

Testimony of Melinda Kassen

Before the Senate Committee on Energy & Natural Resources

Subcommittee on Water and Power

July 18, 2019

Good Morning, Chairman McSally, Ranking Member Cortez-Masto and members of the subcommittee. I am Melinda Kassen, Senior Counsel for the Theodore Roosevelt Conservation Partnership, an alliance of 60 non-profit sportsmen & women, outdoor recreation and science organizations founded in 2000, dedicated to ensuring that all Americans enjoy quality places to hunt and fish.

TRCP appreciates this opportunity to testify to the subcommittee about proposed water legislation designed to respond to long-term drought and the needs of western states and water users to build drought resilience into their water management and delivery systems. If well focused, the bills can provide the policies and resources that will allow the arid and semi-arid west to adapt to a future that is likely to have more people, but a more variable, and overall lower water supply to meet a range of water demands for the environment, recreation, cities and agriculture. As the West prepares for this future, Congress will play an important role to incentivize water conservation, water sharing, innovative technologies and new strategies so that we build a future with thriving cities and rural communities that have diversified economies, sustainable agriculture, and healthy rivers and watersheds that provide recreational and ecological benefits to resident and visitor alike.

Hunters and anglers need water in the landscape to hunt and fish. Outdoor recreation is an \$887 billion economic industry for the country as a whole and can be especially important to rural America. Fish swim in clean, flowing rivers and streams, as well as lakes; migratory birds use wetlands to feed and rest along the country's major flyways, while local bird populations nest along riparian corridors. All species and all communities need access to water.

TRCP, its partners and other conservation organizations recognize that there are many competing demands on the West's limited water supplies. Our experience shows time and again that cooperation among water users is the only path that leads to durable solutions. Recently, this committee helped enact a pact with support from Reclamation, seven western states and a diverse set of water users to chart a path towards right-sizing water use in a water-short basin: The Colorado River Basin Drought Contingency Plan. Thank you so much for the role you played earlier this spring to finalize HR 2030!

An amended version of S. 1932, one of the bills you are considering today, would help water interests, states and the federal government build on the success of the DCP, and broaden its spirit of cooperation. Below I suggest several modifications to the bill as introduced for your consideration.

S. 1932, Section 3 - \$670 million authorization for water storage.

Ensure state support

To ensure that projects receiving public funds have broad support, TRCP asks that the committee add language to build on existing provisions to ensure both compliance with state and federal laws, and the support of the Governor of the state in which the proposed project is located. This is consistent with the spirit of federalism and avoids having projects a state does not support move forward or receive federal funding, a scenario more likely to lead to litigation than construction.

As drafted, S. 1932 calls for such a Governor request for non-federal projects. The committee should ensure that, when Reclamation seeks Congressional authorization to study or construct a federal project or expansion, Reclamation provides Congress a written statement from the Governor that explains the state's position on such a project.

In addition, TRCP urges the committee to require written Governor support for both initial pre-construction and construction grants for non-federal projects. Also, the Secretary should be allowed to award follow-on federal funding for any project – federal or non-federal -- at any stage (pre-construction or construction) without additional Congressional approval **only if** the state provides written confirmation of its continued support. Otherwise, the Secretary should have to come back to Congress for approval to proceed.

Finally, TRCP appreciates that the bill includes a provision requiring the Secretary to act in conformance with state law, as well as multiple subsections requiring compliance with NEPA. Because of the potential for confusion between the two approaches, TRCP asks the committee to include, in all subsections where the bill requires compliance with NEPA, compliance as well with applicable state laws. Moreover, federal or non-federal projects the construction of which would violate state or federal laws should not be eligible to receive grant funding.

