

7. Implementation Strategies

7.1 Requirements for Implementation

This Russian River Watershed Resilience Plan makes clear that there is much work to be done to build the resilience needed to withstand the expected impacts of climate change. As shown in Chapter 6, to meet the challenges of climate change, the Watershed Network has identified 13 strategies needed to address the risks associated with extreme heat, wildfire, flooding, water supply reliability, water quality degradation. With its multiple jurisdictions, including three counties, multiple cities and towns, multiple watershed-wide organizations, and hundreds of identified adaptation concepts, the implementation of the WRP requires a thoughtful and deliberate approach. Successful implementation of a Plan of this scale requires the ongoing investment in, and cultivation of durable partnerships, organizational capacity, development and execution of a funding strategy and an outcomes focused implementation Plan. Together, these three elements set the foundation for skillful and effective program implementation (Figure 7-1).

Figure 7-1. Three Foundational Elements for Effective Program Implementation



7.2 Partnerships and Organizational Capacity – *Evolving the Network to be Purpose Built for Implementation*

The Russian River watershed communities have a long and strong legacy of collaboration and organizing across sectors and geographies to pursue common goals of watershed health. Tribes, agencies, jurisdictions, and watershed organizations joined the Watershed Network with many strong relationships already in place.

Sonoma Water with its major resource responsibilities, has cultivated durable partnerships with Mendocino and Marin counties, and the cities and towns within their service area and major portions of the watershed. Together these entities collaborate to deliver a reliable water supply, reduce flood risk, treat and recycle wastewater, and manage stormwater.

There are several organizations in the watershed, including the Russian River Watershed Association, the Russian River Confluence, R3MP, Russian Riverkeeper and others that have woven a strong foundation of collaboration, science, planning and partnerships that will support successful implementation of the WRP.

These partnerships will be critical to the challenging tasks ahead to build resilience across the watershed. Through the work of the WRP, the members of the Watershed Network have been successful in solidifying existing and forging new partnerships between its members. Co-creating an understanding of climate vulnerabilities and risks in the watershed and then collaboratively identifying adaptation strategies helped the Network members more fully understand the issues facing different communities and different sectors.

To develop the WRP, the Network was designed with broad representation across the Watershed (see Chapter 3), with Sonoma Water as the convener to develop the WRP. Due to resource constraints, engagement was effective but limited to six main Watershed Network meetings and over a dozen additional targeted engagements. To move to the next steps towards implementation, additional organizational capacity and funding will be required.

Whether the future implementation organization is an evolution of the existing Watershed Network, is housed in an existing organization or is a brand-new organization it will need to have the ability to guide implementation partners through a complex process.

To a certain degree, the configuration of the organization required for implementation is dependent on how most funding will be provided. There is the potential that the funding available for watershed climate resilience through Proposition 4 will be delivered via a block-like grant mechanism to watershed organizations, similar to how funding was provided historically to the IWRMP's. In this scenario, the organization would be the recipient of a large block of funding and would work collaboratively with the members to develop a prioritization framework and fund projects based on criteria co-created by the Network. However, if funding is not offered through a block grant mechanism, individual jurisdictions could choose to pursue funding independently or choose to continue collectively within the Network.

To continue the work of the WRP and implement the identified adaptation strategies will require an organization with additional capacity beyond the Watershed Network including (but not limited to):

- An empowered decision-making body with diverse representation that includes Tribes, cities, counties, utilities, and others
- The ability to receive funds from multiple sources and redistribute them
- A robust and defensible planning framework that drives the prioritization of projects
- The technical and political capacity to manage a complex program from planning through to implementation

The North Coast Resource Partnership (NCRP) is both an **excellent model and a critical partner** for implementation of adaptation strategies in the Russian River. NCRP is a long-term, innovative, and successful collaboration among Northern California Tribes, counties, and diverse stakeholders. The NCRP region covers over 19,000 square miles—12% of the California landscape—and includes the Tribal lands and the counties of Del Norte, Humboldt, Trinity, Siskiyou, Modoc, Mendocino, and Sonoma.

