Report to the Region and the Department of Water Resources



Prepared for:

Russian River Watershed Interests California Department of Water Resources, Statewide Integrated Water Management

Prepared by:

California Forward

February 2019



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Table of Contents

ES. Executive Summary ES-1					
Study Purpose ES-1					
Appro	Approach and Participation ES-1				
Califor	California Water Plan Update 2018 ES-2				
Systen	ns Planning ES-2				
Learni	ngs and Essential Principles ES-3				
Towar	d an Authentic Vision and Enduring Commitment to Collective Action				
Core N	Iechanisms: Data, Planning and Design, Finance, Regulations, and Communications ES-5				
Next S	teps and Draft Recommendations ES-5				
1. Purj	pose and Introduction1				
1.1	Study Purpose1				
1.2	California Water Plan Guidance for Local Planning				
1.3	Study Approach4				
1.4	Managing Water Resources at the System Scale				
2. The	Russian River Watershed				
2.1	Watershed Description				
2.2	Russian River Watershed Collaboration12				
2.3	Tribal Comments				
2.4	North Coast Resource Partnership21				
3. Leai	rnings, Principles, and Ideas for Sustainable Watershed Management and Resiliency				
3.1	Learnings from Initial Russian River Activities24				
3.2	Unified Understanding of Foundational Principles				
3.3	Watershed Conditions and Challenges				
3.4	Next Steps				
4. Org	anizing for Collective Action				
4.1	Elements of Success				
4.2	Toward a Collective Action Model for the Russian River Watershed				
4.3	Toward an Authentic Vision and Enduring Commitment to Collective Action				
4.4	Core Mechanisms: Data, Planning and Design, Finance, Regulations, and Communications 34				
E Next Steps and Draft Recommendations (1					
5.1	Governance and Decision-making 41				
5.2	Planning and Design 41				
5.2	Data Collection and Monitoring 42				
5.5	Regulatory Alignment				
5.4	Funding and Einanco				
5.5	Fulluling and Fillance				
5.0 E 7	Communications and Conduct and a second seco				
5./	russiple state Actions				
6. Atta	chments				
Attach	ment 1 – Workshop Participation45				
Attach	ment 2 – Comments on Draft Report 47				
Attach	ment 3 – Tribal Engagement Assessment65				

Preface

This document summarizes reconnaissance on opportunities for improving water resources sustainability in the Russian River watershed. The report captures the input received from outreach and engagement efforts to local and regional agencies, Tribes, and stakeholders in the Russian River watershed and the North Coast Region, and from the Department of Water Resources and other state agencies. This report is not conclusionary and is intended to inform additional listening, discussion, and engagement that could produce some agreement on how to pursue sustainability in the watershed.

Two high-level observations can be made from this reconnaissance:

• Tribes of the North Coast Region and the Russian River watershed have stated that the Tribal engagement process has not been sufficient to understand and incorporate Tribal perspectives into the work to date or any resulting plans and programs. Any participation by Tribal members or administrators should be treated as an individual opinion and should not be considered as speaking on behalf of a Tribe or group of Tribes. Specifically, the Tribal Representatives of the North Coast Resource Partnership have asked for the following qualifier to be included in and throughout the report (see Attachment 2 for full comment letters).

"This pilot did not include meaningful Tribal engagement. Therefore, the goals, success metrics and any subsequent actions relying on it would be/are incomplete and inaccurate. As a first step to utilizing any information in this document, or the California Water Plan to which it is attached, each Tribe with traditional territories in the source waters, footprint area or receiving waters must be invited early in planning processes to meaningfully consult with the agency or entity initiating the project."¹

 Many parties are interested in establishing an inclusive, collaborative watershed approach to address the water resources and land management challenges in the watershed. Generally speaking, those interests seek a process that can meaningfully and efficiently engage stakeholders and governments so priorities and actions are grounded in science, broadly supported, and effective.

A prerequisite to moving forward is the development of trust-based partnerships among federal, state, Tribal, and local governments and agencies, interest groups, businesses, landowners, and residents. Tribal perspectives, ecological knowledge, and culture and practices are important elements of any effort to manage the Russian River watershed for sustainability and resilience. Likewise, the participation and engagement of rural interests, landowners, the lower Russian River, and other communities should be emphasized in future efforts.

This document outlines a process informed by some stakeholders in the watershed with the potential to inform a plan for the Russian River watershed that reconciles and sustains management to the benefit of all people, economic activity, and the natural resources.

Cover photos courtesy of Peter Forbes, DWR, Russian River Keeper, Landpaths, and Sonoma Water.

¹ North Coast Resource Partnership Tribal Representatives, November 15, 2018

Glossary

The terms used in this report are, to the extent possible, consistent with those in the California Department of Water Resources (DWR) *California Water Plan Update 2018* (*Update 2018*).

