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Hearing:
"The Colorado River Drought Contingency Plan"

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Introduction

Chairman Huffman, Ranking Member McClintock, and Members of the Subcommittee, my name is Patrick Tyrrell. I am the Wyoming State Engineer and the Wyoming Governor's representative regarding the Colorado River. Thank you for providing me the opportunity to present testimony on behalf of the State of Wyoming regarding the Colorado River Drought Contingency Plans (DCPs).

The Colorado River Basin needs the DCPs implemented now. The Basin has experienced 19 years of drought. Our current operating rules cannot sufficiently address one of the worst drought cycles over the past 1,200 plus years. The entire system faces a crisis that cannot be remedied by one or two good water years. Two countries, seven states, 40 million people, 5.5 million acres of irrigated agriculture, an economy of $1.4 trillion dollars per year, and all that rely on the Colorado River need a plan. They all need a plan now.

We have developed a plan. The seven Colorado River Basin States, working with the Department of Interior, have carefully developed a plan over the last six years. Our plan was built through collaboration and consensus and represents a complex compromise which considerers all of the potential impacts. Only through such collaboration and compromise are we able to fully achieve the flexibility and innovation found within the DCPs, while at the same time effectively respecting each State's rights under the Law of the River. Plans in the Lower Basin states of Arizona, California and Nevada have been drafted separately, but parallel to, plans drafted in the Upper Basin states of Colorado, New Mexico, Utah and Wyoming. These plans help protect critical reservoir elevations at Lakes Powell and Mead and provide a synergistic benefit to the entire River Basin when operating in tandem. They are now in front of you for consideration and authorization. Our plans are needed now.

The DCPs must be implemented without delay. The new operational flexibility created by the Lower Basin DCP will enable Lower Basin water contractors to put Intentionally Created Surplus into storage this year, rather than needing to draw it down, helping preserve the level of Lake Mead. Determinations regarding reservoir operations for water year 2020 will be made in August 2019. Timely implementation is important with regards to contributions by the Republic of Mexico. Those contributions are conditioned upon the effectiveness of the Lower Basin DCP and

will require several months to effectuate, potentially precluding Mexico's participation in water year 2020 if the DCPs are not implemented by April 22, 2019. Moreover, implementation cannot begin until the agreements have been executed by all parties, which is predicated upon securing congressional legislation.

The DCPs will enhance existing water management tools and will address the looming water crisis in the near term, but they are only temporary. They will provide the opportunity—a bridge—for the Basin States, federal government and other key stakeholders to collaborate on a longer-term set of sustainable solutions for managing the Colorado River. We need that opportunity. Only by immediately enacting the proposed federal legislation and implementing the DCPs will the plan work. The DCPs will reduce the probability that Lakes Powell and Mead will decline to critically low elevations—which could occur as early as 2021—and are the only plans which can adequately address the crisis in the short term.

My colleagues from the Lower Basin will describe the Lower Basin plan, and my testimony will focus on the Upper Basin plan. The Upper Basin DCP is designed to assure continued compliance with the 1922 Colorado River Compact (1922 Compact) and help protect critical elevations at Lake Powell. The States of Colorado, New Mexico, Utah and Wyoming developed the Upper Basin DCP along with the Department of Interior and water users and other stakeholders in each state.

Upper Basin Drought Contingency Plan

Background

Water management and operations in the Upper Basin differ from those in the Lower Basin. These differences necessarily result in different kinds of drought planning tools than those proposed to be employed in the Lower Basin.

Unlike the Lower Basin, the Upper Basin entered into a Compact to divide its allocation made under the 1922 Compact. The 1948 Upper Colorado River Basin Compact (1948 Compact) not only divides the water between the states, it also establishes the Upper Colorado River Commission (UCRC). The UCRC is composed of commissioners representing each Upper Division State of Colorado, New Mexico, Utah and Wyoming, and a commissioner representing the United States. The 1948 Compact contains provisions regarding the mandatory curtailment of Upper Basin water uses if necessary to comply with obligations under the 1922 Compact. Most specifically, it contains provisions regarding curtailment to satisfy the Upper Basin's obligation not to deplete the flow of the Colorado River at Lee Ferry below 75 million acre feet over a ten year running average. The UCRC has the authority to make findings regarding the necessity for, the extent of, and the timing of curtailment. But the individual states determine how curtailment will be implemented within each state. While curtailment has never been necessary, diminishing Colorado River supplies have increased the risk the Upper Basin may need to curtail its uses in the future to satisfy its Compact obligation. And the risk of under- or over-curtailing is high.

There is no water master in the Upper Basin. Water right holders in the Upper Basin, including the Bureau of Reclamation, obtain the right to store and use water in accordance with state law in each state. There are thousands of individual Colorado River system water right holders in the Upper Basin, as compared to the relatively few water contractors and entitlement holders of mainstream

Colorado River water in the Lower Basin. As such, any reductions in use require the involvement of a large number of users. This makes curtailment, or implementing any other method of reducing demands in the Upper Basin, a complicated endeavor.