Through the receipt of block grants, NCRP has engaged in collaborative, integrated planning and project implementation, **investing over \$85 million** in hundreds of projects that benefit the North Coast Region’s communities and watersheds. Characteristics of the NCRP that have contributed to its success and are a model for the Russian River Watershed implementation efforts include:

- **Leadership Council:** Includes locally elected county and Tribal officials empowered to make funding decisions using their Implementation Framework.
- **Meaningful Tribal Representation**
- **Stakeholder Driven Planning and Project Implementation Framework:** NCRP has developed a multi-benefit planning framework that is used collaboratively to prioritize projects and make funding decisions.
- **Technical Peer Review Committee:** selected from members of the NCRP
- Emphasis on Local Capacity Building
- Efficient Expenditure of Funds towards on the Ground Outcomes



7.3 Project Implementation – *From Planning to Resilience Outcomes*

Over the last 2 years the Watershed Network, through the WRP process, has made significant progress, identifying climate hazards, understanding how those hazards impact water resources sectors across the Watershed, and identifying Adaptation Strategies.

Now, the tasks ahead are focused on continuing current momentum on achieving resilience outcomes in the Watershed (Section 6.3). Figure 7-2 below lays out the four major next steps towards implementation for similar programs. As approaches to funding become more certain, an implementation plan specific to the Russian River Watershed should be customized to fit the needs of the community and funding sources.

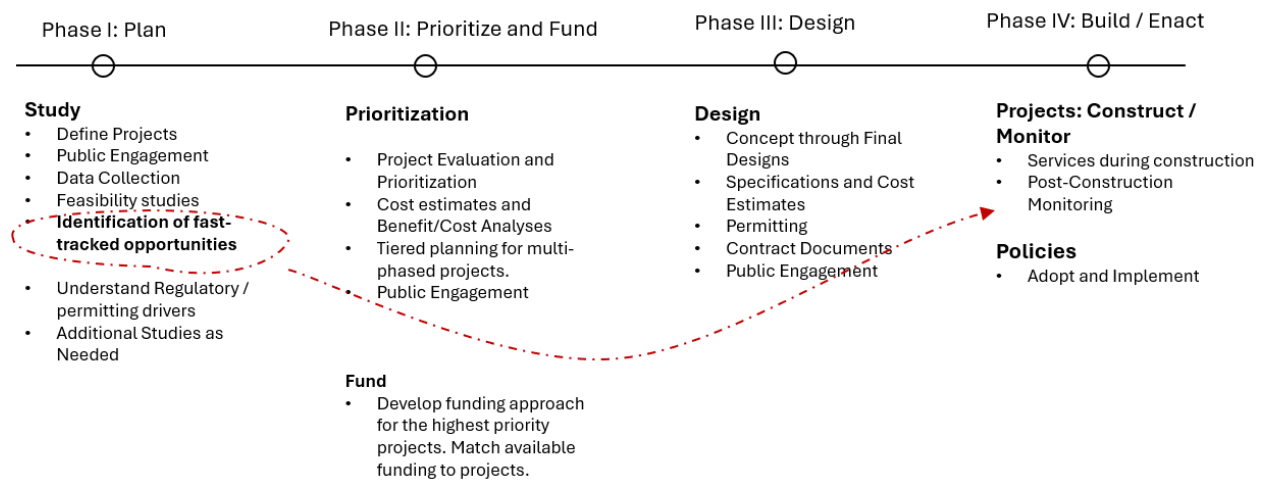
- **Phase 1: Plan** – Under Phase 1, additional planning is required to further define the projects required under each of the Adaptation Strategies and Actions included in Chapter 6. Under this Phase, specific projects would be defined including their anticipated resilience outcomes, potential sponsors and partners, feasibility, regulatory requirements, and costs. This phase would also include initiation of public engagement that would continue throughout implementation.
- **Phase 2: Prioritize and Fund** – Under Phase 2, the list of projects defined under Phase 1 can be prioritized based on criteria developed by the governing body. Likely criteria may include measurable

outcomes toward resilience, equity considerations, costs vs. benefits, regulatory complexity, environmental impacts, public acceptance, availability of funding for project type, etc. Under this phase, a long-term funding strategy can also be developed to start to match prioritized projects with available funding sources and potentially develop funding sources. (More on funding below in Section 7.5).

- **Phase 3: Design** – Under this phase, prioritized projects move through the design and permitting process, culminating in contract documents for bids if construction is required.
- **Phase 4: Build/Enact** – Under this phase, projects are constructed and post-construction monitoring is initiated and continued to ensure that project objectives are met. For adaptation strategies that involve policies rather than construction, this phase would see enactment of those policies.

Note that projects will move iteratively through these Phases as funding becomes available and as partners have capacity for driving projects.

