the most pressing obstacles in each watershed and to provide the leadership necessary to achieve successful implementation of our salmon recovery plans. We need a fundamental change in the way the federal agencies conduct their business if we are to be successful in achieving recovery.

Treaty Times to Modern Day

When our ancestors signed treaties, ceding millions of acres of land to the United States government, they reserved the right to fish, hunt and gather in all traditional areas. These constitutionally-protected treaties, combined with the federal trust responsibility and extensive case law, including the *U.S. vs. Washington* decision, all consistently support the role of tribes as natural resource managers, both on and off reservation. In Washington State, these provisions have developed into a successful co-management partnership between the federal, state and tribal governments. This collaboration has helped us to deal with many problems, but still requires additional support to meet many new challenges such as ocean acidification and climate change.

The tribes have developed sophisticated natural resource programs designed to protect and enhance their treaty rights. Tribal programs have served as the backbone of salmon recovery, providing the technical, policy and legal framework for this incredibly difficult task. Tribes perform complicated harvest, hatchery and habitat management tasks that neither the state nor the federal government can effectively carry out.

Climate Change

Indian people have always lived along the coastlines of Washington State where our salmon, shellfish and other foods come from. For many thousands of years we migrated from the shore to the upper reaches of our watersheds, gathering foods, medicines and materials as each came into its season.

Through our treaties with the U.S. we ceded most of the land that is today western Washington. But in doing so, we were also placed on reservations and lost the ability to move away from the harm that climate change is already causing to our way of life. Our reservations cannot escape the rising seas, coastal erosion and the many other effects of climate change that threaten our existence as Indian people.

As our climate changes, it impacts our homes, our cultures, our economies and the treaty protected resources upon which we have always depended.

Our glaciers are fast disappearing, and with them the cold, clean water that salmon need to thrive. Ocean acidification is threatening the survival of shellfish by preventing the shells of their young from forming and the food supply for salmon and other important fish species. Expanding low oxygen zones are appearing more frequently off our coasts, resulting in massive fish-kills. Storms are becoming more violent. Floods are increasing and so is the damage they cause.

Indigenous coastal people are among the first affected by our rapidly changing climate. Because we know our natural systems better than anyone else, we are the first to realize changes. This traditional knowledge that combines our heart and minds comes from our place-based way of life. This information has been gathered over the centuries through our everyday lives and shared through our songs, stories and ceremonies.

Sharing that traditional knowledge to help address the many aspects of climate change on indigenous communities is the aim of the inaugural First Stewards symposium being held this week in Washington, D.C. at the Smithsonian's National Museum of the American Indian. Regional panels of tribal and indigenous leaders, policy makers, scientists and others will share climate adaptation strategies from coastal and island ecosystems nationwide.

The symposium is a joint effort of the Makah, Hoh and Quileute tribes and the Quinault Indian Nation in Washington State in cooperation with indigenous communities throughout the nation, scientists and governmental and non-governmental organizations including the NOAA Office of National Marine Sanctuaries, Smithsonian's National Museum of the American Indian, The Nature Conservancy, and Western Pacific Regional Fishery Management Council.

Salmon Recovery

Just as we are a place-based people, our treaty rights are place-based too. For those rights to have meaning there must be resources for us to harvest. Otherwise our treaties are relegated to empty promises, which is an all too common theme in Indian Country. Restricting our right to harvest continues to be much of the focus when habitat is the real problem. A steadily increasing population, combined with poor land use choices, increasing pollution, loss of viable salmon habitat and other factors contribute to the loss of habitat and our right to harvest.

Because salmon live out their lives in both fresh and marine waters, they are one of the best indicators of the overall health of our ecosystems and the effects of climate change and habitat loss. The reality is that wild salmon populations continue to decline at an alarming rate throughout western Washington, primarily because of lost and degraded spawning and rearing habitat. This trend shows no sign of improvement and comes despite drastic harvest reductions, careful use of hatcheries, extensive habitat restoration projects and a huge investment of effort and funding. As a result, our treaty rights are at risk as never before because we are losing ecosystems faster than we can restore them.

That's why we are asking the federal government to align its agencies and programs, and lead a more coordinated salmon recovery effort. We want the United States to take charge of salmon recovery because it has a trust obligation to the tribes and the authority to ensure both the recovery of salmon and protection of tribal treaty rights.

Until now, the federal government's main response to declining salmon runs has been to restrict harvest. That's a recipe for failure. Activities effecting habitat must be held to the same standard as harvest if we are going to recover salmon.

Before tribes can fish, we are required to show that our fisheries will contribute to salmon recovery under the Endangered Species Act. We feel strongly that those who damage or destroy habitat must be held to the same standard. No amount of fishery restrictions can restore salmon unless they have enough good spawning and rearing habitat.

We believe that salmon recovery must take place at the watershed level because that's where salmon begin and end their lives. We have already developed recovery plans and identified barriers to salmon recovery for most watersheds in western Washington. Those plans must be implemented and the barriers identified need to be fixed, and it needs to happen soon.

Protecting and restoring salmon habitat has always been the key to salmon recovery in western Washington. Hatcheries help provide limited fishing opportunities, but over time we have become increasingly reliant on hatchery salmon to help make up for the loss of natural salmon production from our rivers and streams.

Most hatcheries were built to make up for lost natural salmon production caused by habitat damage and destruction. Today, the Chinook and coho we harvest are

largely supported by hatchery production. This is a direct reflection of the huge amount of natural salmon production we have lost, and continue to lose every day.

Hatcheries are not a substitute for wild salmon because they also require good salmon spawning and rearing habitat. Hatchery salmon were never intended to replace naturally spawning salmon. But that is what is happening after more than a century of habitat degradation. We've become dependent on hatcheries and the fish they produce because we are losing the battle to recover naturally spawning salmon and their habitat. Tribes currently depend on hatcheries to support our treaty fishing rights, to provide salmon for our tables, our cultures and our economies.

All fishermen—Indian and non-Indian—rely on hatcheries, because to some extent, hatcheries support most fisheries. Some facilities produce fish for harvest, which helps reduce fishing pressure on naturally spawning salmon. Others are dedicated nurseries where weak wild stocks and their offspring are protected from disappearing altogether.

Western Washington's White River Chinook wouldn't be here today if not for hatcheries. By 1977, fish-blocking dams and other habitat losses resulted in only 66 adult Chinook returning to the river. An egg bank was created that year to save White River spring Chinook from extinction, which was almost too late. In 1986 just six adults returned, but today those fish have a future. The Muckleshoot Tribe's White River Hatchery opened in 1989 in an effort to protect, preserve and restore those spring Chinook. Annual returns today number in the thousands and are a direct result of good hatchery management practices, habitat improvements in the upper watershed and collaborative efforts by the tribes, state and others.

Hatcheries are not a long-term solution to salmon recovery. But when they are managed as part of a river's ecosystem and are combined with conservative fisheries and habitat improvements, they can be effective tools that provide fishing opportunities for everyone.

If we are going to succeed in salmon recovery, the federal government must use its authority to honor our treaties. Because our treaty rights are both civil rights and property rights, they are protected under the U.S Constitution. The U.S. Attorneys' office was instrumental in helping us defend our treaty rights under *U.S. vs. Washington*. It may be time once again for the United States government to exercise its trust responsibility through the Department of Justice to protect tribal treaty rights and cultures.

Field Hearings

We respectfully request that the Senate Committee on Indian Affairs conduct field hearings in western Washington to better understand the significance of the threat to our treaty rights that is resulting from the continued decline in the resources those rights depend on. Western Washington tribes are leaders in protecting and sustaining our natural resources. The tribes possess legal authority, as well as extensive technical and policy expertise. They effectively manage programs to confront the challenges that face our region and the nation. The activities and functions the tribes perform benefit all citizens of the state of Washington and U.S.

We are facing many environmental and natural resource management challenges in the Pacific Northwest caused by human population expansion and urban sprawl. Those challenges include increased pollution problems ranging from storm water runoff to de-oxygenated or "dead" areas in the Hood Canal, parts of Puget Sound and in the Pacific Ocean. The pathway to the future is clear to us. Federal, state and tribal governments must strengthen our common bond and move forward with the determination and vigor it will take to preserve our heritage.

The tribes are strategically located in each of the major watersheds, and no other group of people is more knowledgeable about the natural resources. No one else so deeply depends on the resources for their cultural, spiritual and economic survival. Tribes seize every opportunity to coordinate with other governments and non-governmental entities to avoid duplication, maximize positive impacts, and emphasize the application of ecosystem management. We continue to participate in resource recovery and habitat restoration on an equal level with the state of Washington and the federal government because we understand the great value of such cooperation.

Conclusion

Chairman Akaka and members of the Committee, our future and existence hangs in the balance right now. Together, we must focus on the needs of our children, with an eye on the lessons of the past. We have no illusions that we can leave a better world for our children, but we can leave the groundwork for recovering wild salmon, slowing the effects of climate change, and developing strategies for adapting to those changes.

In the end, our treaty fishing rights are based on abundance, and it is that abundance that must be restored for those rights to have meaning. That abundance must come from a combination of improved habitat and hatchery production. The federal government must honor its treaties and exert it's authority by exercising its trust obligation to the tribes to protect those resources. We look forward to continuing to work with the federal government on these vitally important issues and ask for Congress to continue to support our efforts to protect and restore our great natural heritage. Thank you.

The CHAIRMAN. Thank you very much, Billy Frank.

Now I would like to call on Ms. Akutagawa to please proceed with your statement.

STATEMENT OF MALIA AKUTAGAWA, ASSISTANT PROFESSOR, WILLIAM S. RICHARDSON SCHOOL OF LAW

Ms. AKUTAGAWA. Aloha, Senator Akaka.

The CHAIRMAN. Aloha.

Ms. AKUTAGAWA. Aloha, Committee members. Thank you for this opportunity to testify. My testimony will focus on the effects of climate change on Native Hawaiians and our cultural practices.

Surface air temperature in Hawaii is steadily increasing and causing reduced cloud cover and a 15 percent decline in rainfall. We are noticing reduced stream flow; the drying of our Native forests and destruction from wild fires; drying springs that impact the availability of certain edible seaweeds and other species in estuarine habitats; irregular and late seasonal changes that have altered the number of consistent, good fishing days; prolonged drought and crop losses suffered by farmers and Hawaiian homesteaders.

While rainfall decreases, rain intensity has been increasing, bringing frequent flash floods, mudslides, and damage to roads and infrastructure. Excess water and sediment choke our reefs and fish ponds.

Sea level rise is causing chronic beach erosion. For example, 72 percent of Kaua'i's beaches are eroding. Global sea level is expected to rise three feet above current levels by the end of this century.

Exposure of our iwi kapuna, our ancestral burials, are occurring along eroded shorelines. Sea level rise is preventing Hanapepe families on the island of Kaua'i from making salt for bartering, gifting, food preparation, traditional hearing, and ceremonial blessings.

Hawaii's surface water temperatures are increasing, making our corals vulnerable to bleaching.

Elevated levels of carbon dioxide from greenhouse emissions are absorbed by the ocean. This is causing our ocean to acidify and threatening the development of shellfish, corals, calcereous algae, and marine plankton. Entire fisheries worldwide are at stake.

Endangered species and special food sources to Native Hawaiians have been impacted. The stunning cycle of the manini fish dependent on harboring fertilized eggs within the spit of humpback whales may have been interrupted by the late migration of the whales this past year.

Certain native plants within pristine, upland forests are flowering and seeding outside of their normal periods of reproduction.

Climate change and environmental degradation impacts Native Hawaiians deeply because they alter our relationship to place, the foods, and the cultural practices that sustain us.

I recommend Federal support for increasing Hawaii's food security as a strategy for climate change adaptation and resilience. Specific areas where Federal involvement will help include:

Express prohibitions on the development of prime agriculture lands for other than agriculture, especially projects financed with Federal dollars;

Elimination of Federal subsidies for industrial agriculture to even the playing field for small, local, family farms;

Maintaining biodiversity through support of indigenous initiatives on heritage seed saving and cultivation of ancestral plant varieties as a strategy to lessen vulnerability to crop failure;

Support Hawaiian community efforts to restore and revitalize fishpond production by making the permitting process less cumbersome.

I recommend the reduction of building new homes and infrastructure within the coastal zone in preparation for sea level rise. Federal guidance and conditions to continued funding of coastal zone management programs administered by the States are needed to help places like Hawaii adopt and implement a comprehensive climate change adaptation plan for coastal management.

I encourage increased Federal funding for the Center for Island Adaptation and Policy and the work of agencies at all levels of government, as well as grants for NGOs, indigenous organizations, and educational institutions and programs that conduct reforestation work, watershed and marine management and restoration, fire suppression, invasive species removal, and the endangered species and critical habitat preservation work as they relate to strengthening our natural systems climate change resilience.

In recent years the State of Hawaii has acknowledged the need to integrate Hawaiian traditional ecological knowledge through the Aha Moku system, and adaptive management tools. The Aha Moku process provides greater inroads for local and indigenous stakeholders to work effectively with Government in the management and protection of natural resources critical to our way of life. I would also urge Congressional support of initiatives like this that place Native indigenous stakeholders in positions of leadership to manage natural and cultural resources essential to their people's wellbeing and traditional pathways.

Mahalo for this opportunity to testify.

[The prepared statement of Ms. Akutagawa follows:]

PREPARED STATEMENT OF MALIA AKUTAGAWA, ASSISTANT PROFESSOR, WILLIAM S. RICHARDSON SCHOOL OF LAW

Mr. Chairman, Mr. Vice Chairman, and distinguished Members of the Committee, thank you for the opportunity to testify. My name is Malia Akutagawa. I am a Native Hawaiian cultural, subsistence practitioner from the island of Molokai. I am also an Assistant Professor with the University of Hawai'i William S. Richardson School of Law – Ka Huli Ao Center for Excellence in Native Hawaiian Law and the Hawai'inuiākea School of Hawaiian Knowledge. I am part of Hui 'Āina Momona, a multidisciplinary team of scholars that focuses on educating students, conducting research and community outreach that develops leadership and mālama 'āina stewardship of natural and cultural resources from an informed, Native Hawaiian world view.

My testimony will focus on the effects of climate change on Native Hawaiians and our cultural practices. I have spent years observing natural phenomena as part of my upbringing as a fisherwoman, limu (seaweed) gatherer, and as a novice learner of lā'au lapa'au Hawaiian medicinal healing arts. I also founded a nonprofit, Sust 'āina ble Molokai, which upholds Hawaiian traditional pathways and compatible modern strategies for a sustainable future. I have also participated in the Native Hawaiian Symposium on Climate Change held in March of this year and the Papahānaumokuākea Marine National Monument Climate Change Workshop conducted in June. I have had an opportunity to hear from and speak to a number of indigenous cultural practitioners and resource managers as well as marine, terrestrial, and climate change scientists. I bring with me some of their observations and findings. I would also like to acknowledge my colleague Professor Maxine Burkett, Director of the Center for Island Climate Adaptation and Policy (ICAP), which has been instrumental in generating dialogue within the university, State government, and community on climate change and policy making. I am also grateful to cultural expert and ICAP Director of Strategic Partnerships Malia Nobrega who shared with me a wealth of resources, articles, and papers, and most of all her family's personal history as traditional saltmakers and the challenges they face in continuing their practices in the advent of rising sea levels.

