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**U.S. Senate**  
**Committee on Energy and Natural Resources**

**Oversight Hearing**  
***“Short and long-term solutions to extreme drought in the Western United States”***  
**June 14, 2022**

Chairman Manchin, Ranking Member Barrasso and Members of the Committee:

On behalf of the Family Farm Alliance (Alliance), thank you for the opportunity to present this testimony today on the extreme drought conditions in the Western United States and related short and long-term solutions. My name is Pat O'Toole, and I have served as President of the Board of Directors of the Alliance for over 18 years.

### **About the Family Farm Alliance**

The Family Farm Alliance (Alliance) is a grassroots organization of family farmers, ranchers, irrigation districts, and allied industries in 16 Western states. We are committed to the fundamental proposition that Western irrigated agriculture must be preserved and protected for a host of economic, sociological, environmental and national security reasons – many of which are often overlooked in the context of other national policy decisions. The American food consumer nationwide has access to fruits, vegetables, nuts, grains and beef throughout the year largely because of Western irrigated agriculture and the projects that provide water to these farmers and ranchers.

Today's hearing could not come at a better time. Americans are facing rising food costs and the potential for global famine looms on the horizon. Amid concerns of higher food prices and growing concerns of a looming global wheat shortage, the recent national infant formula shortage has further underscored the importance of a strong national domestic food supply system. Meanwhile, our own government has regulatorily withheld water from producers in places like the Central Valley of California, Central Oregon and the Klamath Basin. Many of our members are bracing for yet another year of severe drought and unprecedented water shortages.

The Western drought continues with no real federal policy action other than to limit irrigation supplies to farmers and residents. We need to prepare for future droughts, not simply react to current hydrologic shortages. Major reservoirs in California and along the Colorado River have reached or are approaching historic lows, threatening the ability to generate hydropower, particularly at Lake Powell, behind Glen Canyon Dam. In the Rio Grande Basin, New Mexico's

Elephant Butte Reservoir is less than 13% full. Our farmers and ranchers that are largely responsible for keeping the nation's grocery store aisles stocked are being forced to leave fields fallow or reduce livestock herds.

At this critical juncture, I appreciate this opportunity to share my observations and recommendations to help our communities in the face of this crisis.

### **Personal Background and Experience with Western Drought Challenges**

I have served on the Family Farm Alliance's Board of Directors since 1998 and was named as the organization's President in 2005. I am also a former member of Wyoming's House of Representatives. I presently serve on the board of directors of Solutions from the Land and work closely with both the Intermountain Waterfowl Joint Venture and Partners for Conservation.

My family has a strong background in irrigated agriculture and our 140-year-old ranch (Ladder Ranch) is located near Savery, Wyoming. Our family raises cattle, sheep, horses, dogs and children. My family and Ladder Ranch were the recipients of the distinguished 2014 Wyoming Leopold Environmental Stewardship Award. Our ranch straddles the Wyoming-Colorado border at the headwaters of the Colorado River, which has long afforded me the opportunity to view some unique water issues first-hand. I have personally testified before Congressional committees several times, and Alliance representatives have testified before Congress nearly 90 times since 2005. We've seen the ups and downs and the volatility of weather and the changing climate—now it's clear that the cycle of life has been disturbed.

### **Overview of the Western Drought**

This testimony focuses on this year's drought – an unprecedented disaster for many farmers and ranchers, their families and rural communities across the West. At a time when Western water projects are typically operating at full strength, with delivery canals bringing essential water supplies to the headgates of thousands of farmers and ranchers, crushing drought conditions are once again leaving millions of acres of productive farm and ranch land without water this spring. Many of our farmers and ranchers this year are going to be hit hard by this “unprecedented” drought, the second straight year we've used the term “unprecedented” when describing the Western drought.

Some of our producers in the Great Plains and the northern Rocky Mountains saw some recent relief when heavy precipitation fell across much of the contiguous U.S. in late May. Improvements to drought conditions were widespread in the Great Plains, with parts of central Kansas seeing two-category improvements to conditions, according to the U.S. Drought Monitor.

Despite the improving drought conditions, agricultural problems continued in the region. Winter wheat harvest potential in Kansas was reduced by over 25%, while conditions are too wet in parts

of Montana and the Dakotas for planting spring wheat. Impacts from the widespread drought also include reduced grazing for cattle in New Mexico due to wildfire closures in national forests.

In California, the state's two largest reservoirs are at critically low levels moving into the dry season with Shasta Lake currently at 40% of total capacity on June 2 and Lake Oroville at 46% of capacity on May 26. In the Rio Grande Basin, New Mexico's Elephant Butte Reservoir is less than 13% full.

The Colorado River Basin is in its 21<sup>st</sup> year of drought and its reservoirs will end up at their lowest levels since they were initially filled. Central Arizona farmers are facing water cuts resulting from the first ever shortage declaration, and the most recent modeling shows increasing risk of reaching additional critical levels at Lakes Powell and Mead.

The drought impact on Western irrigated agriculture is not limited to the water, either. Reduced hydropower generation and the high cost of replacement power is threatening to cause double digit percentage power cost increases to many farmers and non-agricultural users, compounding significant drought impacts on communities already hard hit by the pandemic and farms struggling to survive in the face of water curtailments and COVID related disruptions. In the midst of the numerous challenges caused by the ongoing drought, efforts are underway to renegotiate new operating guidelines in advance of the expiration of the "Interim Guidelines for the Lower Basin Shortages and the Coordinated Operation for Lake Power and Lake Mead (Interim Guidelines)" in 2026.

Elsewhere in the Lower Colorado River Basin, Southern California's Imperial Irrigation District (IID) delivers Colorado River water to approximately half-million acres of highly productive farmland where a large percentage of the Nation's winter leafy greens and vegetables are grown. Since 2003, IID's water management programs have generated over 7 million acre-feet of conserved water from both on-farm and system efficiency programs, with current conservation efforts yielding nearly 500,000 acre-feet each year. However, this community is also home to the Salton Sea that continues to decline, causing impacts to the environment and public health.

The efficiency conservation measures used to create this conserved water have exacerbated rising salinity levels at the Salton Sea, contributing to the loss of the ecosystem fishery with even broader impacts to the North American flyway. The Sea's shoreline has also receded to expose nearly 28,000 acres of land that was previously underwater, with the exposed playa forecasted to grow to 74,000 acres over the next 25 years. This poses a potentially significant public health risk for neighboring disadvantaged communities, as wind storms scour the exposed playa and contribute to dust emissions that can cause white-out conditions at times. Protecting IID's local rural agrarian community and ensuring that Salton Sea impacts associated with any new or accelerated conservation programs are properly addressed by state, federal and regional partners, will be critical to any basin-wide Colorado River solution.

