ARCCA
Alliance of Regional Collaboratives for Climate Adaptation

September 1, 2019

California Natural Resources Agency
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

RE: Water Resilience Portfolio Initiative

Dear Nancy Vogel and Staff:

The Alliance of Regional Collaboratives for Climate Adaptation (ARCCA) welcomes the opportunity to provide comments on the Water Resilience Portfolio Initiative (Initiative).

ARCCA is a robust network of regional climate collaboratives – each encompassing a diverse, multisector network of agencies and organizations working together to accelerate climate adaptation throughout their region and to catalyze on-the-ground resiliency-building initiatives. As a statewide network, ARCCA brings together thought leaders and practitioners to advocate for equitable and effective adaptation principles and policies, to collaborate towards innovative and holistic solutions, and to build a culture of prioritizing climate and community resiliency. Our member collaboratives represent the following regions: North Coast, Sierra Nevada, Capital Region, San Francisco Bay Area, Central Coast, Los Angeles County, and San Diego County. We are actively working to support the formation of regional collaborative in the Inland Southern California region while continuing to engage with stakeholders in other regions such as the San Joaquin Valley to explore the potential of forming a regional collaborative.

We applaud Governor Newsom's recognition of water as a human right and the profound impact that climate change will have in exacerbating existing water challenges and in bringing forth new challenges, as evident in Executive Order N-10-19. We further applaud Governor Newsom for establishing an interagency effort to prepare a water resilience portfolio given the importance of cross-sector collaboration to effectively adapt and build resilience across the water sector.

We offer a few comments and recommendations for consideration to support California Natural Resources Agency, the California Environmental Protection Agency, and the California Department of Food and Agriculture in meeting the objectives of the Initiative.

1. Protect source watersheds, which provide clean water and economic and climate resilience benefits to Californians statewide.

   As source regions, the North Coast and Sierra Nevada supply an abundance of clean abundant water, sequester large amounts of carbon, and retain high levels of biological diversity – services that benefit all of California and beyond. These ecosystem services are critical to the state economy and to achieving legislated climate and environmental goals. The North Coast supplies millions of acre feet of water to other regions in California including the San Joaquin Valley and Silicon Valley, which can be translated into billions of dollars in economic value in the agricultural and technology sectors. Sierra Nevada forests and watersheds provide nearly two-thirds of California's developed water supply and three-quarters of the freshwater inflow to the Sacramento-San Joaquin Delta, serving 25 million Californians. Together, the Sierra headwaters and the Delta serve as California's primary natural water infrastructure, critical to providing a clean and reliable supply of water while protecting downstream communities from floods and other climate-related disasters. Sierra watersheds also help to replenish groundwater basins, reduce the cost of filtration for downstream water ratepayers, serve as a home to 60% of the state's animal species, and support a $92 billion outdoor recreation economy, which accounts for 691,000 local jobs.

   Healthy watersheds ensure a reliable supply of water year-round with snowpack serving as a natural reservoir and montane meadows and wetlands helping to regulate seasonal water flow. Properly functioning watersheds also help to buffer the impacts of extreme weather events, which have become a growing concern as climate change accelerates. The near collapse of the Oroville dam in 2017 is an example of missed opportunities to invest in upstream watershed restoration and green infrastructure to help alleviate pressure on the built system. However, decades of fire exclusion, overgrazing, unsustainable development patterns, and climate-induced droughts, wildfires, and extreme weather events have put our state's source watersheds at great risk. Sierra snowpack is expected to reduce by at least 60% by the end of the century, and wildfires are already reducing precious reservoir capacity by increasing the amount of sediment flow from burned areas into downstream reservoirs.

   In order to ensure ecosystem health and natural water infrastructure continue to be prioritized, we recommend inviting representatives from the Sierra Nevada, North Coast, and the Sacramento-San Joaquin Delta regions to serve on the Working Group.

2. Establish sustainable funding mechanisms to invest in natural water infrastructure.

   Despite the clear water quality and supply benefits to downstream users provided by upper watersheds, these valuable ecosystems continue to face chronic underinvestment. Very little of

the revenue generated from source regions are reinvested to support healthy ecosystem function and the local communities that steward these important natural lands. In the state's most recent water bond, Proposition 1 (2014), only $25 million (0.3%) was allocated to the Sierra Nevada Conservancy to invest in source watershed and forest health projects. While some state agencies – like the Wildlife Conservation Board and Department of Fish and Wildlife – have consistently invested in upper watersheds over the years, greater investments are needed to protect and enhance resilience in the areas that provide the majority of the state's developed water supply.

With the worsening impacts of climate change on forested landscapes, and the lack of human capital and funding resources for sustainable management, many areas are increasingly likely to experience catastrophic wildfires that would negatively impact carbon stocks, biodiversity, water supply, and quality of life. Thoughtful, strategic investments in source regions - with a specific emphasis on retaining qualified people to steward these lands - is critical to meeting the needs of Californians and the objectives of the State. Rather than relying on the unpredictable boom and bust of bond allocations to protect the state's headwaters, a more sustainable funding source needs to be identified, such as requiring downstream beneficiaries to fund a portion of upper watershed restoration and protection activities. This could include dispersing costs among downstream stakeholders such as hydropower generators, flood protection districts, and other water agencies and utilities.

We recommend the Working Group conduct a study evaluating a range of potential funding mechanisms, including the feasibility of a downstream user fee, as a way of creating a sustainable and predictable funding source for upper watershed protection and restoration.