In my testimony I would like to cover some of the major climate change variables affecting Hawai'i as evidenced by western scientific research and indigenous observations. These variables include:

- Rising air temperature
- Decreased rain fall and stream flow
- Increased rain intensity
- Rising of sea surface temperature and sea levels, and
- Ocean acidification

Surface Air Temperature & Impact to Upland Forests, Watershed Systems, Estuarine Environments, and Agriculture

Hawai'i has been experiencing a significant increase in air temperature over the past 30 years, at an average rate of 0.3°F per decade.[1] This warming trend is most pronounced at elevations above 2,600 feet with an average increase of .48°F increase per decade, which is faster than the global average.[2] As a result, reduced cloud cover along the mountain range and a marked reduction in rainfall has occurred. Hawai'i records indicate a decline of 15% in rainfall over the past 20 years which has led to less stream flow and a reduction in base flow from groundwater sources to maintain streams during dry periods.[3]

My personal observations and those of other Native Hawaiians in their natural island environments include:

- Sporadic occurrences of what used to be normal daily morning and evening rain showers.
- Streams that flowed year round or most of the time now flow only during heavy rains.
- The forests are drying out. Wildfires are more common and have been threatening the green, upper reaches of native forests to an extent that has not been witnessed before.[4]
- Beds of edible seaweed delicacies such as limu 'ele'ele and huluhuluwaena which favor freshwater seeps along the marine shoreline are dying out and their coverage area has become greatly reduced due to prolonged drought and reduction of spring water along the coastline. Areas rich in edible limu are becoming dominated by opportunistic, weedy, inedible seaweeds.
- The seasons are arriving late; sometimes a certain season lasts for a very short duration or is skipped altogether. There is also a tendency of seasons to mix, with unpredictable alternating cool and warm temperatures on any given day. The effect has been that fishing season has become protracted. Increased water chop, and decreased visibility from stormwater discharge make conditions unfavorable for fishing.

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[1] Fletcher, Chip. "Hawai'i's Changing Climate Briefing Sheet 2012." *Department of Geology and Geophysics, School of Ocean and Earth Science and Technology, University of Hawai'i at Mānoa. University of Hawai'i Sea Grant College Program, Center for Island Climate Adaptation and Policy.*

[2] Fletcher, Chip. "Hawai'i's Changing Climate Briefing Sheet 2012."

[3] Fletcher, Chip. "Hawai'i's Changing Climate Briefing Sheet 2012."

[4] Crozier, Pomaika'i Kaniaupio. Comments at the Island Climate Adaptation and Policy's Native Hawaiian Symposium on Climate Change, March 22-23, 2012, O'ahu, Hawai'i.

- Molokai farmers and Hawaiian Homestead farming families all cited observations of prolonged drought conditions that have increased crop failure and left crops more vulnerable to pests and predation by feral ungulates seeking moisture and nutrition.[5]

Intense Rainstorms, Flash Flooding, Water Discharge & Siltation of Reefs and Ancient Fishponds

While rainfall overall has decreased, the amount of heavy rainfall has increased by an estimated 12% since 1958.[6] More and more, these heavy rainstorms have been causing flash floods, mudslides, damage to roads and infrastructure. This phenomenon is also observed on Molokai. We have silt runoff from the mountains that choke our reefs. Heavy rains regularly cause mudslides, bring boulders down the mountain and block roads, and damage our bridges.

Hi'ilei Kawelo, operator of Paepae o Heeia Fishpond on the windward coast of O'ahu recounts her observations that there has been a decrease in trade wind showers and an increase in pulse flooding.[7] During these heavy rain events, sediment and excess water washes into the pond and alters its biochemistry. This impacts her ability to provide a good environment for fish to grow. The strategy of our ancient kūpuna (ancestors) in fashioning these fishponds centuries ago was to create a micro-environment for herbivorous fish to thrive. The wakewahi, or productive waters, where fresh and salt water mix, provide ideal conditions for algal mats called microphyto benthos (MPB) to form along the pond bottom and feed mullet.[8] The freshwater mixing with the sea serves as a cooling agent and helps to maintain optimal dissolved oxygen levels important to keeping fish alive and healthy.[9]

Rising Sea Level, Beach Loss, Exposure of 'Native Hawaiian Burials, and Impacts to Traditional Salt-Making

Over the past century, sea level in Hawai'i rose at an estimated 0.6 inches per decade. The cumulative increase in sea level has led to coastal erosion and flooding, and damage to artificial drainage systems.[10] Chronic coastal erosion affects beaches that were once stable. The average rate of beach loss island-wide is 1 foot per year,[11] 72% of Kaua'i's beaches are experiencing chronic erosion. In developed areas, the prevalence of seawall construction has led to beach loss. Seawalls on O'ahu have caused a 25% loss of beaches on that island.[12] It is expected that global warming will exacerbate and accelerate trends in sea level rise. Research models show that by the end of this century, global sea level may rise 3 or more feet above 1990 levels.[13]

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[5] Akutagawa, Malia, Laheia Han, Harmonee Williams, Emilia Noordhoek, *Sust 'Aina ble Molokai – Molokai Agriculture Needs Assessment*, May 2012.
[6] Fletcher, Chip. "Hawai'i's Changing Climate Briefing Sheet 2012."
[7] Kawelo, Hi'ilei. Presentation at the Papahānaumokuākea Marine National Monument Climate Change Workshop, O'ahu, Hawai'i, June 12-14, 2012.
[8] Kawelo, Hi'ilei. Presentation 2012.
[9] Kawelo, Hi'ilei, Presentation 2012.
[10] Fletcher, Chip. "Hawai'i's Changing Climate Briefing Sheet 2012."
[11] Fletcher, Chip. "Hawai'i's Changing Climate Briefing Sheet 2012."
[12] Fletcher, Chip. "Hawai'i's Changing Climate Briefing Sheet 2012."
[13] Fletcher, Chip. "Hawai'i's Changing Climate Briefing Sheet 2012."

Low-lying islands in the South Pacific are already experiencing the full brunt of climate change in rising sea levels that have completely inundated islands, flooded homes, covered cemeteries, inundated areas important for agriculture and leaving people as refugees in their homeland, dependent on food and water drop-offs by other countries conducting humanitarian work.[14]

On Molokai, we are witnessing the exposure of iwi kupuna (ancestral burials) along eroded shorelines. As sea level continues to rise and beaches erode further, we will need to respectfully relocate iwi kupuna to higher ground.

Dr. Chip Fletcher of the University of Hawai'i has documented the impacts of climate change in the South Pacific islands. He has found that saltwater intrusion accompanies sea level rise and has compromised springs feeding low-lying agricultural areas.[15] Families have been forced to abandon their taro fields which have been exposed to salt water. The aquifer has been damaged, limiting their ability to access drinking water.[16] In time, areas in Hawai'i will be facing a similar situation. Taro is the staple crop of Native Hawaiians. Low lying taro fields throughout Hawai'i will be compromised as well with rising ocean waters.

Climate change has directly impacted Hanapēpē families who make salt for bartering and gifting.[17] It also affects traditional lā'au lapa'au healing practices and ceremonial blessings (for new homes, buildings, boats, etc.) that utilize pa'akai (salt).[18] Hawaiian families in the Hanapēpē region of Kaua'i Island have maintained for generations the traditional practice of sea salt making. In this area of Kaua'i there exists sea shelves and a system of lava tubes that carry ocean water inland and fill up puna (springs) designated specifically for salt making.[19] Families clean and maintain these puna kai.[20] During the months of April to September, families harvest seawater from these puna and fashion out waikū and lo'i out of natural clay found in the area.[21] These waikū and lo'i are a series of earthen troughs or basins shaped by hand and made impermeable to hold seawater harvested from the puna.[22] The seawater is poured first into the waikū and then transferred to the lo'i for further drying and crystallization.[23] The Nobrega family who maintains this tradition obtains on average 75 buckets of salt per harvest and makes several harvests throughout the salt-making season.[24] Two years ago, however, families in Hanapēpē could not harvest any salt due to rising sea level that overflowed the puna and flooded the entire area utilized for salt-making.[25] Just a month ago in June, the Nobrega's were

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[14] *Miss South Pacific: Beauty and the Sea.* Directed by Mary Lambert. 2011. A documentary film depicting beauty pageant contestants throughout the South Pacific islands addressing the devastating effects of climate change in their homelands.

[15] Fletcher, Chip. Presentation at the Island Climate Adaptation and Policy's Native Hawaiian Symposium on Climate Change, O'ahu, Hawai'i, March 22-23, 2012.

[16] Fletcher, Chip. Presentation 2012.

[17] Malia Nobrega, Interview by Malia Akutagawa, July 10, 2012. O'ahu, Hawai'i.

[18] Malia Nobrega, Interview 2012.

[19] Malia Nobrega, Interview 2012.

[20] Malia Nobrega, Interview 2012.

[21] Malia Nobrega, Interview 2012.

[22] Malia Nobrega, Interview 2012.

[23] Malia Nobrega, Interview 2012.

[24] Malia Nobrega, Interview 2012.

[25] Malia Nobrega, Interview 2012.

able to make salt and harvest in July a total of 21 buckets.[26] This is the first time conditions have been optimal to make salt and the family is not sure when good conditions will occur again.[27]

Rising Sea Surface Temperatures and Ocean Acidification

Regular surface water temperature readings reveal a 0.22°F increase per decade in Hawaiian waters. Scientists anticipate this figure to rise with global warming.[28] Rising temperatures will expose corals to bleaching events where they may permanently lose their symbiotic microalgae.[29] Elevated levels of carbon dioxide in the atmosphere caused by emission of greenhouse gases by industrialized nations and developing countries are absorbed by the ocean and alters its chemistry to more acid conditions that limit the availability of dissolved carbonate. This limitation impacts all shellfish, corals, calcareous algae, and marine plankton.[30] Ocean acidification has the potential to collapse entire fisheries worldwide. For the reef specifically, if they are unable to recover, fish who feed on coral lose their food source. Eventually the dead coral matrix disintegrates and habitat is lost to a number of marine species. This in turn impacts the health of our fisheries. For Native Hawaiians, it means the loss of food sources and the destruction of fishing grounds critical to traditional, subsistence.

Papahānaumokuākea Marine National Monument

The effects of climate change are being felt more immediately by the older, lower lying Northwest Hawaiian Islands that are collectively designated as the Papahānaumokuākea National Marine Monument. Observations of resource managers and scientists include the following:[31]

- The islands are disappearing beneath the ocean due to sea level rise
- More loss of habitat is anticipated due to sea level rise coupled with intense storm waves that move inland and take out nesting seabirds.
- Reduction of monk seal pupping areas and turtle nesting sites due to beach loss.
- Reduced oceanic productivity along the Hawaiian archipelago due to shifting current and atmospheric wind patterns that no longer promote upwelling of nutrients in Hawai'i. This will impact fisheries throughout the archipelago.

Endangered Species and Food Sources Important to Native Hawaiians

Several Native Hawaiians expert in understanding moon phases and cycles and the correlations with ideal planting and harvesting periods for various food crops; the reproductive cycles of plants and spawning periods of fish contributed valuable input on the ways climate change is

[26] Malia Nobrega, interview 2012.
[27] Malia Nobrega, interview 2012.
[28] Fletcher, Chip. "Hawai'i's Changing Climate Briefing Sheet 2012."
[29] Fletcher, Chip. "Hawai'i's Changing Climate Briefing Sheet 2012."
[30] Fletcher, Chip. "Hawai'i's Changing Climate Briefing Sheet 2012."
[31] Presentations and Discussions at the Papahānaumokuākea Marine National Monument Climate Change Workshop, O'ahu, Hawai'i, June 12-14, 2012.

impacting these cycles. Hawaiian botanists, forest and watershed managers also contributed their knowledge of changes seen in the field.

Kalei Nu'uhiwa shared her knowledge of the spawning cycle of the manini fish coincident with the arrival of migrating humpback whales.[32] Fertilized eggs of the manini are concealed from predators and develop into 'ōhua (newly hatched fry or fingerlings) nestled within the bubbles of whale spit. As the currents carry the whale spit to shore, the 'ōhua are released and find shelter along the shoreline and tidepools. This winter season, the whales were late in their migration to Hawai'i. This may have adversely impacted manini spawning and survival rates of their young.

Pomaika'i Kaniaupio Crozier who assists in the management of Pu'u Kukui Watershed Preserve and Ma Kai Conservation Areas on the island of Maui has observed that certain native plants within pristine, upland forests are flowering and seeding outside of their normal periods of reproduction.[33]

Dr. Benton Keali'i Pang noted the Hawaiian people's cosmological, genealogical, archaeological, and educational connection to the Papahānaumokuākea (Northwest Hawaiian Islands).[34] Climate change is resulting in ecological extinctions and degradations. These in turn result in a loss of kinship and a degradation of culture -- a loss of or reduction in our ability to practice our culture, to learn from what our kūpuna (ancestors, elders) did.[35]

Fishpond operator Hi'ilei Kawelo, speaks fondly of her *one hānau*, her birthplace, "The function of my place, my ahupua'a, is to produce food, and my function is to care for this place. As Hawaiians, we make connections through food and rely on our 'ike kūpuna, our ancestral knowledge, of gathering and preparing these foods."[36] The connection to place and our kuleana (responsibility) to care for our place is the essence of our culture. Climate change and environmental degradation impacts Native Hawaiians deeply because they alter our relationship to place, the foods, and the cultural practices that sustain us.

Recommendations

Increase Food Security. As we begin to look at climate change adaptation and resilience, the ability to produce our own food locally and strengthening Hawaii's food security will be key. Government should no longer take a blind eye to appropriating the use of prime agriculture lands for housing, luxury gentlemen estates, and commercial developments that incapacitate the islands from producing food for its citizens. The approval of projects financed

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[32] Nu'uhiwa, Kalei. Comments at the Island Climate Adaptation and Policy's Native Hawaiian Symposium on Climate Change, March 22-23, 2012, O'ahu, Hawai'i.

[33] Crozier, Pomaika'i Kaniaupio. Comments at the Island Climate Adaptation and Policy's Native Hawaiian Symposium on Climate Change, March 22-23, 2012, O'ahu, Hawai'i.

[34] Pang, Benton Keali'i. Presentation at the Papahānaumokuākea Marine National Monument Climate Change Workshop, O'ahu, Hawai'i, June 12-14, 2012.

[35] Pang, Benton Keali'i. Presentation 2012.

[36] Kawelo, Hi'ilei. Presentation at the Papahānaumokuākea Marine National Monument Climate Change Workshop, O'ahu, Hawai'i, June 12-14, 2012.

with federal dollars should provide express conditions that prime agricultural lands be spared from construction.

