Statement of Timothy Petty
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Before the
Energy and Natural Resources Committee
U.S. Senate

on S. 2563, the Water Supply Infrastructure and Drought Resilience Act of 2018,
S. 2539, the Colorado River Pilot Reauthorization Program Act of 2018,
S. 2560, the Reclamation Title Transfer Act of 2018 and
Water Supply Outlook for Water Year 2018

March 22, 2018

Chairwoman Murkowski, Ranking Member Cantwell, and Members of the Committee, I am Timothy Petty, Assistant Secretary for Water and Science at the Department of the Interior. Thank you for the opportunity to provide the views of the Department of the Interior (Department) on the three bills under consideration by the Committee, and to more generally discuss the water supply outlook for water year 2018.

S. 2563, the Water Supply Infrastructure and Drought Resilience Act of 2018

S. 2563 contains numerous provisions, several of which the Department has previously testified on. I will address each of these individually.

Title I – Water Supply Infrastructure

Subtitle A – Water Supply Permitting Coordination

Let me emphasize the importance of infrastructure investments in strengthening our economy and ensuring our Nation's competitiveness. The President has spoken to this often and Secretary Zinke is committed to maintaining and enhancing our Department's infrastructure to create jobs and reduce the cost of goods and services for American families and consumers as well as providing the most efficient means to allow visitors to experience our Nation's abundant beauty.

Subtitle A would authorize the Bureau of Reclamation (Reclamation) to coordinate the review of new surface storage projects. Specifically, similar to the coordination authority granted to other federal agencies under Title 41 of the FAST Act and Section 2045 of the Water Resources Development Act of 2007, this provision would authorize Reclamation to serve as the lead coordinating agency for purposes of coordinating all reviews, analyses, opinions, statements, permits, licenses, or other approvals or decisions required under Federal law to construct qualifying projects. While Reclamation may ultimately have fewer efficiencies where Reclamation is the coordinating entity for projects on lands managed by other bureaus or the U.S. Department of Agriculture, we believe this provision strikes the appropriate balance

between Reclamation's ability to serve as a coordinating lead on new surface water storage projects and the limits of Reclamation's authority to dictate the actions of other agencies and bureaus.

We appreciate the outreach from Senator Barrasso and the Committee on making additional refinements to this language[1] in order to meet our mutual goals streamlining and expediting, in a manner consistent with law, environmental reviews, and approvals for all infrastructure projects, including new surface water storage projects. Surface water storage projects are an important component of our Nation's infrastructure that create multiple benefits, including reliable water supplies, flood control, hydropower, and water quality improvements. We believe this provision will complement the ongoing efforts to streamline the implementation of the National Environmental Policy Act under Secretarial Order 3355 and Executive Order 13807, and we look forward to continuing work with the Committee to find additional efficiencies to streamline the approval of surface water storage projects.

Subtitle B – Modifications of Existing Programs

Section 111 expands the scope of eligible applicants for the Reclamation WaterSMART Program's competitively awarded, cost-shared grant funding authorized under the SECURE Water Act (Section 9504 of PL 111-11). New eligible applicants would include the State of Alaska and State, regional, or local water or power delivering authorities. Subtitle B also provides beneficial new flexibility to the Secretary to potentially make WaterSMART awards to an Indian tribe that intends to use the associated water savings. This language removes a potential complication for Indian tribes seeking to use their water rights.

Section 112 of the bill amends the authority for Reclamation to enter into grants and cooperative agreements currently reserved for Indian tribes, institutions of higher education, national tribal organizations, and tribal organizations to include Alaskan Native villages, Village Corporations, or Regional Corporations. Reclamation provides technical and financial assistance to Tribes and tribal organizations to increase opportunities for Tribes to develop, manage and protect their water and related resources. Reclamation does not oppose allowing the 229 federally recognized Alaskan villages, along with Alaskan Village and Regional Corporations, to be eligible for this program; however, these new entities will have to compete for funds with an already significant applicant base in the existing program as it has been implemented for the 17 core Reclamation states.

