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RIVERSIDE COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT

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Testimony Before the
United States House Subcommittee on Energy and Water Development
Hearing on Innovation and
Investment in Water Resources Infrastructure

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Chairwoman Kaptur, Ranking Member Simpson, and members of the Committee, thank you for the invitation to participate in today's hearing. I appreciate the opportunity to discuss the important issue of innovation and investment in water resources infrastructure.

About the District

I am the General Manager-Chief Engineer for Riverside County Flood Control and Water Conservation District (District). The District was created in 1945 by an Act of the California State Legislature. The District, which covers 2700 square miles and serves approximately 2 million residents, is located in western Riverside County. The District's jurisdiction extends from Corona, California located about 10 miles east of Disneyland, southerly to Temecula, California and easterly to roughly Palm Springs, California. The District's jurisdiction contains three major River Systems:

1) The Santa Ana River – The largest River in California's coastal system and the only River entirely within southern California, encompassing a 2,650 sq. mi. watershed, over 4 million residents and traversing portions of San Bernardino, Riverside and Orange Counties.

2) The Santa Margarita River – the second largest River basin in southern California's coastal plain and traversing portions of Riverside County, San Diego County and Marine Corps Camp Pendleton; and
3) The Whitewater River – An entirely ephemeral River that is part of the Salton Sea Basin in the arid desert region of southern California including Palm Springs and the broader Coachella Valley. Its headwaters are in the San Bernardino Mountains and its termination is at the Salton Sea; which is facing a catastrophic environmental decline of national significance and has been the subject of both statewide and congressional legislation and management under the Salton Sea Management Program.

The District was formed following the devastating floods of 1938, when the Santa Ana River, normally flowing at the rate of a small creek, peaked at roughly 100,000 cubic feet per second (CFS) – about the same flow rate as the Mississippi River near St. Louis. The Army Corps of Engineers would later declare the Santa Ana River the most dangerous river west of the Mississippi due to its ephemeral nature; low banks and the large population living in its shadow.

Following the torrential 1938 Santa Ana River flood, the Board of Supervisors saw the need for a regional drainage authority and petitioned the California State Legislature to create such a body so the County could have a local partner to work with the Army Corps of Engineers to provide the necessary flood protection for Riverside County residents. On July 7, 1945, the Legislature took the appropriate action and the Riverside County Flood Control and Water Conservation District was born. The District is a special district governed by the Riverside County Board of Supervisors.

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Early Innovative Partnerships and the Benefits of the Bipartisan Budget Act of 2018

The budding partnership between the Riverside County Flood Control and Water Conservation District and the Army Corps of Engineers led to, among other projects, the construction of the Santa Ana River Levees in the early 1950's and over the next decade, an innovative 3-County partnership between the Corps and the Riverside, San Bernardino and Orange County Flood Control Districts devoted to addressing Santa Ana River flooding issues at a watershed scale. The resultant Santa Ana Mainstem project, which is one of the largest flood control projects in the nation, was authorized for construction in 1988 and will ultimately provide 100-year protection to over 3.35 million people in the growing urban counties of Orange, Riverside and San Bernardino. It stretches over 75 miles and includes seven independent features including: 1). The construction of a new 550-foot-high earth and rock fill dam, 2). raising the embankment of the Prado Dam by 28 feet, 3). several bank protection and infrastructure measures, and 4). protection of the BNSF railway bridge that connects the Ports of Los Angeles and Long Beach to Seattle, Chicago and Ft. Worth. The BNSF bridge ultimately carries over 31% of the nation's imports on as many as 100 freight trains a day. It is important to point out that these Corps' flood control projects can protect huge economic investments and provide significant economic return to the nation. The overall cost of the project is approximately $2.8 billion.

I would like to thank Congress for their support of a 2020 amendment to the Bipartisan Budget Act of 2018 (BBA) that directed roughly $500 million of BBA funds to the completion of this project. The influx of BBA funds for Santa Ana River Mainstem is accelerating project delivery and reducing costs by providing sufficient funding to pursue the project efficiently; particularly compared to the piecemeal

funding approach that spreads the funds out over several fiscal years (roughly $7M to $45M each year). The piecemeal approach typically limits the Corps to pursuing a single element of the Project at a time and subjects the Corps to inefficient starts and stops on projects. Further, the legislation is providing for much needed jobs during this time of crisis.