The location of large reservoirs in relation to most Upper Basin water users is also different than in the Lower Basin. Reservoirs like Lake Powell lie downstream of water users. Therefore, any water conserved and stored in those large reservoirs cannot be called on later for use within the Upper Basin. Instead, that water becomes subject to the rules governing the coordinated operations of Lakes Powell and Mead and is ultimately released to the Lower Basin. If water conserved in the Upper Basin does not provide a benefit to the Upper Basin, there is little incentive to voluntarily conserve that water.

Even though it lies below Upper Basin water users, Lake Powell is critical to developing and utilizing the Upper Basin's Colorado River apportionment. It acts as the Upper Basin's savings account by storing water in wet years to assure the Upper Basin can meet its compact obligations in dry years. With the continuing dry conditions, that savings account has become more depleted thereby increasing the risk that Upper Basin uses will need to be curtailed for compact compliance.

Intended Goals of the Upper Basin DCP

The principle goal of the Upper Basin DCP is to help assure continued compliance with the 1922 Compact. It does so by protecting the critical elevations at Lake Powell. Protecting those elevations reduces the risk that the Upper Basin will fail to meet its compact obligations. Protecting Lake Powell elevations also reduces the risk that Upper Basin water users will see mandatory curtailment.

The Upper Basin DCP is also intended to maintain the ability to generate hydropower at Glen Canyon Dam. If Lake Powell reaches critical elevations, it could lose the ability to generate hydropower or even release sufficient water to comply with the 1922 Compact. Losing the ability to generate hydropower could interrupt electrical service to power customers, including municipalities, cooperatives, irrigation districts, federal and state agencies and Native American Tribes, and the continued functioning of the western Interconnected Bulk Electric System that extends from Mexico to Canada and from California to Kansas and Nebraska. In addition to losing a large clean power supply and soft start capability for western grid that allows power to be safely restored after blackouts, revenues from hydropower fund many important purposes, including:

- Repaying construction costs of federal projects;
- Continued operation and maintenance of the Initial Units and participating projects authorized under the 1956 Colorado River Storage Project Act, as amended ("CRSPA");
- Continued funding and implementation of environmental and other programs for compliance with the Endangered Species Act, the National Environmental Policy Act, and Grand Canyon protection legislation;
- Mitigating salinity in the Colorado River and its impacts; and
- Funding water projects within each Upper Division State.

Funding provided by hydropower generation not only provides these direct benefits, but also provides the Upper Basin the ability to develop and use it 1922 Compact apportionment. Without

the benefits provided by hydropower funding, the ability for the Upper Basin to develop and use its compact apportionment faces increased risk.

To achieve these goals, the Upper Basin DCP as presented to you for authorization consists of two agreements: The Drought Response Operations Agreement[1] and the Demand Management Storage Agreement.[2]

Drought Response Operations Agreement

The Drought Response Operations Agreement establishes a process to make operational adjustments or releases at the CRSPA Initial Units, within existing authorities, in order to help protect Lake Powell from reaching critical elevations. Essentially, it's a plan to move existing water supplies from where it is already stored to where it is needed.

The Drought Response Operations Agreement applies to the CRSPA Initial Units. The CRSPA Initial Units are Glen Canyon Dam, Flaming Gorge Dam, Curecanti (the "Aspinall Unit"), and Navajo Dam. The Agreement relies on available water supplies as needed to reduce the risk of Lake Powell dropping below the target elevation 3,525'. This target elevation appropriately balances the need to protect infrastructure, compact obligations, and operations at Glen Canyon Dam as storage approaches minimum power pool, with the Upper Division States' rights to put Colorado River System water to beneficial use.

The Agreement establishes a process to develop a drought response operations plan. That process begins when forecasts project Lake Powell elevations will reach elevation 3,525' or below. The process includes outreach with stakeholders, as well as consultation with the Lower Division States. The Agreement ensures all CRSPA Initial Units are considered given water availability, hydrology, resource conditions, and operational limitations. Any plan will contain sufficient flexibility to begin, end, or adjust operations as needed based on actual hydrologic conditions. The Agreement further provides for emergency actions if actual hydrology or actual operating experience demonstrate an imminent need to protect the target elevation at Lake Powell. Any final drought response operations plan will be submitted to the Secretary for approval. Drought response operations will continue until the target elevation is no longer at risk, and end only after each CRSPA Initial Unit has recovered any storage released under a plan.