Section 113 amends Section 6001(5) of the Omnibus Public Land Management Act of 2009 to include watershed groups that are sponsored by a State or a conservation district to participate in the Cooperative Watershed Management Program. The Cooperative Watershed Management Program is used to support watershed groups, including outreach to ensure that the groups are representative of the stakeholders within the watershed, the development of watershed restoration plans to identify critical water issues related to water quantity and quality, and scoping and planning potential on-the-ground projects. Funding will be allocated on a competitive basis using established criteria. Reclamation continues to analyze this provision and has no position at this time.

[1] As noted in testimony before this Committee on June 14, 2017, on S. 677, the Water Supply Permitting and Coordination Act

Subtitle C – Bureau of Reclamation Transparency

Reclamation has had an Infrastructure Investment Strategy (Strategy) for assessing and reporting on infrastructure investment needs for our approximately 4,000 unique assets. The Strategy builds upon Reclamation's ongoing asset management planning and budget processes, including the existing major rehabilitation and replacements (MR&R) database. Much of the initial focus of this Strategy has been on "reserved works"; facilities constructed, owned, and operated by Reclamation, as opposed to "transferred works", which are those facilities that were built and are owned by Reclamation, but which are operated and maintained by water and power customers pursuant to contracts.

Reclamation's Strategy process focuses on: improving data collection, analysis, and reporting on the condition of Reclamation-owned infrastructure; categorizing potential investments according to relative importance and urgency; and collaboration with water and power customers in planning for these investments.

One of the main challenges associated with funding identified near-term needs as well as longer-term MR&R needs on Reclamation projects is the varying economic strength of our operating partners and project beneficiaries. Given the requirement under Reclamation law for these non-federal entities to fund maintenance costs either in the year incurred or over a limited time, Reclamation must work in collaboration with our water and power partners that must repay these investments. For some of these partners, the cost-share requirements associated with MR&R work are simply beyond their financial capabilities. Like any organization tasked with constructing, operating, and maintaining a wide portfolio of assets, Reclamation must prioritize its actions to maximize the benefits derived from investment of both federal and non-federal funds. Given the substantial economic and financial interest of Reclamation's non-federal partners, the development of cost estimates for maintenance requirements on reserved and transferred works is both collaborative and dynamic.

The requirements of this Subtitle would complement the processes described above, and the bill makes allowance for the valuable input from operating partners that is central to Reclamation's asset management program.

Title II – Management

Subtitle A. Review of flood control rule curves pilot project.

Subtitle A of this bill contains language of interest to both Reclamation and the Army Corps of Engineers. Section 202 authorizes the Secretary to establish a pilot project to adjust flood control curves in accordance with Army Corps of Engineers flood control and navigation regulations.

Reclamation believes that maintaining operations standards that reflect both the current state of science as well as changes in hydrology to be an important part of supporting water resource management. In Fiscal Year 2015, Reclamation began a Reservoir Operations Pilot Initiative as part of the WaterSMART program. Historically, uncertainties in weather prediction have

resulted in conservative federal operating criteria for reservoir management. The purpose of the Reservoir Operations Pilot Initiative is to explore whether improved forecasting and modeling can be used to increase flexibility in reservoir operations, and whether more flexible operations could improve the ability to cope with drought conditions and water supply shortages caused by increased or changing demands.

These activities are critical to understanding where flexibilities may be increased through identifying trends in water availability, hydrology, sedimentation, and conjunctive groundwater management. The five pilot studies are expected to be completed in the spring of 2018. If S. 2563 is enacted we will work to adapt this ongoing initiative to meet the requirements of the bill.

Subtitle B. Aquifer recharge augmentation**.**

The Department supports the aquifer recharge augmentation language with the following observations. Providing more specific authority for the use of project water and facilities for aquifer recharge is a useful clarification. The requirement that the Secretary identify opportunities to modify operations to make project water and facilities available to recharge aquifers in lieu of groundwater withdrawals based on contractor requests, as worded, may prove challenging to comply with and have unintended consequences. This requirement would create additional administrative burdens and may have potentially adverse impacts to other project contractors or provide unfair advantages/preference to some contractors over others.