Ongoing and Increasingly Complicated Challenges Require Federal Infrastructure Assistance

Although we are making amazing progress on the Santa Ana River; there are other substantial flood risk reduction needs with a demonstrated Federal interest that require the support of the U.S. Army Corps of Engineers and Congress. These infrastructure deficiencies are being exacerbated by climate changes that are contributing to ever increasing extremes. Extended drought conditions create longer fire seasons, which then lead to catastrophic forest fires that leave our communities at risk to dangerously magnified flooding, mud and debris flows. At the other extreme, less frequent but more intense atmospheric river driven storm events produce devastating floods. These changes are also accelerating the decline of the Salton Sea and increasing the risks of worsening air and water quality issues in the eastern County. There have been numerous Presidentially declared disasters in our region due to these impacts. Further, these changes are driving the need to accelerate rehabilitation of some of our older infrastructure, such as the Santa Ana River levees that were constructed in the 1950's by the US Army Corps of Engineers to maintain public safety. The combination of increased risk and aging infrastructure means that our job of providing for the public health and safety of our citizens has never been more important or challenging.

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We are an experienced local sponsor with a comprehensive flood management program that: 1). Identifies flood hazards, 2). regulates floodplains and promotes orderly development with regard to flood risk management, 3). provides education and outreach for flood prevention and safety, 4). provides for the construction of approximately $30-40 million in flood control structures and facilities annually, 5). provides for flood and rainfall monitoring and early detection and 6). maintains and operates existing infrastructure. However, despite our capabilities, there are still projects of national significance that are either beyond our available local resources or require us to rely on the unique expertise that the US Army Corps of Engineers provides.

The Corps of Engineers is Well Positioned to Lead, and Coordinate, Flood Risk Reduction Projects Funded by Future Infrastructure Legislation; but Many Shovel-Ready Projects are Caught in Federal Red Tape

The Corps of Engineers is the primary federal civil works agency addressing flood protection, ecosystem restoration, navigation needs. As this subcommittee well knows, the Corps has a comprehensive and national Civil Works program to address the needs of the nation which are determined to be in the Federal interest using the Corps detailed planning and economics approach. Once a Federal interest is established, local sponsors such as the District, work with the Corps to develop a Feasibility Study to determine the best alternative solution based on the cost and benefits, local interest and community need. Challenges can arise as the Corps feasibility process still focuses on optimizing projects by maximizing the net monetary benefits to the nation based on a strict assessment of flood risk reduction. This alternative is typically referred to as the National Economic Development (NED) Plan. A National Ecosystem Restoration (NER) Plan is also prepared when there are significant ecosystem restoration benefits. It focuses on maximizing environmental benefits in non-monetary units. The NED and NER plans are often vary narrow in focus sometimes lead to

recommendations for projects that do not meet even FEMA's 100-year flood protection standard and do not reflect the increasing federal interest in promoting broader multi-purpose, multi-benefit projects that can maximize the value, sustainability, and resiliency of a project to both the community and the nation. We were very pleased to see recently that former Assistant Secretary of the Army James provided direction to the Corps to look at a broader range of benefits when developing projects. Until this direction is fully implemented, local sponsors may still need to request the development of a Locally Preferred Plan (LPP), in many cases to simply provide for 100-year protection, and to also integrate additional benefits such as parks, trails, water conservation and different combinations of environmental restoration features that truly promote Congress' vision for livable, sustainable and resilient communities. Further, until the Corps updates its economic model, these more holistic and forward-thinking projects will continue to not fit well in the Corps 1980's based economic rubric. Nevertheless, we are pleased that directives from Congress and the Corps' efforts to promote maximum national value to protect and stay current with sponsor's needs, have begun to result in changes for the better.

Examples of Projects and Challenges

An important and major example of an innovative project that we are actively engaged with the Corps on in Riverside County is the Murrieta Creek Flood Control, Environmental Restoration and Recreation Project. This project provides flood protection to critically important areas including Old Town Temecula. Old Town Temecula is the gateway to Temecula Wine Country, an interstate destination visited by over 2.7 million people per year and within the top six percent of retail sales generating areas in California. It was important to the community that the project provide 100-year protection, so the

