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THE ENVIRONMENTAL JUSTICE COALITION FOR WATER, A NONPROFIT PUBLIC BENEFIT CORPORATION

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BEFORE THE

CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

HEARING IN THE MATTER OF CALIFORNIA DEPARTMENT OF WATER RESOURCES AND UNITED STATES BUREAU OF RECLAMATION REQUEST FOR A CHANGE IN POINT OF DIVERSION FOR CALIFORNIA WATERFIX PREPARED DIRECT TESTIMONY OF DANIEL D. HEAGERTY ON BEHALF OF THE ENVIRONMENTAL JUSTICE COALITION FOR WATER

I, Daniel D. Heagerty, Director of Public Trust Water and the Senior Advisor/Boardmember of Generation: Our Climate, do hereby declare:

I. INTRODUCTION

- 1. The purpose of my prepared direct testimony is to articulate Public Trust issues and failings concerning the WaterFix change petition.
- 2. I have reviewed testimony and materials submitted by Petitioners California Department of Water Resources and United States Bureau of Reclamation.
- 3. I have worked on water resource issues, Public Trust Assets, Treaty Trust rights, biodiversity conservation and climate change throughout the western US for over 40 years, as a professional consultant. See below for further qualifications.
- 4. I have personally examined various fact sheets, reports and analyses of the WaterFix purpose and proposed actions which framed the basis for the following observations, opinions and conclusions.

II. SUMMARY OF TESTIMONY

- 5. In my testimony, I first summarize my understanding of the proposed WaterFix and its Public Trust considerations for future generations.
- 6. I will describe my understanding of how the proposed WaterFix will include long term commitments of resources and infrastructure that would not replenish the water resources or improve the water quality of our state waters, or the over-appropriation of our surface waters and other aspects of Public Trust Asset harm and degradation.
- 7. It is my opinion, based on the foregoing, that the WaterFix proposal is not in the public interest and fails the tests of Public Trust protections, fiduciary responsibilities and government accountability.

III. THE PUBLIC TRUST ASSET- WATER

8. The Project is in conflict with the declared policy of the State of California confirmed by the Delta Reform Act that "[t]he long-standing constitutional principle of reasonable use and the public trust doctrine shall be the foundation of state water management policy and are particularly important and applicable to the Delta." (Water Code § 85023.) The Project would instead make maximizing 'water exports' the foundation of state water management policy concerning the Delta. The existing water exports via the state and federal water projects provide

substantial evidence of Public Trust Resources degradation and harm (water quality non-compliance, species listings, saltwater intrusions into freshwater habitats and farmlands, soils contamination at points of water use, toxic drainage and groundwater pollution to name a few).

- 9. The Public Trust Doctrine holds that there are certain natural resources, starting with air and water, that are fundamental to the survival of our species and the ecosystems we depend upon. These are 'public trust assets' that are common property for all humans, so fundamental and essential that they must be protected for all people and for future generations. These "Natures Assets' cannot be compromised for private or corporate uses that might diminish that public trust asset. (Sup.Ct.).
- 10. Similar to any legal trust, the public trust doctrine has three primary components: the trustee, the trust principal, and the beneficiaries of the trust. In the public trust framework for water, the state (Water Board) is the trustee, which manages specific natural resources the trust principal for the benefit of the current and future generations the beneficiaries.
- 11. There is no more clear responsibility of the individual or our public agencies than to be responsible for the stalwart stewardship of these common trust assets. If there is a community in our state that does not have the benefit of access to clean and dependable water, then our trustees are failing in the management of our trust asset. Will this WaterFix secure clean and dependable water for all communities in California? No. Will the WaterFix restore and protect the trust assets already lost or diminished in the Delta and the SF Bay? No. Will the enormous depletions of our groundwater resources be replenished by this proposal? No.
- 12. Every action the state or a local water agency takes that diminishes the accessibility to clean and dependable water is a fiduciary failing.
- 13. California water infrastructure has already significantly degraded the Public Trust water resources, as evidenced by scores of listed species, excessive and harmful water withdrawals of most of our streams and many lakes, of water quality degradation in most water bodies, and the mining of groundwater. This arguably irresponsible management of the public's water, clearly magnified during our last drought, would only be exasperated if the WaterFix is implemented as planned.
- 14. The primary fiduciary trust responsibility of the State Water Board, beyond the financial accounting obligations, is the non-depleting (sustainable) stewardship of the public trust's asset principal. It is the clearest and most straight-forward expression of "public interest," preceding the usual tests of "beneficial use" or "balancing of economic and environmental interests." The balancing of economic interests comes after the public trust protections are clearly secured, as economic interests are mostly privately held and therefore subservient to trust asset fiduciary responsibilities. Additionally, economic interests are only measured in timeframes of calendar quarters, annual reports, or political cycles, incongruous with the legacy demands of the trust asset.

15. What measure do we have as a society if we cannot steward our water so that all our neighbors have water? Or if we neglect our children's children in their need for clean and dependable water, their need for fish and wildlife? If we do not safeguard our public trust asset we are a declining society, a declining culture. And we have failed our children and grandchildren.