Term	Definition
Indicators	Measurable characteristics designed to represent and communicate the condition of a larger environmental system that includes human communities. When linked to outcomes, indicators inform the public and guide management actions toward watershed sustainability. Indicators are comprised of one or more metrics. Similar Term: Performance Measures
Metrics	Measurements that are the building blocks of indicators for assessing watershed conditions and evaluating progress toward sustainability. For this report, specific metrics have not been identified yet.
Outcomes	A broad statement of intent about the desired condition to be achieved. Outcomes consider the physical and socio-economic conditions of the watershed and contribute to the four Societal Values. Outcomes include both enhancements of beneficial conditions and reduction of adverse conditions. Similar term: Goals
Region	The term "region" has multiple definitions. For the purposes of this document, region is used non-specifically to describe the area within and around the Russian River watershed. The North Coast Regional Partnership is a governance structure developed through the Integrated Regional Water Management Program for the North Coast Region, which includes the Russian River watershed.
Societal Values	The four high-level benefits that characterize the strength and quality of life for California. These values are the benefits to people and the environment that are achieved through sustainable watershed management: Public Health and Safety; A Healthy Economy; Ecosystem Vitality; and Enriching Experiences.
Targets	Targets are desired thresholds or conditions that translate outcomes, indicators, and metrics into quantifiable guidelines or standards of success that reflect a sustainable condition. For this report, Targets have not been identified. Targets would be established through collaboration and analysis among regional stakeholders and state and federal agencies, based on identified Societal Values, outcomes, and indicators.
Watershed Conditions	The ecological, economic, and social conditions that characterize the geographical watershed. For this study, this definition is broader than the traditional definition of the physical, chemical, and biological conditions that characterize the ecology and hydrology of a watershed.
Watershed Sustainability	A system of water and land management practices that recognizes the interconnected systems within a geographic watershed or region, and which meets current economic, ecological, and quality of life needs without compromising the ability to meet the needs of future generations. <i>Update 2018</i> defines sustainability as an ongoing, resilient, and dynamic balance among the four Societal Values.
Sources:	

• DWR Draft California Water Plan Update 2018.

• Sustainable Water Management Profile: Inland Empire Utilities Agency and Its Region of Interest, 2017.

• Indicators and Performance Measures for North Bay Watersheds, 2010.

ES. Executive Summary

Study Purpose

This study was established by the Department of Water Resources (DWR) to explore how water resources management concepts described in the *California Water Plan Update 2018* (*Update 2018*) could be applied at the system scale for the Russian River.² As *Update 2018* notes, sustainable water management requires collaboration and planning across all water management sectors, including groundwater and surface water, flood control, water supply, water quality, ecosystem health, and recreational, social and cultural uses and aesthetics. Recent wildfires and floods have highlighted the critical connection among land management, land use planning, and water resource management.

Unlike pilot projects designed to test new applications, this study was a reconnaissance exercise to gather information. The goal was to better understand the existing relationships and state of knowledge within the watershed to determine how governments, local entities, and individuals might work together and to identify a support structure for that collective effort. Collective action can be a foundation for the integrated management needed in most watersheds to achieve sustainability goals.

In the Russian River and elsewhere, stakeholders realize that protecting communities, preserving working lands, balancing water supplies and needs, and restoring the natural resources are essential for maintaining quality of life. Many regional leaders aspire to simultaneously nurture a vibrant economy with thriving ecosystems, healthy communities, and cultural and recreational opportunities. Yet these goals are increasingly threatened by the natural forces of floods, fires, droughts, and earthquakes and, to varying degrees, by the human activities that use and alter the watershed.

In support of that aspiration, this study had three objectives:

- 1. Inform and inspire efforts within the watershed to formalize and strengthen communication and collaboration among federal, state and local public agencies, Tribal nations, community organizations, and private landowners.
- 2. Identify and promote changes in state statute and administrative practices that would enable and encourage integrated projects with multiple benefits that significantly increase sustainability and resiliency.
- 3. Assess the applicability of the DWR Sustainability Outlook as a tool for guiding and evaluating regional/watershed sustainability.

This report documents the discussions, lessons learned, suggestions, and next steps for those interested in pursuing a practical, collaborative, results-oriented approach for improving the health and sustainability of the Russian River watershed.

Approach and Participation

The study evolved over time based on input from the participants and changes in the schedule for the public review draft of *Update 2018*. The participants represent many interests in the watershed, but not all of those that would be needed to inform a comprehensive watershed approach. From this initial input and previous documents, this report summarizes some of the history of watershed collaboration (Section 2), lessons learned, foundational principles, and initial watershed conditions and opportunities

² For this report, "system scale" is the Russian River watershed, with consideration of imported water from the Eel River and water delivered to other portions of Sonoma County and Marin County. In other parts of California, system scale for water resources management might be a watershed, a region, or other geographic definition.

(Section 3), and a potential approach for comprehensive outreach and engagement to develop a long-term vision and commitments to collective action (Section 4).

Participants were engaged through two primary mechanisms, workshops and a coordinating group that met approximately monthly. Four workshops were held in October and December 2017 and July and October 2018. Ten coordinating group meetings were held between January 2018 and January 2019. These meetings were supplemented with meetings, briefings, and workshops with Tribal interests and representatives in April, July, August, and October 2018 and briefings for the Russian River Watershed Association (September 2017) and the Ukiah Groundwater Sustainability Agency and Mendocino County water leaders (March and June 2018).

In November 2018, the Tribal Representatives of the North Coast Resource Partnership (NCRP) submitted a letter to DWR regarding Tribal engagement for the Russian River Pilot and other similar efforts. This letter was supported by a letter from the NCRP Chair and Vice-Chair. Among other comments, the Tribes asked that the following qualifier statement be included in the report.