Dire challenges are being faced by agricultural water users in California's Central Valley, the Klamath Basin, the Columbia River Basin and its tributaries in Idaho, Oregon and Washington, the Rogue River Basin in southern Oregon, the Colorado River watershed, and the Great Basin. Water users in nearly every region of the West are scrambling, looking for creative ways to stretch scant water supplies. In mountain watershed areas from the Sierra Nevada to the Rocky Mountains, the driest of conditions have prevailed. Forecasting runoff has been an incredible challenge, and much of the meager runoff has been consumed by dry upstream soils. These severe drought conditions, coupled with the arid nature of many parts of the West, again make for a trying, shortened water year.

## **Drought Challenges**

The current drought crisis underscores some key concerns:

- 1. Improved water infrastructure is needed to protect future water supply reliability.** A national coalition of over 220 organizations last year urged Congress to include Western water infrastructure provisions in any potential infrastructure or economic recovery package. Your Committee clearly heard and acted on our coalition's request.
- 2. Water management in the West is becoming too inflexible.** Water users served by Western federal water projects – including but not limited to – California's Central Valley Project, the Klamath Project in Oregon and California, and Oregon's Deschutes River Basin – are facing "regulatory droughts" as well as hydrologic droughts. We need a new way of looking at how we manage environmental demands for our limited water resources. We need a broader view of how water is used to meet environmental needs, one that considers state water laws, science, population growth, food production and habitat needs.
- 3. Fierce Western wildfire disasters are becoming an annual occurrence.** This underscores the importance of improving on-the-ground management and restoration actions that can lead to improved forest health, which benefits every Western watershed's water supply capability.
- 4. Now is the time for collaboration, not confrontation.** Now more than ever, ag producers, municipalities, tribes and conservation groups need to come together to provide locally driven solutions. If we don't, the public policies and resource management strategies that we need to maintain a viable and sustainable rural West will be impossible to achieve.

Western farmers and ranchers faced a brutal growing season in 2021 as drought conditions drastically reduced water deliveries. Many were forced to make difficult decisions about the future of their operations. Cattle ranches and dairy farms liquidated their herds as they ran short of feed and water. Some farmers were forced to tear out certain crops to plant less water-intensive ones. Others let their fields lie fallow.

There are many other impacts that emerge when once-reliable surface water supplies are no longer

available. Most importantly, no water for a farmer means no crops, no food, and a very limited ability to take care of his/her family. Farmers have mortgage payments, property taxes, irrigation district assessments and equipment payments. Many producers have production contracts that they have worked years to achieve and retain. If producers cannot deliver on those contracts, those contracts are lost.

We're losing farm workers, who are not only great employees but are long-time, valued members of our rural communities. The impacts of shutting down agriculture further causes harm to ag supply businesses, including ancillary businesses like warehouses, packing facilities, and custom spraying and harvesting operators who may not survive economically. The drought also hits businesses on Main Street hard in the rural West. Even more troubling, if growers and supporting businesses are unable to survive this drought, many regions risk losing the capacity to produce food, resulting in the economic hardship for rural communities and national food security impacts continuing long after the drought has ended.

We're also seeing devastating impacts to the environment. In some agricultural areas, the wildlife—particularly the migrating waterfowl – that rely on the canal systems, ditch banks, and irrigated fields are simply not there anymore. Dust storms – coupled with the horrific air quality we are seeing from our burning forests – pose health risks to farmers, workers and the general public.

When surface water supplies diminish or disappear, farmers turn to groundwater, if they have access to it. In some areas, canal water is a prime source of clean recharge for shallow domestic wells. That's not happening where the canals have been left bone dry. Increased groundwater pumping to replace lost surface water will continue to draw down groundwater levels. Thousands of domestic wells in the San Joaquin Valley, the Klamath Basin, and elsewhere dried up this summer. Many households continue to rely on bottled water to drink. Rural residents who don't even farm are having to stay with family and friends to shower and wash clothes.

## **Drought Solutions**

There are things that Congress and this committee can do to alleviate this disaster and better prepare and manage for future droughts. Federal investments in improving and building new water supply infrastructure – partnering with the Western states and non-federal water users – can help prevent or reduce the impacts of future droughts. Moving away from flow-based single species management to collaborative watershed-based approaches that respect all uses will help prepare Western water stakeholders for a more predictable and secure future. We need to act, and act now, to accomplish these tasks.

Perhaps the only silver lining is that this unprecedented drought crisis will hopefully draw public and political attention to Western agriculture's critical role in providing a safe and reliable food supply, boosting the national economy, and continuing the country's stature as the world's premier food basket. We can only hope that this leads to necessary, reasonable policies that support farmers and investment in rural communities, including water infrastructure and increased water-storage

capacity. The Family Farm Alliance and other Western agriculture and water organizations believe the drought underscores the urgent need to take immediate action to help better manage impacts to water resources from drought in the West.

Western irrigated agriculture has been dealing with changes in climate and hydrology for over a century. But the prognosis for water supplies in the future is not positive and will continue to negatively impact this important source of our Nation's food supply, the economic engine for most of our rural Western communities. Coupled with the growing demand for existing water supplies from burgeoning cities and the environment, irrigated agriculture is fast becoming a target for one thing – water. The Alliance believes we must look to several solutions in order to maintain food security for the nation and economic wellbeing of the Western landscape:

- Invest in Western water infrastructure – new water storage and improved conveyance facilities, groundwater recharge, water conservation, water management improvements, water reuse and desalination can all help alleviate the stress on our existing water supplies, especially for agriculture in the growing West;
- Invest in technology – we must manage our water supplies better through more efficient and effective use of technology to improve the modeling and predicting of weather patterns, snowpack, and runoff forecasting, as well as using technology to manage our water storage and distribution to improve efficiencies in utilizing our precious water resources; and,
- Improve regulatory processes at the federal level to expedite permitting and get these new water projects to construction within a reasonable period of time at a reasonable cost, as well as create collaborative partnerships between federal, state and local entities interested in finding solutions to our water-climate problems through adaptive strategies that can work on the ground.

## **1. Short-term Action**

There is a need for short-term action, as well. As we move into the dry portion of another serious unprecedented West-wide drought year, preparing for this requires a level of reaction that is immediate and sustainable. We recommend a fast-track response capability from the U.S. Department of Agriculture (USDA) and the Interior Department that enables a localized response by farmers and ranchers. Farmers and ranchers need programs through their local NRCS offices to assist with the purchase of infrastructure including solar panels, pipeline materials, well-drilling, tanks, gated pipe and projects to develop water. Such projects can benefit wildlife and wetlands as well as food production. An immediate and local response is imperative.

## **2. Action in Congress**

Congress has helped this past year by passing the *Infrastructure Investment and Jobs Act* (IIJA), which includes more than \$8 billion for projects that will enhance water supply reliability across the West, including repairing aging dams and canals, building new surface and groundwater

storage and conveyance facilities, funding water conservation and recycling projects, and improving watershed and ecosystem management. The Western water provisions included in this legislation represent a once-in-a-generation federal investment that will bolster our aging water infrastructure and keep water flowing to our nation's farms and ranches. It will also improve our ability to provide water supply reliability for cities and the environment in future droughts. The package both aligns with the solutions water managers across the Western United States have requested for years and provides a balanced package of tools that local and regional managers may select from to best resolve the water needs and challenges in their local communities.

