## Advancing progress on SDG 6 and the 2030 Sustainable Development Agenda

**CLEAN WATER** 

AND SANITATION

Target 6.3: Water Quality and Recycling: Water <u>efficiency and reuse</u> work advances circular water management approaches, including reuse of wastewater. Water research and tools include **Guide for Developing** Onsite Water Systems to Support Regional Water Resilience (2023); The Untapped Potential of California's <u>Urban Water Supply: Water Efficiency, Water Reuse, and</u> Stormwater Capture (2022); Clearing the Waters: A Focus on Water Quality Solutions (2010). Water quality prioritized in frameworks developed, including Net Positive Water Impact.

Target 6.b: Local Participation: Water and Climate <u>Equity initiative</u> works to build local capacity. <u>Stakeholder</u> **Engagement Guide for Nature-Based Solutions (2022)** offers guidance for broad stakeholder engagement.

Targets 6.1 & 6.2: Water and Sanitation: Influential role <u>pushing for the formal declaration of the Human Right to</u> <u>Water</u>. <u>Water and Climate Equity initiative</u> advances equitable WASH access in US. Water Resilience Coalition <u>2030 strategy</u> aims to mobilize the corporate sector to support equitable WASH access for more than 300 million people. <u>WASH4Work</u> initiative mobilizes businesses to address workplace WASH challenges. <u>Net Positive Water</u> <u>Impact</u> (NPWI) prioritizes equitable water access alongside water quantity and quality. Water Resilience <u>Issue Brief</u> prioritizes equitable water access in its definition of resilient water systems. Research includes: <u>Advancing Affordability through Water Efficiency</u> (2022); At Risk: Public Supply Well Vulnerability (2021); Solutions for Underperforming Drinking Water Systems in California (2020); Financing Water Supply and Sanitation in a Changing Climate (2020).

Target 6.4: Water Efficiency & Sustainable Withdrawals: Water efficiency and reuse work advances efficiency as a key component of resilient water systems. The Untapped Potential of California's Urban Water <u>Supply: Water Efficiency, Water Reuse, and Stormwater</u> <u>Capture</u> (2022) found California could reduce urban water use by up to 48% through efficiency investments. Additional research includes <u>Advancing Affordability</u> through Water Efficiency (2022); The Multiple Benefits of Water Conservation and Efficiency for California Agriculture; Potential Water Savings Associated with <u>Agricultural Water Efficiency Improvements: A Case Study</u> of California (2011). Water efficiency prioritized in

frameworks, including Net Positive Water Impact.

Target 6.5: IWRM & Transboundary Water: Developed and maintain Water Conflict Chronology, the world's most comprehensive open-source database on waterrelated violence. Additional research related to water conflict: Ending Conflicts Over Water: Solutions to Water and Security Challenges (2020); and <u>Understanding and</u> Reducing the Risks of Climate Change for Transboundary Waters (2009).

Target 6.6: Water-Related Ecosystems: Research and tools focused on ecosystems include: Left Out in <u>Drought: California Fish</u> (2022); <u>NBS Benefits Explorer</u>; Benefit Accounting of Nature-Based Solutions for Watersheds (2021); Benefit Accounting of Nature-Based Solutions for Watersheds Landscape Assessment (2020). Extensive ecosystem-related work in Colorado River Basin and <u>Salton Sea</u>. Ecosystems also prioritized in water resilience frameworks: Net Positive Water Impact (NPWI); Water Resilience Issue Brief; and Multi-Benefit Approach.

Water Conflict Chronology, the world's most comprehensive open-16 PEACE, JUSTICE source database on water-related violence compiles data on more INSTITUTIONS than 1,300 global water conflicts. Ending Conflicts Over Water: Solutions to Water and Security Challenges (2020) provides strategies to reduce water-related conflicts in key water-insecure hotspots around the world.



Nature-Based Solutions work scales uptake of NBS that support biodiversity and healthy ecosystems. NBS research and tools include: NBS Benefits Explorer, Benefit Accounting of Nature-Based Solutions for Watersheds (2021); Benefit <u>Accounting of Nature-Based Solutions for Watersheds</u> Landscape Assessment. Left Out in Drought: California Fish (2022) recommends actions to protect fish during droughts. Frameworks prioritize biodiversity and ecosystems: Net Positive Water Impact; Water Resilience Issue Brief; Multi-Benefit Approach.