Include natural infrastructure

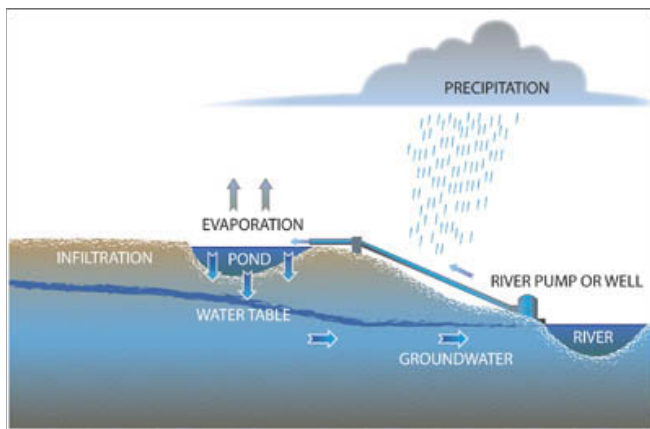
We ask the committee to expand the eligible projects in Section 3 to projects – and processes – that retain or store water in features of the landscape for later release. As I know members of the committee have heard from other witnesses at other hearings, restoring natural systems increases resiliency – and can save real money – by diminishing the effects of coastal flooding. Natural infrastructure approaches can also be a powerful tool for responding to drought, and as a strategy to ensure water supplies for water needs in water-short West, as well as providing flows for at risk species and improving habitat.

Natural infrastructure approaches essentially expand the definition of storage beyond just projects to include processes. Using processes that allow landscapes to retain water and then release it for other uses when and where needed can work as well as built water storage to make wet season precipitation or runoff available later during the next drier season with high water demand.

The quintessential western natural infrastructure water storage is mountain snowpack, which stores winter water for release during spring runoff. As a warming climate results in more rain and less snow, we need to think about replacing that snowpack reservoir, which today [accounts](#) for 75% of the West's water supply.

Other natural water storage in the western landscape includes headwaters mountain meadows, wetlands complexes, natural lakes, floodplains, and riparian as well as deep ground water aquifers. These features are highly dispersed and so require a different mindset when thinking about how to expand and incentivize this type of storage. Similar kinds of storage exist in agricultural working landscapes; healthy soils and farm ponds also store water.

Many ground water replenishment projects, as well as projects designed for other purposes, direct water back into the landscape for retention, so they use natural infrastructure elements. One such project that uses the landscape is at the Tamarack State Wildlife Area in eastern Colorado along the shores of the South Platte River. The [project](#) is part of the Platte River Recovery Implementation Program. During spring runoff when the river is not fully appropriated, partners pump water to strategically located ponds designed for the water to seep into the ground. From there, the water moves back to the river, arriving at times when it helps replenish low flows. Not only does the project improve local wildlife habitat, but the increased flows contribute 10,000 acre feet of water for recovery of endangered cranes and other species downstream on the Platte River in Nebraska.



[Schematic](#) from Northern Colorado Water Conservancy District

Another is the Cochise Conservation and Recharge Network along the San Pedro River in Arizona. The San Pedro River, a 140-mile-long tributary to the Gila River, flows north from Mexico. It supports a variety of native fish, some of which are at-risk species, as well as over 300 species of migratory birds. Just as centuries ago, the Clovis people hunted near the river, today, the San Pedro National Conservation Area allows bow hunting throughout its landscape in all seasons. The Cochise partners have a network of over 6000 acres of land along 25 miles of the River. [Projects](#) direct stormwater runoff (and in some cases effluent)

into catchment basins that allow the water to infiltrate the riparian aquifer, thereby replenishing ground water. The benefits of this approach accrue to the River in the form of more reliable base flows, and also to the local communities that rely on ground water for their municipal water supply.

There are natural infrastructure water storage projects in place, under consideration or that could be developed and benefit water management in the arid and semi-arid west, were funds available. A 2012 white [paper](#), produced by a group of California agricultural and conservation non-profit organizations, including TRCP partners The Nature Conservancy and Trout Unlimited, describes some categories of these, as well as potential financing mechanisms, including Revolving Loan Programs. (See below for further comments on Section 6, RIFIA.)

One reason to provide grants for natural infrastructure as part of a water storage program is that increased water retention can be an important, and quantifiable result, including of activities where the primary purpose was not to provide storage. Consider stream restoration. Trout Unlimited spent a decade in Montana along Nine Mile Creek restoring the stream and watershed that had been degraded by legacy mining. That restoration improved habitat and stream function. In addition, as documented by [research](#) from the University of Montana, the restoration increased ground water retention by capturing water during runoff and then, similar to the Tamarack project described above, improved base stream flows later in the year: “The cumulative impact of restoration resulted in a longer period of alluvial aquifer recharge early in the season, and higher volumetric discharge at baseflow.”

