Testimony of
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Chairman Huffman, Ranking Member McClintock, members of the Water, Oceans, and Wildlife Subcommittee,

Thank you for giving Elephant Butte Irrigation District (EBID) the opportunity to testify on the *Western Water Security Act of 2019* (H.R.4891). This legislation is important to EBID and water managers in New Mexico and I believe will also benefit western water managers and our nation as a whole.

My name is Gary Esslinger, and I am the Treasurer-Manager for the Elephant Butte Irrigation District. For over 100 years EBID has been a steward of water along the Rio Grande in Southern New Mexico. We operate and maintain a critical water infrastructure system for EBID members in the Rincon and Mesilla Valleys, continually improving efficiencies to meet the needs of those we serve and keep costs low. EBID is the successor in interest to an agriculture water user's association, that succeeded in interest to multiple irrigation ditch associations, which served farmers in what is known as the "Lower Rio Grande Valley" dating back to the 1840s. Agriculture is a tremendous part of the local community, to say the very least, in the Lower Rio Grande, which is comprised of the Rincon and Mesilla Valleys. Prior to the time municipalities existed in this area of the world, agriculture had already established as a stronghold providing a source of stability for local inhabitants. Today agriculture continues to be the largest economic sector in the Lower Rio Grande.

Agriculture is not only an economic giant in our area, it's a way of life. The rural communities that we serve depend on the water resources we manage to sustain our way of life. EBID delivers water to more than 90,000 acres of land and 7,900 water users, spanning 130 miles of land along the Rio Grande Valley from Caballo Dam to El Paso, Texas. The agricultural products grown in our area benefit the entire nation providing family grown crops from feed and fiber to pecans, a wide variety of vegetables, and of course, our famous Hatch Green Chile.

In addition to serving our local community, EBID also plays an integral role in the delivery of water to the downstream users. The Rio Grande Project, as this Reclamation Project is known, serves Southern New Mexico (EBID), Texas, and the Country of Mexico. Water first flows through EBID, then south to the irrigation district in Texas and community of El Paso, Texas, and the agriculture community in the vicinity of Juarez, Mexico.

In a normal irrigation season, EBID delivers water from mid-March to mid-October. The canals, laterals, and ditches that crisscross the valley make it possible to grow the highest quality fruits, vegetables, and nuts on lands that would otherwise be unproductive scrub. In fact, before the Reclamation Project, the Water User's Association and its predecessor ditch associations were constantly battling the torrential flows of the mighty Rio Grande and the summer monsoons that would, almost annually, wipe out key irrigation infrastructure in the area. Upon the establishment of the Rio Grande Reclamation Project in the early 1900s, the water conveyance and delivery infrastructure was no longer in jeopardy annually as it had been up to that time, and stability was finally achieved for the region. However, while water infrastructure has allowed agriculture in the area to flourish, it like infrastructure throughout the nation, is aging and would benefit from additional investment so that it can be adapted to address the needs of today and the future.

In the early days, water scarcity was also a problem that inhabitants settling the area dealt with regularly. Their water source was solely a torrential river or monsoon flooding that was both unpredictable and unreliable. Upon establishment of the Rio Grande Project, the region enjoyed several years of stable water supply until the early 1950s when the first large drought of recent times hit the area. During that time, to keep the agriculture community alive, the Bureau of Reclamation and the local irrigation districts sought alternative sources of water. Ultimately, it was determined that a large aquifer underlies the Rincon and Mesilla Valleys, which could be relied upon to continue the way of life known to the local community. Eventually, the drought of the 50s subsided and the agriculture community continued on through a number of years of what is considered "normal" or "wetter than normal" supply until drought came home to roost again in the early 2000s.

South-central New Mexico is the hardest hit area of the state in the current severe and sustained drought. The region is experiencing drastically reduced surface water supplies, declining groundwater quality and quantity, and cumulative effects of more than a decade of drought conditions. The outlook is made even bleaker by the converging climate science indicating that the current conditions are exacerbated by what appears to be a permanent shift to a more arid climate.