With the infusion of federal infrastructure dollars, there is no better time to ensure that our federal systems and programs work efficiently together. As an example, we encourage the swift adoption of a Memorandum of Understanding between the Natural Resources Conservation Service (NRCS) and the Bureau of Reclamation (Reclamation) to streamline the NEPA compliance process and eliminate duplicative costs, time delays and inefficiencies. We also support greater collaboration and a reduced reliance on autonomous business centers at the federal level that often act as silos and create barriers for local community collaboration and support. Finally, we believe reducing federal bureaucratic red tape within agencies to allow worthy water and groundwater supply and conveyance projects to move forward must become a priority. As an example, streamlining and prioritizing the federal government's ability to exchange like-kind federal tracts of land for non-federal properties will become even more important as non-federal entities begin to develop the water supply infrastructure needed to meet future drought challenges.

As IJA funding is put to use, Congress also has an important oversight role to ensure federal agencies are held accountable and the historic investment translates to progress on the ground. We appreciate the sense of urgency and responsiveness by agency leadership to date as they work to get funding out the door. And yet, we are already seeing instances where the pace of study or analysis on the early stages of projects puts into question whether they will be far enough along to seek construction funding before the IJA expires. In the midst of catastrophic drought, changing hydrology due to climate change, and other factors, every level of federal employee must be implored to be creative and aggressive in getting projects done.

### **3. Pending Legislation**

We have actively advocated for and contributed to the development of several of the West-wide bills that you considered at the Water and Power Subcommittee hearing on May 25. Some of these bills contain provisions that work well for both producers and the NGO community. Others, in our view, appear to put the needs of fish, wildlife and ecosystems above the interests of our farmer-rancher membership.

This concern is especially relevant today. We cannot continue long-term hypothetical processes that focus primarily on continued conservation and downsizing of Western agriculture. The U.S. needs a stable domestic food supply, just as it needs a stable energy supply. As the Ukrainian war has demonstrated, the stability of our domestic food supply has become even more pressing. Our

system of irrigated agriculture in the West has and will continue to help our Nation provide the most stable food supply in the world – but only if we let it.

This testimony summarizes the legislation we strongly support that has already come before the Water and Power Subcommittee. I respectfully direct you to our May 25, 2022 written testimony submitted to the Subcommittee for additional detail.

#### Upper Colorado and San Juan River Basins Recovery Act (S. 3693)

The Alliance supports S. 3693, sponsored by Senators John Hickenlooper (D-COLORADO) and Mitt Romney (R-UTAH). The legislation would extend current conservation programs by one year and allow Upper Basin communities the time to develop a long-term management plan. The Upper Colorado and San Juan River Basin Endangered Fish Recovery Programs work to recover four threatened and endangered fish species: the humpback chub, bonytail, Colorado pikeminnow, and razorback sucker. Partners of this program are recovering four species of endangered fish in the Colorado River and its tributaries in Colorado, Utah, and Wyoming. The program hit a milestone last year when the humpback chub was downlisted from endangered to threatened. Importantly, through this program, water uses and development and hydropower operations to meet human needs continue to be in compliance with interstate compacts and applicable federal and state laws.

#### Watershed Results Act (S. 3539)

The Alliance supports the “Watershed Results Act” (S.3539, “WRA”). This legislation would require the Secretary of the Interior to work in coordination with the Secretary of Agriculture and the Administrator of the EPA to establish two to five watershed restoration pilot programs across the country. The difference from the federal status quo is that WRA would require pilot watersheds to be assessed for priority projects using advanced analytics to maximize every dollar invested and promote a results-oriented approach. By prioritizing investments in conservation and measuring results, we believe we can create a market for farmers to grow “bushels of nature” alongside our food supply. This in turn would create incentives for projects that produce measurable outcomes and provide farms with a higher cash margin. It would also help to actually solve problems associated with poor or unfocused resource management in a watershed at a fraction of the cost of the status quo.

The WRA would also address the financial and practical barriers that currently make it so difficult to combine siloed public funds into an integrated solution, direct funding toward the highest return projects, and eliminate bureaucratic complexity for farmers who participate in the pilot. As Reclamation increasingly manages through more severe drought and precipitation deluges, having a stronger, more integrated portfolio of watershed projects implemented on the landscape will add more resiliency to the overall water system.

Support to Rehydrate the Environment, Agriculture, and Municipalities Act”- STREAM Act (S. 4231)

Senator Feinstein’s STREAM Act contains a number of provisions that could be helpful to our members if enacted, including those that 1) Supporting new water storage and conveyance projects, including those that continue the “Water Infrastructure Improvements for the Nation Act” (WIIN Act) storage program in a revised form; 2) Extending the availability for cost-shared grant funding for non-congressionally authorized Title XVI water recycling, reuse, and desalination projects; 3) Grandfather storage and conveyance infrastructure projects that receive construction funding in the IJA to receive new funding authorized by the STREAM Act to complete construction; 4) Provide non-reimbursable funding for modifications to extraordinary maintenance on aging Reclamation projects that would provide additional public benefits; 5) Allow the Department of Interior to provide emergency drought relief assistance for permanent infrastructure projects; 6) Establish a Reclamation Infrastructure Finance and Innovation Act (RIFIA) Pilot Loan Program that would potentially lower the cost of financing this critical water infrastructure for our members. We thank Senator Feinstein for her decades of leadership on Western water and look forward to continuing to work with the Subcommittee on the STREAM Act as it moves through the legislative process.

Canal Conveyance Capacity Restoration Act (S. 1179)

The Alliance also supports S. 1179, introduced by Senator Feinstein. This legislation will help to address the impacts of groundwater subsidence on major portions of California’s water delivery system – infrastructure millions of people depend on for water supply, flood control, and environmental protection.

A bill to amend the Omnibus Public Land Management Act of 2009 to authorize certain extraordinary operation and maintenance work for urban canals of concern. (S 4175)

The Alliance supports S.4175, which would create a new category of extraordinary maintenance on Reclamation owned projects called urban canals of concern. These canals, typically delivering irrigation water to farms and ranches in Reclamation watersheds in the West, were originally built in the desert environment of a developing watershed. As time went on, communities sprang up and housing tracts were developed alongside these canals creating potential hazards that, if a failure occurred, could result in loss of life and property. To reduce this risk, agricultural transferred work operators who maintain and operate these federally owned facilities must upgrade these urbanized sections of their canals through expensive extraordinary maintenance projects on the backs of farmers and ranchers who pay O&M costs for the facility. S.4175 would accelerate these investments improving urban canals of concern and assist in supporting the huge costs associated with this work, by recognizing the risks of potential failure in these segments and classifying the work as emergency extraordinary maintenance under P.L. 111-11.