Maximizing water storage in our natural infrastructure will be an increasingly important tool for western water managers in the 21st century. Committee staff circulated proposed language to add natural infrastructure/storage into Section 3’s funding for other water storage, i.e., ground and surface water, and asked for comments. TRCP strongly supports this approach and urges the committee to add natural infrastructure water storage to Section 3.

In addition, TRCP suggests that the Committee cap the size of grants going to any one type of storage so that the new funding does truly incentivize western water interests to conceive new strategies for water storage. If all \$670 million were to go to traditional surface water storage, then Congress would have lost this opportunity to encourage western water managers to pivot to thinking about new ways of securing water storage.

Ensure accountability

TRCP appreciates that the current system for Reclamation to move projects forward from feasibility to permitting to construction requires multiple Congressional authorizations and appropriations. We do not disagree with the sponsors’ goal of accelerating the approval process for authorized projects with initial Congressional appropriations authorized in the WIIN Act. However, approval process changes must be balanced with accountability.

Reclamation should report annually to Congress on how (or if) it is spending money on authorized projects, including information about how authorized projects are progressing, refinements or updates to cost estimates, delays or changes to project plans, and any movement of funds between projects.

S. 1932, Section 6 – Federal Loan Program

Section 6 would establish a pilot federal low-interest loan program for Reclamation, similar to the existing TIFIA and WIFIA programs at the Department of Transportation and for the Corps of Engineers and Environmental Protection Agency. Given the committee's recent experience and critical leadership with passing DCP, and given the large infusion of funds for grants for water storage projects contemplated in Section 3, TRCP suggests that the committee target this new pilot program for projects and activities that reduce water supply-demand imbalances in most western watersheds, and in particular projects or processes that are multi-purpose or that reduce consumptive use, including through temporary, voluntary and compensated programs.

At scale, low interest federal loans for crop switching, rotational fallowing and even strategic upgrades of aging infrastructure may provide a return on investment that will entice private funders to engage with irrigators. Similarly, the RIFIA program could prioritize loans for municipal infrastructure that are coupled with watershed improvements or sustainability requirements. These infrastructure projects could include some of the same types of projects eligible for grants elsewhere in S. 1932, such as water reuse, aquifer recharge or ecosystem retention, but in situations where a loan would leverage private capital. Some of these investments strategies are being tested in western states, e.g., as described in [papers](#) from the Liquid Assets Project, a collaborative of private investors, technical experts and TRCP partner Trout Unlimited.

Before turning to the other new and expanded programs of S 1932, I want to note one difference between the money authorized for Section 3's water storage grants and the money authorized for these other programs. As TRCP understands Section 3 and the WIIN Act, the additional funding for storage grants would not require a new, scored appropriation; rather the appropriators would write these new projects into future bills based on previously appropriated funds. Set up in this way, projects that fit within Section 3 do not need to find new money. The other provisions of S 1932 would require new appropriations, before the money gets to the ground. TRCP urges the committee to consider adding water recycling, desalination, environmental restoration and water conservation to Section 3's WIIN expansion so that they may also take advantage of that streamlined process to get money to the ground.

S. 1932, Sections 4, 5 and 7 – Water Reuse, Desalination & Environmental Restoration

Section 4 – Water Reuse and Recycling

Water reuse and recycling, along with ground water and natural infrastructure storage, will likely grow in importance as the West's water management systems adapt to a future that many expect to be hotter and drier. As introduced, the legislation gives equal priority to projects that increase water supply reliability or flexibility and multi-benefit projects. TRCP urges the committee to consider prioritizing multi-benefit projects, i.e., those with ecological in addition to water supply benefits. With all of the balancing of interests that water managers need to do to build durable water systems for the future, Reclamation can help by incentivizing the multi-benefit projects that bring broad coalition support, and therefore matching funds.

Section 5 – Desalination

Desalination of both ocean and brackish inland water is a small piece of the west's water supply. According to a 2016 [report](#) from four California entities, including TRCP partner The Nature Conservancy, desalination is likely to remain so, even though it may grow and be important for local supplies. Desalination is expensive, potentially creates some adverse environmental effects and uses extraordinary quantities of energy to purify the salty water to levels appropriate for human consumption. For these reasons, TRCP suggests the following additions to S. 1932.