sponsor requested a Locally Preferred Plan that was based on a robust public input and community outreach effort with flood protection being the heart of the project and additional ecosystem restoration, water quality and recreation components incorporated as part of the communities' vision. Because of the strong community involvement and the very engaged environmental stakeholders and resource agencies in our area, the flood protection project has turned into an important multiple purpose project which meets a wide range of needs in our growing area and will help drive and protect a nationally significant resource. The project also carefully balances flood risk reduction requirements with the needs of state and federally threatened and endangered species by promoting a strong living river concept with 4 miles of linear habitat restoration improvements along the proposed channel and a 270 acre flood detention basin incorporating 160 acres of wetland marsh habitat and a sedimentation basin to provide for improved water quality downstream. The project provides important habitat connectivity between the Santa Rosa Plateau Ecological Reserve, the Santa Margarita Ecological Reserve and the Cleveland National Forest, promoting a safe environmental corridor for species such as the Santa Ana mountain lions to migrate and interbreed with other adjacent mountain lion populations.

The heart of the project, however, is flood control and the project will protect nearly 600 structures worth $1.35 billion in southern Riverside County, improve water quality and enhance flood protection to Marine Corps Base Camp Pendleton, reduce transportation delays due to flooding and protect a regional sewage treatment facility that treats up to 5 million gallons of wastewater per day for a service area encompassing over 40,000 residents and 850 businesses. As Congressman Calvert recalls, the 1993 flood caused $88 million in damages to Camp Pendleton and $20 million in damages to local cities. The Corps effectively completed the Phase 1 and 2A components of the project in 2017. These improvements likely prevented flooding from a recent atmospheric river that produced somewhere

between a 10 and 25-year flood that was contained within the project. However, an even slightly stronger storm would have likely resulted in community flooding. Phase 2b of the project is ready for construction and Phase 3 is required to provide the full intended flood protection.

The District is also finding that its older infrastructure is being challenged by changing environmental and climate conditions. For example, one of the District's earliest Corps partnerships was the construction of the Santa Ana River Levees in the 1950s. In 2010, portions of the 5-mile long levees were damaged by flooding from an atmospheric river event. The levees were covered by the Corps PL84-99 program, but the extent of damages exceeded the Corps ability to fund repairs under their annual Presidential Budget allotment for the PL84-99 program. The project languished until the 2018 BBA provided much needed funding to support to PL84-99.

With funding in hand, the Corps studied the levees and determined that changes in design standards since the 1950's meant that the levee system is insufficient to address expected river scour. More stringent environmental regulations will also play heavily into the design and operation of the levee system restoration project. The cost to fix the damaged segments, representing about half the levee length, is estimated at $56 million. Unfortunately, the PL84-99 program can only fund repairs and necessary resiliency enhancements to the already damaged portions of the levee system. This will ultimately leave our communities at risk from future storms that could damage the remaining known to be deficient, but currently undamaged, segments of the levee. Worse yet, a piecemeal approach will ultimately increase the overall cost of project delivery and complicate environmental compliance. An infrastructure bill that would allow programs like PL84-99 to both address repairs and fully improve

the resilience of older infrastructure could lead to a much more cost efficient and truly protective project that would provide meaningful jobs and benefits to local communities and the nation. This issue is not unique to our region. Additional infrastructure funding to address larger repair and resiliency needs is an area ripe for action.

Lastly, I would be remiss if I did not mention the Salton Sea in eastern Riverside County. The Salton Sea is the second largest body of water west of the Mississippi River. As climate change and water demand increasingly strains the Colorado River in the Southwest, the shores of the Salton Sea are shrinking and exposing vulnerable and disadvantaged communities near the Salton Sea to significant public health risks. Exposed seabed's and frequent dust storms have caused significant air quality issues adding to the worsening health problems in one of California's poorest regions, where Latinos make up the majority of the population and many are farmworkers and essential workers. This region consistently has seen an increase in respiratory illnesses.

We thank the Bureau of Reclamation and other federal agencies who have assisted us with partnerships in efforts to mitigate these air quality issues and seabed exposures. But the time has long passed for federal investment in this region to provide a healthy environment for these communities that feed our nation.

While the state has outlined a 10-year restoration plan that identifies shovel-ready projects, including projects along the Whitewater River, it is woefully underfunded. In November 2020 Congressman Ruiz, along with Congressman Vargas, introduced HR 8775, the Salton Sea Public Health and

Environmental Protection Act. This bill authorizes the first significant federal investment for the Sea since 1998. However, HR 8775 needs federal appropriations for enactment. Quick action is vital for the health and welfare of the residents near the Salton Sea as the environmental catastrophe increases day by day.