3. Increase investments and expand programs that seek to reverse subsidence in the Delta.

The Delta provides water to two-thirds of Californians and over 4.5 million acres of farmland but continues to be threatened by land practices that have caused subsidence of up to 1.5 inches per year. This rate of subsidence combined with rising sea levels threatens loss of the Western Delta to an inland saline sea, which could cause the loss of entire communities and interruption in the export of water supplies. In order to secure water supply and preserve the multitude of benefits that the Delta provides to Californians, local and statewide economies, and aquatic species, efforts to reverse subsidence must be accelerated and prioritized.

We recommend working with Delta-based agencies to ensure that the Initiative aligns with existing plans for the Delta and invest in restoration and resilience-building programs in priority locations, such as the Yolo Bypass, the floodplain west of Sacramento, the Cache Slough Complex, and the Suisun Marsh.

4. Pursue landscape-level policies and programs to match the scale and pace of California's water and climate change challenges.

In order to significantly increase the pace and scale of upper watershed restoration over the next 10-15 years, land managers, natural resource agencies, and State policies and programs must focus on landscape- and watershed-level planning rather than small, "one-off" projects. The Tahoe Central Sierra Initiative (TCSI) led by the Sierra Nevada Conservancy is a model example of the scale and coordination necessary to achieve this goal. The TCSI project area spans 2.4 million acres of the central Sierra region, bringing together state, federal, academic, and nonprofit partners (through an MOU) to coordinate funding and priorities in pursuit of dramatically expanding the pace and scale of forest management and restoration activities in the region. The TCSI can serve as a model for cross-sector and interagency collaboration across large landscapes throughout the state.

Another effective model for a regional collaborative process required to implement effective on-the-ground efforts to meet California's water and climate change challenges is the North Coast Resource Partnership – a collaboration among seven counties and multiple federally recognized tribes in Northern California representing over 12% of the California landscape. The NCRP has worked together for over 14 years to bring science-based planning, high quality project implementation, jobs and economic vitality to this rural economically disadvantaged region. The NCRP has long had a focus on multi-benefit projects ranging from watershed and forest restoration, creation and repair of water quality, water supply and wastewater infrastructure, and projects that reduce greenhouse gas emissions and make our region more resilient to extreme events and climate change.

To incentivize collaborative action, funding should be allocated via block grants as an efficient and equitable way of disseminating state funding resources to rural and disadvantaged regions. The block grant approach provides opportunities for communities to work collaboratively on regional challenges, helping to reduce conflicts while targeting resources to address pressing local and regional needs.

5. Identify, preserve, and restore natural resources to support sustainable water management objectives.

Natural and working lands play an essential role in the economic, environmental, and social wellbeing and resilience of local communities, particularly as it relates to water management. Natural resources such as wetlands, floodplains, recharge zones, riparian areas, open space, and native habitats are valuable assets for flood protection, sediment management and water quality improvement, groundwater recharge, habitat, and overall long-term water resource

sustainability. While the benefits of protected open spaces are increasingly evident, land important to groundwater recharge and carbon sequestration continues to be lost to impermeable development as many communities throughout California continue to experience sprawling urban development patterns, which significantly impact water resources and disrupt the natural hydrologic cycle.

In order to achieve the objectives of the Initiative, new urban development must be restricted in order to preserve and restore natural and working lands. Local jurisdictions need additional guidance and support to leverage regulatory measures, conservation easements, land acquisition, and other tools available to preserve open space and adopt climate-smart land use policies. Innovations in local policies and programs that achieve multiple benefits should be recognized, such as the partnership between the Pajaro Valley Water Management Agency, UC Santa Cruz, and the Santa Cruz County Resource Conservation District to pay landowners for the water they return to the aquifer.

We recommend greater emphasis and attention to non-State lands including addressing local land use decisions and patterns, federal lands, private lands, and the continued conversion of farmland and rangeland.

6. Promote sustainable land use policies and practices at the local level, such as low-impact development.

To reduce strain on California's precious water resources, urban communities must play a larger role in water conservation by implementing smart growth community design principles and adopting available technology to conserve water. Community design should be compact, mixed use, walkable and transit-oriented so that urban runoff pollutants are minimized and the open lands that absorb water are preserved to the maximum extent possible. Water holding areas such as creek beds, recessed athletic fields, ponds, cisterns, and other features that serve to recharge groundwater, reduce runoff, improve water quality and decrease flooding should be incorporated into the urban landscape. All aspects of landscaping from the selection of plants to soil preparation and the installation of irrigation systems should be designed to reduce water demand, retain runoff, decrease flooding, and recharge groundwater. Furthermore, permeable surfaces should be used for hardscape to absorb stormwater, reduce polluted urban runoff, recharge groundwater and reduce flooding.

Community design should maximize the use of recycled water for appropriate applications including outdoor irrigation, toilet flushing, and commercial and industrial processes. Purple pipe should be installed in all new construction and remodeled buildings in anticipation of the future availability of recycled water. Urban water conservation technologies such as low-flow toilets,

efficient clothes washers, and more efficient water-using industrial equipment should be incorporated in all new construction and retrofitted in remodeled buildings. Dual plumbing that allows greywater from showers, sinks and washers to be reused for landscape irrigation should be included in the infrastructure of new development. Ground water treatment and brackish water desalination should be pursued when necessary to maximize locally available, drought-proof water supplies.

Thank you for your consideration of our comments. We welcome the opportunity to discuss any of our comments further. Please do not hesitate to reach out to Julia Kim, ARCCA's Coordinator, at jkim@lgc.org or 916-448-1198 x304 if you have any questions or if you would like to schedule a call to discuss our comments further.

We look forward to working with you and supporting the implementation of the Initiative throughout the state.

Sincerely,

Meg Arnold, ARCCA 2019 Chair

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