First, it will be important to minimize the adverse effects on the ocean from desalination. There are strategies to deploy both at the beginning and end of the process to accomplish this goal. On the front end, for example, facilities should use subsurface intakes where possible. At both the front and back end (brine disposal), facilities receiving federal funding should demonstrate that they are consistent with state and federal resource protection laws, especially in marine and wetlands protected areas, and that they have minimized adverse effects on, and certainly the mortality of, ocean and wetlands species through careful siting, advanced design and technology, and appropriate mitigation. Specifically, for brine disposal, this would include a demonstration that disposal is not occurring to marine or wetlands areas with special biological significance.

Second, desalination in general, but ocean desalination in particular, according to the report cited above, requires significant energy. TRCP therefore urges the committee to prioritize desalination projects powered with renewable energy. A French [company](#) has piloted solar-powered no-battery desalination in places like Abu Dhabi and French Polynesia. Congress should incentivize this type of solution for the West.

Section 7 – Restoration and Environmental Compliance

TRCP supports federal funds for projects that restore fisheries, riparian corridors, wetlands and wet meadows, and in fact all components of healthy watersheds. There is no question

that some of our 19th and 20th century water development substantially adversely affected western rivers and watersheds, resulting in degraded habitat for fish and wildlife. The kinds of projects described in Section 7 can help repair some of this damage. That said, for such an effort to be credible, it is important that the federal government not spend federal dollars on mitigation, the costs of which should properly be borne by the non-federal beneficiaries of these water development projects.

S. 1932, Missing: Water Demand Management, Conservation and Efficiency

S. 1932 authorizes over one billion dollars for water projects, and substantially more if the loan fund has anywhere near the multiplier effect of the TIFIA and WIFIA loan programs. If the theme of the bill is to prepare the West for a hotter, drier and more crowded future while maintaining a water economy that provides for cities, agriculture, recreation and the environment, one of the most effective and important strategies is missing from the package: conservation and efficiency. TRCP is disappointed and surprised that the bill does not include any money for reducing water demand outright, and in particular the kinds of voluntary, temporary, compensated water demand management activities critical to bringing the West's supplies and demands in places like the Colorado River Basin back into balance. These are the same measures that will be critical to the success of the DCP that this committee was instrumental in getting passed.

Drought, or aridification, as some scientists are now calling what is happening in the southwest is often a slow-moving crisis, without the sizzle of a fire or the crash of a hurricane storm surge. Drought in the western U.S. may not cause instantaneous crises, because 20th century water managers built water storage, which can soften the blow of an inadequate year's supply. However, moving forward, any all-of-the-above strategy for managing western water supplies and demands in the 21st century must include water conservation and efficiency.

The WaterSMART program initially authorized in the SECURE Water Act that was part of the Omnibus Lands Management Act of 2009 (42 USC §10361, et seq.) includes a water efficiency grant program. Water conservation was also a critical element of the Colorado River Basin system conservation pilot program that Congress established five years ago. And the Cooperative Water Management Act provides funding to give watershed groups sufficient capacity to bring communities together around multi-faceted efforts to provide water for people and nature. Finally, in many cases, upgrading irrigation infrastructure, as Senators McSally and Sinema have proposed to in S. 2044, can result not just in a safer and more reliable water supply, but also in one that is better from an environmental and recreational standpoint.

One notable example from Colorado is a project done in the late 1990s and early 2000s on the North Fork Gunnison River. There, the North Fork River Improvement Association worked with dozens of irrigators to replace over 20 push-up dams with modern diversion structures. In 2002, one of the driest years on record, the river flowed, where it had not done so for many previous seasons, because of this work.

Multi-benefit projects pull communities together, while helping water users adapt to the reality of less available water for more competing needs. TRCP encourages the committee, either by reauthorizing, targeting and expanding existing legislation, or through bold new programs, to add funding for conservation and efficiency to S. 1932. TRCP, its partners and other conservation organizations would be happy to work with the committee to develop appropriate legislation that would accomplish these purposes.

Conclusion

I thank the Committee again for inviting me to testify and look forward to working with you during these exciting times as western water users collaborate on ways to make our water delivery systems sustainable today and in a hotter, drier future with increased demands. I would be happy to answer any questions you have.