Figure 7-2 Outcomes Based Implementation Plan



Focus on Equity

Opportunities to strengthen the adaptive capacity of the most affected communities should be strongly considered at the outset of adaptation project development and throughout implementation, particularly in neighborhoods facing the highest combined sensitivity and hazard exposure—such as central and southwest Santa Rosa, the Ukiah–Cloverdale–Healdsburg–Windsor corridor, and drought-sensitive areas around Lake Mendocino and basin-margin wells. These areas represent the watershed’s vulnerability hotspots for flooding, wildfire, extreme heat, and water-supply disruptions, and therefore should guide the phasing and prioritization of early and long-term resilience investments. These resilience projects might include distributed flood-storage and drainage upgrades, enhanced cooling access and heat-ready facilities, home-hardening and evacuation improvements, and water-supply reliability programs for small systems and drought-sensitive wells.

The State of California’s current funding environment reinforces this equity-forward orientation—most notably Proposition 4, the State’s \$10 billion climate resilience bond approved in 2024, which requires that **at least 40% of all funding directly benefit disadvantaged and vulnerable communities**—positioning the watershed’s most climate-burdened neighborhoods to effectively compete for state resources intended to accelerate resilience in frontline communities.

7.4 Funding Strategy – Matching and Developing Funding Mechanisms to Projects

A successful funding approach for the WRP will need to leverage a portfolio of funding sources as well as develop a strategy that identifies the evolving funding needs over time while continuously matching needs and opportunistically acting on relevant funding sources.

With 13 strategies, approximately 70 actions identified as needed to achieve resilience in the Russian River watershed, it is likely that this effort could span a period of 20 years or more. During that period, it is expected that availability of funding from both state and federal funds will fluctuate. In general, the state and federal programs may remain relatively constant, with funding amounts and availability varying based on economic and political factors. The magnitude and duration of this effort lend itself to looking at a broad and diverse portfolio of funding sources to be successful. This section provides a summary of the likely sources and mechanisms, but these should be revisited regularly during the duration of the program to take advantage of new sources and approaches as they become available over the coming years.

7.4.1 State Funding Sources

In California there has historically been a high commitment by the State administration, the legislature, and voters to consistently approve funding for planning, design and construction of projects needed for water supply, water infrastructure, water quality, groundwater management, flood risk reduction and ecosystem improvements. Over the last 40 years, California voters have approved more than \$30 billion through California environmental and water bonds. (https://ballotpedia.org/List_of_statewide_bond_propositions_in_California)

7.4.1.1 Proposition 4 – The Climate Bond

The Safe Drinking Water, Wildfire Prevention, Drought Preparedness, and Clean Air Bond Act of 2024, known as the Climate Bond, approved \$10 Billion dollars for climate related categories. Table 7-1 provides a summary of Proposition 4 funding most applicable to WRP adaptation strategies.

Table 7-1 Proposition 4: Climate Bond – Funding Categories

| Category | Total Funding | Subcategories | Agencies | Summary |
|---|-----------------|--|---|---|
| Safe Drinking Water, Drought, Flood, and Water Resilience | \$3,800,000,000 | Water quality, clean drinking water for tribes, water reuse/recycling, groundwater support | State Water Resources Control Board, Dept. of Water Resources | Supports safe drinking water, drought and flood resilience, groundwater, and water reuse. |
| Wildfire and Forest Resilience | \$1,500,000,000 | Forest health, wildfire prevention (general) | CNRA, related conservancies | Funds wildfire prevention and forest resilience efforts. |
| Coastal Resilience | \$1,200,000,000 | Sea-level rise, flooding, habitat restoration (general) | State Coastal Conservancy | Protects coastal communities from sea-level rise and flooding. |
| Biodiversity & Nature-Based Solutions | \$1,200,000,000 | Habitat, ecosystem restoration (general) | Wildlife Conservation Board, CNRA | Supports biodiversity, habitat restoration, nature-based climate solutions. |

| Category | Total Funding | Subcategories | Agencies | Summary |
|--------------------------------|---------------|--|------------------------------|--|
| Clean Energy | \$850,000,000 | Grid reliability, storage, load flexibility | California Energy Commission | Funds clean energy and grid resilience projects. |
| Park Creation & Outdoor Access | \$700,000,000 | Parks in underserved areas, improvements, access | Parks agencies, CNRA | Expands parks and outdoor access, especially in underserved areas. |
| Extreme Heat Mitigation | \$450,000,000 | Urban greening, shading, cool pavements | CNRA Urban Greening Program | Mitigates extreme heat through greening and shading. |
| Climate Smart Agriculture | \$300,000,000 | Support for small farmers, groundwater TA | Dept. of Water Resources | Supports climate-resilient agricultural practices. |

Proposition 4 Watershed Resilience Funding

The California Department of Water Resources (DWR) announced that the new **Proposition 4 Watershed Resilience Program**—combining Sections **91019** (water conservation) and **91031** (integrated regional water management and climate resilience)—will make approximately **\$152 million** available for grants.