"This pilot did not include meaningful Tribal engagement. Therefore, the goals, success metrics and any subsequent actions relying on it would be/are incomplete and inaccurate. As a first step to utilizing any information in this document, or the California Water Plan to which it is attached, each Tribe with traditional territories in the source waters, footprint area or receiving waters must be invited early in planning processes to meaningfully consult with the agency or entity initiating the project."

California Water Plan Update 2018

Update 2018 begins with an overarching **Vision for California**, including exceptionally satisfying ways of life and well-being, enduring world-class natural resources, and seemingly endless opportunity for

enriching recreation, diverse cultural practices, and economic prosperity. It identifies four **Societal Values** that support the vision and can guide the State's strategies and actions:

- 1. Public Health and Safety
- 2. Healthy Economy
- 3. Ecosystem Vitality
- 4. Opportunities for Enriching Experiences

The **Sustainability Outlook** is a suite of <u>indicators</u> that measure progress in watershed system functions aligned with these four values and the State's vision. **Sustainability** is defined by the State as <u>attainment of these Societal</u> <u>Values in a given watershed, as measured by the</u> <u>Sustainability Outlook indicators.</u>

Systems Planning

Water systems – both natural and constructed – present incredibly complex planning challenges because they are systems of systems. However, these natural and engineered systems are not managed as such. Dozens, and sometimes hundreds, of property owners, agencies, jurisdictions, Tribes, and stakeholders manage or steward various aspects of this system. Yet the only thing connecting their efforts at

Update 2018 Challenges to Sustainability

- 1. More-Extreme Hydrologic Events in the Future
- 2. Increasing Flood Risk
- Reduced Access to Clean, Safe, Reliable, and Affordable Water Supplies
- 4. Declining Groundwater Levels
- 5. Declining Ecosystems
- 6. Water Quality Degradation
- 7. Aging and Inadequate Built Infrastructure
- 8. Sacramento-San Joaquin Delta Conflicts
- 9. Declining Forest and Headwaters Health
- 10. Catastrophic Wildfires
- 11. Unstable Regional Economies
- 12. Changing Demands for Water

the macro level are the inherent interactions of the system itself. These system interactions often are not managed as a core purpose of any single entity.

Public water and land management agencies and stakeholders in the Russian River watershed historically have endeavored to work together to improve water quality, endangered species recovery, and land management. These successes establish a foundation to manage for even greater collective impact and positive outcomes for water resources, land uses, economic prosperity and community health and well-being across the Russian River watershed. Many participants noted that the watershed is a "system of systems," including headwaters, tributaries, mainstem, estuary, and land uses. A systems approach to the collective effort will likely be required to achieve the holistic changes many seek for the watershed.

The Russian River region has a long history of coordination, collaboration, and innovation in water and land management to balance the needs of people and the environment. The participants identified more than 25 past and current initiatives that demonstrate how governments and stakeholders have worked together to understand and address water resources challenges in the watershed. These efforts did not always result in agreement among all stakeholders or effective actions to improve water resources sustainability. The efforts depict an evolution of understanding, collaboration, and action.

Learnings and Essential Principles

Through this study, participants identified seven <u>key learnings</u> to guide future planning and collaboration.

- 1. Watershed vision and goals are hard to sustain. The means and mechanisms for continuous coordination and action are needed to set and sustain a vision and goals for the watershed.
- 2. **Engage Tribes early in a meaningful way**. Reinitiate Tribal engagement to invite participation from all Tribes with an interest in the Russian River, incorporate Tribal knowledge and perspectives, and build a cooperative governance structure.
- 3. **Collaboration has improved outcomes**. Multi-jurisdictional and stakeholder collaboration is essential for achieving watershed sustainability.
- 4. **Synthesis is needed for effective planning**. Shared knowledge and understanding of the watershed is critical for effective coordination, planning, and problem solving.
- 5. A systems approach requires new learning. New language, approaches, and tools are needed to understand, plan, and manage the watershed as a system of systems and to reconnect natural systems.
- 6. **Communications and collaboration are foundational**. Comprehensive outreach, education, and engagement are critical to build understanding and support, connect people with the watershed, and align competing interests to maximize benefits for people and the watershed.
- 7. **Backbone support is needed**. Fostering trust-based partnerships across the watershed requires a long-term commitment to the backbone functions for convening, coordinating, planning, and communicating.

Participants also articulated seven essential principles for advancing sustainability in the watershed.

- 1. Watershed scale is important for managing a "system of systems," including headwaters, tributaries, mainstem, estuary, and land uses.
- 2. The needs of all users must be balanced within the watershed.

- 3. A realistic, scientific basis must form the foundation for action.
- 4. Understanding historical knowledge is imperative.
- 5. Problem-solving is multi-organizational.
- 6. Collaborative governance is critical, but elusive.
- 7. Winning hearts and minds throughout the watershed is essential.

Participants also developed an initial condition statement as a high-level description of the purpose, conditions,

challenges, needs, and opportunities for improving Russian

Backbone Support

Collective action efforts require support for leader engagement, internal and external communications, data and information gathering, and work groups management.

Backbone support is best provided by a trusted neutral organization with adequate resources.

River sustainability. The condition statement can serve as the starting point for additional engagement.