Contractual water is not always released at specific timeframes and it may be potentially impractical to adhere to the proposed timeframes in the legislation and the proposed notification to other project contractors. It would be useful to clarify that the Secretary, at his discretion, may modify operations, where feasible, to make project water and/or capacity available and will notify contractors of the project.

While Reclamation currently has general authority to allow contracts to be executed for project water, the addition of specific authority in Section 213 to contract for excess project water is a positive clarification. The use of water for aquifer recharge is an authorized use of water – characterizing this as an authorized purpose is unclear and inconsistent with existing authorities.

It would be useful to clarify that project water may be used for aquifer recharge and simply exclude the language that characterizes it as an authorized purpose. Reclamation also currently has broad authority to covey non-project water for irrigation purposes under the Warren Act of 1911; as well as to exchange water pursuant to Section 14 of the 1939 Act. Finally, we would like to work with the Committee to ensure that the language specific to the Central Valley Project does not inadvertently impact Reclamation's ability to meet Central Valley Project demands, and we look forward to working with the Committee to address this topic.

Title III – Water Supply Certainty

Subtitle A – Water Rights Protection

This language appears to prohibit the federal land management agencies from requiring the transfer of water rights recognized under state law directly to the United States as a condition of permit issuance or renewal. The Department supports these goals and looks forward to working with the Committee to ensure the bill is calibrated to appropriately balance privately held water rights allocated under state law with the federal government's interest in managing public lands in the best interests of the American people.

As stated in July 26, 2017 testimony[2] before the Public Lands, Forests and Mining Subcommittee on a standalone version of this legislation, we would like to ensure that the Treatment of Water Rights language in this bill has no bearing on voluntary, mutually beneficial water-sharing or water-use agreements between the federal government and private water rights holders, such as rangeland improvements, conservation easements administered by the U.S. Fish and Wildlife Service, or partnerships to allow the use of groundwater on public lands for recreational use.

The Department appreciates the savings clause in Section 304, which recognizes the importance of Reclamation contracts, the Endangered Species Act, Federal Power Act, and state-acquired water rights owned by the United States. We particularly appreciate the recognition of the unique role of federally reserved Indian water rights, which will allow the Department to continue pursuing the settlement of Indian water rights disputes in order to break down barriers to social and economic programs for Tribes and help create conditions that improve water resources management by providing certainty as to the rights of all water users who are parties to the dispute. The Department also recommends subsections 304(a), (d), and (f) be amended to delete the word "existing", in order to ensure existing and future Interior authorities and federal reserved water rights are protected by the savings clause.

We recognize that U.S. Department of Agriculture has provided testimony on similar versions of the language in this Title and defer their views on how these provisions would affect lands under their jurisdiction.

Subtitle B – Permits for Water Transfers

This language would enact 40 CFR 122.3(i) into Federal law and codify its exclusion of some water transfers from EPA permitting requirements. Enacting this language would create more certainty in the permitting process. The Department, however, does not take a position on this provision.

Subtitle C – Endangered Fish Recovery Programs

This section is identical to S. 2166, on which the Department testified last month before the Water and Power Subcommittee. As stated in that hearing's testimony[3], the Department supports the efforts of both the Upper Colorado River Endangered Fish Recovery Program and

[2] https://www.doi.gov/ocl/s-1230
[3] https://www.doi.gov/ocl/s-2166

San Juan River Basin Recovery Implementation Program (Programs) and as such does not object to enactment of this Subtitle.

S. 2539 to increase Colorado River System water

The Pilot System Conservation Program (Pilot Program) is a voluntary, basin-wide approach to pool the financial resources of Reclamation and Colorado River Basin water agencies to pursue water conservation projects to create system water during the on-going, historic drought. The Pilot Program was established to test water conservation concepts that reduce historic water use and to determine if voluntary, measurable reductions in consumptive use of Colorado River water are a feasible and cost-effective approach to partially mitigate the impacts of long-term drought on the Colorado River System. Water conserved as a result of the Pilot Program is for the sole purpose of increasing storage levels in Lakes Mead and Powell as a benefit to the Colorado River System, and shall not accrue to the benefit or use of any individual user.