Along with agriculture being a way of life, litigation and fighting over water resources has also been a way of life for over a century. The Lower Rio Grande Valley is the subject of multiple United States Supreme Court Opinions and is currently the subject of an ongoing Original Action before the United States Supreme Court. That case is known as Texas and the United States v. New Mexico. The ongoing war between the State of Texas and the State of New Mexico began as the result of many longstanding legal battles in the region. The United States has joined the litigation as an intervenor on the side of the State of Texas due to its interests in the Rio Grande Reclamation Project, a move by the United States that led to what some legal scholars have called a landmark decision by the United States Supreme Court. The ongoing Supreme Court case was first filed in 2013 and litigation remains active to this day, with a trial date set for mid-2021. The case focuses primarily on the impact of groundwater pumping on the surface water

supply within the Rio Grande Project. The State of Texas and the United States have claimed that the State of New Mexico has failed to protect the surface water supply of the Rio Grande Project (RGP) from depletion by groundwater pumping in the Lower Rio Grande. As if the district's aging infrastructure and climatic calamity was not enough, litigation by Texas and the United States against New Mexico in the US Supreme Court may limit the options for water management in the Lower Rio Grande basin. It is worth noting here that many of the items listed as projects that would qualify for funding under Subsections 103(3)(A-P), such as stormwater capture and aquifer recharge, EBID is pushing to develop and implement to get the Supreme Court case resolved.

It has long been recognized that pumping groundwater negatively impacts the available surface water supply because the two sources of water are hydrologically connected in the Lower Rio Grande. However, pumping groundwater has been the only viable option available for the region to survive drought. In addition, municipalities and other economic sectors continue to grow, relying solely on groundwater for their necessary water supply. At the same time, ambitious development plans are being implemented in the Santa Teresa/San Jeronimo Land Port of Entry (LPOE) area along the US/Mexican border. Farmers, too, have become more reliant on groundwater as the surface water available has decreased over time due to a combination of drought, changes to the timing of availability of surface water as a result of changing snowpack and monsoon events, and the depletion of surface water by groundwater use. Reliance on groundwater by all sectors continues to grow and appears to be an impossible habit to break. Yet, somehow, some way, something has to give because the claims of the State of Texas and the United States are very real, and are not going away until the water budget in Southern New Mexico can be balanced to the assurance of both that their interests are not getting the short end of the stick.

The Western Water Security Act of 2019 will help to create opportunities for water managers and stimulate investments in water infrastructure as well as advance the focus on conservation and the needs of environmental enhancement. EBID, like others who have worked on this legislation, know that long-term solutions take time to develop and this legislation initiates action now through tailored funds designed to advance innovative groundwater and surface water projects during a time of needed response to an emerging long-lasting drought in the West. Additionally, this legislation uniquely positions EBID to receive funding for projects that may contribute to solutions necessary to resolve the ongoing Supreme Court litigation once and for all.

As a more specific example beyond the general examples discussed above that are found in Subsections 103(3)(A-P), EBID, long considered one of the more inventive water entities in the west and who leads the State of New Mexico in water management solutions, has developed a program intended to reduce the depletion of surface water through groundwater pumping in the Lower Rio Grande. The legal mechanism for requiring a groundwater pumper to avoid impacts to the surface water supply is called an "offset". In other words, a groundwater user must offset its impact on the surface supply. EBID created a policy in 2015 that is intended to provide a transparent mechanism for groundwater users to purchase groundwater offsets from willing (voluntary) sellers

within EBID. This program is called “DROP”, which is short for “Depletion Reduction Offset Program.”

Under DROP, groundwater users will be able to offset groundwater depletions by entering into voluntary fallowing agreements with EBID members who have combined surface and groundwater rights. The participating EBID members will agree to fallow and forego all surface water and groundwater use on specified parcels. The surface water portion that is not applied to the fallowed parcels will be used on other EBID member lands that remain in production, thus reducing the groundwater needs for those lands, and the groundwater portion will not be transferred or used except as offsets under DROP. For each acre of land fallowed under DROP, an annual offset of an amount of water (most likely to be agreed upon through litigation or settlement) will be obtained. The effect of DROP will be to decrease overall groundwater depletions in the LRG.