In addition to the \$152 million explicitly identified for actions associated with the Watershed Resilience Program, many of the Proposition 4 funding mandates are in alignment with the adaptation strategies and actions identified in the Plan.

7.4.1.2 State Revolving Funds

Revolving funds provide low-interest loans and grants for projects that address water quality, safety, and supply.

- Clean Water State Revolving Fund (CWSRF):** The program offers low-cost financing for a wide variety of water quality projects including publicly owned treatment facilities, nonpoint source projects, and estuary projects. The CWSRF interest rate is half of the most recent General Obligation Bond rate. More information, including the 2025–2026 intended use plan can be found on the program webpage: [Clean Water State Revolving Fund | California State Water Resources Control Board](#).
- Drinking Water State Revolving Fund (DWSRF):** Authorized by the Federal Safe Drinking Water Act (SDWA), this fund provides financing for public water systems to improve infrastructure and meet

Proposition 4 – 40% Requirement for Disadvantaged Communities

The statutory text of California's Proposition 4 Climate Bond includes an explicit equity mandate.

According to the California Natural Resources Agency's official bond accountability site, "At least 40 percent of the total funding made available pursuant to this division shall be invested in programs or projects that provide direct and meaningful benefits to disadvantaged communities, severely disadvantaged communities, and vulnerable populations." [\[bondaccoun...ces.ca.gov\]](#)

Proposition 4 – Tribal Set Asides

There are two explicit tribal set-asides in Proposition 4.

- Sustainable Groundwater (DWR) – \$25 million set aside for SGMA participation, Tribal groundwater planning, monitoring wells, recharge, data, modeling. (Eligible for Advance payments)**
- Tribal Nature-Based Solutions Program (CNRA) – \$9.2 million available for Land back, Habitat restoration, cultural burning, watershed restoration, coastal resilience, Tribal workforce development. (Eligible for advance payments up to 25%)**

health standards. It prioritizes projects that reduce health risks, comply with regulations, and assist disadvantaged communities. The Drinking Water State Revolving Fund (DWSRF) program assists public water systems in financing the cost of drinking water infrastructure projects needed to achieve or maintain compliance with Safe Drinking Water Act requirements. Eligible project types include treatment systems, distribution systems, interconnections, consolidations, pipeline extensions, water sources, water meters, and water storage. Like CWSRF, the DWSRF interest rate is half of the most recent General Obligation Bond rate, and the most common construction financing term is 30 years. Further information can be found on the program webpage: [Drinking Water State Revolving Fund | California State Water Resources Control Board](#)

7.4.2 Federal Funding Sources

The Federal funding landscape for watershed and resilience projects has entered a period of uncertainty and transition. Under the Trump Administration, major agencies central to watershed conservation, including the U.S. Environmental Protection Agency (EPA), FEMA, and the National Oceanic and Atmospheric Administration (NOAA), have faced deep program cuts, staff reductions, and the rescission of unobligated *Inflation Reduction Act* funding. The *One Big Beautiful Bill Act* (OBBBA) eliminated dozens of climate and energy programs, including EPA's Environmental and Climate Justice Block Grants; in addition, the Fiscal Year 2026 (FY26) Budget Request proposes reductions of up to 90 percent for the Clean Water and Drinking Water State Revolving Funds. NOAA's reductions in force and OBBBA-related rescissions are expected to limit habitat restoration investments, even if a narrower Transformational Habitat Restoration program returns. Despite these constraints, the FY26 appropriations process is advancing and will include reauthorizations for the Clean Water Act and surface transportation program.