The Pilot Program thus far has provided approximately $20 million in funding for municipal and agriculture water uses, including tribal users, for a range of water conservation activities, including land fallowing, golf course turf replacement, forborne off-stream banking of Colorado River water, installation of drip irrigation systems, and construction of wells to inject treated effluent into the Colorado River aquifer. Projects are jointly selected by funding partners, Colorado River Basin States and Reclamation. The Pilot Program was authorized in 2014, and is set to expire on September 30, 2018. The Water Infrastructure Improvements for the Nation Act (PL 114-322) included an appropriation ceiling of $50 million for the Pilot Program.

S. 2539 would reauthorize the Pilot Program for an additional four years. Reclamation is currently investing significant effort to contend with the long-term impacts of the multi-year drought in the Colorado River Basin, which, among Colorado River water conservation activities, includes the Pilot Program. Reclamation continues to work with funding entities to determine the future of the Pilot Program. While Reclamation does not oppose the reauthorization of the Program, we recognize the importance of interstate cooperation, especially during times of increased risk of shortages on the Colorado River. We look forward to updating the Committee on our progress working with broad stakeholder support in identifying consensus tools and mechanisms to contribute to the conservation of water in the Colorado River system.

In concluding our comments on S. 2539, there may be another area worthy of consideration by the Committee, unrelated to the specific provisions of these bills, but pertinent to the discussion of infrastructure and water supplies. Reclamation plans to focus on opportunities to increase water resources and supply reliability by expanding cost-effective water storage opportunities, paying attention to local water conflicts, making investments in modernizing existing infrastructure, and providing support for water development benefiting Native Americans in order to meet Reclamation's core mission goals.

Reclamation uses a very broad array of tools to recruit and retain employees. One such tool is the reemployed annuitant program under the National Defense Authorization Act (NDAA) in PL 111-84, which has been authorized for use by the Department for the same purpose, but on a

more limited basis. Full NDAA authority (in the form available to DOD) offers a unique path to the Department and Reclamation to staff up quickly with highly experienced employees to meet the needs of near-term large-scale infrastructure projects, with the ability to immediately scale back to normal staff levels once these projects are completed.

We would be glad to work with this Committee on language to effectuate this extension of full NDAA authority to Reclamation.

S. 2560, the Reclamation Title Transfer Act of 2018

The Department supports the provisions of this bill and appreciates the Committee for working so closely with us in drafting its provisions.

Secretary of the Interior Ryan Zinke, and the Department generally, have long endorsed a legislative remedy to allow local water managers to make their own decisions to improve water management at the local level while allowing Reclamation to focus management efforts on projects with a greater Federal nexus.

S. 2560 would authorize the Secretary of the Interior to convey all right, title, and interest in any facility that is determined to be eligible based upon specific criteria.

Currently, Reclamation law requires that title to Reclamation projects, lands, and facilities remain with the United States until title transfer is specifically authorized by Congress. Even for simple transfers, this can be a time-consuming and costly process. Reclamation's legislative proposal aims to streamline the title transfer process for those "non-complicated" transfers, creating incentives for non-Federal entities to closely engage with the Secretary through Reclamation to complete the process, and allowing appropriate transfers to take place without legislation. It is our understanding that the focus of Section 203 is to facilitate the transfer of uncomplicated projects and facilities. This process will ensure that the transfer protects: the authorized purposes for which the projects were developed, the contractors and other stakeholders who enjoy benefits from these facilities, the public, the contractors and other stakeholders who enjoy benefits from these facilities, the public and tribal entities, the environmental resources that may be impacted by the project facilities, and the Federal financial investment.

While we have some technical recommendations for the Committee to consider, the Department strongly supports S. 2560.

WATER SUPPLY OUTLOOK

Assuring that our communities have an adequate water supply has been and will continue to be a central challenge of life in the American West. The Bureau of Reclamation (Reclamation) was created to harness the limited water supply in the West and make what was once arid land into the productive and dynamic farms and cities we live in today.