A bill to amend the Infrastructure Investment and Jobs Act to modify the eligibility requirements for certain small water storage and groundwater storage projects and to authorize the use of funds for certain additional Carey Act projects, and for other purposes. (S. 4176)

The small storage and groundwater storage grant program created in the IJJA was limited to water storage projects that were between 2,000 acre-feet and 30,000 acre-feet in size. The 2,000-acre-foot minimum size would eliminate small regulating reservoirs on water delivery canals (typically sized between 100 and 500 acre-feet) that essentially conserve much more water than they can physically store through providing efficiencies in the operation of a canal system. S. 4176 would reduce the minimum size of an eligible small surface and groundwater storage facility from 2,000- to 2-acre-feet, making these small regulating reservoirs eligible for grant funding under the program. The bill would also expand eligibility for any remaining funding provided by the IJJA for rehabilitation of additional Cary Act Projects in the West.

A bill to address the recovery of certain costs with respect to certain Reclamation facilities in the Colorado River Basin, and for other purposes. (S. 4232)

Senator Kelly's S. 4232 is critical to mitigate significant drought impacts for federal hydropower customers in Arizona and across the Colorado River Basin. This bill would ensure that Hoover, Parker-Davis, and Colorado River Storage Project hydropower ratepayers are not responsible for covering certain costs associated with these federal facilities if they are not producing and delivering power. Without this legislation, hydropower customers will essentially be forced to pay for power they are not receiving, along with a significant portion of costs that benefits other stakeholders. At the same time, they will also confront the massive additional costs to replace lost federal hydropower deliveries in a very difficult and expensive power market.

While the Alliance fully supports S. 4232, we would ask that it be expanded to not only address impacts to power customers if generation is fully lost, but also help mitigate the impacts they are already experiencing from the current significant reductions in generation. Even without a total loss of power production at some facilities, the reduced generation is resulting in massive and unsustainable rate increases to many customers as they are forced to cover typical power and nonpower costs while replacing electricity on the open market.

A bill to provide for a national water data framework, to provide for the water security of the Rio Grande Basin, to reauthorize irrigation infrastructure grants, and for other purposes. (S. 4236)

We support the water data framework provisions of S 4236. Western water resources decision-making demands accurate and timely data on precipitation, temperature, evapotranspiration, soil moisture, snow depth, snow water content, streamflow, groundwater, water quality and similar information. Critical and vital information is gathered and disseminated through a number of important federal programs. There is a serious need to focus on coordinated data collection and dissemination.

## Water for Conservation and Farming Act (S. 953)

The Alliance strongly supports Section 206 (Fisheries Restoration and Irrigation Mitigation Act - Public Law 106-502) of the Water for Conservation and Farming Act (953), introduced by Oregon Senator Ron Wyden. Our members in California, Idaho, Oregon, Montana, and Washington are strong supporters and benefactors of FRIMA, which supports voluntary fish screen and passage projects. When funded, this has been a successful program to protect native and endangered fish and other aquatic species. These fish protection components are critical to many water delivery systems in the West, and they can be very expensive. The program was originally inspired to provide federal cost-share funding to improve fish passage by screening water withdrawals and building upstream fish passage devices, while maintaining a steady, reliable water supply for human uses.

## Additional Bills

In addition to the regional and West-wide bills above, we appreciate that the Committee included a number of additional bills that address specific water issues and needs in California, North and South Dakota, Montana, New Mexico, and Wyoming. We have members in all of these states and are supportive of solutions that come from the ground-up and help improve operations and infrastructure. We stand ready to work with the Committee on these bills.

## **The State of Western Forests**

Wildfires have already burned more than a million acres of land in the U.S. this year and the months ahead present significant fire potential to all or parts of more than a dozen states. Areas where multiple large wildfires are already burning – including parts of the Southwest, Rocky Mountains and Plains – remain at the greatest risk heading into summer due to ongoing drought and abundant fire fuels such as dried out vegetation, according to the latest wildfire outlook released last month by the National Interagency Fire Center.

Increasingly fierce Western wildfire disasters are becoming an annual occurrence and underscore the importance of improving on-the-ground vegetation management actions that can lead to improved forest health. Improving the condition of our nation's forested lands is of primary importance to water providers. National Forest lands are overwhelmingly the largest, single source of water in the U.S. and, in most regions of the West, contributing nearly all the water that supplies our farms and cities. In addition, our already fragile water infrastructure can be severely damaged or rendered useless by wildfire and post-wildfire flooding and debris flows. These burned areas hold no water at all, leading to floods, erosion, and mudslides. It also increases turbidity in the streams flowing through our watersheds. The unhealthy state of our national forests, which were initially reserved specifically to protect water resources, has led to catastrophic wildfires that threaten the reliability, volume, and quality of water for thousands of acres of irrigated agricultural lands, tens of millions of Americans, along with the wildlife, recreational, and multi-purpose values of these lands.

Our great Western forests are damaged and diseased. This came about through a perfect storm of neglect, misguided litigation, lack of use of science, strained management budgets, and, of course, climate change. We can have no doubt that the West is warming, and some places are warming more rapidly than past modeling has predicted. Insect outbreaks have weakened and killed trees. Violent winds have brought these trees down providing an abundant source of fuel. Drought and forests cluttered with dead fall timber serve as a tinderbox for increasingly intense and devastating fires. Our National Forests in the Rocky Mountain Region are suffering from climate-driven lack of function. The inability to develop a logical management strategy has led to these consequences: catastrophic fires, lack of wildlife habitat and critical interruption of our water supply.

## **Western Wildfire and Forest Health Challenges**

Today's wildfires are often larger and more catastrophic than in the past. Some of the blame can be attributed to climatic conditions, like reduced snowpack in alpine forests, prolonged droughts and longer fire seasons. Western population growth has also played a role, since we now have more homes within or adjacent to forests and grasslands. However, decades of fire suppression and inability to manage our forests through controlled burns, thinning, and pest/insect control probably play an even bigger role. Where California now has about 100 trees per acre, it once had about 40 trees / acre.

Much of the media coverage on the fires that raged in Northern California last year featured commentary from politicians, environmental activists and academics who point to climate change as the driving factor behind the fires that have forced tens of thousands of Westerners to flee their homes. Climate change concerns may certainly be shared by some rural Westerners who live in once-thriving timber dependent communities. However, there is also a growing frustration that forest management – or rather, the lack of management by federal agencies, driven in part by environmental litigation – fails to get the attention it deserves in many media accounts of policy solutions offered to combat the current Western wildfire infernos.

Some of us who live in rural Western communities who have watched the condition of federal forests deteriorate in recent decades have a different perspective. We have witnessed how federal forest management actions have been hampered in recent decades, in part due to environmental lawsuits initiated by certain activist groups. We encourage the Subcommittee to listen to the men and women on the ground regarding the urgency of implementing forest restoration and management.

### **1. National Environmental Policy Act (NEPA) Processes Associated with Forest Health**

The U.S. Forest Service (Forest Service) is not fully meeting agency expectations, nor the expectations of the public, partners, and stakeholders, to improve the health and resilience of forests and grasslands, create jobs, and provide economic and recreational benefits. The Forest

Service spends considerable financial and personnel resources on NEPA analyses and documentation, as well as environmental litigation.