Toward an Authentic Vision and Enduring Commitment to Collective Action

Study participants identified and discussed the necessary elements for success to improve water resources sustainability at the system scale. These six elements were developed by and with leaders in the Russian River watershed for considering how water and land management can be aligned to protect and enhance natural system functions, support people and communities, and adapt to changing natural forces and human activities. They include:

- Governance and Decision-Making
- Data Collection, Monitoring, and Assessment
- Planning and Design
- Funding and Finance
- Regulatory Alignment
- Communications and Collaboration

Participants described the need for a process that could yield a pragmatic vision that incorporates stakeholder input and secures commitments from key leaders with the authority to execute against the goals and objectives. The process involves six primary activities:

- 1. Engage all governments and interest groups to increase involvement and build trust. A prerequisite task is to build trust among all interest groups in the watershed, beginning with Tribal governments.
- 2. Develop scenarios to engage the public on possible future visions. Based on existing scientific analysis, two or more scenarios would be developed to forecast possible futures of the

Tribal Engagement

The North Coast Resource Partnership Tribal Representatives have commented that the Tribal engagement process for the Russian River Pilot did not include meaningful Tribal engagement and that DWR should restart this process to include every Tribe with ties to the Russian River. As such, the proposed collective action model and potential next steps are not inclusive of information from a significant number of Russian River Tribes, and the content has not been properly reviewed by all of the Tribes or stakeholders in the watershed.

Based on these comments and other input received from Tribes throughout the project, DWR is continuing to improve its Tribal engagement policies and protocols to support and ensure early and meaningful engagement of Tribes in water resources planning activities.

watershed and illuminate the benefits and consequences of collaborative resource management considering expected escalating extremes in weather, hydrology, and fire behavior as a result of climate change. The scenarios would be discussed by interest groups and the community at large to

develop an understanding of the choices—including the choice to do nothing different—and the effort and activities that would be required to manage the watershed toward a preferred future.

- **3.** Map primary projects and activities of public agencies. Documenting and overlaying existing activities can reveal current priorities and resource allocations. This map can also reveal gaps and opportunities for interagency collaboration and efficiency. This exercise would be conducted concurrently with the development of the scenarios.
- 4. Engage key leaders to establish priorities. The activity maps and the publicly vetted scenarios would be discussed by a small group of leaders with the legal authority and resources to determine the watershed's future. The sessions would be designed to explicitly understand tradeoffs and to set priorities.
- 5. Broader engagement of elected leadership to establish commitments. The key leaders would engage in discussions with colleagues on how agencies could advance the preferred scenario and priority actions. The collective action would proceed if a majority of leaders from essential agencies reach agreement on the action plan, reflected in operational MOUs among the agencies.
- 6. Community engagement on implementation challenges and opportunities. The preferred scenario and priority actions would be explained and explored in one or more community workshops, so stakeholders and interest groups can help to identify and solve for implementation challenges and be more specific about their commitment to support and contribute to the preferred future.

The coordinating group acknowledged and supported the need for early and continuous engagement of Tribes to ensure meaningful participation of Tribal governments in the six primary activities described here to develop a vision and collective action for a sustainable Russian River watershed. The first activity above is designed to include outreach and engagement with Tribes, communities, and interests throughout the watershed.

Core Mechanisms: Data, Planning and Design, Finance, Regulations, and Communications

Collective action needs to coordinate—and in some cases directly manage—the core administrative mechanisms that enable or frustrate cooperative efforts. Many public decisions and projects are shaped and limited by the quality and use of data, the adequacy and flexibility of funding streams, the scope and specificity of regulations, and the flow of information that supports transparency and trust, shared understanding, and informed decision-making. The study participants identified the following core mechanisms for further definition and development to support effective collective action across the watershed.

- Data Collection, Monitoring, and Assessment
- Planning and Design
- Funding and Finance for Collective Impact
- Regulatory Alignment and Innovation
- Communications and Collaboration

Next Steps and Draft Recommendations

The following are proposed next steps to be undertaken by an initial team to continue the discussions initiated by this study and develop the relationships, coordination, vision, and goals described above. The initial team would form from representative leaders from local interests, local and regional government, Tribes, and state and federal agencies. The initial team would dissolve once a collective action coordination/governance structure is established for the watershed.

Governance and Decision-making

- 1. **Coordinate with NCRP**. Identify a small group to meet with NCRP Russian River leadership and subsequently with NCRP Policy Review Panel to discuss and resolve roles, relationships, and coordination issues, including NCRP role and relationship to watershed system approach for Russian River and NCRP expectations for Tribal engagement and governance role for Russian River.
- 2. Invite and engage Russian River Tribes and other key interest groups. Establish a core group of federal, state, Tribal, regional, and local leaders to formally engage with Tribes and invite others (e.g., lower and upper Russian River, rural representatives, disadvantaged communities, Eel River interests) to participate in watershed governance and establish respective roles.
- 3. Seek initial guidance and direction from elected and community leaders. Develop presentation to elected leaders to describe initial coordination and planning approach and seek guidance on priorities.
- 4. **Revise process for developing a shared vision and collective action**. Based on results of the first three steps, reframe the collaborative approach and determine the roles and relationships of Russian River Watershed Association, Confluence, NCRP, regulatory agencies, and others.