- **Water Smart [Drought Response Program | Bureau of Reclamation](#):** Supports a proactive approach to drought by providing assistance to water managers to develop and update comprehensive drought plans, and implement projects that will build long-term resiliency to drought, and implement projects that will build-long term resiliency to drought. Program areas include: Contingency Planning, Resiliency Projects and Emergency Response Actions.
- **FEMA [Building Resilient Infrastructure and Communities | FEMA.gov](#):** Building Resilient Infrastructure and Communities (BRIC) is a Hazard Mitigation Assistance (HMA) grant program that makes federal funds available to states, U.S. territories, federally recognized Tribal Nations, and local governments for hazard mitigation activities. It does so by recognizing the need to upgrade and modernize the nation's infrastructure against the growing risks to communities and the need for natural hazard risk mitigation activities that promote resilience with respect to natural hazards. In March 2026 FEMA announced the funding opportunity for Fiscal years 204 and 2025 making \$1 billion of funding available for community resilience projects that mitigate the impacts of disasters such as floods, wildfires, earthquakes, and hurricanes. This year's BRIC grant program gives preference to projects that are shovel-ready and that are located in states that have not won previous BRIC grants; since CA has been awarded previous BRIC grants, CA will not have preference in this BRIC round of funding.

7.4.3 Philanthropic Sources

Philanthropic dollars have the potential to accelerate watershed resilience work in California. Recent statewide analyses, including the Resourcing Resilience report (2025) suggest that public and philanthropic funders must act together to fund climate adaptation dollars. Philanthropy is uniquely positioned to:

- Funding early stage groundwork that public grants do not, such as coalition building, and feasibility studies:
- Remove access barriers for disadvantaged communities

7.4.4 Other Funding Mechanisms

Beyond traditional state and federal grants and loan programs, additional funding approaches may prove suitable to contribute to the long-term funding needs of the Russian River WRP. These local and regional tax measures and public private partnerships.

- **Local Funding Measures.** Local tax measures have been adopted throughout California to fill the funding gaps in resilience related efforts and are often used to fund infrastructure upgrades, public transit, and other societal needs. In the Bay Area, parcel taxes and sales taxes have been approved to cover wildfire prevention, emergency response, habitat restoration, and flood protection. Raising taxes is always politically challenging, but with the climate risks clearly arriving, there is the potential that local or regional tax measures could become publicly acceptable to fund a portion of the WRP and would be well-suited to provide long-term sustainable base funding to support governance and operations. Beyond tax measures, local and regional bonds are also often utilized to fund hazard mitigation and resilience efforts.
- **Public-Private Partnerships.** Public-private partnerships (PPPs) are collaborative agreements between government agencies and private sector entities to finance, build and operate public services or infrastructure, sharing risks, resources, and rewards over long-term contracts. There are a number of innovative investment strategies being developed and tested across California to increase investment in natural infrastructure to support climate resilience, improve wildfire resilience, improve forest health and protect water supplies. As these approaches are piloted across the State, they should be considered as an option providing needed funding for the Russian River Watershed Resilience Plan. <https://www.bayareaeconomy.org/files/pdf/P3inCaliforniaWeb.pdf>

7.4.5 A Successful Funding Strategy

To fund the number of projects envisioned in the WRP over a decade or more will require continuous effort to identify and define the evolving priority projects and match them with available funding sources. At times, the availability of funding with a particular focus will drive priorities and it will be important to be opportunistic and flexible as the funding landscape changes over time. The key features of a successful funding strategy include:

- Develop and apply defensible prioritization tool to identify top priority projects
- Continually push projects towards funding readiness by defining resilience outcomes, project scope and budgets
- Stay ahead of funding opportunities by tracking upcoming opportunities
- Develop innovative funding mechanisms to supplement State and Federal Grants

7.5 Building Resilience Together with Intent

Climate change in the Russian River watershed is already posing significant challenges to the communities and ecosystems across the landscape. The analysis conducted for this Pilot show that these challenges will be considerably exacerbated in the near- and long-term future with increased fire risk, increased flooding, prolonged drought periods, increases in extreme heat events, and impacts to water quality and endangered species and their habitats and to Tribal Beneficial Uses.

This Watershed Resilience Pilot for the Russian River is a critical first step in addressing these current and future challenges, through collaboration, by building on existing partnerships and working together to understand the extent of the challenges across water resource sectors and across communities. Through the Pilot, the Watershed Network is working together to identify solutions through the development of

adaptation strategies. This collaboration is essential to build collective intent to move forward together as a watershed community.

There are critical next steps ahead for this community to translate the substantial work completed through this Pilot into resilience outcomes. The first is to clarify the organizational structure for the Watershed Network that best suits the nature of the anticipated funding and the decisions ahead and creates a framework for ongoing collaboration. Next, the Network must develop a flexible and evolving implementation work plan that serves as a roadmap for implementing the hundreds of projects needed to protect the watershed and its communities. Finally, the Network must lay the groundwork for a funding strategy to ensure the resources are available to fund this substantial and critical effort.