In recent years – catalyzed by the ominous increase in Western wildfire activity – we have worked with other organizations, seeking ways to discourage litigation against the Forest Service relating to land management projects. We have supported efforts to develop a categorical exclusion (CE) under NEPA for covered vegetative management activities carried out to establish or improve habitat for economically and ecologically important Western species like elk, mule deer, and black bear. Thus, we have advocated for expediting and prioritizing forest management activities that achieve ecosystem restoration objectives.

Reforming the Forest Service's NEPA procedures is needed at this time for a variety of reasons. An increasing percentage of the Forest Service's resources have been spent each year to provide for wildfire suppression, resulting in fewer resources available for other management activities, such as restoration. In 1995, wildland fire management funding made up 16 percent of the Forest Service's annual spending, compared to 57 percent in 2018. Along with a shift in funding, there has also been a corresponding shift in staff from non-fire to fire programs, with a 39 percent reduction in all non-fire personnel since 1995.

Additionally, the Forest Service in 2019 had a backlog of more than 5,000 applications for new special use permits and renewals of existing special use permits that are awaiting environmental analysis and decision. On average, the Forest Service annually receives 3,000 applications for new special use permits. Over 80 million acres of National Forest System land need restoration to reduce the risk of wildfire, insect epidemics, and forest diseases<sup>1</sup>. It is essential to begin taking a risk management approach to restoring and managing our Western forests before the fear and over analysis cause more forest land, along with the multiple values to water supply, wildlife habitat, recreation, and food production, to be lost.

## **2. Forest Management Impacts on Upper Watershed Water Supplies**

It is hard to overstate the importance of snowmelt as a source of fresh water in parts of the Rocky Mountain West, and great attention is paid to ecosystem water cycles in this region. Some of the snow that falls in the mountains goes directly from crystalline snow to water vapor, bypassing the liquid water phase. This phenomenon – sublimation – accounts for the loss of a large portion of the snowfall during the winter months in the Rocky Mountains. Snow intercepted by tree branches sublimates the fastest, often disappearing within a few days of a snowfall. Recently published work by the Rocky Mountain Research Station<sup>2</sup> (RMRS) teases apart how the loss of spruce canopy affects the sublimation rates for snow both in the canopy and on the ground in these ecosystems. These findings have some important implications to snow interception and retention.

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<sup>1</sup> Federal Register Doc. [2019-12195](#) Filed 6-12-19

<sup>2</sup> Beetle Outbreaks in Subalpine Forests and What They Mean for Snowmelt, May 2021. Rocky Mountain Research Station, U.S. Forest Service.

Two years ago, I testified before this Committee, where I referenced the Forest Service's figure that 160,000 acre-feet (AF) of water is not going into the Platte River system because of invasive species such as the pine beetle. The study I referenced relates to research<sup>3</sup> conducted by the Forest Service on the Upper North Platte River in 2000 and 2003. It shows that management restricting timber harvest had already severely impacted the watershed and water yield to the tune of a minimum of 160,000 AF<sup>4</sup> per year. The Forest Service uses Equivalent Clear-cut Acres modeling to predict water yield associated with vegetation disturbance, primarily associated with timber harvest and wildfire. The literature and research show that implementing a 100-year rotation on all eligible timber lands would sustain an increase of 50-55,000 AF of water per year – for just one part of one forest in the state of Wyoming.

In focusing on opportunities in Wyoming, it is important to provide context for what is happening in the West because lessons learned across the region has application in Wyoming. For example, across the West, federal laws, regulations and environmental litigators have greatly restricted our ability to thin forests and take other actions to aggressively combat invasive insects like the pine beetle. As a result, large swaths of national forest lands essentially remain “un-managed”. In some places, all you can see for miles is a sea of dead trees, victims of the pine and spruce beetles.

Overgrown Western forests also means forests are using more water than they did historically. Because the moisture content of the trees and brush is so low, it makes them more vulnerable to fire and parasites, such as the bark beetle, which has ravaged millions of acres throughout the West. The Western wildfire disasters have underscored the importance of improving on-the-ground management that can lead to improved forest health. Thinning out trees can reduce water stress in forests and ease water shortages during droughts. By reducing the water used by plants, more rainfall flows into rivers and accumulates in groundwater. If we could calculate potential water yield impacts with even more confidence, we could determine how much water could be freed up by thinning forests and controlling pests and invasive insects like the pine and spruce beetle. Fortunately, we are seeing more recent, positive developments towards this end.

Examples described below provide additional models for ways of quantifying the amount of water removed from Wyoming's water supply by dying forests and invasive species like the bark beetle.

Scientists affiliated with the National Science Foundation (NSF) Southern Sierra Critical Zone Observatory (CZO) in 2018 conducted a study in the forests of California's Sierra Nevada mountains. The team of scientists from the University of California and the National Park Service

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<sup>3</sup> Estimating Additional Water Yield From Changes in Management of National Forests in the North Platte Basin, May 12, 2000, C.A. Troendle & J.M. Nankervis (Note: This is an independent report prepared for the Platte River EIS Office)

<sup>4</sup> 160,000 AF of water would cover all of Chicago, Illinois with over one foot of water.

combined sensors that measure evapotranspiration with satellite images of “greenness” on the landscape to estimate the additional freshwater runoff that could be created by thinning overgrown forests. Their research, published in 2018 in the journal *Ecohydrology*, shows that water loss from evapotranspiration has decreased significantly over the past three decades, due in large part to wildfire-driven forest thinning. Forest thinning has increased in recent decades to stave off disastrous wildfires fueled by dense forests. This study shows that restoring forests through mechanical thinning or prescribed burning can also save California billions of gallons of water each year. The total effect of wildfires over a 20-year period suggests that forest thinning could increase water flow from Sierra Nevada watersheds by as much as 10 percent.

We have also heard numerous other anecdotal reports from around the West of water yield increases resulting from clearing pinon and juniper stands in northwestern Utah, arid communities in the high desert of Oregon and Northern California, the Pecos River watershed in New Mexico and the upper Purgatoire River in eastern Colorado. Pinon and juniper reduction in the Gallup, New Mexico area triggered the reappearance of flowing water in once dry arroyos that had not been there for decades. A 2016 study<sup>5</sup> conducted on the San Carlos Apache Reservation showed that different vegetation types displayed various responses to water availability. This further highlights the need for individual management plans for forest and woodland, especially considering the projected drier conditions in the Western U.S.

## **Forest Health Solutions**

Regardless of the causes behind the sad state of our forests, it is our job now to look for solutions. These solutions will be applied through specific and thoughtful management. The problem involves a natural landscape, so some of the solutions will be time-tested natural processes. Others will be driven by landowners and forest managers through proactive, aggressive actions. The neglect and deterioration of our forests cannot continue. We must act now to heal them. We offer below the recipe for success.