Planning and Design

- 5. **Develop initial future scenarios.** Based on existing scientific analysis and to inform initial engagement and leadership direction, develop two or more scenarios of possible futures for the watershed considering land use, water management, ecosystem functions, governance, and responsibilities. At least one scenario would reflect a description of dynamic equilibrium of the watershed and the alluvial valleys as suggested by the Independent Science Review Panel.
- 6. **Map existing initiatives and goals**. Review and compile major initiatives and goals to identify opportunities, needs, and gaps and inform the scenarios—flood, restoration, groundwater, water supply, stormwater, water quality, land/watershed management.
- 7. Build the scientific foundation to characterize implementation challenges and opportunities. Build on the framing established by the Independent Science Review Panel Conceptual Model and characterize issues and needs in seven alluvial valleys and estuary. Map hydrologic and ecological existing and historic conditions and characterize hydrologic functions, issues, needs and performance specifications and targets for achieving hydrologic dynamic equilibrium. Develop and map an opportunities and constraints assessment for multipurpose strategies.
- 8. **Design a process to develop regional vision and outcomes**. Synthesize watershed performance targets with regional land use planning, fire and disaster resilience planning, and other regional issues for a multi-purpose regional vision. Build on guidance provided by elected leaders (#3) and coordinate and align with other regional visions and initiatives.

Data Collection and Monitoring

9. Coordinate and align with R3MP. Continue to expand scope of monitoring efforts to align with watershed system needs and planning and design process. Share scope and development process for Russian River Regional Monitoring Program (R3MP). Align with watershed vision and outcomes (#7) and DWR Sustainability Outlook. Consider role local residents and non-profits can play in citizen-science monitoring to track State's Sustainability Outlook indicators and other important indicators.

Regulatory Alignment

- 10. **Identify regulatory innovations and enhancements**. Use case studies, both past and present, to identify how innovations in regulatory and land use approaches can support outcome-oriented approaches and improve efficiency. Explore the intersection between regulation and private stewardship and incentives.
- 11. Innovation incubator. Explore a regulatory innovation incubator to encourage more focus on the desired outcome(s) and what could be done to get there. Identify and illuminate conflicting regulations and seek resolution.

Funding and Finance

- 12. **Identify backbone funding**. Identify funding sources for initial convening and engagement, planning and design, and other backbone support.
- 13. Assess long-term funding capacity. Identify local and regional funding capacity for long-term investment.
- 14. **Consider funding options**. As actions and investment are identified, consider a full range of funding options, including the novel funding mechanisms identified in *Update 2018*, tax increments, incentives and abatements, avoided cost financing, and voluntary actions and private investments.

Communications and Collaboration

15. **Develop communications plan**. Develop communications priorities and scope of communications activities to coordinate and align existing communications, understand what people know and think about the river, provide basic education and cross-cultural communication, and support leadership and community learning on systems science and planning.

Possible State Actions

The following are suggested state actions developed through this study.

- 1. Identify sustainable funding for backbone functions for watershed convening, assessment, and planning for a 10-year timeframe to support the development of the necessary human capital for sustainable water resources.
- 2. Fund and support a Russian River steward position through the State Water Resources Control Board.
- 3. Integrate and align grant programs to support integrated investments and multi-benefit programs and projects.
- 4. Improve and align regulatory processes:
 - Review and amend fee current structures that focus on compliance over collaboration.
 - Review and amend current regulatory procedures that encourage litigation over collaboration and conflict avoidance/resolution.
 - Review and amend funding streams to prioritize collaborative efforts to achieve watershed outcomes.
 - Encourage high-level leaders of regulatory agencies to understand the positive outcomes of collaborative approaches and establish institutional support within the bureaucracy.
 - Provide clarity and incentives for agencies that want to pursue alternative compliance approaches.
 - Provide financial incentives for agencies pursuing collaborative approaches.
 - Support efforts to build capacity and to replicate collaborative approaches.
- 5. Seek federal funds to support watershed coordination, assessment, planning, and Tribal engagement.

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1. Purpose and Introduction

1.1 Study Purpose

This study was established by the Department of Water Resources (DWR) to explore how water resources management concepts described in the *California Water Plan Update 2018* (*Update 2018*) could be applied at the system scale for the Russian River.³ As *Update 2018* notes, sustainable water management requires collaboration and planning across all water management sectors, including groundwater and surface water, flood control, water supply, water quality, ecosystem health, and recreational, social and cultural uses and aesthetics. Recent wildfires and floods have highlighted the critical connection among land management, land use planning, and water resource management.

This report documents the discussions, lessons learned, suggestions, and potential next steps for those interested in pursuing a practical, collaborative, results-oriented approach for improving the health and sustainability of the Russian River watershed.

Update 2018 seeks to foster partnerships among state, federal, Tribal, and local governments, communities, and stakeholders. *Update 2018* presents a new tool known as the "Sustainability Outlook," for assessing current and future sustainability of water resources and identifying policy and funding enhancements to support system-scale approaches. *Update 2018* describes statewide sustainability as the aggregate of local conditions and seeks to establish a consistent approach for assessing and reporting regional sustainability through the Sustainability Outlook.

Management at the regional scale has been well established through the Integrated Regional Water Management (IRWM) program, the State's regional water quality control boards, and many county, city and water agency jurisdictions. *Update 2018* builds upon these existing structures by placing a new and practical emphasis on aligning management efforts at the hydrologic scale – also known as a watershed or system scale. For many water managers, a system scale approach represents a new layer of planning, quite different from the design of specific projects. However, developing an understanding of system scale dynamics, opportunities, and constraints can be a helpful and effective force in designing projectlevel strategies to collectively achieve desired conditions and outcomes throughout a watershed.