IV. DEPLETION AND DEGRADATION OF THE PUBLIC TRUST ASSETS

- 16. The WaterFix Tunnels Project would divert large quantities of fresh water from the San Francisco Bay-Delta estuary for export south. The Project would consist of new water intakes capable of diverting 3,000 cubic feet per second of water from the Sacramento River into two 40-foot wide, 35-mile long tunnels 150 feet underground ("Tunnels"), which would transport the water to existing pumping plants in the South Delta. The Tunnels would have the capacity to transport about 15,000 cubic feet per second of water, taking the freshwater flows that presently contribute to water quality, water supply, fish, fish habitat, Delta agriculture, and public health to a "through-Delta conveyance" system. How would this action NOT further diminish and degrade our public trust resources in the Sacramento River and the Bay-Delta?
- 17. The Project will harm pelagic and anadromous fisheries in the Bay-Delta and its watershed, including the Public Trust resources associated with these ecosystems (clean water, fish and wildlife, recreation) and other natural resources held in trust by the State of California on behalf of its people. The proposal fails to fully consider the timing and quantity of flows needed to ensure ecosystem health into the future, particularly in consideration of river basin hydrological changes associated with climate change. By encouraging and catalyzing the construction of new water delivery conveyance and upstream water storage, the state is committing us and future generations to water basin transfers over ecosystem restoration and resilience. Harm to the pelagic and anadromous fishery in the Bay-Delta and its watershed irresponsibly "takes" from the Public Trust, stealing natural resources from future generations.

V. UNACCEPTABLE RISKS OF THE PROPOSED ACTION

- 18. The Trustees of an estate are held to strict fiduciary responsibilities for the protection of the trust assets, for the benefit of the beneficiaries of the Trust. Water resources are the trust assets of future generations and must be managed and protected to their benefit. When there is uncertainty the trustees must act with great caution and should employ the Precautionary Principle.
- 19. The WaterFix suffers from the absence of a detailed operations plan. The environmental impact analyses erroneously focuses on construction and does not address the quantification and timing of freshwater flow diversions during operations. The existing diversion structures and their operations have caused serious and potentially permanent damage to the Public Trust Assets of the Sacramento River and Bay Delta ecosystems. The proposed infrastructure and conveyance capacities will result in even greater unnatural diversions of water to the south.

Additionally, the high cost of the infrastructure will put further burden on the system to push even more water south long into the future, to help pay down the project debts.

- 20. The proposed project and the EIR fail to include meaningful discussion and analysis of California's over- appropriated water rights system. The fact that the state has allowed the over-appropriation of almost every river and stream in the state demonstrates a failure to actively protect this Public Trust Asset. A "WaterFix" for California is an empty promise if it does not address a "Fix" for our irresponsible water rights system. Water, by state water code, is owned by the public (a Trust Asset) yet it is treated as a private property right. Water rights can and should be revised or revoked, per the Racanelli Decision, to better serve the public interest and protect the Public Trust.
- 21. Delta water exports are legally limited to water surpluses, thus the needs of the Delta and the needs of upstream areas of origin have 'first rights.' But the ecological conditions of these systems clearly demonstrate that both upstream needs and Delta needs have not been met for several years. Ecosystem harm and Public Trust Asset losses are evidenced by growing lists of species declines, continual water quality impairments and declining surface and groundwater resources.
- 22. Going forward, the implications of impending climate change on future water needs and deliveries for the Project appear wishful but uncertain. For example, reduced runoff caused by climate change would draw the ecologically critical low salinity zone eastward, necessitating corresponding increases in Delta outflow to protect Delta and longfin smelt, endangered salmon, and important agricultural land with water rights superior to DWR. But increased outflow to protect the Delta estuary would decrease south- of-Delta exports, worsening the ratio by which Project costs exceed Project benefits.
- 23. There are many uncertainties regarding the construction, operations, financing and 'adaptive management' strategies regarding the WaterFix. The uncertainties are unacceptable risks, given the current conditions of these ecosystems and their precarious health and stability. The State Water Board must exercise the Precautionary Principle when considering this WaterFix, as the risks and failures we have experienced to date are not acceptable and do not serve future generations. Additionally, given the trajectory of global and national greenhouse gases (GHGs) and the resulting global warming (likely to exceed 3.6 degrees Fahrenheit) and seal level rise (6-9 ft. possible) our ecosystems are moving into unknown conditions and vulnerability.

WaterFix would continue the degradation of Trust Resources

24. Less than half of the winter-spring runoff from the Central Valley reaches the Bay in an average year, and it receives even less during dry years. An overwhelming amount of research leaves no doubt that the San Francisco Bay estuary --- the largest estuary on the Pacific coast of the Americas – has been

severely damaged by decades of this unsustainable water withdrawal. Unless we change course:

- Extinction of several native fish species is imminent;
- Fisheries for salmon and other species that support recreational businesses and thousands of commercial fishing jobs from Morro Bay through Oregon will collapse;
- Blooms of toxic cyanobacteria will become increasingly frequent;
- The estuary will continue to be dominated by invasive waterweeds and other non-native species.