Federal and State laws and policies need to change to support small family farms that will in turn increase local self-sufficiency and resilience in all communities throughout Hawai'i. These small family farms also tend to preserve green space important to carbon sequestration and preserving the nutrients in the soil. Federal subsidies for corporate agriculture need to end, as they set false pricing that leaves the small farmer out of the equation and unable to make a living.

Federal funds and policies that encourage Hawai'i and other States to set aside more agriculture land for leases to small farmers should be adopted. Pressure must be applied to the State in discontinuing abusive practices that allow for leasing and sub-leasing of agriculture park lands to huge, biotech seed companies. These companies take away from Hawai'i's food security and destroy the life of the land through heavy application of chemical pesticides and fertilizers, monocropping, and exposing precious topsoil to wind and water erosion. These agricultural parks were created to benefit local, small farm operators; not for industrial agriculture companies.

Resilience to climate change also requires preservation of biodiversity in our food crops and supporting sustainable, ecological farming practices that grow several varieties of many different crops. In this way, farmers are more likely to avoid total crop failure and select for crop varieties that are more adaptive to climate change. Funding local community and indigenous initiatives on seed saving, collecting and propagating heritage seeds, and for us in Hawai'i the preservation and planting of canoe crops and the many varieties that our ancestors cultivated through centuries, will be critical to climate change resilience and adaptation.

Hawai'i's ancient fishponds are underutilized, yet pose a significant opportunity for food production. Government regulation at the federal, state, and county level has made the permitting process daunting and cost prohibitive to the average person. Informal processes should be explored further such as memoranda of agreement between government and Hawaiian groups seeking to restore these ponds for fish production. In this manner some of the environmentally protective measures around maintaining water quality would be followed, but not serve as a complete barrier to revitalizing our fishponds to produce food.

Reducing building of new homes and infrastructure within the coastal zone in preparation of sea level rise. Federally funded coastal zone management programs and counties implementing the law through the shoreline setback and Special Management Area regulations must also revisit their land use and permitting regulations around development of nearshore properties in light of sea level rise. Federal guidance on these issues and conditions to continued funding would help to encourage States like Hawai'i to adopt and implement a comprehensive climate change adaptation plan for coastal management.

A comprehensive plan has to be established that considers the use of eminent domain powers and a mechanism for land swaps for families living in areas that will become inundated by rising ocean levels within the next several decades. Something must be done now before many of our islanders become climate refugees.

Increase funding for the work of agencies at all levels of government as well as grants for NGOs, indigenous organizations, and educational institutions and programs that conduct reforestation work, watershed and marine management and restoration, fire suppression, invasive species removal, and endangered species and critical habitat preservation work. More work can be done to improve Hawai'i's forests and watersheds. Federal funding should support the work of agencies, NGOs, and other entities doing reforestation and watershed management work. With every effort made to preserve existing forests and watershed areas; supplemented by repair of areas that have become denuded through poor land management, we can help to attract more cloud cover and rain. These strategies address the need to strengthen the health of our bio and ecological systems to create greater climate resilience.

Often overlooked are the ways that urbanization contributes to water loss through modern culvert and drainage systems that transport water off the land and directly into the sea. This exposes the marine environment to chemical toxins as well as an overabundance of freshwater input during heavy rains. Much of this water can be harvested passively in urban landscapes through subtle earthworks (swale construction, terracing, permeable paving, etc.) that welcome and incorporate water into landscaping. Through continual soakage of rainwater into the land, recharge of groundwater at lower elevations and the creation of new spring lines are possible and would serve to mitigate the negative impacts of saltwater intrusion associated with rising sea levels.

A decrease in anthropogenic disturbance on natural ecosystems and a commitment to restorative work whether it be removing ungulates from damaging upland forests; engaging in responsible, sustainable ranching; or decreasing non-point source pollution discharge into the ocean, our fishponds, and reef – these new, responsible practices will aid species and the natural systems in recovery and make them that much stronger to face the challenges that come with climate change.

Support the continued work of the Center for Island Climate Adaptation & Policy (ICAP). ICAP has been instrumental in bringing together the science, Native Hawaiian and other community stakeholders, and the legal experience to make policy recommendations that government and the public can act on today. Federal funding is needed to help ICAP continue its work for the benefit of our islands. As a result of the Native Hawaiian Symposium on Climate Change, ICAP is moving forward with recommendations to create a Kilo Honua (Earth Observers) Program that will outreach into Native Hawaiian communities and aide in discourse around climate change issues. The project will also entail an assessment of the issues and policies needed to respect, preserve and maintain Hawaiian traditional knowledge, innovations, and practices. It will highlight the importance of indigenous lifestyles to conservation and sustainable use of natural resources.

Papahānaumokuākea. We need to anticipate that in the years ahead birds, monk seals, and turtles may begin migration from the Northwest Hawaiian Islands to the main Hawaiian islands. We are already witnessing this with monk seals naturally relocating to the main Hawaiian islands. As their numbers increase in the main Hawaiian islands, there have been repeated and deliberate killings of monk seals by humans. It is suspected that fishermen are killing them due to an innacurate perception that monk seals are competing for the same food source. Actions must be taken to educate the public and provide a place for these endangered Hawaiian species to co-exist peaceably with us. This may entail establishing natural reserves for various species

migrating to the main Hawaiian Islands and reducing artificial lighting along beaches important to turtle nesting.

Support Collaborative Governance Processes and the Work of the 'Aha Kiole. The traditional Hawaiian ahupua'a system of natural resource management was very effective in sustaining successive generations of our people and enhancing the land and sea to produce a surplus of food for the benefit of all life. Konohiki land managers were assigned to the care and management of ahupua'a, land divisions typically marked along watershed contours that served to provide the population with access rights to resources from mountain to sea. Konohiki possessed an intimate knowledge of their particular ahupua'a and made management decisions that were customized to their place. This was a form of adaptive management at its finest, where decisions could be made in real time to curtail overharvesting of fish; to ensure equal allocation of water resources; to assign labor fairly for the purpose of making the land and sea productive as well as share in collective harvests.

In recent years, the State of Hawai'i has acknowledged the need to integrate Hawaiian traditional ecological knowledge in the management of natural resources. Last week, Hawai'i Governor Neil Abercrombie signed into law House Bill 2806 establishing the 'Aha Moku Advisory Committee under the State Department of Land and Natural Resources (DLNR). The 'Aha Moku Advisory Committee was originally formed under Act 212 in 2007 to resurrect the Native Hawaiian traditional form of natural resource management and indigenous governance on all islands and to advise the State on Hawaiian ecological and best management practices. Some islands have been more successful than others in building indigenous leadership locally through the formation of 'aha councils at the moku (district) and ahupua'a (traditional land subdivisions within each moku) levels.

This process provides greater inroads for local and indigenous stakeholders to work effectively with government in the management and protection of natural resources critical to our way of life. It also returns to indigenous communities a right to care for and monitor their own resources and to have a seat at the table with government. The 'aha councils will prove invaluable in the years ahead especially in a climate of uncertainty where decisions on the ground have to be made timely in response to sudden and unpredictable shifts observed in nature.

I would also urge Congressional support of initiatives like this that place native, indigenous stakeholders in positions of leadership to manage natural and cultural resources essential to their peoples' well-being and traditional pathways.

Mahalo for this opportunity to present testimony.

The CHAIRMAN. Thank you very much, Ms. Akutagawa, for your testimony.

Now I would like to change in order here and ask Senator Cantwell for any questions she may have, and I will follow with my questions.

Senator CANTWELL. Thank you, Mr. Chairman. Again, thank you for this hearing.

Mr. Frank, many Tribes in our State are feeling the impact of ocean acidification, primarily the shellfish are being impacted, obviously other fish species are being impacted. This has had a major impact on our fish runs.

What do you think we need to do on the mitigation side? We were able to get some money from NOAA as it related to monitoring water CO2 and water levels so that people on the seeding

of shellfish could do a better job, but what else should we be doing on mitigation?

Mr. FRANK. I think what we have got to do is we have got to hold hearings, oversight hearings, right in the northwest, right in our country throughout our witnesses here. Oversight hearings has got to be addressing exactly what Senator Cantwell is talking about.

We have to start listening to us Indian people, the traditional people that have lived here all their lives, as you just said, and listen to us. Nobody listens to us. You don't listen to us. You don't listen to us when we talk. We tell you what has to be done. We play to the choir. We talked to each other in this conference. We talked to one another. We learn about each other, about our problems.

We have to have oversight hearings held right on our reservations, right where the dead zone is, where the salmon is floating in dead, where the shellfish is dying in Hood Canal, where our migration is dying in south Puget Sound. We have got to hold hearings there and we have got to have the energy to make that happen.

Senator CANTWELL. Mr. Williams, did you have a comment on that from Alaska's perspective?

Mr. WILLIAMS. Yes. I am from Alaska. We have 229 federally-recognized Tribes and many people there, in terms of our salmon, our chinook salmon, is declining up there. And I think, in regards to the ocean, we need to have oversight hearings to make sure that our salmon return in perpetuity. The way things are going, as I talk to Joe Garnie from Teller and from those in Nome area, the king salmon quit showing up. He caught only one king salmon so far this summer and two sockeye in Teller River, and also some chums. They are declining up there. That is my biggest concern.

I think if we could have—and I fully agree with Billy Frank that we need to hold meaningful hearings to begin addressing all of the rivers, all of the Bering Sea, and also some of the Pacific Ocean where our salmon are rearing before they head back up to our rivers.

But I think we need to get that traditional knowledge, the elders engaged, the Tribal governments and others that, if we are going to do something, we need to do something right now. We cannot afford to wait any longer.

Thank you.

Senator CANTWELL. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much, Senator Cantwell.

Chief Williams, two GAO reports outline the vulnerability of several coastal village in Alaska. The reports identified obstacles the villages faced in accessing Federal programs. To your knowledge, have those issues been resolved?

Mr. WILLIAMS. It has been very difficult, and in this meeting with the new stewards, with the symposium, we have heard testimony from Newtok, Shishmaref, and other communities, as well as mine. The place where I was born, my house is underwater. I set a fish net there and I am catching salmon where I was born, and that was from the erosion. Also, our old village is in the middle of the river from erosion.

There is probably about 80 percent of the communities that are vulnerable now, but three of the communities must be moved, but there has been lack of coordination by agencies and, while the communities like Newtok are suffering that need to be moved now, are having lack of capacity, lack of capital to achieve those moves.

I think we cannot afford to wait, and that young man, Nelson Kanuk, testified or is in You Tube that the village is receding so fast that they need to move now. I think that is one thing that I think the Federal agencies—and I think that requires another hearing to deal with those issues in Alaska in our areas, to have a viable plan to address those communities that are vulnerable, and in 50 years 180 communities are going to be in the water. How can we afford that? It is going to take, I think, if we don't do anything about them now, it is going to cost more lives, more capital for the Government in the future. But I think right now the trust obligations that the United States has to our people, we need to start doing now.

It is not us that created this problem, and we always lived off the land, lived off the waters, and continue to do that, but we are bearing the burden of living with these conditions today.

Thank you.

The CHAIRMAN. Thank you very much, Chief Williams.

Chairman Hall, you state in your testimony, "We know how best to protect our land," your Tribes and your people. "We have done it for centuries," you said. Can you please discuss the actions that your Tribal nation is taking to respond to and prepare for environmental changes?

Mr. HALL. Yes, Mr. Chairman. As I testified earlier about environmental code that the Tribe had adopted, we were having a lot of spills and hazardous material dumped on our reservation due to the oil and gas industry, the oil boom that we are experiencing. So we just took it upon ourselves to say this is our homelands. We need to draft a code. And so we put it under our civil code under our civil jurisdiction that allowed our Tribal environmental office and our Tribal law enforcement officials the authority to cite and to have fines. As I mentioned, there is an intentional and there is an unintentional dumping, like an accident, but intentional, if they are intentionally dumping on a weekend or at night when supposedly everybody is sleeping, a third offense is $1 million. It is a tough penalty, but our homelands are worth it.

It is really hard to mitigate once hazardous materials go into your water or go into your soils, and so whatever we do on development we are trying to do on reclamation. We have to balance that. So that way we reduce the footprint

Traffic and safety, we adopted a code on traffic and safety. Our police did not have the authority to make the arrests of speeding trucks that were—too many accidental deaths. Too many of our Tribal members were getting killed on the roadways, and we didn't have the authority, because we don't have criminal jurisdiction because of the Oliphant decision. But Tribes have retained civil jurisdiction, so we passed our traffic code under our civil jurisdiction, giving our Tribal police the authority.

If the truckers say we are just going to go off the reservation, then we say we are going to go after the oil companies tarot card,

which is about the size of a driver's license, and that card is very important. It could bring a billion dollars onto our reservation. But whatever that card costs, $500 to get that card, you have to maintain it; otherwise, you can't drill on this reservation.

So you have to make sure that whoever you are contracting with to do your truck driving are driving in a safe manner, and if they are cited they are going to pay their tickets.

And then finally we passed a water theft code, because companies were stealing water from our rural water lines. And so it is a $10,000 fine for those that are going to steal water from our reservation, because it takes about a million gallons of water to do a hydro fracking, and so water is a real expensive asset, and so in order to protect that, again, we put this third code together and we put fines.

And then, finally, we cross-deputize. Not only our water office, our Fort Berthold Rural Water Department, but our game and fish, our law enforcement. We created a Tribal DOT. That way seven days a week are covered, 24 hours in a day are covered, because we found a lot of the thefts were occurring on weekends and at night after everybody has gone home.

So there is a cost to this, and, of course, the Tribe has had to bear all of these costs, but at the end of the day it is worth it for us to do that.

We have demonstrated and we have shown that we can regulate, produce our own codes, and put fines that are going to stop either dumping, water theft, or speeding trucks.

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

Principal Chief Dardar, would you please answer this one. In the last decade your Tribe has dealt with numerous hurricanes, and an oil spill, and continued erosion of the coastline. What resources are available to the Tribe to help address these issues?

Mr. DARDAR. That could be answered real simply. None. The assistance that we do receive is from the donations from agencies that we have been contacted with and working with from the past that have seen the devastation in our communities, so they came in and helped us restore back to normalcy after the hurricane.

And then, as we are getting back on our feet, the oil spill came in, which pretty much knocked out, which in my testimony you will find, the life cycle and the repetitive erosion factors. The estuaries where fish and shrimp and crabs spawn at are being threatened by salt water, heavy inundation of salt water.

So as far as the help that we receive, that is why it is so important, I hear these guys talking about Federal recognition, if we would receive Federal recognition, then we would be able to help ourself get out of some of these circumstances that we are in.

Just due to the lack of the coastline that is receding, as everyone knows, and bringing the hurricanes full force strength to our doorsteps, you know, for every mile of land there was, it knocked down at least 2.7 feet of the tidal surge and allowed these islands and the estuaries there. It brings them further and further inside.