Communities Throughout the Nation have Similar Projects that Could Benefit from an Influx of Federal Support.

These are just three of many worthy projects in southern California. These projects are representative of the needs of many communities across the country who face challenging, evolving and complicated flood risk issues. There are multitudes of flood risk projects that are shovel-ready and sitting on the sidelines due to lack of funding or unintentional side-effects of federal authority limitations. At the same time, these flood management projects are incredibly important to local communities and the nation as the projects that can significantly reduce loss of life, property, infrastructure and habitat as well as protect regional economic engines including retail business, industrial centers and transportation corridors. At the same time, these same local communities may not have the resources or expertise to move these projects forward. That is why the Corps, and federal investment in flood protection, is critical to the continued economic development and public safety of our nation. There is no question, that without the Corps, the devastation wrought by the extreme and recurrent flood events would be much greater due to a lack of local expertise or fiscal resources.

Flood Risk Reduction Projects Often Provide Extended Benefits to the Community and Nation

Our experience in Riverside County has shown that federal flood risk projects have national benefits that exceed those the Corps documents in feasibility reports; particularly when innovative projects attempt to incorporate water conservation, stormwater capture, recreation, trails, parks and habitat restoration are benefits. Additionally, flood risk reduction projects can open lands to new development that may be necessary to address critical housing shortages and the lack of affordable housing in states like California. Projects can also set the stage for enhanced national economic development, regional economic development and improvements to general quality of life via new recreational opportunities in our limited urban open spaces. Tax revenue generated by the increased value of economic assets with reduced flood risk can also help lift the overall well-being of local communities and enhance national coffers.

Often, stated benefits of a project in a Feasibility Report underrepresent the economic and social potential of the project. For example, the 240-acre Murrieta Creek Detention Basin is intended to include 50 acres regional sports park, that combined with nearby Old Town Temecula and Temecula Wine Country, could help turn the Temecula/Murrieta area into a national destination for soccer and baseball tournaments. These types of extended economic outcomes are typically not considered in the Corps standard benefit calculations and we are working hard to bring them into the benefit picture through the concept of regional economic development benefits.

There are Also Opportunities to Leverage the Capabilities of Local Sponsors to Reduce Costs and Accelerate Project Delivery

Project features and the commensurate range of benefits are changing as both Congress and local communities seek to reduce costs, accelerate the delivery of infrastructure and maximize benefits from their investments. Additionally, the relationships between the Corps and the local sponsors, are also changing for the better. Over the last number of years, Congress through the Corps of Engineers authorization bills has recognized the sophistication and value that the local sponsors can bring to the development of Corps projects. Congress has provided an increased role for local sponsors in the planning, design and construction of Corps-partnered projects. We applaud that. Not every sponsor is large enough to provide in-kind services such as planning, design and construction assistance, but for those who do, we are finding that empowering local sponsor to become full partners with the Corps can lead to accelerated delivery and reduced cost. We encourage Congress and this Subcommittee to continue to support and provide opportunities for alternative delivery of Corps projects, whether that is through Public-Private Partnerships or other split delivery approaches that encourage not only innovation, but more importantly, leveraging the full capabilities of local sponsors to complete projects sooner and more cost-effectively.

Closing

In summary, we believe that the Corps public works flood risk reduction role has never been more important. Changing climactic factors are enhancing the risk of flooding throughout our nation and challenging the resources and capabilities of local agencies. Corps partnered projects promote the health and safety of our residents, promote the protection of national economic resources, and provide

the opportunity to pursue innovated projects that can lift the overall livability, sustainability, and resilience of our communities. This process works best when the Local Sponsor and the Corps work together as true partners in planning and implementing flood risk reduction projects so as to maximally benefit from the capabilities of each partner.

It is our experience that there are many incredibly valuable shovel-ready Corps partnered projects that could be brought to bear with the support of Congress, particularly with language that can untangle some of the unintended consequences of the Corps' various authorities. The return on investment from the Corps partnered projects is tremendous, extending well beyond the basic NED and NER analysis conducted by the Corps and we encourage Congress to continue with the Corps to modernize their economic analyses.

As you consider wise use of investments in the water resources arena, I encourage you to focus strongly on investing in the Corps flood protection program and the communities across the nation who are partnering and bringing their resources to the table. The effect of these decisions is to grow the return on the Federal investment.

Thank you for your consideration and I stand ready to answer any questions you may have.