The Bay Institute, October 2017

- 25. My reviews of the science concerning Delta flows leaves me no other conclusion than that more water from the Central Valley rivers must reach San Francisco Bay, to address this estuary's decline.
 - 26. "...the best option for smelt, and other native fishes, especially salmon, is a large increase in freshwater flows through [their] habitat." (Peter Moyle and James Hobbs, Water Deeply Op-ed, Sept. 2017).
- 27. The Public Trust natural resources of the Bay-Delta ecosystem have been severely degraded for decades, from species losses to vast water quality problems to fundamental disruptions of ecosystem processes and resilience. The WaterFix will not improve species populations, but would more likely put several species at further risk. Taking more of the available freshwater flows from the Delta and the Bay will further "spend down" Nature's Capital in the largest estuary on our West Coast, impacting Trust Resources there and out into the Pacific Ocean.

VI. CONCLUSION

28. Concerning the stewardship of our water resources our compass, our North Star, is the Public Trust Doctrine. It is our guiding principle for bringing clarity and morality to our decisions regarding our natural resources. When the WaterFix proposal is put to this test, or standard, the proposal falls short, it fails to meet the needs of the Public Trust. The WaterFix will not satisfy the fiduciary requirements of stewardship and long-term protection of the public's water resources.

I declare that the foregoing is true and correct. Thank you for the opportunity to present this
testimony.
Signature: Mul Magaza
Printed name: Daniel D. Heagerty
Date: November 29, 2017

VII. STATEMENT OF QUALIFICATIONS

Mr. Heagerty has over 35 years of professional experience in the water, ecosystems, sustainable systems and energy business areas. He spent 15 years each with two national consulting engineering firms, David Evans and Associates and CH2M Hill. His consulting practice focused on water, natural resources, infrastructure siting and approvals, and renewable energy. He has worked at the local, regional and national levels implementing sustainable water resources management, river basin restoration, water supply, ecosystem economics and markets, and green infrastructure.

Mr. Heagerty managed large complex environmental projects throughout the western U.S. for tribal, government and private clients with teams of scientists, engineers, lawyers, public relations groups and Congressional staff. He successfully managed large water supply projects, complex regulatory proceedings in water quality, technical and policy analyses for water rights cases, and river system restoration programs. As the Chief Strategic Officer for David Evans and Associates he prepared strategic plans and annual operating plans for four companies.

He was a founding member of two start-up companies, a renewable energy development company and a stormwater management/trading Software-as-a-Service (SaaS) company. The SaaS was a first-in-class web-based tool for sustainable stormwater capture and management. The renewable energy company was a strategic move into the emerging community-scale wind energy business.

As the Co-Chairman of the State of Oregon Watershed Enhancement Board (OWEB) for 7 years Mr. Heagerty advocated and directed funding for new models of water resource conservation, river restoration, and ecosystem markets. To leverage the annual OWEB grants of \$50-75 million he helped raise matching public and private funds. He initiated Oregon's Strategic Investment Partnership (SIP) program that successfully built new models of collaboration between agriculture, government and NGO's for multi-year "portfolio-funded" habitat conservation and water quality initiatives.

Mr. Heagerty is the founder and Director of Public Trust Water (www.publictrustwater.org) a nonprofit for engaging youth in the water issues of California. He also founded the Granite Chief Wilderness Area Protection League (www.protectgranitechief.wordpress.com) an effort to protect a wilderness in the Sierras near Lake Tahoe. He is the Senior Advisor and boardmember of Generation: Our Climate (generationourclimate.org). When he resided in Oregon, he served as Chairman of the Oregon Zoo Foundation; The Nature Conservancy, OR Chapter; the Oregon Biodiversity Project; and the state Oregon Watershed Enhancement Board. He also served as a board member for the Oregon Water Trust; the Illahee Institute of the Northwest; the Oregon Business Alliance; and Caldera Center for the Arts (which serves at-risk youth).

Education

B.A., Biology, 1973, The Evergreen State College

Post-graduate studies Environmental Sciences, Portland State University

Post-graduate studies Environmental Law, Northwestern School of Law

Shortlist of Publications and Presentations

Ecosystem Services/Nature's Capital and the Future of Infrastructure Strategies, National Conference, AICP (Washington, DC) 2006

Ecosystem Services Markets: Getting Ready for Commercial Enterprise (Portland, OR) 2009

The New Forestry and Emerging Business Models, The Evergreen State College, (Olympia, WA) 2012

Systems Dynamics Modeling and Valuations of Ecosystem Services. World Water and Environment Congress, Salt Lake City, UT. June 27-July 1, 2004

The ESA: Major Policy and Science Issues, Continuing Law Education Faculty, Portland, Oregon, April 2002

Building Sustainable Infrastructure. Sustainable Oregon Conference, Portland, OR 2010