And then again when the BP oil spill happened these all came in and, like I said, we are in sick parishes along the coastline, and these areas were oiled. There was 600 miles of oiled land. The oil hit the coast, and 300 of it was in our area, where our estuaries

and our fishermen were. And it happened just in 2010 as our fishermen were getting ready to go out. They had fueled up their boats, iced it down, and were getting ready to go when the oil spill happened and they had to come back in because all those areas that were normally fishing ground were all closed. So that puts a big damper on our fishermen, because now they are not able to go out and fish these waters because it is all contaminated.

And then add to that a lot of our men in the same area worked in the oil industry, and the moratorium came in and all these areas were shut down until, you know, they could come up with a plan and procedure to go forward in drilling.

So not only did the fishing industry suffer; the guys that worked in the oil industry suffered also because there was nowhere for them to make a living. Normally, when one of them was up you could go in the oil field and work, and if that was down you could go in the fishing industry, but unfortunately both of them went down at the same time, which put us in a real bind because we were not able to work either one of them.

BP came to us and they asked us to put a paper together, that they would help us, help the fishermen in the claims process, and in the process of doing that they sent us a letter back after a couple of months saying, due to the fact that you are not a federally-recognized Tribe, though we appreciate the relationship we have with you, there is nothing we can do for you because you are not a federally-recognized Tribe. So being a federally-recognized Tribe would put us at the table with the negotiation where we could help our people and help our fishermen and our communities also because we do span six parishes in the southeast corner of Terrebonne in Louisiana.

The CHAIRMAN. Thank you, Mr. Dardar.

Mr. Frank, you talked about how the treaties reserved the right to fish, hunt, and gather, and how treaty rights are place based. Will you please describe how treaty rights are impacted as those resources shift to new areas?

Mr. FRANK. Well, they are impacted by the poison that is in Puget Sound and along the Pacific coast, and we have the Puget Sound Partnership that the governor has put together, and it hasn't done anything as of now. There is no change. There is a lot of money that is being spent out there, but there is no change, and the bleeding is going on continually, poison, pollution, and everything is going into the Sound, and it is destroying the steelhead in Puget Sound, the coho in Puget Sound, the chinook salmon, the silver salmon, the pink salmon. It has destroyed all of our salmon, they are declining. That affects the treaties, all of our treaties, the five treaty areas that we talk about.

The water quality, nobody is looking at the water quality. The whales are dying. They need salmon. They need the food chain that is affected by the climate, by the poison that is going into Puget Sound. And we need somebody that is in charge, somebody. The United States Government? Down here at the Gulf of Mexico the President of the United States, he put somebody in charge down there in that oil spill, but nobody could get it done until the admiral came along, and the admiral got things done.

I deal with Fort Lewis across the river, the United States Army, and I deal with the general. That general, his word is the word, and nobody else tells him no. They follow his direction. He quit driving his tanks across the river. He quit shooting over the Nisqually Indian Reservation, my reservation, to the impact area. They took that land, two-thirds of our reservation, on the Pierce County side across the river in 1916, the First World War. Then they continued shooting.

I told my Tribe, I am going over and talk to this general. The general told me, we are going to quit shooting over your reservation. We are going to quit driving tanks through your river. We are going to quit shooting up your spawning beds. And that happened. Now, that didn't happen overnight. He built bridges. They quit shooting over the reservation. We now have a communication with him. We have keys to his gate. We have decals to go through the Army to come over to our hatchery on his side of the river.

These are working together that we know happens. And we work with the United States continually, but then we need a change. We need a change in NOAA, EPA. EPA is working with us right today from the top to the bottom, but NOAA isn't. NOAA, the region is working but not up here at the top. We need these agencies from the top to the bottom to work with us and listen to us. Listen.

Judge Boltz said, you 20 Tribes, you will have an infrastructure. You will have an infrastructure when we get done. You will put the Northwest Indian Fish Commission together to coordinate with the Tribes. That is us. And then you will be self-regulatory. When we get through, and it is going to take time, you will put your infrastructure together, you will have your science, your lawyers, your policy people all together. We are there right today. We have the best. We are ready to sit down with the United States Government and try to work on a plan, a long-range plan. We have to do that. And we have to do it now.

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

Ms. Akutagawa, your testimony discusses the effects climate change has on Native Hawaiian culture. How can traditional knowledge help in finding solutions to the changing environment?

Ms. AKUTAGAWA. Absolutely, Senator. In our traditional ways of management, it was by ahupua'a, these land divisions within moku, various districts of our islands. Our traditional land managers were very intimate in their understanding of the resources in their localized areas. So they were able to make changes on the ground immediately, whether it was a lack of certain type of fish, then they would place a couple, or withholding of fishing in that area, or fishing a specific type of fish so that the resource could be abundant. And it was an integrated management system from the mountaintops to the sea.

As we explored our system within the State and integrated that within the State regulatory system, what we are seeing on my particular island, Moloka'i, in meetings by over 100 people in each moku, in each district, and they are making decisions on the ground on how we should manage our resources. We are discussing directly with county and State and Federal officials on what works for our 'aina, our particular place.

So, just as Mr. Tex Hall has said, restore Tribal authority, allow indigenous people to manage their resources. Because of our intimate understanding and our passion and our kuleana, our responsibility to our land, we have the wherewithal and the fashion to malama 'aina, to care for the resources.

It is very encouraging for us to have this system in place and that the State is recognizing that. I believe if the Federal Government does the same in supporting our traditional ecological knowledge systems and allowing us to utilize our adaptive management tools, especially in a climate of uncertainty, that it will be effective for all.

The CHAIRMAN. Thank you, Ms. Akutagawa.

I know we can go on with this, but I think you all made the point here that, as indigenous people and Tribes we have to help set things up ourselves. We need the help of the State as well as the Federal Government, wherever your locations are. And we need to speak to the different cultures. What I mean by that is that every Tribe is a different culture in a way. It depends on whether you are from Alaska or the west coast or the southern coast like Louisiana. I mean, these cultures are different, so we cannot say all of this will be the same. So we need to really pick it up here and begin to work with our Federal Government agencies, as well, because they do have responsibilities and they understand that.

But what we need to do is to really get to the point where we can begin to make things change.

Now, all of these things we have been talking about here have been the result of the changing environment, and what has happened is that we have not kept up with changing with the environment or preventing the change of environment, and I feel strongly the Native Americans respected nature, so they didn't violate nature, and therefore things were pretty well on earth. But as we violate nature we get into problems. This is what has been happening.

Somehow this problem is so huge we all have to get into it and begin to take steps to make things proper, and also since some things have happened already where his village is now underwater where he was born, Chief Williams. We need to deal with that.

So I look upon this hearing as one that has, again, provided information for us to continue to do this. We need to move on it.

I want to thank our witnesses for participating in today's hearing. On Tuesday night I had the opportunity to attend the first steward gathering at the National Museum of the American Indian. I heard Native leaders talk about how ideas can become actions, representing a planting of seeds to bear fruit for future generations. I want to commend the four Tribes from the Pacific northwest for including all of America's Native peoples in their discussions here this week in their symposium. Native peoples have much to contribute on how best to address environmental change. Embedded in their cultures are excellent resources and ideas for developing adaptation and mitigation strategies that work for everyone.

In closing, I want the witnesses to know that many ideas you have shared with us today with the Committee have been valuable, and as some of you testified I could think back of my own childhood and some of the things that, even during those times, where now

when I talk about the kind of fish I used to catch they say, oh, we don't have it. I can remember those things. So it is very unfortunate, but we need to do something about this, and this is what we are going to try to do. And we have got to do it, as was mentioned, now. So we will try our best here in Committee and in the Congress to try to take the kind of steps that are necessary to bring this about.

So I am so happy during this period of time where we are talking about stewardship, which means us and our caring for nature and the lands. This is something, when Billy Frank mentions the poison ocean, you know, coming from Hawaii I have thought about this for years. What are we doing to the ocean? We really don't know because, as you know, you talk about sewage, we pour it into the ocean. We have been doing that for years. So across the Country this has been happening, too. So we need to be aware of what we are doing to ourselves and especially to nature.

As this so-called poisoning comes about, I think if you talk about the ocean it will affect the food chain, then all of a sudden there is one of the fish that cannot get the kind of food that they are accustomed to because we have violated something and have done away with their foods. So we need to understand that.

We need to all work together on this and try our best to come about and to take steps to begin a journey back to respecting nature and our environment and helping ourselves.

Again, thank you so much for being here and for your valuable information, and thank you, those of you who traveled so far to come here, for doing that. We really appreciate it here.

This hearing is adjourned.

[Whereupon, at 4:35 p.m., the Committee was adjourned.]

A P P E N D I X

PREPARED STATEMENT OF THE INTERTRIBAL TIMBER COUNCIL

Dear Chairman Akaka and Vice-Chairman Barrasso:

The Intertribal Timber Council (lTC) is pleased that the Indian Affairs Committee has convened an Oversight Hearing on Impacts of Environmental Changes on Treaty Rights, Traditional Lifestyles, and Tribal Homelands. Because of their intimate relationships with the lands they have cared for thousands of years, Tribal peoples are acutely aware of the far-reaching impacts of environmental change which are already affecting our homes, cultural sites, water, fish, plants, animals, foods, and medicines__the places and natural resources that have sustained tribal cultures and economies for countless generations.

The influence of tribal stewardship has waned over the last 500 years while environmental degradation and change caused by non-Indian development has taken its toll. As timber-dependent tribes, we are fully aware that environmental protection and economic utilization go hand in hand. Our member Tribes have a profound and deeply-felt imperative ethic for environmental stewardship which is reflected in our approach to braid western science and traditional knowledge to ensure that future generations will be able to enjoy the gifts our natural resources can provide. We are witnessing unprecedented changes in our forests, water, soils, fish, animals, insects, and plants. Wildfire, pests, insects, diseases and invasive species are wreaking havoc on our forests, diminishing this important resource's wide range of critical values for our people and increasing the costs we bear in working to sustain them. The Intergovernmental Panel on Climate Change and others have noted that tribal communities are among the most vulnerable to environmental change. There is little need or value in adding to the growing list of potential consequences for our resources and cultures. Our purpose in submitting our testimony today is to urge the Committee to pursue efforts to increase the capacity of tribal governments to substantively engage in efforts to develop and implement policy to help prepare for and contend with environmental change.

It is beyond the ability of individual tribes to address the causes of environmental change without the support of others. Our reservation homelands are islands surrounded by fragmented property ownerships and administrative jurisdiction. Conditions on neighboring lands, many of which have been neglected for decades, are posing threats to the lands and resources held in trust for Indians; the potential to address problems on lands administered by the U.S. Forest Service and Bureau of Land Management under the Tribal Forest Protection Act has hardly been realized. Today, tribal involvement in environmental stewardship extends beyond the confines of the nearly one hundred million acres of land within our reservations and set aside for Alaska Natives. Many tribes reserved rights to fish, hunt, trap, and gather resources and share co-management responsibilities with federal, state, and local governments. Collaborative partnerships involving tribal, federal and state governments, industry, and academia will be needed to try to address the challenges posed by environmental change.

We have generations of place-based wisdom and knowledge on contending with and adapting to environmental change, yet scientists, administrators, and policy makers are only just now becoming aware of the potential contributions that indigenous peoples might be able to make if given the opportunity. But we are not being afforded that opportunity because we are not given a place at the table to substantively participate in the development and implementation of environmental policies and programs. Discriminatory federal policies fail to provide us with the means to engage issues politically and fiscally. For example, for FY 2012, the Department of the Interior, requested just $200,000 for climate change activities for the BIA (taken from BIA real estate services) while asking for $175 million for other entities within the Department, including $15 million for the U.S. Fish and Wildlife Service. Without the financial wherewithal, Tribes will not .be able to engage in the plethora of processes and forums dealing with environmental change, allowing these activities to proceed ignorant of Tribal interests and perspectives. The discrepancy be-

tween funding provided to federal agencies and tribes to address environmental change is shocking and unconscionable, especially in light of the trust responsibility of the United States towards Indian tribes (see attached letter co-signed by representatives of several organizations).

We cannot rely on the Federal bureaucracy to develop effective approaches for dealing with environmental change. The limited and often conflicting scope of authority, and jurisdictional morass will prove incapable of dealing with the local manifestations of global environmental change on the resources and values of interest to individual Tribal governments. Inherent conflicts of interest in the administration of Indian Affairs and environmental policies determined by the majority will prove unlikely to protect the rights, resources and values of tribal communities. Consultation with federal agencies has proven to be wholly and woefully inadequate to address our concerns. Despite requirements for tribal consultation on any action that could adversely affect tribal rights or interests under Executive Order 13175, federal agencies and entities retain full discretionary authority and are reluctant to collaborate with tribal governments as an integral part of the government-to-government dialogue necessary to reconcile differences and develop a common course of action.

The ITC recognizes the need for and strongly supports substantive engagement of Tribal governments in the development and implementation of measures to prepare for and contend with environmental change.

Background

The ITC is a thirty-six year old, nation-wide association of over sixty Indian tribes and Alaska Native organizations. Our membership collectively manages more than 90 percent of the 18 million acres of forest land held in trust by the Bureau of Indian Affairs. The lTC is dedicated to improving the management and protection of the environment and its natural resources, the forests, fish, wildlife, plants, soils, air, and water.

The ITC has actively engaged in the development of policy and law pertaining to the management of Indian forest lands by participating in enactment of the National Indian Forest Resources Management Act ("NIFRMA", P.L. 101–630, 1990) and has recognized the need to address growing concerns for conditions on neighboring lands administered by the USDA Forest Service and Bureau of Land Management by pressing for the Tribal Forest Protection Act (P.L. 108–278, 2004).

NIFRMA mandates an independent assessment of Indian forest lands every ten years. To fulfill t his requirement, the IF MAT (Indian Forest Management Assessment) team conducts an analysis of tribal forest management practices, compares them with similar practices in federal and private forests, and surveys the health, productivity and condition of Indian forests. The third decadal assessment is currently underway. Two IFMAT reports that have been completed (in 1993 and 2003) provide some observations that may be helpful to the Committee:

- Tribal forest management can serve as valuable models of innovation and sustainability;
- Indian forestry receives only a fraction of the per acre federal funding provided to public land management agencies like the Forest Service and BLM. The gap between available appropriations and that required for fiduciary management is wide and is getting wider. The lack of adequate Federal appropriations is placing the health of Indian forests at risk of loss as threats from forest insects, pests, disease, wildfire, climate change, and invasive species increase; settlement of cases involving alleged mismanagement of Indian forests illustrate the magnitude of liabilities looming from the failure to protect and properly administer Indian lands and resources;
- Tribal forests are more ecologically complex than other federal forests—a reflection of tribal values and foresight implemented by the competence and dedication of tribal and BIA managers;
- Tribes are learning to use grants, tax credits, cost offsets, and funding from private and public sources to patch together functional natural resource management programs. While innovation and resourcefulness are to be applauded, tribal capacity to maintain continuity for environmental protection and natural resource management is tenuous.

We hope that our comments and recommendations for enhancing tribal roles in environmental change will prove helpful to the Committee.