EBID has taken the initiative because it is keenly aware that its water users are both surface water and groundwater users, meaning they are caught in the crossfire in the Supreme Court litigation between Texas and New Mexico. Because of that situation, EBID has also agreed to administer DROP, including maintaining records of fallowing agreements and land management plans, ensuring that land is being fallowed per the fallowing agreements, and ensuring that EBID surface water is not applied to parcels that are enrolled in DROP. EBID will also receive and administer the payments to participating members, subject to member’s compliance with the fallowing agreement and land management plan. Finally, all costs associated with administering DROP would need to be paid by the groundwater user.

That last point is important because EBID wants to ensure the larger issues in litigation are not solved solely on the backs of the American farmer, who are the only ones who fund EBID’s operations. In other words, while EBID intends to facilitate a solution to the larger problem, it does not believe it would be fair to do so solely at the cost of the agriculture community, particularly when it is not just the agriculture community that has created the problem that needs to be resolved. To date, other groundwater users have not been motivated to enroll in the program, probably mostly because it may be viewed as an admission in the litigation. So, the lack of funding remains the main roadblock in getting DROP up and running. This Legislation, specifically Sections 103—Emergency Drought Funding and 202—Groundwater management assessment and improvement, could be key to obtaining the funding that is needed to complete development of this key program and ultimately resolve the longstanding *Texas v. New Mexico* Supreme Court litigation.

Another opportunity to decrease reliability on the regional groundwater supplies is desalination of brackish groundwater that is unconnected to the surface supplies and fresh groundwater aquifer. This bill specifically targets funding for such a project, which is one major reason EBID supports it. Section 102—Rural Desalination speaks specifically to the project EBID has supported and partnered on for several years. Preliminary studies of the feasibility of inland desalination of brackish groundwater in the Santa Teresa area of south-central New Mexico on the border with Mexico are under way with funding from

the Bureau of Reclamation's Desalination and Water Purification Research (DWPR) program.

This critical development is aimed at developing a reliable long-term water supply for industrial development in New Mexico, West Texas, and northern Chihuahua in Mexico. This is a regional approach for the benefit of two countries. As the development progresses, funding is needed for major infrastructure, including a brackish water well field, desalination plant, concentrate disposal facilities, and renewable energy generation capacity. The lead entity in the project is New Mexico State University and the New Mexico Water Resources Research Institute. Participating agencies include the Border Industrial Association (BIA, a consortium of businesspersons in the area) Camino Real Regional Utility Authority (the primary water provider), the US and Mexican sections of the International Boundary and Water Commission (IBWC), and Elephant Butte Irrigation District (EBID). The project will assess physical, economic, and institutional aspects of the development, including the potential for binational water supply for binational industrial development.

Improving resiliency of water supply in an increasingly arid climate is a key challenge for water planners and managers in southern New Mexico. Santa Teresa is currently a small community (population 4,258 in the 2010 US census) on the Mexican border east of El Paso, Texas. Fresh groundwater is limited in the Santa Teresa area, and extraction of it is limited by intrusion of brackish and saline water. Similar problems existed in nearby El Paso, where the El Paso Water (EPW) developed the largest inland desalination plant in the United States as part of an effort to diversify their water supply (EPWU 2007). A similar approach has great potential for rural communities in Southern New Mexico, possibly including a binational component with San Jeronimo, Mexico.

While the challenges are formidable, water managers in Southern New Mexico have long been tenacious and creative, necessary qualities for survival in the Chihuahuan Desert. Geohydrological investigations over the past half-century have revealed very large volumes of brackish groundwater in storage in the southwestern part of the Mesilla Basin Aquifer, which underlies the Santa Teresa border region. The water has, to date, not been developed, having total dissolved solids (TDS) content of 1,000 to 10,000 parts per million (ppm, or mg/L).

The historical focus for water supply in the Lower Rio Grande has been the surface water of the Rio Grande for irrigation, and hydrologically connected fresh groundwater for municipal and industrial (M&I) uses, as well as domestic supply and irrigation. The surface water and groundwater require no treatment for irrigation, and the groundwater generally requires no advanced treatment for potable use. This is the easy water to use, but the water that is most affected by drought and climate change, and the water that is the subject of the Supreme Court litigation. Uncertain and protracted litigation cannot keep pace with hydrological realities. Looking at this new source of brackish groundwater seems to be the way of the future, and another way, like EBID's Depletion Reduction Offset Program, to ease the strain on the historically available water supply that is dwindling in recent times.