Today, Reclamation provides one out of five western farmers with water for 10 million irrigated farmland acres. These farmlands produce sixty percent of the nation's vegetables and twenty-five percent of its fruits and nuts. We are the largest electric utility in the 17 western states (operating 58 hydropower plants and the nation's largest wholesale water supplier, administering 338 reservoirs with a total capacity of 245 million acre-feet. Reclamation projects irrigate 60 percent of our nation's vegetable crops and one quarter of our fresh fruit and nut crops. Nearly 31 million people all over the West depend on Reclamation projects for their municipal, industrial, and domestic water supplies. In much of the West, those water supplies are scarce.

Limited water storage can sometimes result in a year-to-year operation. Additional water storage would allow us to capture more water during wet years, such as water year 2017, for delivery during dry years, such as water year 2018. We've been studying many water storage projects for over 20 years, so maybe it's time that we figure out which projects are economically and environmentally viable and build some of them.

Let me go around our regions to provide you with the most up-to-date hydrology information. This information is current as of March 5, 2018.

Mid-Pacific Region

Reclamation's Mid-Pacific Region encompasses the northern portion of California, much of the State of Nevada, and a small area of Oregon. The region manages one of the Nation's largest and best-known water projects, the Central Valley Project, as well as Oregon's Klamath Project; Nevada's Newlands, Humboldt, Washoe, and Truckee Storage projects; and California's Cachuma, Orland, Santa Maria, Solano, and Ventura River projects.

The 2017 water year was the wettest on record for most of northern California and CVP reservoirs were essentially full for the first time in five years; however, precipitation so far this year has been far below average. Early March statewide average snow water equivalent in the Sierra Nevada is only approximately 35-40 percent of its historical average; and total precipitation is currently at approximately 60 percent of the historical average for the northern Central Valley and Sierra Nevada, with averages for southern areas being lower.

North Sierra (Northern)/San Joaquin (Central)/Tulare Basin (South)- California (CVO)

OPERATIONS:

Releases from upstream reservoirs are being managed to conserve as much storage as possible given the low snowpack and limited precipitation to-date. Delta exports have been primarily restricted in recent weeks due to requirements under the State Water Resources Control Board's D-1641, with some limited periods of control by requirements under the NMFS biological opinion. South-of-Delta agricultural allocations are currently at 20% of contract amounts, and South-of-Delta municipal and industrial (M&I) allocations are at 70% pursuant to the Region's M&I shortage policy. All other M&I allocations are currently at the greater of 50% or public health and safety levels for the month of March, and will be reevaluated later this month. North-

of-Delta agricultural allocations will be similarly re-evaluated later this month, and contractors have been provided a daily quantity of water during March to meet minimal operational needs.

WEATHER DISCUSSION:

Extended forecasts indicate precipitation is expected in the Central Valley during the next week.

Truckee/Carson- Nevada (LBAO)

OPERATIONS:

For the Newlands Project the Truckee Carson Irrigation District has set the allocations at 100% for the 2018 irrigation season. Lahontan Reservoir is currently at 81% of capacity and is projected to end the irrigation season near 83 KAF based on current snowpack conditions. Reservoirs in the Truckee Basin are currently at 85% of capacity.

Klamath-Oregon (KBAO)

Inflows to Upper Klamath Lake have increased over the last week, although cumulative inflows for the 2018 Water Year they are still very low compared to the historical average (between the 80 and 90 percent exceedance curve). Upper Klamath Lake elevations are slightly above the historic average values for this time of year and Klamath River flows below Iron Gate Dam have recently increased above the minimum values identified in the 2013 BiOp (currently 1,000 cfs) and are expected to remain slightly above minimums for the next several days.

WEATHER DISCUSSION:

As of March 8, the Reno-Carson Airport has received 1.28 inches of rain for the month (average is above the normal average of 0.52 for March 18) but the total of 3.72 inches still remains lower than the average since October 1 of 4.93 inches. Precipitation in 2018 has increased considerably since mid-February, but still remains below average since January 1 of 2.57 inches. The majority of the 24.7 inches of total snowfall for since July 1 at the Reno-Carson Airport has occurred since March 1 (19.8 inches) which is below the normal average.