Attachment

May 20, 2011

Congressman Mike Simpson,

Chairman,
Subcommittee on Interior and Environment,
House Appropriations Committee,
H–307, The Capitol,
Washington, D.C.

RE: APPROPRIATIONS FOR TRIBES IN DEPARTMENT OF INTERIOR CLIMATE CHANGE ADAPTATION INITIATIVE

Dear Congressman Simpson,

On behalf of a coalition of Indian tribes and tribal organizations, collectively representing the majority of the nation's 565 federally recognized tribes, we are writing to request that equitable support and resources be provided to the Bureau of Indian Affairs (BIA), and Indian Tribes and Alaska Natives, via the Department of the Interior's (DOI) Climate Change Adaptation Initiative (Initiative). The Administration's Fiscal Year (FY) 2012 budget request for the Initiative is $175 million, of which $8.75 million should be allocated to the BIA and tribes for tribal climate change adaptation efforts.

DOI began a Climate Change Adaptation Initiative in 2009, an undertaking that Indian tribes support in principle. The Administration's FY 2012 budget request for the Initiative is $175 million, an increase of $39 million over FY 2010/2011 CR. The $136 million for the Initiative in FY 2010/2011 CR did not include any funding for tribes. Despite a substantial increase in the overall funding request, the situation for tribes is nearly as bad in the 2012 budget. Of the $175 million, only $200,000 (taken from an existing BIA Real Estate Services account) will be used to involve and assist Indian tribes in the North Pacific Landscape Conservation Cooperative (LCC). As such, tribes are accorded a mere .001 percent of the funding for participation in only one of twenty-one Landscape Conservation Cooperatives. This is highly inequitable, especially considering the disproportionate effect of climate change on tribes and their homelands. Sovereign tribes deserve a broader seat at the table in the DOI Climate Change Adaptation Initiative and a more equitable share of the funding.

Given that tribal natural resources have been historically underfunded and there is no federal program or funding that specifically supports tribal climate adaptation efforts, we request that the allocation to tribes via the BIA should be increased to $8.75 million, or 5 percent of DOI's Climate Change Adaptation Initiative, for tribes to address and adapt to the impacts of climate change. To achieve this equitable increase for tribes, the money provided to the various Interior agencies for the Initiative must be reallocated. Language must be included in the appropriations bill directing the Secretary to allocate these funds for tribes.

The attached document, "Tribal Recommendations for the Fiscal Year 2012 Department of the Interior Climate Change Adaptation Initiative," provides background information and justification for our request. We look forward to working with you and the subcommittee to achieve this equitable support for tribes.

Sincerely,

COLUMBIA RIVER INTERTRIBAL FISH COMMISSION
INSTITUTE FOR TRIBAL ENVIRONMENTAL PROFESSIONALS
INTERTRIBAL AGRICULTURE COUNCIL
INTERTRIBAL TIMBER COUNCIL
NATIONAL CONGRESS OF AMERICAN INDIANS
NATIONAL TRIBAL ENVIRONMENTAL COUNCIL
NATIONAL WILDLIFE FEDERATION
NATIVE AMERICAN FISH AND WILDLIFE SOCIETY
NORTHWEST INDIAN FISHERIES COMMISSION
RED LAKE BAND OF CHIPPEWA
SWINOMISH TRIBE
TULALIP TRIBES

The Tribal Recommendations for DOI CC Adaptation Initiative.pdf__Tribal Recommendations for 2012 DOI Climate Change Adaptation Initiative has been retained in Committee files and can be found at *http://www4.nau.edu/tribalclimatechange/resources/docs/res__*TribalRec2012DOICCAdaptInit__52011.pdf

PREPARED STATEMENT OF THE NATIONAL CONGRESS OF AMERICAN INDIANS

Introduction

The National Congress of American Indians (NCAI) is the oldest and largest national organization of American Indian and Alaska Native tribal governments. Since 1944, tribal governments have gathered as a representative congress through NCAI to deliberate issues of critical importance to tribal governments. NCAI is pleased to submit testimony for the Senate Committee on Indian Affairs to supplement the oversight hearing on "Impacts of Environmental Changes on Treaty Rights, Traditional Lifestyles, and Tribal Homelands."

NCAI thanks the Senate Committee on Indian Affairs (Senate Committee) for their work to identify the current challenges around tribal natural resources and environmental changes through its round tables and this hearing. NCAI also appreciates the long-standing commitment of the Senate Committee in working, in a bipartisan fashion, to address key challenges in Indian Country.

NCAI resolutions ABQ–10–086 and PDX–11–036 regarding climate change are attached.* Resolution PDX–11–036 supports the value of Traditional Ecological Knowledge and the need for consultation with tribes, especially as federal actions are being planned in preparation for continuing efforts on sustainability and climate challenges. Resolution ABQ–10–086 supports the tribal concern that the DOI climate change initiative does not fairly provide funds to climate change-related Indian programs at the Bureau of Indian Affairs. In this testimony, we would like to outline necessary concerns and policies to support tribes in the face of major environmental changes to help inform future legislation.

Requested Congressional Actions

Responding to the effects of climate change is a priority for many tribes. A central concern is their inability to migrate in order to adapt to the effects of climate change. Due to modern day political boundaries, tribes are less able to move to adjust food sources, trade with one another for resources and navigate other cultural, societal and commercial challenges related to natural resources. The tribal commitment to addressing climate change is evidenced by the recent First Stewards Symposium hosted at National Museum of the American Indian. The Symposium included tribal leaders from all coastal regions of the United States and was also a demonstration of rebuilding ties across tribal nations.

Another important and current result of tribal initiative and leadership in climate change is the inclusion of tribal concerns in the 2013 National Climate Assessment—the 3rd report since 1990 and the first to include a chapter specific to climate impacts in Indian Country. The 2013 National Climate Assessment is a result of the Global Change Research Act of 1990 which requires periodic reports to Congress regarding the status of climate impacts to the nation. These reports serve to inform policy as well as adaptation planning on the federal, state, local level and, now more effectively, because it includes the tribal level.

The most efficient use of funds involves coordination between federal agencies and collaboration across geographical areas as well as among governments. As natural resources change, regions will adapt more quickly by working together to understand the changes and establish new patterns. Tribes already show great initiative and leadership in natural resource management, conservation and preparation for climate change. Supporting tribes and helping them strengthen their leadership would aid regional management of resources and adaptation planning.

To fully leverage tribal leadership and contribution, and to reach government parity, Congress should take the following four recommended actions:

1. Provide direct funding at adequate levels to tribes to address climate change and protect existing funding streams.

Department of Interior Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources," from September 14, 2009, has helped to organize federal resources for the purposes of climate change adaptation. Tribes are included as research partners and stakeholders through this initiative. This initiative includes the establishment of two components: Regional Science Centers and Landscape Conservation Cooperatives. The DOI has established eight Regional Climate Science Centers, through USGS, to coordinate climate change research. Twenty-two Landscape Conservation

*The information referred to has been retained in Committee files and can be found at *http://www.tribesandclimatechange.org/docs/tribes_345.pdf* and *http://www.ncai.org/attachments/Resolution_MZlrscMWUDNfPdJGEJQVODCZZtiNPdZRrWVaNmDdEYTmqgYqTat_PDX-11-036_final.pdf*

Cooperatives provide a forum for tribes, states, Federal Government, non-governmental organizations and universities to develop tools for conservation and develop shared conservation goals between the partners.

While tribes are included in the DOI initiative and the outcomes will strengthen the U.S. preparedness for climate change, it is imperative that tribes also receive direct assistance at fair and adequate levels. As described in the NCAI resolution, ABQ–10–086, "Ensuring Tribal Equity in the Department of Interior's Climate Change Adaption Initiative," other non-tribal DOI programs included in the initiative received significantly larger portions of the budget even though Indian tribes are responsible for major land bases and are already working to overcome a history of insufficient federal assistance. Direct assistance is also needed to address unique circumstances such as the relocation of Alaska Native villages.

2. Improve government parity by making tribes eligible for federal natural resource assistance programs.

Many natural resource federal assistance programs are available to states but not to tribes. As we have noted, the ability of our nation to prepare for and withstand the impacts of our changing climate is to work in regional collaborative efforts. By statutorily making tribes eligible and increasing government parity for tribal natural resource programs, tribes can conserve and manage tribal resources more effectively while strengthening the natural resources of their regions. The technical and financial assistance provided by federal natural resource programs would not only reduce compounded impacts on flora and fauna and ecosystems but also help native people to build capacity for adaptation to changing food sources. Two key programs that should be amended to statutorily include tribes include the *Forest Legacy Program,* to retain forests as forests, and the *Soil and Water Resource Conservation Act,* which provides for cooperative agreements and data collection on soil and water resources. As we have witnessed, forests, soil and water will continue to be heavily impacted by climate change and tribes should be able to access federal support to better manage and protect these resources.

3. Strengthen consultation policies and ensure tribal inclusion in planning.

Tribes are extraordinarily vulnerable to climate change as well as learned and resourceful potential partners in addressing the related challenges. Statutes that reinforce inclusion of tribes in planning processes and further require meaningful consultation are essential to tribal and federal planning and actions to adjust to the new normal resulting from climate change. The October 2011 progress report from the Interagency Climate Change Adaptation Task Force, called, "Federal Actions for a Climate Resilient Nation," recommends that federal agencies incorporate climate change into their programs and involve tribal governments in those efforts. NCAI has seen, especially recently, federal agencies selectively choosing when to consult and lacking an ability or desire to use such consultations to gain useful information, benefits and partnerships. Though many agencies have adopted consultation policies, these policies are not consistently followed. Binding consultation programs and processes combined with meaningful exchange and engagement for consultation in climate change and natural resources would ensure that consultation occurs and is useful for all parties.

4. Minimize economic and resource challenges that will compound with climate change.

Tribal economies face a multitude of challenges that need to be reduced and removed as tribes face climate change impacts and expenses. Infrastructure and tribal budgets that are already tight will be strained by the need to relocate, respond to natural disasters and modify food sources. Support for energy efficient housing and building codes would be made possible by passing legislation such as S. 1000, *the Energy Savings and Industrial Competitiveness Act of 2011.* S. 1000 remedies past exclusions of tribes in federal assistance for building codes—federal assistance that has allowed state and local governments to make homes across the U.S. more energy efficient.

The Senate Committee should continue to take action to make tribal economic development more attainable, especially in the realm of renewable energy. The DOE Tribal Renewable Energy Program has seen some 129 tribal small-scale energy and feasibility projects over the last decade. These projects are a demonstration of tribal interest in renewable energy—but renewable energy still has not been widely adopted in Indian Country, and there have been very few utility scale tribal renewable energy projects. NCAI would like to see more barriers to tribal renewable energy development removed so that tribes can build their economies and proactively respond to climate change.

Conclusion

NCAI appreciates the Senate Committee's attention to this issue of environmental change and urges timely action and a focus on the broad recommendations set forth above so that tribes can adapt and mitigate environmental effects in the safest and most sustainable way possible and help their communities and regions thrive.

PREPARED STATEMENT OF THE NISQUALLY INDIAN TRIBE

Mr. Chairman and members of the Committee, on behalf of the Nisqually Indian Tribe I would like to submit the following statement on the Impacts of Environmental Changes on Treaty Rights, Traditional Lifestyles and Tribal Homelands. The issues before your committee are of utmost importance to the Nisqually Indian Tribe, our people, our culture, and our very existence.

We want to offer our full support for the testimony provided to you by Billy Frank Jr. on behalf of the Northwest Indian Fisheries Commission (NWIFC). We have been intimately engaged with the NWIFC and our member tribes in the development of the Treaty Rights at Risk (TRA) initiative and the principles identified in that white paper. The Nisqually Indian Tribe feels the threat to our treaty rights every day as our fish leave the Nisqually River on the way to the ocean and die on the way in numbers that we have not seen before. If our fish cannot survive their journey through Puget Sound they certainly cannot survive in numbers sufficient to support our people and our culture. We are strong in our insistence that the Federal Government, with the leadership of President Obama, step up and take the necessary actions to honor the agreements made by our ancestors in the Treaty of Medicine Cree in 1854.

In particular, the Nisqually Indian Tribe fully supports the call from the NWIFC for field hearings to be conducted as soon as possible to better understand the impacts, challenges, and actions necessary to halt the decline in our resources protected in our treaty. We are facing many challenges in the Northwest to our way of life, from projected sea level rise in Puget Sound of 12″ in the next 10–15 years, to the loss of 8 minor glaciers and significant retreat of the major Nisqually glacier on Mount Rainier, to the significant change in weather patterns resulting in a significant shift in rain and snow events and the impacts to our aquatic and terrestrial systems at a pace that threatens our very. existence as a people. Field hearings in the Puget Sound region would allow the sovereign tribal nations to share our stories with you in ways that cannot happen 2,500 miles from home.

It must be understood that we are a placed based people located for thousands of years in the Nisqually watershed. Everything we need to survive and thrive as a people have always existed for our people in abundance. In the 1854 Treaty of Medicine Creek, we reserved for our future generations access to all of these resources in return for the control of our homelands ceded to the U.S. for peaceful settlement. Where non-Indian citizens move, sometimes frequently, for a number of reasons we tribal members are bound to our homelands for cultural and spiritual reasons. It is our home and will be the home for our people for generations to come.

But as the climate around us changes, the fish, animals, and plants that are central to our way of life are changing their distributions in the Nisqually making them either less abundant, only remotely available, or leaving the watershed all together. From salmon to elk, from huckleberries to princess pine, we are losing critical pieces of our way of life; losing what was secured in our Treaty. We cannot move and follow the animals, follow the fish, follow the plants. We are of the Nisqually and we exist here as long as these things exist for us.

Finally, in considering actions to address this most important issue facing our peoples throughout this great country, we need to recognize that status quo is not adequate nor acceptable. We are in a crisis situation in Puget Sound where we have lost so much critical habitat that we have Endangered Species Act (ESA) listed salmon and steel head in every major river. We have ESA listed birds, rockfish, orca, prairie species, that are telling us loudly that we have significantly disturbed and reduced their habitats to the point that many are faced with extinction.

Holding on to the habitat that we have now is clearly not enough. It is not a giant intellectual leap to say we need to stop the destruction of our critical habitats as a first and important step. Sadly, in Puget Sound, the region has not taken this step and we are still losing habitat in Puget Sound and along our rivers at an alarming rate. Federal leadership is needed to deliver and implement this message through actions in coordination and consultation with the Tribes. Improving current mechanisms, including incentive programs and mitigation programs, is critical but to fulfill the promises of the treaty requires a significant and sustained investment in restoration above and beyond the current investment. We understand that there are

many difficult budget decisions facing all of us in the coming years, these necessary investments in restoring our natural capital will bear economically sustainable fruit for generations to come as well as provide for significant employment opportunities now to our Nisqually community and the region as a whole.