### **1. Actively Manage and Restore our Federal Forests**

Drought brings less snowfall in many areas. The snow that falls melts off up to 45 days earlier and runs off downstream on frozen ground. Therefore, the snowpack no longer functions as a reservoir delaying the release of water in a timely manner. However, the forest floor can be restored through thoughtful management. A responsible level of continuous fuels reduction includes a combination of robust mechanical thinning and prescribed fire. This can be employed to significantly reduce evapotranspiration, tree stress, disease, and pest infestation, preserve healthy forest conditions, and protect species and habitats.

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<sup>5</sup> Vegetative response to water availability on the San Carlos Apache Reservation, Roy Petrakis, Zhuoting Wu, Jason McVay, Barry Middleton, Dennis Dyem, John Vogel. July 2016. U.S. Geological Survey, Western Geographic Science Center, 255 North Gemini Drive, Flagstaff, AZ 86001, USA.

This is not only good stewardship – it is good economics.

Failure to employ this approach will continue the downward, accelerating spiral of fuel accumulation, drought, disease, and invasive insects. This will lead, inevitably, to additional high-intensity and costly fire events in the future.

We believe active forest management can increase water yield, improve water quality, provide for jobs, and reduce the cost of firefighting, while increasing forest resiliency. This can be done, in part, by increasing the productivity of national forests and grasslands; employing grazing as an effective, affordable forest and grassland management tool; increasing access to national forest system lands; expediting environmental reviews to support active management; and designing West-wide studies to quantify water yield.

a. Use Controlled Fire and Grazing as Management Tools to Restore Forests

Wildlife habitat has suffered profoundly from the “pick-up-sticks” of dead trees on the forest floor, from disruption in water function, and most dramatically, from widespread hot fires. These large catastrophic fires not only eliminate habitat, but kill millions of animals, birds and insects. Controlled fire is one of the tools that can be used to improve forest grounds. However, it is not the only tool. A 2021 article in the Sacramento Bee ([“‘Self-serving garbage.’ Wildfire experts escalate fight over saving California forests”](#)) does a nice job explaining this. We are seeing a major shift happening; the people who love the forest are coming together.

The Organic Administration Act of 1897 (Organic Act) addresses the role of the forests as part of a larger community—a larger and complex landscape. They do not exist in a vacuum. Forest grounds were intended to produce timber for Americans. We have seen the terrible effects of the near halting of the timber industry. Foresters know how to log in a responsible and sustainable manner. When done properly, it is one of the most effective tools to restore forest health. The alternatives are unregulated logging in other parts of the world and sky-high lumber prices. Sustainable timber management is a practice that must be encouraged and facilitated.

Likewise, the forests are part of our food production system. The grasslands existing in forest lands sustain not only grazing wildlife like deer, elk, bighorn sheep, and antelope, but also forage for domestic livestock like cattle and sheep. Proper grazing improves soil through hoof actions and fertilization from manure. Grazing returns carbon to the soils and is a tool, indeed almost the only tool, for improving and restoring soils. Again, it must be properly managed, but many grazers are experts in just those practices. Narrow policy proposals that disconnect the role of responsible grazing, or even seek to eliminate this practice, from grassland function will result in cascading impacts to habitat connectivity, soil health, wildlife habitat, and carbon sequestration. These actions will also create added strain on rural communities.

b. Secure Long-Term Conditions of Water Flows

“Securing long-term conditions of water flows” is named as a top priority in the Organic Act, yet it is perhaps the most severely impacted by the deteriorated forests. The forests act as a sponge. Winter snowfall settles among the trees, and snowmelt and rainfall alike traditionally soak into the humus and healthy soils on the forest floor. Climate change and human mismanagement have disrupted this crucial cycle.

In the Intermountain West, flood-irrigated wet meadows provided by ranchers as part of their agricultural operations comprise the bulk of the wetland habitat in snowpack-driven systems. These hay meadows and irrigated pastures provide important habitat for sandhill cranes, white-faced ibis, northern pintails, and other priority waterbirds, as well as an array of ecosystem benefits. Flood irrigation naturally maintains underlying groundwater that is less vulnerable to a warming climate and key to supporting seasonally flooded wetlands on the surface. Filling these “sponges” through flood irrigation is critical to slowing the movement of water through the system and thus increasing resiliency in the face of drought. Likewise, upland watershed and forest management activities can help increase water quality and quantity, as well as mitigating the risk of catastrophic wildfire.

Restoration – utilizing what I refer to as “AgroForestry” - is very doable. It will require planning, resources, commitment and will. All of these things exist.

c. Improve Watershed Yield Through Better Forest Management

As previously discussed, there is a significant gain in water supply to streams because the consumptive use of water is reduced when the number of trees growing as forests are managed to avoid the conditions that result in catastrophic insect infestation or wildfires. We believe the North Platte River example noted above should be used as a solid starting point for a case study because of the abundance of available scientific literature, including the work already developed by the Forest Service. Improved water yields also have positive implications for downstream Platte River species protected by the Species Act. Congress could help initiate a pilot project that builds upon this work. In addition to underscoring the positive aspects of active forest management noted above, such a study could also underscore the importance of appropriately measuring any new water gained through this and other water enhancement approaches. Generating new water through landscape management practices should become a new priority in the Colorado River watershed and other parts of the American West.

d. Improve Invasive Species Management

Addressing the harmful impacts of invasive species should also be a priority. Water users confront challenges associated with invasive species across the West, where salt cedar (Tamarix), quagga mussels, and cheatgrass – just to name a few- all proliferate. For example, Tamarix species along riparian corridors or around desert springs can seriously reduce underground water tables and

surface water availability, drying up wetlands, and reducing flows. Tamarix species can increase flooding in riparian areas by narrowing channel width. In addition, the plants are flammable and can introduce fire into wetland and riparian communities that are not adapted to periodic burning. While millions of dollars have already been spent on efforts to reduce the impacts of these and other non-native pests, it hasn't been enough. And more invasive species will continue to arrive.

## **2. Engagement of the U.S. Forest Service**

Since the Forest Service is responsible for much of the forestland in the West, it's engagement will be critical. Bold action is required. Decision-makers must be empowered to act, rather than get bogged down in bureaucratic morass. Unfortunately, current bureaucratic practices are not equipped to fulfill the need. Upper-level policy makers and managers will need to create a plan and set an agenda that will lead to success. We must "empower the competent" to achieve scale. The areas in need of restoration encompass millions of acres; 100-acre solutions will not suffice. Legislation may be required.

Experts from the Forest Service and various affected interests must be part of the planning process. These interests would necessarily include area and state foresters, private sector forest managers, watershed experts, wildlife scientists, grazers, and local community representatives<sup>6</sup>. This group should be broad enough to cover areas of concern, but nimble enough to plan quickly and set the wheels in motion. The multi-level strategy includes solutions to sustainably manage our water, which largely originates on forest landscapes and watersheds. It must consider the habitat provided, or formerly provided, by the affected forest lands, and the needs of those species whose lives depend upon those lands. Likewise, traditional forest uses that have sustained local communities must be considered both as a tool to bring about needed change, and as a part of the holistic system which includes trees, wildlife, water and people. These tools include targeted logging, particularly of dead standing trees, and grazing to restore soils and reduce fire danger.