North of EBID, above Elephant Butte Reservoir in New Mexico lies the Middle Rio Grande Conservancy District ("MRGCD"). EBID is aware that the MRGCD also supports this Bill because, more generally, it provides the necessary tools and resources to assist districts and the state of New Mexico to implement needed flexibilities and infrastructure improvements in addressing the highly variable water supplies and associated challenges in the major basins within New Mexico.

The MRGCD lies within the middle Rio Grande basin that utilizes 1,200 miles of water infrastructure to deliver water to 60,000 acres of irrigated agriculture utilizing spring snowmelt runoff diverted from the Rio Grande and supplemented with reservoir storage in the late summer months. This includes delivery to the six middle Rio Grande Pueblos' lands that are intermingled with non-Pueblo lands and facilities. The variable nature of the water supply creates shortages in some years and high flow levee damaging flows in other years with the past two years as the example: 2018 was the lowest runoff since 1956 followed by the third highest runoff in the last 20 years in 2019 that required expenditure of $1.5M in levee repair costs, each scenario providing serious challenges for MRGCD.

MRGCD has three main priorities: First in meeting its constituents irrigation demands while preparing its system to be as efficient as possible; second, in meeting the New Mexico delivery requirements under the Rio Grande Compact to minimize operational consequences; and third, meeting compliance requirements of the 2016 Middle Rio Grande Biological Opinion that allows the coverage necessary for the diversion, use, and transport of water within the Middle Rio Grande mainstem.

MRGCD fully supports Section 104 that authorizes the extension in time for delivery of the required report to Congress as well as extending the authorization period to 2029 in order to fulfill commitments of the Act to the six middle Rio Grande Pueblos, MRGCD's constituents and partners. MRGCD also believes Sections 302 and 303 provide the needed variety of tools and resources to allow for water management flexibilities such voluntary water acquisitions and leasing programs to address water short years.

MRGCD is also in need of assistance with its on-going efforts to improve the conveyance systems through installation of more measurement structures and operational scheduling. Since 1995, the District has made continuing improvements to reduce direct river diversions by 40% and it has identified several actions within the MRG Drought Contingency Plan yet to be taken to further reduce diversions and to better manage what is diverted to meet crop demands with system improvements and on-farm incentives to reduce water use while increasing crop quality and yield. This allows for more water to remain in the river during high flows to help with the District's two other priorities of Compact deliveries and better ecological conditions within the Rio Grande. Funding available in this legislation could be used to meet those goals within MRGCD.

Finally, MRGCD has additional needs to manage river flows during the summer months to improve silvery minnow survival rates after good spawn and recruitment flows in the

spring so that a viable population remains for the following years' spring flow events. To do so, there must be sufficient water to return to the river at strategic points out of the District's drain and controlled outfalls in order to provide base flows for minnow habitat support. This requires water leases or acquisitions from willing parties to provide base flows, particularly during drought conditions, to assure minnow survival at the level mandated by the Biological Opinion. MRGCD is already participating in a pilot water conservation program funded by Reclamation and managed for the National Fish and Wildlife foundation under a direct grant to the District and other third parties. If authorized, this bill provides the appropriations necessary to continue funding the projects envisioned by the current program in the middle Rio Grande and elsewhere in New Mexico and other Reclamation states.

EBID and other water managers in New Mexico support this Bill and the overwhelming impact it will have up and down the river in the Rio Grande Basin of New Mexico. The federal funding made available by this Legislation would go a long way toward ensuring that the *Texas v. New Mexico* case, which impacts deliveries to the Country of Mexico, would not be solved solely on the backs of the American Farmers. The steps being taken in the Southern New Mexico Region are key to how the rest of the State of New Mexico and the rest of the Arid West will deal with drought and changing climate in the future. We have also talked with water users throughout the west and have received helpful feedback and recommendations about the Legislation, so we would like to continue to work with the committee to make additional improvements to this legislation.

Again, thank you for your work on this issue and for the opportunity to provide input on the Western Water Security Act of 2019. I look forward to working with the Committee and its members on this legislation moving forward.