Provided early warnings of climate change impacts on water systems and proposed solutions for future water resilience. 2030 goal is to "catalyze the transformation to water resilience in the face of climate change." Work increasingly visible on the global climate policy stage, including **UNFCCC** <u>COP</u>s. <u>Water Resilience Issue Brief</u> prioritizes building water systems that can respond to the stresses and shocks of climate change. Water Resilience Assessment Framework (WRAF) provides a method to build long-term water resilience to mitigate and adapt to climate change. 2009 <u>analysis</u> one of the first to identify sea-level rise risks to California cities; became driver of policy change. 2021 report The Future of California's Water-Energy-Climate Nexus identifies specific water policies that could play an important role in helping meet energy and greenhouse gas emissions goals.



Convening and mobilizing private sector on corporate water resilience. 2004 Pacific Institute report and groundbreaking 2007 assessment highlighted concerns that most large companies were not adequately reporting water risks and impacts to their stakeholders. CEO Water Mandate, partnership between Pacific Institute and UN Global Compact, endorsed by 240 companies that publicly commit to specific water stewardship practices. Water Resilience Coalition unites CEOs of more than 30 major companies with the shared vision of elevating global water stress to the top of corporate agendas and leading largescale collective action in water-stressed basins across multiple continents.



<u>Water Efficiency and Reuse</u> work addresses urban water resilience SUSTAINABLE CITIES and climate adaptation of cities through circular water approaches. Research and tools include <u>Guide for Developing Onsite Water</u> Systems to Support Regional Water Resilience (2023) and The <u>Untapped Potential of California's Urban Water Supply: Water</u> Efficiency, Water Reuse, and Stormwater Capture (2022). Issued earliest warnings about sea-level rise risks to California's coastal

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17 PARTNERSHIPS FOR THE GOALS

businesses, governments, and others across the public and private sectors to advance water resilience. For example: <u>California Water Action</u> Collaborative (CWAC) unites 25 major NGOs, agricultural producers, responsible investors, environmental foundations, and companies to protect California water; active participant in California's Salton Sea Advisory Committee; CEO Water Mandate convenes more than 230 global business on water stewardship; and Water Resilience Coalition convenes 28 CEOs of world's largest companies and range of NGO partners to elevate water on corporate agendas.

Convenes more than 270 multistakeholder

partnerships including those with utilities, NGOs,

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freshwater withdrawals globally, agriculturefocused research includes <u>Water</u>, <u>Sanitation and</u> <u>Hygiene: Three Essential Ingredients to Resilient</u> Agricultural Supply Chains (2019); Impacts of California's Ongoing Drought: Agriculture (2015); Water Risk Hotspots for Agriculture: The Case of the Southwest United States (2016); and <u>Agricultural Water Conservation and Efficiency in</u> California (2014).

Recognizing agriculture uses about 70% of



Long-standing work advocating for the <u>Human Right</u> to Water and equitable water access impacts girls and women, who are disproportionately charged with water collection globally.



Future of California's Water-Energy-Climate Nexus (2021); Water for Energy: Future Water Needs for Electricity in the Intermountain West (2011); Energy Down the Drain (2004); <u>Water-Energy Calculator</u> (WECalc); and <u>Water-Energy</u> <u>Simulator (WESim)</u>.

Water-energy nexus research promotes integrated water



35-year history of research and advocacy related to sustainability equity and <u>justice</u>. <u>Water and Climate Equity strategy</u> addresses inequalities in the US. Water Resilience Coalition prioritizes reducing inequalities by investing in climate resilient WASH in its long-term <u>2030 strategy</u>. Research includes Customer Debt and Lost Revenue: The Financial Impacts of COVID-19 on Small Community Water Systems (2021); Water and the COVID-19 Pandemic: Equity Dimensions of Utility Disconnections in the U.S. (2020); Water and the Covid-19 Pandemic: Ensuring Access to Water as Shutoff Moratoriums Lift (2020).

The Pacific Institute's 2030 goal is to catalyze the transformation to water resilience. The concept of water resilience acknowledges the interconnectivity between SDG 6 and many other SDGs of the 2030 Agenda. This infographic highlights some, but not all, of the key ways our work supports the SDG 6 targets and the broader 17 SDGs using a multi-benefit or co-benefit approach.