Healthy forests provide multiple recreation, agricultural, ecological and economic benefits, and indeed the legislation that created the Forest Service, mandates this. A successful plan must direct the effective transition from the forests' present non-functioning state to a functioning state. This will take time, but a commitment to action is required to ensure long-term success.

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<sup>6</sup> People have different interpretations of the terms "community" and "locally led conservation." As described in a letter the Alliance signed on with the Western Landowners Alliance in September 2021, addressed to the Secretaries of Agriculture and Interior, local governments, local populations, communities of practice, and various stakeholder groups can all be counted as some form of "community." The collaborative and relationship-based structure of these groups also often leads to more durable conservation outcomes, which ultimately benefits the resource and the community and can lead to innovative multi-partner solutions. However, many of these community-based and locally led organizations lack human, technical, and financial capacity to grow and sustain these efforts over time. Leaders of collaboratives often wear multiple hats and run those efforts in addition to other full-time responsibilities.

### **3. Improve federal funding programs and delivery**

To increase stakeholder confidence and ensure effective funding delivery, federal agencies should invite outside guidance and clearly state to the maximum extent practical, the intended impact of funds, method of distribution, and other discretionary factors. We understand that these agencies have limited influence over specific legislative prescriptions and that further direction may be provided as the legislative process unfolds. We also believe that a certain amount of discretion based on agency expertise is necessary to ensure proper allocation of funds. However, we submit that our collective on-the-ground experience can serve as a guide to ensure that such funds broadly dedicated to conservation and restoration are best utilized to the benefit of ecosystem function, local community vitality, and working lands health.

### **4. Remove regulatory barriers to conservation**

From our decades of collective expertise, we are aware of numerous barriers that prevent interested landowners and other entities from participating in programs administered by federal agencies, and ultimately, prevent funding from reaching the ground in a meaningful way. Statutory limitations such as program payment caps can create misalignment between program eligibility and conservation objectives. Regulatory hurdles, for example presented through interpretation of NEPA, can prolong agency action.

#### **a. NEPA Concerns**

The current implementation of the NEPA is reactive, cumbersome, time consuming and does not enable the Forest Service to implement forest management strategies in a timely manner. We have advocated for some key general recommendations to improve the Forest Service application of environmental laws: 1) Allow landscape-level land management plans to guide individual actions on the ground without duplicative administrative process under federal environmental laws; 2) Direct the creation and use of CEs already allowed under NEPA in preventing catastrophic wildfires and restoring forest habitat and ecosystems more effectively and on a timely basis; and 3) Use the NEPA process to consider how a robust vegetative management program could improve forest health, improve water quality and lead to increased available water supply by reducing demand from overly dense tree and vegetative cover.

We do not seek changes that waive or ignore existing federal environmental laws. Instead, we call for improvements to make those laws work for the benefit of the nation as intended. By eliminating duplicative or unnecessary processes and using streamlining tools already allowed under the law - and promoting action instead of litigation - the status quo could be changed. The proposed changes could help government agencies to use their limited resources to expeditiously implement land management actions designed to prevent wildfires and improve habitat for priority, endangered and/or threatened species. Surely that would be a dramatic improvement over spending precious time and resources on bureaucratic process and litigation. These types of critically needed procedural changes to NEPA implementation will improve our Western landscapes and protect

our valuable water supplies from the devastating effects of wildfires. They will also allow agencies to improve habitat, restore ecosystems for the benefit of federally important species and allow continued agricultural use of our public lands.

The Forest Service three years ago proposed revisions to its NEPA procedures with the goal of increasing efficiency of environmental analysis while meeting NEPA's requirements. We supported these proposed changes to NEPA, many of which were based on adding or expanding existing CEs. At the time, it was estimated that on average, an environmental assessment took 687 days to complete. Average time to complete a CE was just 206 days. By using the new CEs in the proposed rule, the Forest Service could potentially complete NEPA analyses between 30 and 480 days earlier on applicable projects.

One of the ways to protect agency credibility in the use of CE's is to include an explicit provision that the agency will reopen the CE decision if changed circumstances or new information militate such an action. The Federal Energy Regulatory Commission (FERC) has had such a provision (called a "reopener" by FERC) for many years in its NEPA regulations and this has aided FERC in its administration of NEPA. Such a "reopener" provision is so attractive Reclamation's similar provision prompted Congress to direct Reclamation to use its CE process in administering the 2013 *Reclamation Small Conduit Hydropower Development and Rural Jobs Act*, P.L. 113-24.

Increasing the efficiency of environmental analysis would enable the Forest Service to do more to increase the health and productivity of our national forests and grasslands and be more responsive to requests for goods and services. The Forest Service's goal should be to complete project decision making in a timelier manner, improve or eliminate inefficient processes and steps, and, where appropriate, increase the scale of analysis and the number of activities in a single analysis and decision. Improving the efficiency of environmental analysis and decision making will ensure that lands and watersheds are sustainable, healthy, and productive; mitigate wildfire risk; and contribute to the economic health of rural communities through use and access opportunities.

b. Candidate Conservation Agreements with Assurances and Safe Harbor Agreement

Federal agency staff capacity and siloed communication structures also present very tangible hindrances to effective program implementation on the ground and further complicate already complex processes. For example, Candidate Conservation Agreements with Assurances and Safe Harbor Agreements can serve as useful tools to ensure that landowners' efforts to conserve and recover at-risk and listed species do not put them in jeopardy of further regulatory restrictions as a result of their conservation actions. However, these agreements are time consuming and sometimes costly to landowners to develop. Beyond agreement development though, the cost of ongoing implementation, monitoring and reporting is largely unaccounted for and often falls on landowners, the state or other agreement holders. There are certain funds that can provide cost-share assistance in developing these agreements, but ongoing support for implementation, monitoring, management and stewardship remains a gap and presents a hurdle to the long-term success of conservation objectives.

### **3. Real World Success Stories**

We know there's much more that needs to be done to accelerate the pace and scale of forest health and watershed resilience projects, but we're pleased that our members are on the leading edge of successful, scalable efforts in the West.

#### **a. North Yuba Forest Partnership**

Last month, USDA announced that the North Yuba River watershed in Northern California will be one of the first 10 landscape investments to be funded nationally through the U.S. Forest Service's Wildfire Crisis Strategy. The North Yuba landscape stretches from New Bullards Bar Reservoir in Yuba County up to the Sierra Crest along Highway 49 in Sierra County. The anticipated forest health work builds upon and scales up previously successful and innovative efforts that have already resulted in the treatment of thousands of acres of National Forest lands in the North Yuba River watershed, including work financed through the utilization of a groundbreaking, public-private financing tool called the Forest Resilience Bond (FRB).

Launched earlier this year, the strategy outlines the need to treat up to an additional 20 million acres on national forest lands and up to an additional 30 million acres of other federal, state, Tribal, private and family lands over the next decade. The partnership is using the latest science to integrate multiple stakeholder priorities into projects with the objective of accomplishing forest restoration and wildfire risk reduction at a landscape scale. Partnership activities include meadow restoration, ecological thinning of forest density and prescribed fire.