The North Coast Resource Partnership (NCRP) is the collaborative governance structure for the sevencounty North Coast region. The Partnership has thrived and succeeded over the past 20 years with state support from the IRWM program. The Russian River watershed, which lies within two North Coast counties, was selected to test the *Update 2018* sustainable water resources management concepts because of established relationships, a willingness to partner and innovate for multi-benefit projects, and prior work to develop a performance approach for sustainability. The watershed also contains features found in other regions, including water imports from another watershed (Eel River) and water exports to another region (Marin County, Bay Area Region).

Unlike pilot projects designed to test new applications, this study was a reconnaissance exercise to gather information. The goal was to better understand the existing relationships and state of knowledge within the watershed to determine how governments, local entities, and individuals might work together and to identify a support structure for that collective effort. Collective action can be a foundation for the integrated management needed in most watersheds to achieve sustainability goals.

³ For this report, "system scale" is the Russian River watershed, with consideration of imported water from the Eel River and water delivered to other portions of Sonoma County and Marin County. In other parts of California, system scale for water resources management might be a watershed, a region, or other geographic definition.

In the Russian River and elsewhere, stakeholders realize that protecting communities, preserving working lands, balancing water supplies and needs, and restoring the natural resources are essential for maintaining quality of life. Many regional leaders aspire to simultaneously nurture a vibrant economy with thriving ecosystems, healthy communities, and cultural and recreational opportunities. Yet these goals are increasingly threatened by the natural forces of floods, fires, droughts, and earthquakes and, to varying degrees, by the human activities that use and alter the watershed.

In support of that aspiration, this study had three objectives:

- 4. Inform and inspire efforts within the watershed to formalize and strengthen communication and collaboration among federal, state and local public agencies, Tribal nations, community organizations, and private landowners.
- 5. Identify and promote changes in state statute and administrative practices that would enable and encourage integrated projects with multiple benefits that significantly increase sustainability and resiliency.
- 6. Assess the applicability of the DWR Sustainability Outlook as a tool for guiding and evaluating regional/watershed sustainability.

The remainder of this section describes the context for this study. Section 2 describes the watershed (summarized from prior documents), the history of collaboration, and comments from Tribes. Section 3 documents foundational principles, lessons learned, and watershed conditions and opportunities as shaped by the participants. Section 4 explains a collaborative approach for organizing collective action toward watershed sustainability. Section 5 describes the next steps and suggestions to advance the collective action model.

1.2 California Water Plan Guidance for Local Planning

The California Water Plan outlines the strategic water resource management approaches and strategies all State agencies should use. It is updated every five years to incorporate advances in strategic direction and management tools. In *Update 2018*, the State reaffirms its previous commitments to sustainable, equitable and long-term water resource management. It then adds new outcomes-oriented state funding, regulatory, and policy strategies to align resources and advance the State's commitments and values. Key new features include:

- An opportunity for local and regional governments, Tribes, and stakeholders to define a
 collective vision and outcomes for water resources sustainability at a system scale. Such a vision
 would be the basis for organizing alignment with State priorities to amplify the capacity for
 collective action across scales of government needed to achieve regional sustainability and
 resilience.
- A suite of sustainability indicators, collectively called the "Sustainability Outlook," designed to be used locally in all regions of California to track physical outcomes and measure progress towards the of sustainability of watershed systems. The intent of the Sustainability Outlook is to establish a common language for data-based discussion, decision-making, and coordination across disciplines and levels of government. It will be used as a tool for integrating state participation with collective and coordinated local action, and will enable the State to provide a greater level of assistance to local efforts. Thus, the Sustainability Outlook provides the State and regions a pathway for avoiding what can become costly and time-consuming administrative misalignments for both local and state agencies.
- A blueprint of practical end-to-end strategies for how State departments can internally reorganize, integrate, and coordinate with each other to manage the State's water resources in a more proactive way.

Applying the State Water Plan at the Watershed Scale

Update 2018 begins with an overarching **Vision for California**, including exceptionally satisfying ways of life and well-being, enduring world-class natural resources, and seemingly endless opportunity for enriching recreation, diverse cultural practices, and economic prosperity. It identifies four **Societal Values** that support the vision and can guide the State's strategies and actions:

- 5. Public Health and Safety
- 6. Healthy Economy
- 7. Ecosystem Vitality
- 8. Opportunities for Enriching Experiences

The **Sustainability Outlook** is a suite of <u>indicators</u> that measure progress in watershed system functions aligned with these four values and the State's vision. **Sustainability** is defined by the State as <u>attainment of these Societal</u> <u>Values in a given watershed, as measured by the</u> <u>Sustainability Outlook indicators.</u>

The State warns that if water resources and their aging and outdated infrastructure are not adapted to the many challenges facing regions and communities (see sidebar), the ability of California to maintain its quality of life will decline. And, in fact, this is already happening.