The rights and very existence of the Nisqually people is tied to, and dependent on, the abundance of our resources we secured in our Treaty. That abundance is disappearing through no fault of our own. We are doing everything in our power and control to make a difference in our watershed and our region but we need your help. We look forward to working with this Committee in the scheduling agenda development of a field hearing in the Puget Sound region. We are also committed to working with the federal government on these critically important issues and ask Congress to continue to support our efforts to protect and restore our natural resources and honor the treaties made by our ancestors.

PREPARED STATEMENT OF THE OFFICE OF HAWAIIAN AFFAIRS

Aloha e Committee Members. The Office of Hawaiian Affairs (OHA) thanks you for taking the time to conduct a legislative oversight hearing on July 19, 2012. OHA is a unique, quasi-independent state agency established by the Hawai'i State Constitution and state statutes to better the conditions of Native Hawaiians (Hawai'i's indigenous people). Guided by nine trustees elected by the voters of Hawai'i, OHA advances the interests of Native Hawaiians and serves as a fiduciary for Native Hawaiian public trust funds and other resources. One of the ten strategic results identified in OHA's strategic plan is to achieve the āina sustainability—i.e., to increase the amount of Hawaiian land that is managed in a sustainable and balanced manner to create economic value and to preserve cultural and natural resources and historic properties. Another strategic result is to encourage Native Hawaiians to participate in cultural activities that involve interaction with the āina (land) for cultural, spiritual, religious, and subsistence purposes. Accordingly, OHA offers the following testimony in support of developing policies that address environmental changes.

Impact of Environmental Changes on Native Cultural Practices

Climate change has impacted the environment in which Native Hawaiians live in significant ways. Indigenous observation and western scientific research support the conclusion that environmental changes—markedly reduced rainfall, increased rainfall intensity, dangerous rising sea levels, and rising sea temperatures—are occurring that may alter the very existence of Native Hawaiian culture. Hawai'i's environmental changes are contributing to drying forests, crop failure, shoreline and beach erosion, and reduction or elimination of native foods. Such changes impact the traditional and customary practices that Native Hawaiians have exercised since time immemorial. Given that Native Hawaiian culture thrives in the traditional practices that tie the people to the islands, their ancestors, and each other, the health of the environment is intimately connected to the health of the people and the continuation of their culture.

Environmental changes are having particularly disconcerting impacts on food security. Specifically, the rise in water temperature and overall environmental degradation has affected the food security of indigenous peoples. For example, ocean acidification threatens marine life—an essential food source for indigenous peoples—and the reduction in rainfall decreases fresh water resources for agricultural production. Chairman Billy Frank from the Northwest Indian Fisheries Commission in Washington urged action be taken to address the dangerous decline of salmon along the Pacific Coast. Echoing his sentiment, University of Hawai'i Assistant Law Professor Malia Akutagawa shared how climate change has led to the suffocation of fishponds, coral reefs, and subsequent loss of fishing grounds critical to traditional subsistence for Native Hawaiians.

Summary of Pending Legislation on Climate Change

Currently, pending legislation is attempting to address the harmful effects of climate change and prepare for impending negatives consequences on native communities. For example, the Coastal State Climate Change Planning Act proposes to establish a coastal climate change adaptation planning and response program, including financial assistance to coastal states.[1] Another bill proposes a climate change

[1] H.R. 4314. Coastal State Climate Change Planning Act.

strategy through research, including a call to establish an Inter-Agency Task Force on Harmful Algal Blooms and Hypoxia.[2]

We urge the Committee to support legislation that protects native lands and communities, particularly when native stakeholders are included in the planning and implementation of climate change strategies. For example, there are pieces of legislation currently pending that promote food security for native communities. The issues they cover range from the conservation of the coral reef ecosystem[3] and fish habitats[4] to the creation of a salmon stronghold that would be overseen partly by representatives from Indian tribes.[5]

General Recommendations

OHA supports increased opportunities for native communities to exercise their sovereignty in the area of resource management and to participate in meaningful collaboration to address environmental changes. OHA urges the support of climate change policies that incorporate specific and place-based knowledge and community-based management. Working closely with local indigenous stakeholders with an ancestral understanding of their environment will produce effective solutions to combat the impacts of environmental changes. Thank you for the opportunity to comment.

PREPARED STATEMENT OF THE SAN CARLOS APACHE TRIBE

My name is Terry Rambler and I am the Chairman of the San Carlos Apache Tribe (the "Tribe"). Thank you for the opportunity to provide testimony to the Senate Select Committee on Indian Affairs on the Impacts of Environmental Changes on Treaty Rights, Traditional Lifestyles and Tribal Homelands.

The impacts of climate change have been the subject of several congressional hearings in recent years.[1] This Hearing is the first that addresses the impacts of climate change and related environmental consequences upon American Indians and Native Americans. I wish to express the appreciation of the San Carlos Apache Tribe and its members for the Committee's consideration of this important topic upon indigenous peoples.

Traditional Guiding Principles

The Tribe believes in managing our resources as close to the natural ecological process as possible. Because of industrial pollution, huge increases in human population and the development of towns and cities, ecosystem processes have been severely altered if not irrevocably changed. Pre-European settlement conditions have been used to describe a healthy ecosystem and used as a measuring stick for ecological health.

The Tribe, through the Elders Council, has developed Four Traditional Guiding Principles used to manage our natural resources, which the Committee may consider. The principles are based on Tribal Ecological Knowledge (TEK) built from our traditional Apache knowledge base through experience from and observation of our living treasurers. The Tribe feels strongly and recommends the United States use these Four Guiding Principles in management decisions related to climate change. These include:

I. Respect all aspects of the natural world. The base of traditional Apache culture is maintaining strong and healthy relationships with all of the elements of the natural world; with one's friends, relatives, and community; and with one's self. This requires an indepth ecological education, whether traditional, non-Indian, or both.

II. All activities must ensure the long-term health of the natural world, especially emphasizing the prime importance of water. The traditional guidelines governing land-management practices—such as agriculture, hunting, wild food and

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[2] H.R. 2482. Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2011.

[3] S. 46. Coral Reef Conservation Amendments Act of 2011.

[4] S. 1201. National Fish Habitat Conservation Act.

[5] S. 1401. Pacific Salmon Stronghold Conservation Act of 2011.

[1] *See e.g.*, S. HRG. 111–94, Hearing before the Subcommittee on National Parks of the Committee on Energy and Natural Resources, United States Senate One Hundred Eleventh Congress, First Session, To Consider Climate Change Impacts on National Parks in Colorado and Related Management Activities; S. HRG. 110–516, Hearing before the Committee on Energy And Natural Resources, United States Senate, One Hundred Tenth Congress, Second Session, To Receive Testimony on Energy and Related Economic Effects of Global Climate Change Legislation.

natural resource harvesting, and obtaining water for drinking and irrigation—emphasize minimizing impacts on the natural world, and preserving the most natural state of the land as possible. This includes, above all, ensuring the long-term health of natural water resources. We must resolve to utilize and profit from natural resources without harming them.

III. All activities must benefit the entire community. We all belong to the land. All activities impact the natural world, and affect us all. We must ensure that our activities are for the benefit of all, by working openly together as a community.

IV. Economic activities must be broad-based and varied. Apaches have survived all kinds of climatic extremes, both environmental and economic, by depending on a multitude of economic endeavors—even when neighbors have perished. Traditional culture emphasizes distributing economic sustenance over a broad range of practices—such as agriculture, hunting and gathering, and trading—rather than emphasizing just one. This creates a healthy buffer to environmental and economic crises.

Climate Change Impacts on San Carlos Apache Reservation

Over the course of the past several years, the Tribe's managers and professionals have witnessed and documented the impacts of climate change such as higher temperatures, drought and altered rainfall patterns. The specific consequences of climate change to the Tribe include:

1. Impacts of Above Average Temperature

The Climate Prediction Center (CPC) Outlook for June to November 2012 indicates above average temperatures for this time of year. Temperatures over 95 degrees Fahrenheit and extended dry periods, as experienced on the Reservation, cause high levels of thermal stress on aquatic species, forests, livestock and wildlife, particularly if water is unavailable. Thermal stress negatively impact performance factors in livestock and wildlife including growth, reproduction, and milk production. The lack of free-standing water that results from low rainfall or poor water quality can be deleterious to wildlife and livestock. In the summers of 2009, 2011, and 2012, the San Carlos Recreation and Wildlife Department estimated over 75 percent of the stock tanks and water catchments were dry.

2. Stock Tanks and Wells

There are approximately 250 stock tanks and 100 wells on the San Carlos Apache Reservation. Initially, the stock tanks were built to provide water for livestock operations; however, both wildlife and fish have benefited from their presence. Some of the tanks are stocked with trout, bass, and catfish to provide fishing opportunities for Tribal members and non-members. The Tribe benefits economically from these tanks through the sale of fishing and hunting permits and livestock operations. Fishing revenues generate approximately $500,000.00 annually, but this fluctuates according to the water levels on the Reservation. With more reliable water levels, those revenues would be more consistent and could potentially increase with more waters for stock tanks. Wildlife benefits from these tanks as they provide a direct water source and they create habitat for some species, such as waterfowl, wading birds, and frogs. The Tribe generates approximately $1,000,000.00 annually through its Recreation and Wildlife Department. San Carlos is well known as one of the best Reservations for fishing and hunting. In order to maintain that reputation and ensure the availability of fish and wildlife for income generation, sufficient water is a primary concern.

3. Wildlife and Livestock

Current drought conditions on the Reservation are characterized as severe, according to the U.S. Drought Monitor (Arizona Department of Water Resources). The current drought in Arizona will likely have some major impacts on wildlife living on the Reservation. The current drought has had major impact on livestock operations on the Reservation with increased livestock mortality. Due to drought, less food, water, and cover are available to wildlife and livestock. Less food means reduced reproduction by adult animals. Less food for adult wildlife and livestock results in less food available for the young. Milk production is impacted. With the production of less milk, more fawns and calves starve or succumb to diseases, parasites, and predation. With less food, deer in particular will enter the winter months with less fat reserves, which can result in higher starvation. With the growth of less grass, which provides hiding cover for wildlife, waterfowl nests and young, as well as the young of deer, antelope, elk, and other species will be more vulnerable to predators. Decreased rainfall means less water and habitat for waterfowl, fish, bea-

ver, and other species which may crowd them into smaller areas and make them more vulnerable to diseases, predators, and competition with other members of their own species. With less grass forage available, ranchers may view elk as competition for forage with their livestock. Lost grass lands increases desertification. Desertification leads to the decline or extirpation of species that are culturally and financially significant to the Tribe. Most important, there also exists a major, adverse impact on native vegetation, including willows and acorn trees, greasewood and bear grass, important to the Tribe and its members, as a matter of culture, religious practice and ceremonial traditions.

4. Off-Reservation Water Consumption Impacts

With increased temperatures and extended drought and dry periods, water diversions for off-Reservation agricultural uses impact the water resources that have traditionally been available on the Reservation. The Tribe has no control over these diversions. Upstream from the Reservation, irrigation diversions reduce water flows of the San Carlos River coming onto the Reservation. Downstream from the Reservation, irrigation diversions from San Carlos Lake deplete one of the premier recreational fisheries in the Southwest. San Carlos Lake has dropped to less than 1 percent full, resulting in a fish kill. Tens of thousands of dead fish and the closure of the lake for human health and safety reasons have resulted in substantial revenue loss to the Tribe.

5. Wildland Fires

The Committee is aware of the devastation wrought by catastrophic wildland fires. In 2002, the Rodeo-Chediski fire destroyed 468,638 acres of land immediately to the north and west of San Carlos Reservation. In 2011, the Wallow fire destroyed 538,049 acres of land to the immediate north and east, and another 9,030 on the Reservation. These fires, even through off the Reservation,[2] have had ravaging impacts on the Reservation. Ash from the Wallow Fire has killed fish in the Black River and Eagle Creek. Concerns about flooding due to upstream bank erosion (as well as the fish kill) have forced the closure of the Black River to recreational uses resulting in revenue losses to the Tribe in 2011 and 2012 and for the foreseeable future.

6. Economic Disadvantage

A disproportionate impact of climate change always falls on the economically disadvantaged. This includes the difference between urban and rural reservations. Rural tribes are impacted by economic disadvantage more so than urban tribes. Urban tribes obtain the indirect benefits of state and federal projects and monies, which are devoted to urban areas. Rural tribes never obtain this benefit. For example, the Wallow Restoration funding amounted to some $39 million for the U.S. Forest Service, but the Tribe received a mere $14,000.

Nationally, according to the Indian Forest Management Assessment Team for the Intertribal Timber Council—Second Assessment 2003 page 9, the federal allocation for Indian Forests in 2001 was $2.83 per acre, compared to the U.S. Forest Service Land $9.51 per acre. The other Federal Land Management Agencies have historically been funded at levels higher than Tribes. Although they are experiencing cuts in their budget, they are not facing layoffs or serious reduction to service to the public. The Bureau of Indian Affairs and Tribes are bearing a cut that is disproportionate to the funding level. The following table compares neighboring national forest Tonto and Coronado to San Carlos Apache Indian Reservation. These forests have similar forest types but are funded at a much higher level. Personnel staffing is four times greater that San Carlos.

[2] A small number of acres on the San Carlos Apache Reservation were destroyed by the Wallow Fire. However, the Tribe's Forestry Department's forest management minimized the impact to a few hundred acres on the extreme eastern boundary of the Reservation.

	Tonto National Forest	Coronado National Forest	San Carlos Apache Tribe
Total Budget	$24,000,000.00	$18,898,200.00	$ 2,969,525.00
Total Employees Includes Forestry, Range, Wildlife, Cultural Resources, Fire Management	174 permanent, 200 temporary	200 permanent and Temporary	64
Total Forest Acres	2,873,200	1,780,000	1,834,781
Annual Allow Cut Million Bdft.	4.4 MM Bdft	0.00 Bdft	5.0 MM Bdft
Cost Per Acre	$8.35 per acre	$10.61 per acre	$1.62 per acre

These are just the more obvious impacts of climate change on the San Carlos Reservation.

What the San Carlos Apache Tribe is Doing about Climate Change

The Tribe has endeavored to engage in a variety of activities to address climate change. Foremost among the Tribe's efforts is the philosophy and methodology used to manage all of the Reservation's natural resources. Traditional Apache culture and a deep abiding respect and love for the land, the water and all species together inform the Tribe's management of the Reservation, its land and associated wildlife and natural resources. As discussed above, TEK is a key and fundamental principle of conservation and land management on the Reservation. TEK incorporates concepts of an ecosystem-based approach to water, land and species management and preservation. It incorporates concepts of adaptive management by the Apache people.

The Tribe has adopted an interdisciplinary team approach to all natural resources matters. The Tribe's interdisciplinary team works together to provide an ecosystem management approach to develop strategic plans and management plans incorporating intimate sensitivity and knowledge of Apache culture and Reservation environment. Under this interdisciplinary team approach the Tribe has adopted the Mexican Spotted Owl Conservation Plan (2003), the Forest Management Plan (2004), the Wildland Fire Management Plan (2003), the Integrated Resource Management Plan, Range Management Plans (2002), Fisheries Management Plan (2005) and the Southwestern Willow Flycatcher Management Plan (2005).