In terms of precipitation,

North Sierra (Northern) Year-to-Date Precipitation	72%
San Juaquin (Central) Year-to-Date Precipitation	62%
Tulare Basin (South) Year-to-Date Precipitation	46%
Truckee/Carson Water Year-to-Date Precipitation	81/79%
Klamath Water Year-to-Date Precipitation	76%

Pacific Northwest Region

Reclamation's Pacific Northwest Region encompasses the Columbia River Basin and includes all of Idaho, all of Washington, parts of Montana, parts of Oregon, and parts of Wyoming. In this region, water for irrigation and power generation is supplied from 54 reservoirs with a total

active storage capacity of approximately 18 million acre-feet. Reclamation delivers water to 175 irrigation districts and more than 72 dams and related structures support this water delivery.

Very warm temperatures were seen across the region in January, but a weather pattern shift in the middle of February brought very cold temperatures and snow throughout the region. This combination tempered the early start to irrigation and supplied snow accumulation to basins in the southern portion of the region that to this point had fallen well below average.

Hydrology: Even with the February storms, the snowpack in basins throughout Oregon and southwest Idaho still remain well below normal for this time of year. High reservoir carryover remaining from the wet water year of 2017 will be critical to providing adequate water supply for users in those basins in 2018.

In contrast, Grand Coulee, Hungry Horse, and Palisades in the Upper Snake basin are already very active with flood control operations as the snowpack continues to grow in those basins.

Upper Snake Water Year-to-Date Precipitation	106%
Idaho Middle Snake Water Year-to-Date Precipitation	91%
Oregon Middle Snake Water Year-to-Date Precipitation	102%
Yakima Water Year-to-Date Precipitation	108%
Central Oregon Water Year-to-Date Precipitation	84%
Rogue Water Year-to-Date Precipitation	76%

Grand Coulee inflow forecast *(Apr-Aug runoff)* 116% of average
Columbia River *(The Dalles water supply forecast) (Apr-Aug runoff)* 112% of average

Great Plains Region

Reclamation's Great Plains Region encompasses all or parts of nine states including Montana, North Dakota, South Dakota, Wyoming, Colorado, Nebraska, Kansas, Oklahoma, and Texas.

Hydrology: Current conditions in the Missouri River Basin have been wet, with above or near normal precipitation and snowpack across the basins in Montana and Wyoming. Mountain Snowpack has been particularly high in the north portion of the Missouri basin with values ranging from 120 to 130 percent of average snow water equivalent (SWE), including the Upper Yellowstone River basin at 152 percent of average SWE. Further south, snowfall has been below normal in the North and South Platte headwaters of Southern Wyoming and Northern Colorado, with SWE ranging from 68 to 85 percent of average. The Arkansas River Basin also remains dry, with 68 percent of average SWE.

Temperatures and precipitation in the Missouri River Basin this spring are forecasted to remain cool and wet in the northern basins and remain warm and dry in the south and west. Of importance, the April through July runoff figures for the Bighorn Lake (Yellowtail Dam) is presently forecasted at 158 percent of normal and the North Platte River Basin is at 78 percent of average.

Operations: With robust carryover storage, forecasts for the mountain states indicate there will be sufficient water supply for all needs in 2018. About half the reservoirs in Nebraska and Kansas are currently at or above normal storage. Water supplies in this area are expected to be short, but more than in recent drought years. Ten of twelve reservoirs in Oklahoma and Texas are at or above average currently. Water supplies are expected to be above average for 2018, but with areas of local shortage.

Arkansas River Basin Water Year-to-Date Precipitation	61%
Missouri River Basin (above Toston) Year-to-Date Precipitation	114%
Missouri River Basin (Mainstem) Year-to-Date Precipitation	132%
Missouri River Basin (Big Horn) Year-to-Date Precipitation	114%

Upper Colorado Region

Reclamation's Upper Colorado Region encompasses Arizona, Colorado, New Mexico, Utah, and Wyoming.

Operations: Lake Powell is currently 54% full, with a live storage content of 13.1 maf. Based on results from the February 2018 24-Month Study, Lake Powell releases for water year 2018 continue to be projected at 9.0 maf. The determination of this year's releases will be finalized with the April 2018 24-Month Study. Based on the current inflow forecast and projected releases, the February 24-Month Study projects Lake Powell elevation will end water year 2018 near 3,601 feet, with approximately 12.0 maf in storage (49 percent of capacity).