Update 2018 acknowledges the regional variability across California and the critical importance of local discretion in addressing these challenges. Therefore, *Update 2018* does not provide specific direction on how regions could or should apply this statewide framing. However, achieving the statewide vision and strategies for water resources system

Update 2018 Challenges to Sustainability

- 1. More-Extreme Hydrologic Events in the Future
- 2. Increasing Flood Risk
- Reduced Access to Clean, Safe, Reliable, and Affordable Water Supplies
- 4. Declining Groundwater Levels
- 5. Declining Ecosystems
- 6. Water Quality Degradation
- 7. Aging and Inadequate Built Infrastructure
- 8. Sacramento-San Joaquin Delta Conflicts
- 9. Declining Forest and Headwaters Health
- 10. Catastrophic Wildfires
- 11. Unstable Regional Economies
- 12. Changing Demands for Water

sustainability presupposes that local organizations are working collectively toward holistic watershed sustainability. Thus, *Update 2018* encourages regions to collectively define and achieve sustainability at the hydrologic system scale and lists 19 high-priority to support regions (Table 1-1).⁴

The challenge of working through these issues should not be underestimated. This is new terrain because there are few examples of system scale methodologies, few requirements or organizational mandates to manage at that scale, and numerous conflicts and tradeoffs to be resolved. Conflicts at the project scale can escalate to the watershed system scale, resulting in alternative visons for watershed sustainability. Inherent conflicts of interest that go back decades and even centuries would need to be resolved. The problems that remain today require system-scale alignment, vision, planning, design, and decision-making. Collaborative dialog is productive, but it still relies on the existing problem-solving capabilities and approaches within each participating organization. Where conflict exists, mutual compromise is usually the goal, not total system sustainability. Thus, new methodologies, capabilities and guidance are needed.

Assuming regions are willing to work through these challenges, the State can help with technical assistance and by aligning state funding and regulatory policies. The potential of that state response motivated some leaders in the watershed to participate in discussions summarized in this report.

⁴ California Water Plan Update 2018, <u>Public Review Draft</u>, December 2018.

Table 1-1. Update 2018 Recommended Actions Organized by Goal						
Goal	Action #	Description				
Improve Integrated	1.1	Address the Water Management Needs of California's Most Vulnerable Communities				
Watershed	1.2	Support the Role of Working Landscapes				
Management	1.3	Promote Flood Managed Aquifer Recharge				
Strengthen Resiliency and Operational Flexibility of Existing and Future Infrastructure	2.1	Improve Infrastructure and Promote Long-Term Management				
Restore Critical	3.1	Address Legacy Impacts				
Ecosystem Functions	3.2	Facilitate Multi-Benefit Water Management Projects				
	3.3	Quantify Natural Capital				
Empower California's Under-	4.1	Improve Tribal Involvement in Regional Planning Efforts				
Represented or Vulnerable Communities	4.2	Engage Proactively with Disadvantaged Community Liaisons				
Improve Inter-Agency Alignment and	5.1	Incorporate Ecosystem Needs into Water Management Infrastructure Planning and Implementation				
Address Persistent	5.2	Streamline Ecosystem Restoration Project Permitting				
Challenges	5.3	Address Additional Regulatory Challenges				
Support Real-Time	6.1	Facilitate Comprehensive Water Resource Data Collection and Management Program				
Decision Making,	6.2	Coordinate Climate Science and Monitoring Efforts				
Management, and	6.3	Improve Performance Tracking				
Long-Term	6.4	Develop Regional Water Management Atlas				
Planning	6.5	Bolster Reporting Requirements for State Financial Assistance				
	6.6	Expand Water Resource Education				
	6.7	Explore Ways to Develop Stable and Sufficient Funding				

1.3 Study Approach

The study evolved over time based on input from the participants and changes in the schedule for the public review draft of Update 2018. As described below, the participants represent many interests in the watershed, but not all of those that would be needed to inform a comprehensive watershed approach. This work was initiated within a short planning timeframe for providing input to Update 2018. In addition, the North Bay wildfires occurred shortly after the study began. Both factors limited the participation of elected leaders, Tribal governments, agency staff, and stakeholders.

From the initial input and previous documents, this report summarizes some of the history of watershed collaboration (Section 2), lessons learned, foundational principles, and initial watershed conditions and opportunities (Section 3), and a potential approach for comprehensive outreach and engagement to develop a long-term vision and commitments to collective action (Section 4).

Background Information. For this report, the study team reviewed state-wide, regional, and watershedscale planning, regulation, governance, and finance innovations described in various DWR planning initiatives (e.g., California Water Plan, Statewide Flood Planning, and Building Capacity for Regional Sustainability). The study team also reviewed prior work to develop water resources sustainability

4

metrics for the Russian River watershed and selected other watersheds. The following are the major activities since September 2017 that shaped and guided the content of this report.