The Tribe's Forest Management Plan and Wildland Fire Management Plan have positively contributed to the avoidance of catastrophic wild fires on our Reservation. The Tribe is actively engaging with the District Rangers of neighboring National Forests to share our traditional resource management techniques with our neighbors who have been plagued by these fires. The Tribe is proud of the efforts made by the Forestry Department in preserving the Reservation's lands.

The Tribe is examining improved modern water catchment systems, innovative agricultural irrigation techniques, and modern water conservation procedures. The Tribe is exploring the utilization of fish kill for fertilizer for use in garden plots and larger agricultural enterprises.

Drought in the Southwest is not new to Apaches. In the centuries past, Apaches adapted to drought conditions based upon their mobility. That mobility has been taken away from Apaches by reservation system. Unlike other American Indians, Apaches did not cede their lands by treaty rights. Apache lands were simply taken from us. With the loss of mobility, there is a need for more creative adaption systems.

What the Committee Can Do to Help

The Tribe is asking the Committee and the federal government to implement its fiduciary duties by helping us create adaptive systems to deal with climate change and to block ill-advised federal legislation.

The federal government's trust responsibility to the Tribe can be honored through the initiation of pilot programs to advance and implement improved modern water catchment systems, innovative agricultural irrigation systems, and modern water conservation techniques. The funding for such pilot programs need not be great; virtually any assistance and guidance from federal partners will have a positive impact.

The Committee can encourage federal agencies to learn from the Apaches' traditional knowledge that help address the many aspects of climate change. Because Apaches know our natural systems better than anyone else, we are the first to real-

ize changes. The Committee can encourage programs with adjacent National Forest and Bureau of Land Management officials to utilize successful tribal forest management techniques to reduce the impact of devastating wild fires.

Most importantly, the Committee can assist in preventing federal programs and legislation which will magnify and worsen climate change impacts. For instance, H.R. 1904, Southeast Arizona Land Exchange and Conservation Act of 2011, is a proposed federal land exchange for the benefit of foreign mining interests. H.R. 1904 eviscerates the National Environmental Policy Act (NEPA) and the Federal Land Policy Management Act (FLPMA) requirements to conduct interdisciplinary studies and closely scrutinize the inevitable and destructive impacts of the mining project to the region. As part of the normal NEPA and FLPMA processes, federal decision makers would be required to evaluate the depletion and potential contamination of the region's water supplies. H.R. 1904 guts these requirements. Nothing could be more foolhardy then for Congress to give federal land away without assuring, in compliance with existing federal laws, that water resources will not be depleted and contaminated during these periods of climate change.[3] The Committee assistance in encouraging full studies of the implications of this land exchange, including USGS water studies and full NEPA studies, before the exchange occurs cannot be overstated.

Conclusion

The impact of climate change truly hits home for the Apache people when our young people are cognizant of the effects on traditional Apache ways. Dale Dillon, a young intern with the Tribe's Historic Preservation and Archaeology Department, was asked to comment about climate change. He wrote about the importance of the Emory Oak to his grandparents as a traditional food source and the wholesome nutritional contents of the acorns as a protection against high blood-glucose levels in the prevention of diabetes. He noted that the Emory Oak was dependent upon good winter snowpack conditions but had observed that recent winter snows were declining thus reducing acorn harvests. Dale gathered acorns with his grandparents as a staple of their traditional diet. It is our fervent hope that Dale will be able to gather acorns with his grandchildren.

As the climate changes, it impacts the Tribe's homes, culture and economy. The Tribe's resources, upon which we have always depended, are threatened. Mr. Chairman, Members of the Committee, thank you for the opportunity to express the San Carlos Apache Tribe's views on the important topic of climate change and its impacts on indigenous peoples. The Committee's concern is appreciated and the San Carlos Apache Tribe looks forward to working with the Committee in addressing these issues.

Attachment

[3] Attached is the testimony which I provided in opposition to H.R. 1904 to the Senate Committee on Energy and Natural Resources.

TESTIMONY OF THE SAN CARLOS APACHE TRIBE
By
TERRY RAMBLER
TRIBAL CHAIRMAN
CONCERNING

H.R. 1904: SOUTHEAST ARIZONA LAND EXCHANGE AND CONSERVATION ACT OF 2011

Presented to
Chairman Jeff Bingaman
Ranking Member Lisa Murkowski
Members of the U.S. Senate
Committee on Energy and Natural Resources
366 Dirksen Senate Office Building
February 22, 2012

My name is Terry Rambler and I am the Chairman of the San Carlos Apache Tribe (the "Tribe"). Thank you for the opportunity to submit testimony to the Senate Committee on Energy and Natural Resources concerning H.R. 1904 and S. 409 as reported in the 111th Congress.

Since 2005, the Tribe has consistently opposed legislation that would convey an area called Oak Flat in Arizona's Tonto National Forest to Resolution Copper Mining (RCM). The Tribe's opposition is multi-faceted. As Apaches, our opposition is based upon cultural, social, and religious grounds. As Arizonans, our opposition stems from the adverse impacts of this mining operation on the future of Arizona, including its limited water resources. As Americans, our opposition is based upon the depletion of our nation's treasure and threats to national security with no commensurate advantage to our nation or the American people.

Under H.R. 1904, the Secretary of Agriculture is directed to convey over 2,400 acres of U.S. Forest Service land in southeast Arizona to RCM to facilitate the development and operation of an unprecedented, large-scale block cave copper mine. RCM is a subsidiary of two foreign mining giants – Rio Tinto, PLC (United Kingdom) and BHP Billiton, Ltd (Australia), whose owners include the country of China. Rio Tinto partners with the Iranian government in a uranium mine in Namibia.

Of principal concern to the Tribe are the devastating impacts the mine will have on the Oak Flat area. The mine will swallow giant swaths of the land above ground, including the Oak Flat area, which contains one of the holiest of Apache sites. When the land under Oak Flat collapses into an enormous sinkhole, the nature of the land and its ecology will be destroyed forever, and an area of profound religious and cultural significance to the Tribe, Yavapais and other Native Americans will be permanently desecrated and lost.

In considering H.R. 1904 and S. 409, I respectfully request that you question the merits of this legislation. This legislation is a special interest give-away to a foreign owned entity with no attachment to our country. The legislation fails to protect Indians, Arizonans, other Americans, and future generations.

For these reasons, the San Carlos Apache Tribe has joined with the Inter Tribal Council of Arizona, other tribes throughout the nation, mineworkers, environmentalists, and residents of Superior, Miami and Globe, to oppose this legislation. Our specific concerns follow.

The Oak Flat Region is a Holy and Sacred Site

Throughout our history, Oak Flat continues as a vital part of the Apache religion, traditions, and culture. In Apache, our word for the area of Oak Flat is *Chich'il Bildagoteel* (a "Flat with Acorn Trees"). Oak Flat is a holy and sacred site, and a traditional cultural property with deep religious, cultural, archaeological, historical and environmental significance to Apaches, Yavapais and other tribes. At least eight Apache Clans and two Western Apache Bands have documented history in the area. Apache clans originated from this area and Apaches on the Reservation have ancestors who came from the Oak Flat area before they were forced to Old San Carlos. Tribal members' ancestors passed their knowledge about Oak Flat to their descendants who are alive today.

A number of Apache religious ceremonies will be held at Oak Flat this Spring, just as similar ceremonies and other religious and traditional practices have been held for as long as Apaches can recall. We do so because Oak Flat is a place filled with power, a place Apaches go: for prayer and ceremony, for healing and ceremonial items, or for peace and personal cleansing. The Oak Flat area and everything in it belongs to powerful *Diyin* (Medicine Men) who we respect, and the home of a particular kind of *Gaan* – powerful Mountain Spirits and Holy Beings on whom Apaches depend for our well-being.

The Oak Flat area is bounded on the west by portions of the large escarpment known as *Dibecho Nadil* (Apache Leap), to the east by *Gaan Bikoh* (Crown Dancer's, Mountain Spirit's, or *Gaan* Canyon and known as Devil's Canyon), and is intersected to the north by *Gaan Daszin* (Crown Dancer's or Mountain Spirits Standing, and known as Queen Creek Canyon).

In the Oak Flat area, there are hundreds of traditional Apache species of plants, birds, insects and many other living things in the Oak Flat area that are crucial to Apache religion and culture. Some of these species are among the holiest of medicines – medicines that are only known to and harvested by gifted Apache spiritual or healing practitioners. Only the species within the Oak Flat area are imbued with the unique power of this area. The ancient oak groves provide an abundant source of acorns that for many centuries and today serve as an important traditional food source for the Apache people.

Any mining on Oak Flat will adversely impact the integrity of the area as a whole – both as a holy and religious place and as a place of continued traditional and cultural importance to Apaches and other tribal people. There are no human actions or steps that can ever make this place whole again or restore to the Apache what will be lost. Mining on Oak Flat will desecrate our *Gaan*'s home and could greatly diminish the power of this place, as well as our ability to most effectively conduct our ceremonies. The destruction of Oak Flat will add to the many problems and sufferings that our community already faces. We will become vulnerable to a wide variety of illness, and our Apache spiritual existence will be threatened.

The unique nature of the Oak Flat area has long been recognized, and not just by the Apache. Oak Flat was expressly set aside from appropriation under the public laws, including the mining laws, by President Eisenhower and reaffirmed by President Nixon. Public Land Orders 1229 (1955) and 5132 (1971). Secretary Vilsack recently acknowledged Oak Flat as a "special place", one that should be protected from harm "for future generations". *See* Secretary Vilsack letter to Senator Wyden, dated July 13, 2009. Oak Flat and other nearby locations are also eligible for inclusion and protection under the National Historic Preservation Act of 1966, as well as other laws and policies.

Article 11 of the Apache Treaty of 1852, requires the United States to "legislate and act to secure the permanent prosperity and happiness" of the Apache people.[1] H.R. 1904 fails to live up to this promise. While the Oak Flat Withdrawal and its surrounding lands stand outside of the physical boundaries of the San Carlos Apache Indian Reservation, this area is part of our and other Western Apaches' aboriginal lands, and it has always played an essential role in the Apache religion, traditions, and culture.

H.R. 1904 Fails to Require Meaningful Consultation with Indian Tribes

Numerous laws, executive and secretarial orders and policies of the United States require meaningful government-to-government consultation with Indian tribes. The United States' obligation to engage in good faith consultation with Indian tribes arises from the unique legal, political and trust relationships that the Government owes to tribes under the Constitution, treaties, statutes, and judicial decisions.

Congress has understood and articulated the importance of consultation as a matter of law. The respect for tribal cultural beliefs, especially for sacred sites, has become an essential component of consultation process and reflects the Government's trust relationship with Indian tribes. The National Historic Preservation Act (NHPA) requires that federal agencies consult at all stages with any "Indian tribe . . . that attaches religious and cultural significance" to traditional cultural properties, such as the Oak Flat area. 16 U.S.C. §470(a)(d)(6)(B). Federal regulations require that the Government assess the impacts of H.R. 1904 and the mining project

[1] Treaty with the Apache, 10 Stat. 979 (July 1, 1852), ratified March 23, 1853, proclaimed March 25, 1853.

on Oak Flat because it is an eligible historic property. 36 C.F.R. §800.5. Avoidance and mitigation of adverse effects are called for under NPHA and its regulations.

Executive Order 13175 requires executive departments to conduct tribal government-to-government consultation with Indian tribes when proposed legislations have substantial direct effects on one or more Indian Tribes. 59 Fed. Reg. 22951 (April 29, 1994). Secretary of Agriculture Vilsack has acknowledged "it is important that this bill engage in a process of formal tribal consultation to ensure both tribal participation and the protection of this site." *See* Secretary Vilsack Letter dated July 13, 2009, above. President Obama stated in his 2009 Memorandum issuing E.O. 13175, that "[h]istory has shown that failure to include the voices of tribal officials in formulating policy affecting their tribal communities has all too often led to undesirable and, at times, devastating and tragic results." 74 Fed. Reg. 57881 (November 5, 2009).

Nothing in H.R. 1904 requires informed and advanced government-to-government consultation with affected Indian tribes, such as the San Carlos Apache Tribe, as contemplated by the United States' trust responsibility and the laws and policies described above. To the contrary, Sec. 4(c) only requires consultation after enactment of the H.R. 1904, and not before, rendering the act of consultation a mere formality.

Section 4(c) would circumvent Executive Order 13007 which directs Federal agencies to manage Federal lands in a manner that accommodates Native American religious practitioners' access to and ceremonial use of Native American sacred sites and to "avoid adversely affecting the physical integrity of such sacred sites." 61 Fed. Reg. 26771 (May 29, 1996).

Meaningful government-to-government consultation assumes knowledge. The San Carlos Apache Tribe, the Inter Tribal Council of Arizona, the Fort McDowell Yavapai Nation, and others have repeatedly requested that the United States undertake advanced studies to better understand the impact of the proposed mine on the water supplies, landscape and environment of this region. Such studies are needed for informed consultation. This policy is circumvented by the land exchange conveyance mandated by H.R. 1904.

Proponents of H.R. 1904 have criticized the Tribe for not having met and consulted with RCM. However, the trust relationship rests not with RCM but with the United States.

There continues to be sufficient time to engage in meaningful consultations with the Tribe and other affected Indian tribes before any decisions are made whether to convey Oak Flat to RCM. To do otherwise, as H.R. 1904 mandates, would seriously undermine the intent of NHPA and other federal laws, and even the trust relationship of the United States to Tribes.

Rio Tinto has Questionable Ties to China and Iran

Nine percent of RCM's controlling partner, Rio Tinto, is currently owned by China through its state-controlled Aluminum Corporation of China. If this land exchange goes

through, China will end up holding a 4.5% interest in Arizona's Tonto National Forest and our ancestral lands. Rio Tinto is also a partner with Iran in the Rössing Uranium Ltd. mine in Namibia. While RCM seeks to minimize its connections to Iran, Rio Tinto remains on the State Department's list of foreign corporations in the supply chain of strategic minerals to hostile governments, including North Korea and Iran.

Under the President's recent Executive Order on Iran sanctions, including measures to implement section 1245 of the National Defense Authorization Act (NDAA), the U.S. Department of Treasury is issuing general licenses to maintain existing authorizations for certain transactions involving the Government of Iran. Resolution Copper will need to apply.

Executive Order 13175 requires executive departments, including the Department of State, to conduct tribal consultations based on the Tribe's concern regarding the business relations of Resolution Copper and its parent companies with Iran and China. The Tribe is aware of recent U.S. actions at the United Nations Security Council (UN Resolution 1929) and Presidential Executive Order 12957, including the Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010 (CISADA), which strengthens the support of U.S. sanctions with respect to the Iranian energy industry. As a result of Iran's continued intransigence, the U.N.'s resolution is the most extensive package of sanctions against Iran. U.S. officials have adamantly reiterated that Iran be held accountable for its nuclear program and continued human rights violation.