Hydrology: Conditions in the Upper Colorado River Basin have been very dry, and little time remains for significant improvement prior to spring runoff. While the Basin received a few beneficial snowstorms in early March, current snow accumulation values nearly match the record low levels seen in 2002. We are 89 percent of the way through the snow accumulation season, and current snowpack amounts to only 65 percent of the expected (30-year median) seasonal volume. Above average precipitation is expected this week, which will bring much needed precipitation to the Region. According to the Colorado Basin River Forecast Center, the forecasted inflow to Lake Powell is 3.14 million acre-feet (43 percent of average) for the 2018 April-July runoff period.

Upper Colorado Basin Water Year-to-Date Precipitation	68%
Great Basin Water Year-to-Date Precipitation	70%
Rio Grande Water Year-to-Date Precipitation	51%
Pecos Water Year-to-Date Precipitation	28%

Lake Powell Content 13.1 million acre-feet
Lake Powell % Capacity 54%
April-July Inflow Forecast 43% (3.14 million acre-feet)

Lower Colorado Region

The LC Region encompasses southern Nevada, southern California, most of Arizona, a small corner of southwest Utah and a small section of west-central New Mexico. The Region's programs and projects cover over 202,000 square miles of the West with a focus on the lower 688 river miles of the Colorado River system from Lee's Ferry in northern Arizona to the border with the Republic of Mexico. In a typical year, Reclamation facilities in the LC Region deliver 7.5 million acre-feet (maf) of water to Arizona, California, and Nevada, and 1.5 maf to Mexico. The water helps irrigate over 2.5 million acres of land and meet the domestic needs of more than 23 million people. Hydroelectric powerplants at Hoover, Davis and Parker Dams annually generate five to six billion kilowatt-hours of clean, hydroelectric power distributed to contractors in Arizona, Nevada and California.

Operations: Lake Mead is currently operating in a Normal Condition in calendar year 2018. Based on results from the February 2018 24-Month Study, Lake Mead's elevation at the end of calendar year 2018 is projected to be 1077.21 feet above mean sea level (msl), approximately 4 feet above the shortage elevation trigger of 1,075 feet. A Normal Condition is currently projected to occur in calendar year 2019; however, due to hydrologic and operational uncertainty, there is a 17% chance of a Lower Basin Shortage Condition in calendar year 2019.

Hydrology: Current conditions in the Lower Colorado River Basin are very dry, with record low precipitation and snowpack being reported at many sites throughout the Lower Basin. As of March 19, 2018, Lake Mead's elevation was 1,088.1 feet msl with 10.7 million acre-feet in storage (41% of live capacity). With a projected release of 9.0 million acre-feet from Lake Powell in water year 2018, Lake Mead is projected to decline to a seasonally low elevation of 1,075.7 feet msl with 9.7 million acre-feet in storage (37% of live capacity) in July 2018 and to end calendar year 2018 at an elevation of 1,079.10 feet msl with 9.9 million acre-feet in storage (38% of live capacity). Releases from Lake Powell account for approximately 90% of the total inflow into Lake Mead, with the other 10% derived from intervening flows between Glen Canyon Dam and Hoover Dam. The observed intervening flows for January and February 2018 were 80% of average.

In terms of precipitation,

Lake Mead Content	10.7 maf
Lake Mead % Capacity	41%
Elevation	1088.09 ft above MSL
Projected end of CY 2018	1077.2 ft above MSL

Without a doubt, water year 2018 is far below normal. Only the Missouri River Basin and the Yakima area has seen precipitation above normal. Most areas have seen rain and snow far below what is already historically low averages.

Fortunately, the American West has centuries of experience dealing with drought. And so against this backdrop, Reclamation and its managing partners will employ the best of their

experience and ingenuity to make the most of our finite water supplies. Mr. Chairman, that is the Department's most recent forecast for water supply in the arid West.

CONCLUSION

This concludes my written statement. I would be pleased to answer questions at the appropriate time.