The North Yuba Forest Partnership (NYFP), of which Yuba Water Agency (a Family Farm Alliance member) is a founding member, is a diverse group of nine organizations passionate about forest health and the resilience of the North Yuba River that shares the ambitious goal of implementing forest restoration across 275,000 acres of the watershed. Founded in 2019, members of the NYFP include Blue Forest Conservation, the National Forest Foundation, the Tahoe National Forest, Yuba Water Agency, the South Yuba River Citizens League, Sierra County, the Camptonville Community Partnership, Nevada City Rancheria, and The Nature Conservancy. By mitigating the risk of high-intensity wildfire and restoring forest health, the NYFP will protect a variety of vital resources, including wildlife habitat, water supply, opportunities for recreation, as well as multiple communities.

The USDA investment will result in over \$25 million in additional federal IJA funding for the Partnership's work over the next three fiscal years and almost 17,000 additional acres of forested watershed lands treated. Last month USDA awarded the Partnership an additional \$3 million for this year as one of 15 projects selected nationwide under the Collaborative Forest Landscape Restoration Program. The Partnership's work demonstrates that comprehensive and collaborative approaches can help us tackle even the toughest natural resource issues.

a. Headwaters of the Colorado River Project

My family is helping to lead an effort to design a comprehensive, multistakeholder, large landscape initiative to restore two severely degraded (non-functioning) 50,000-acre watersheds; one in the Medicine Bow National Forest in Wyoming and a second in the Routt National Forest in Colorado. Our vision is to restore two forested rangelands to a resilient state that filters and stores water, produces protein, sustains wildlife and fisheries, sinks carbon, produces renewable energy feedstocks and enables economically viable rural communities to thrive.

The Little Snake River Watershed is a fascinating combination of a functioning conservation district that has a 30-year record of nationally recognized river restoration, grazing habitat enhancement, fish passage, and migratory bird habitat enhancement projects. Our team is designing a plan to implement an integrated, multidisciplined and multilevel watershed enhancement project that will demonstrate how collaborative and cooperative restoration efforts can be carried out at scale and replicated in watersheds across the West.

Men and women like my family, who live and work in the forests have up-close and personal experiences and observations upon which they formulate their assessment of the conditions in these forests. We view the watersheds and assess their functionality as intact, interconnected ecosystems. In our view, the forested watersheds are in a state of dramatic decline as a result of decades of siloed, top-down management, litigation that has prevented many pragmatic enhancement and restoration initiatives from moving forward. Climate change has further taken a major toll on the health and functionality of the watersheds.

We believe it is time for a new way forward, one that would be characterized by large landscape scale, integrated and multidisciplinary enhancement projects guided by multistakeholder collaboration.

**5. Forest Health Action in Congress**

We are pleased that there appears to be growing recognition in Congress of the importance of active forest management. There are several bills that have been introduced in this Congress, intended to facilitate responsible forest management.

One of those is the *Outdoor Restoration Partnership Act*, sponsored by Senator Michael Bennet (D-CO), and supported by the Family Farm Alliance. To date, Congress has failed to invest in our Western lands, undermining our economy and way of life. As a result, local governments are often left to foot the bill for conservation, restoration, and wildfire mitigation. Senator Bennet's bill would establish an Outdoor Restoration Fund to increase support for local collaborative efforts to restore forests and watersheds, reduce wildfire risk, clean up public lands, enhance wildlife habitat, remove invasive species, and expand outdoor access. It would empower local leaders by making \$20 billion directly available to state and local governments, tribes, special districts, and non-

profits to support restoration, resilience, and mitigation projects across public, private, and tribal lands. The bill would invest another \$40 billion in targeted projects to restore wildlife.

Another bipartisan bill would provide carbon credits to companies and other non-federal partners in exchange for thinning trees on fire-prone forests. *America's Revegetation and Carbon Sequestration Act*, co-sponsored by Senators John Barrasso (R-WY) and Joe Manchin (D-WV) would encourage more intensive forest management — and reforestation — through a variety of initiatives. The carbon credit idea would allow non-federal entities to be awarded carbon credits through voluntary markets in exchange for money they provide the Forest Service for projects that increase carbon sequestration.

One more important piece of legislation is the *Resilient Federal Forests Act*, introduced by Rep. Bruce Westerman (R-AR). This bill – supported by 85 organizations, including the Family Farm Alliance - would help address the environmental and economic threats of catastrophic wildfires.

Each of these bills is important. We hope that efforts like these will build momentum towards larger forest management reforms in subsequent bipartisan legislation.

## Conclusion

The epic drought we have been experiencing across the western United States, especially in the last three years, and other weather abnormalities are different than in the past. Our community has found that solutions are local. We find that solutions come from the land. Farmers, ranchers, foresters and fishers all across the West work in the extremes of elements and volatile weather, and we share a love of the land. We see the pressure on the land we manage and our water supplies. Sadly, strategies appear to be evolving to take water from Western farmers, from food production, and redirect it to other uses.

The revival of Colorado River and other Western watershed forests is crucial to combating the effects of climate change. By bringing together changemakers and working collaboratively, we can change the paradigm of forest management. Success will mean healthier forests, healthier wildlife populations, more prosperous and dynamic local communities, more recreation opportunities, greater economic benefits and much-needed security in our water supplies.

Balance in production and conservation is the answer to forest health.

I'm very lucky to live in a ranching and farming community in a watershed on the headwaters of the Colorado River. We have worked for 30 years on building resilience, leading to some of the most significant watershed restoration and agricultural productivity projects in the country, as we work with federal and state partners to manage our land for multiple outcomes- protein production, fisheries, wildlife, healthy forests and vibrant rural economies.

The key to our family's success has been local leadership and uncommon collaboration with diverse partners to address our unique challenges and capitalize on opportunities. Farmers must be at the center of all discussions and decision-making on the Colorado River and other Western watersheds. Significant input will be needed from a wide range of farmer and other producer organizations outside of typical policy-making structures. We all must become more adaptable and open to change. We must learn from those who have experience.

We must become more effective in communicating to the world the value of farmers and ranchers. Our societies are confused. The basic principles of our very existence are under pressure. The steady rhythms of food production and ecosystem services are crucial to understanding our challenges and finding solutions.

We have some decisions to make.

Agricultural production in the West is an irreplaceable, strategic national resource that is vital to U.S. food security, the ecosystem, our Western rural communities, and overall drought resilience. The role of the federal government in the 21<sup>st</sup> Century should be to protect and enhance that resource by doing whatever it can to ensure that water remains on farms.

The Alliance looks forward to working with your Committee to address the issues we have identified in this testimony and those we have not. It has been a tough year for many of our producers and the rural communities they support. At the Alliance, we'll continue our efforts to ensure that irrigated agriculture continues to play a vital role in feeding our Nation and the world, while keeping our rural communities and the environment healthy. At a time of unprecedented change, one certainty holds firm and true – one of our Nation's most valuable natural resource must be preserved.

Thank you for this opportunity to submit this testimony.