Importantly, a drought response operations plan developed pursuant to the Agreement will comply with existing authorities. Project-specific criteria govern the operation of each CRSPA Initial Unit, including applicable Records of Decision and Biological Opinions to satisfy the requirements of the National Environmental Policy Act and the Endangered Species Act, the authorized purposes for each facility, as well as state water right systems and decrees. The Agreement explicitly

[1] Entitled "Agreement for Drought Response Operations at the Initial Units of the Colorado River Storage Project Act," and attached as Attachment A1 to the Agreement Concerning Colorado River Drought Contingency Management and Operations.
[2] Entitled "Agreement Regarding Storage at Colorado River Storage Project Act Reservoirs Under an Upper Basin Demand Management Program," and attached as Attachment A2 to the Agreement Concerning Colorado River Drought Contingency Management and Operations.

commits to operating the CRSPA Initial Units with the maximum flexibility practicable consistent with those existing authorities in both the release of water and the later recovery of storage.

Drought response operations relying upon existing storage is a first line of defense to protect critical elevations at Lake Powell. But that existing storage is not infinite. If dry conditions persist or worsen, existing storage will diminish and the Upper Basin may need to reduce its uses to comply with the 1922 Compact and protect critical reservoir elevations. To avoid mandatory, dispassionate curtailment of existing uses, the Upper Basin is exploring the feasibility of a demand management program.

Demand Management Storage Agreement

Upon Congressional approval, the Demand Management Storage Agreement authorizes the Secretary to make unfilled storage capacity at the CRSPA Initial Units available for use by the Upper Division States, through the UCRC, at no charge. Such storage capacity is available provided that the UCRC requests use of the storage capacity for the purpose of storing water conserved as part of an Upper Basin demand management program. The storage authorization does not expire.

By securing this storage authorization, the Upper Division States and the UCRC can effectively consider the feasibility of a demand management program. The storage authorization does not guarantee the development and implementation of a demand management program. Nor does it predetermine the type of any program that may be adopted in the future. However, without securing the authorization for storage capacity, investigation regarding the feasibility of such a program is likely unwarranted because any conserved water would be released to the Lower Basin under current operating rules.

The purpose of an Upper Basin demand management program will be to temporarily reduce consumptive uses in the Upper Basin or augment supplies with imported water, if needed in times of drought, to help assure continued compliance with Article III of the 1922 Compact and without impairing the right to exercise existing Upper Basin water rights in the future. Like mandatory curtailment, any demand management program will be a state-based effort implemented under state law. The Upper Basin has learned through investigating aspects of demand management that no demand management program is likely to conserve enough water in any single year to help assure continued compliance with the 1922 Compact during extended drought conditions. Therefore, an Upper Basin demand management program will require the ability to store conserved water over multiple years.

There are many outstanding issues that must be investigated before an Upper Basin demand management program can be established. Those issues include, among other things, determining transit losses that will occur by moving conserved water downstream to Lake Powell, securing sufficient demand management water volumes, measuring conserved consumptive use volumes, evaluating local impacts from non-use, ensuring delivery of conserved consumptive use volumes to the CRSPA Initial Units without diminishment by downstream diverters, and developing the expertise and resources necessary to administer such a program. These issues, as well as others, are complicated by the fact that a demand management program must work in all four Upper Division States where differing water laws apply. Funding is another significant issue.

Considerable funding will be necessary to compensate water users for their voluntary participation in the program for conserving consumptive uses. Securing federal storage space is crucial because if additional funding is necessary to pay for the storage of any conserved water, the program is likely infeasible.

In addition to authorizing storage, the Demand Management Storage Agreement sets forth the minimum framework under which the Upper Division States can access the authorized storage prior to 2026. If, after study, the UCRC determines that a demand management program is feasible, then it may develop and implement a program. A program can only be implemented if approved independently by each of the Upper Division States. The Upper Division States, through the UCRC, and the Secretary must enter into agreements on the methodology, process and documentation for verification and accounting for the creation, conveyance, and storage of conserved water. During the study and development of a program, and prior to entering any agreement, the UCRC and the Secretary must also consult with the Lower Division States.

If a program is developed prior to 2026, upon verification of the conserved water in storage, the water will not be subject to release from Lake Powell through 2057 except upon the request of the UCRC for compact compliance purposes. The stored water cannot cause a different release than would otherwise occur under current operational rules. Any water stored must be water that would have been otherwise consumptively used but for conservation as part of a demand management program. The Agreement provides a maximum combined storage limitation of 500,000 acre feet and subjects the stored water to its proportionate share of evaporation losses. The stored water will be reduced by a physical spill from Glen Canyon Dam and will be subject to annual verification and reporting. After 2026, any demand management program will be informed by and considered as part of the renegotiation of the current operating rules.

Conclusion

The Colorado River Basin needs the DCPs implemented now. The plans were developed through years of collaboration, compromise and consensus, and function within rigorous environmental analysis, review and permitting processes that have already been completed. They will enhance existing water management tools and will address the looming water crisis in the near term. The plans require the passage of federal legislation to become effective. We request your support in adopting the legislation as soon as possible so that the plans can be implemented this year.

Thank you for the opportunity to testify here today. I am happy to answer any questions you may have.