Currently, the U.S. is conducting official talks about transnational criminal organizations and global efforts to increase pressure on the Iranian regime and isolate Iran from the international financial system. There are also two primary federal statutes governing reporting by foreign investors about investments made in the United States, which RCM may not have complied with as of yet: the International Investment and Trade in Services Survey Act; [2] and, the Agricultural Foreign Investment Disclosure Act.[3] The Tribe does not have any means

[2] (22 U.S.C. §3101 *et seq.*)("IITSA"). The Bureau of Economic Analysis (BEA) of the Department of Commerce administers IITSSA; *see* 15 C.F.R. 806. The IITSSA requires reports of all foreign investment in a U.S. business enterprise in which a foreign person or corporation owns 10% or more of the voting interest, unless the investment is under $1 million, is under 200 acres, or is real estate intended for personal use.

[3] (7 U.S.C. §3501 *et seq.*) ("AFIDA"). AFIDA is administered by the U.S. Department of Agriculture; *see* Regulations at 7 C.F.R. §781. If agricultural land is acquired by or has title transferred to a foreign individual or corporation, AFIDA requires the individual to submit a report (Form FSA-153, Agriculture Investment Disclosure Act Report) to the Secretary of Agriculture within 90 days of the transaction. Exceptions to this requirement include transactions involving: security interests; leaseholds under 10 years; contingent future interests; non-contingent future interests that do not become possessory upon termination of the present possessory estate; easements and rights of way (surface or sub-surface) unrelated to agricultural production; interests solely in mineral rights. In the event of an exchange, RCM would have to comply.

to fully investigate a foreign company or its affiliations, but it understands that the Congress and federal agencies can investigate these matters.

Based on the history of Rio Tinto's business relations with Iran and China and in light of the U.S. recent sanctions against Iran, it would be inappropriate to trade U.S. soil to a questionable foreign mining company.

H.R. 1904 is a Give-away to Foreign, Special Interests

Under the current mining laws, the land exchange would result in a give-away of American wealth. Based upon RCM's own calculation of the ore body at modest prices of copper of $2.00 per pound and molybdenum at $10.00 per pound would result in a give away to two foreign mining companies in excess of $7 billion. Under today's copper prices, the saleable copper extracted from Oak Flat would have a value of about $185.6 billion.

The appraisal requirements of H.R. 1904 do not adequately ensure that the public will receive fair value. RCM and its foreign corporate parents would not pay for the true costs of environmental compliance. As a result, American taxpayers would be left without any revenue and on the hook for the future cost of any environmental remediation.

Any Jobs Benefits from H.R. 1904 Are Dwarfed by Enormous Economic and Ecological Costs to Arizona and America

RCM and its proponents tout local job creation as the primary justification for this land exchange. However, if H.R. 1904 were to be enacted, it would come at the expense of all Americans, including Indians and Arizonans.

RCM claims that the mine at Oak Flat will produce a wide variety of jobs, from 1,000 to as many as 3,700. This last estimate comes from RCM's hired expert and not from an independent analysis. In reality, the number of jobs is highly speculative; the majority of these jobs (assuming they were created) would not appear until a number of years from now, offering little to help today's economy. Furthermore, Rio Tinto plans to make the RCM mine highly automated and to be able to operate it from remote locations, potentially rendering local job creation meaningless.

Other mining companies in the area such as Freeport McMoRan and Teryl Resources recruit employees from as far away as Phoenix and Tucson, and even outside the State. As a result of recent increases in copper prices, unemployment in the Superior - Globe region has fallen well below the national average.

While some jobs will be created by the proposed mine, it is certain that H.R. 1904, if enacted, will result in tragic consequences that RCM seeks to downplay, if not avoid. Any economic benefit that may exist will be negated by the very real, long-term impacts to the regional water supply and environmental and the economic cleanup costs that American taxpayer cannot afford.

There has been no credible cost benefit or other analysis of certain environmental impacts. Once Congress permits Oak Flat to be traded to the private ownership of RCM, RCM would be able to develop and operate its mine with only limited environmental permitting, water quality requirements, cultural protections or financial assurances required under Federal law. As a limited liability corporation, RCM could simply walk away from potentially billions of dollars in environmental and infrastructure damages. Indeed, it is very likely that H.R. 1904 will assure the creation of a future Superfund Cleanup site. We all have to ask ourselves why H.R. 1904 does not provide assurances that a future environmental catastrophe will be remediated. Who will pay that cost? Certainly not RCM; instead, the American taxpayer will be left on the hook.

The Tribe has been mischaracterized as being philosophically opposed to mining. To the contrary, we support responsible mining. We recognize that mining is an essential part of Arizona's economy. Many Apaches are miners. However, we must agree that any mining should be carried out responsibly and that it should not destroy our holy sites.

What is proposed here is the highly destructive block and cave mining method. Block cave mining consumes massive amounts of water that will severely shrink the water supply of an already drought stricken region. The mine will most certainly generate gigantic amounts of waste and tailings piles that may poison the region's water supply, and it remains uncertain even today where the ore will be processed and where the mountains of tailings and development and waste rock for this mine will be dumped. RCM has publicly admitted that its proposed block caving mine would create significant land subsidence and collapse of large portions of the Oak Flat area. Despite these facts, H.R. 1904 removes all administrative discretion and decision-making authority, rendering tribal consultation useless, and provides no protections to the lands, water or integrity of holy, sacred and cultural sites.

No independent assessment has been made available to the public regarding the proposed mine's impact on the water resources, environment, natural ecosystems or the landscape of the Oak Flat area. No provision in H.R 1904 offers any protections for the large-scale water depletions and environmental scarring and toxins that will result from the mine. The absence of requirements for independent assessment or NEPA review in H.R. 1904 before the land exchange ensures that the public will never know the true impacts of the proposed mining operation until it is too late.

Of particular concern is the fact that the mine's dewatering would substantially deplete groundwater aquifers that supply the Globe-Superior region. The cumulative impact of RCM's mine and the other mines already operating in the area on the region's water supplies and quality will never be assessed because of the lack of NEPA review. The mine will likely dry up and otherwise contaminate surface flows, springs, seeps and other water features within the Oak Flat area – all of which are fundamental to the integrity of the area as a holy site and traditional cultural property for the Tribe. Adverse impacts will occur through the depletion of groundwater aquifers and surface supplies that support the base flows in Queen Creek and the perennial pools in Gaan Canyon. The loss to the local aquifers cannot be remediated by banking Central Arizona Project water elsewhere.

At present, no water management plan exists for this already drought stricken region. RCM has not volunteered its studies. No independent study has assessed the potential impact of the proposed mine on the region's water supply. No independent study been made of the amount of toxins or other contaminants that will be produced by the mine. H.R. 1904 guarantees that no such independent reviews will ever be carried out. The potential costs of the proposed mine to the environment, the Apache's holy site, and the region's water supply will certainly outstrip any economic benefits of any jobs.

H.R. 1904 Allows a Land Exchange without NEPA Review

The public should be made aware of the potential impacts stemming from this proposed land exchange. However, Sec. 4(i) of H.R. 1904 mandates that the exchange occur within one year of enactment. This provision effectively prohibits compliance with NEPA.

NEPA requires the government to study, develop, and describe appropriate alternatives to courses of action for any proposal that involves unresolved conflicts concerning uses of available resources. 42 U.S.C. § 4332(2)(E). The NEPA process also must be integrated with other planning at the earliest possible time in order to ensure that decisions reflect environmental values and head off potential conflicts. 40 C.F.R. § 1501.2.

H.R. 1904 fails to protect the public because: (1) it does not require or even permit the Secretary of Agriculture to take a "hard look" at the land exchange before the exchange is consummated; (2) it fails to vest any discretion in the Secretary of Agriculture to consider appropriate alternatives; (3) it does not provide or permit mitigation of impacts related to the exchange and/or the mining project; and (4) it would not permit the Secretary to reject the exchange if the Secretary finds that the exchange is a bad deal for the American taxpayer or public.

Contrary to what proponents of H.R. 1904 contend, the bill waives the requirement of a NEPA analysis before the exchange. H.R. 1904 further waives the Federal Land Policy and Management Act and other critical laws that guide land exchanges and protect the American public. Because of these waivers, there can be no independent determination of what is in the public interest. Nor will there be any disclosure of environmental impacts. Indeed, under H.R. 1904, even if the Secretary finds adverse impacts to religious interests or environmental, cultural, water or other harms, nothing can be done. The land will already be owned by RCM and most federal laws would not apply.

S. 409, as reported, did provide some protections prior to decisions on conveyance by requiring a more active involvement by the Secretary and limited consultation with tribes; however, we oppose S. 409, as reported, because it (among other things) fails to acknowledge the importance of Oak Flat to the religion, traditions and culture of the Apache and Yavapai People and because it contains no guarantees that the integrity of Oak Flat as a Apache holy site and traditional cultural property would be protected after transfer to RCM. While both bills are unacceptable to the Apache Tribe, H.R. 1904 is even worse than S. 409, as it completely removes most of the Secretary's discretion and consultation functions. Sec. 4(i) of H.R. 1904 removes the rights that the Tribe or other concerned citizens would normally have under the law before the exchange becomes final. So, even if the Secretary's NEPA efforts after the exchange were found flawed, it is likely to be argued that no one can seek review from government agencies or the courts.

H.R. 1904's NEPA Requirements after the Exchange are Hollow

Under Sec. 4(j) of H.R.1904, the Secretary of Agriculture has no discretion to exercise any meaningful authority over RCM's plan of operations or its mining activities on private land absent a federal nexus. Once federal lands are transferred to private ownership under H.R. 1904, RCM may contend that it is able to mine without having to comply with federal law.[4] RCM will only have to submit a plan of operation in advance of producing commercial quantities of minerals. However, the Secretary of Agriculture has no authority to reject the plan of operations if the information is insufficient to conduct the review called for under Sec. 4(j)(2).

Under H.R. 1904, no interim exploratory activities, pre-feasibility and feasibility operations, or facility construction will be given federal scrutiny before production. Completion of the exchange prior to an Environmental Impact Statement negates the utility

[4] Lands in private ownership are exempt from most of the normal process for mining on federal lands, which includes jurisdiction of the federal government under the Federal Land Policy Management Act of 1976, 43 U.S.C. §§ 1701-1785; the Multiple-Use Sustained-Yield Act of 1960, 16 U.S.C. §§ 528-531; NEPA, 42 U.S.C. §§ 4321-4347; and 36 C.F.R Subparts A and B. H.R. 1904 further bypasses the National Forest Management Act (16 U.S.C. § 1600) and the Endangered Species Act (16 U.S.C. § 1531).

of the EIS process and eviscerates NEPA protection. As a result, RCM's activities will be subject merely to the limited and inadequate provisions of Arizona law.

Many mining companies have a long history of complying with federal laws and regulations. Public input and close scrutiny under NEPA provides assurances that the public interest will be served. NEPA provides a vital, structured process to assess the impacts of the mine on the land, water, cultural resources, animals and plants, while also assessing the extent, quality and value of the ore body to be conveyed to foreign mining companies. Only then can the American people fully understand the amount of taxpayer wealth being transferred by the Government.

It is only because of the federal laws which are in place that other miners in Arizona and throughout the country are examples of environmental responsibility. RCM and its proponents have completely failed to articulate any credible reason why the NEPA process and other federal laws should be bypassed and circumvented by H.R. 1904.

Responsible Stewardship for Apaches, Arizonans, and other Americans

H.R. 1904 would lead to irresponsible development with disastrous consequences. In the words of Theodore Roosevelt: "To waste, to destroy, our natural resources, to skin and exhaust the land instead of using it so as to increase its usefulness, will result in undermining in the days of our children the very prosperity which we ought by right to hand down to them." Theodore Roosevelt was a champion of Edmund Burke's ideal that a moral partnership exists between the living, the dead and those to be born. That view helped instruct his passion for conserving America's natural resources. That view in some aspects also parallels the Apache way of life. We should all honor this vision.

Oak Flat should be preserved for future generations of Americans, Arizonans and Apaches and other Indian Tribes. Theodore Roosevelt also observed that: "Conservation means development as much as it does protection. I recognize the right and duty of this generation to develop and use the natural resources of our land; but I do not recognize the right to waste them, or to rob, by wasteful means, the generations that come after us." That sentiment is reflected in the San Carlos Apache Tribe's opposition to this legislative land exchange. That sentiment is shared by a substantial coalition of Americans.

RCM's proposed mine would waste natural resources and would rob generations yet to come. It should not be permitted to happen by those entrusted with the solemn trust responsibilities for Indians and all Americans.

Tribes, Arizonans, and other Americans Need Protections from H.R. 1904

The Tribe has been joined by the 20 member Tribes of the Inter Tribal Council of Arizona, local community organizations, miners, environmentalists and dozens of others in its opposition to H.R. 1904 and any other legislation that would convey or otherwise negatively harm the Oak Flat area. I respectfully submit that H.R. 1904 should not move out of the Committee for the following reasons:

1. Government-to-government consultation must occur with all interested tribes throughout the land exchange process and proposed uses;
2. H.R. 1904 offers no protections for Oak Flat area as a Traditional Cultural Property, pursuant to Section 106 of the NHPA or, alternatively, exclusion from transfer to RCM under the legislation;
3. There are no guarantees of continued access for tribal members to the Oak Flat area;
4. Certain restrictive covenants should be developed by the Secretaries of Agriculture, Interior and State in consultation with affected Indian tribes, for the Oak Flat area due to its significant tribal archaeological, religious, historical and cultural significance;
5. H.R. 1904 does not include critical water balance measures to ensure protections for the region's future water supply;
6. RCM does not have to comply with applicable federal laws and regulations before any decisions on whether to convey federal land and wealth, including comprehensive NEPA, FLPMA and CEQ review;
7. H.R. 1904 does not require federal environmental compliance; and
8. There are no meaningful sanctions in H.R. 1904 if RCM violates federal laws.

Conclusion

In 1871, the United States established our Reservation. Within just a few years, some of the most productive lands within the boundaries of the Reservation were taken away by the United States and conveyed to settlers and miners for their sole benefit. That was repeated five more times over the years. Our burial sites, living areas and farmlands on our Reservation were flooded to make way for a federal dam for the benefit of others. It is in this historical context that we assess the mining proposal and this land exchange.

H.R. 1904 and S. 409, as reported, do not provide the requisite transparency to address many of the fundamental concerns mining projects like these present. The billions of dollars which RCM and its foreign corporate parents would realize in mining profits and avoidance costs for environmental compliance by the premature passage of these bills are staggering. There is no unbiased analysis of the potential economic benefits or costs of potential environmental damages and impacts on the region's water supply.

The proposed mine presents an untenable threat to the security and sustainability of Oak Flat and all it contains, which would be an incalculable cultural loss. Under the bills, there is an absence of quantifiable royalties for the American treasure that would be given to foreign entities in exchange for our ancestral lands.

Mr. Chairman and Members of the Committee, thank you for the opportunity to express our opposition to H.R. 1904 and S. 409 as reported.

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