Workshops. Two workshops in fall 2017 convened about 60 diverse participants from across the watershed. The workshops explored the vision and goals for the watershed and current approaches and successes in regulatory coordination and alignment and funding for multi-benefit, multi-jurisdictional projects and programs. The initial workshops in 2017 generated significant feedback that helped shape the work plan for 2018 and are applicable to future efforts to apply the Sustainability Outlook and to identify outcomes and indicators for water resources sustainability. The five major comments from the initial workshops were the following:

- 1. The public and interest groups need to understand the history of successful collaboration on the Russian River. The beginnings of this story are in Section 2.
- 2. Extensive studies, plans, and data collection have already been conducted for the Russian River. However, additional synthesis is needed to understand system functions and watershed needs for all uses and users. A high-level summary of watershed conditions and opportunities derived from this earlier work is included in Section 3.
- 3. Past efforts have developed goals and objectives for the watershed, but these efforts lacked continuity among implementing organizations to guide planning and investment, primarily due to constraints in governance and funding. Section 4 describes an approach for developing a durable vision and goals for the watershed.
- 4. Previous successful efforts in the Russian River were able to expand agency involvement beyond existing missions and requirements to find more effective solutions. This concept is a key principle in Section 3 and incorporated into the collective action approach in Section 4.
- 5. Work must continue with all interests to plan and invest in actions that improve sustainability. The collective action approach in Section 4 has the potential to engage all governments, Tribes, stakeholders, landowners, and communities in the work to be done.

Two additional workshops were conducted in July and October 2018 to review study findings and potential framing and collaborative approaches for improving water resources sustainability. Table 1-2 lists participating organizations in one or more workshops. Attachment 1 provides a full listing of workshop participants. Workshop summaries are available on the study website.⁵

⁵ <u>https://sites.google.com/view/dwr-russian-river-pilot/home</u>.

	Table 1-2. Participating Organizations for Study Workshops				
٠	AT&T California	٠	Pacific Institute		
٠	CA Department of Fish and Wildlife	٠	Permit Sonoma		
٠	CA Department of Water Resources	٠	Redwood Valley Little River Band of Pomo		
٠	CA State Water Resources Control Board	٠	Round Valley County Water District		
•	California Forward	٠	Russian River Confluence		
٠	City of Cloverdale	٠	Russian River Watershed Association		
٠	City of Healdsburg	٠	Russian River Watershed Protection		
٠	City of Santa Rosa		Committee		
٠	City of Ukiah	٠	Russian Riverkeeper		
٠	Consensus and Collaboration Program/Sac	•	San Francisco Estuary Institute		
	State	•	Sonoma County		
•	Conservation and Natural Resources Group	•	Sonoma County Agricultural Preservation and		
	(CNRG)		Open Space District		
٠	Dry Creek Rancheria	•	Sonoma County Regional Parks		
٠	E&J Gallo Winery	•	Sonoma County Water Agency		
٠	Environmental Science Associates	٠	Sonoma Ecology Center		
٠	Gold Ridge RCD	•	Sonoma Land Trust		
٠	Hopland Band of Pomo Indians	•	Sonoma RCD		
٠	Landpaths	•	Stantec		
٠	Mendocino County	•	The Freshwater Trust		
٠	Mendocino County Farm Bureau	•	The Nature Conservancy		
٠	National Fish & Wildlife Foundation	•	Trout Unlimited		
•	NOAA Fisheries (NMFS)	•	U.S. Army Corps of Engineers		
•	North Coast Regional Water Quality Control	•	UC Cooperative Extension		
	Board	•	United Winegrowers for Sonoma County		
•	Occidental Arts & Ecology Center	•	Yokayo Tribe		
•	Orenco Systems				

Coordinating Group. Beginning in January 2018, the study team convened a small group to discuss how to frame the story of the watershed, the current conditions and needs, conceptual actions and approaches, and what is needed for collective action toward a sustainable watershed. This group met approximately monthly to inform this report.

Table 1-3 lists the participants. The meeting agendas and notes are available on the study website.

Table 1-3 Coordinating Group Participants*					
Frequent/Regular Participants	Invited/Occasional Participants				
CA Department of Fish and Wildlife, Eric Larson	CA Department of Water Resources, Elizabeth Patterson				
CA Department of Water Resources, Thomas Filler	California Land Stewardship Institute, Laurel Marcus				
CA Department of Water Resources, Lewis Moeller	City of Ukiah, Sean White				
Coyote Valley Band of Pomo Indians, Emily Luscombe	Dry Creek Rancheria, Chris Ott				
E&J Gallo Winery and Sonoma RCD, John Nagle	Hopland Band of Pomo Indians, Terri McCartney				
Mendocino County, Carre Brown	Kashia Band of Pomo Indians, Nathan Rich				
NOAA Fisheries (NMFS), Rick Rogers	Mendocino County, Sarah Dukett				
North Coast Regional Board, Clayton Creager	NCRP Tribal Representative for the Yokayo Tribe, Javier				
North Coast Regional Board, Alydda Mangelsdorf	Silva				
Pacific Institute, Jason Morrison	NOAA Fisheries (NMFS), Bob Coey				
Pacific Institute, Cora Kammeyer	Occidental Arts & Ecology Center, Brock Dolman				
Russian River Confluence, Adriane Garayalde	Pacific Institute, Heather Cooley				
Russian River Watershed Association, Andy Rodgers	Redwood Valley Little River Band of Pomo, Eileen Nunez				
Russian Riverkeeper, Don McEnhill	Robinson Rancheria, Mike Schaver				
Sonoma County Water Agency, Mike Thompson	Sonoma County, Virginia Mahacek				
Sonoma RCD, Valerie Quinto	Sonoma County Agricultural Preservation and Open				
United Winegrowers for Sonoma County, Bob	Space District, Karen Gaffney				
Anderson	Sonoma Ecology Center, Caitlin Cornwall				
	U.S. Army Corps of Engineers, Nicolas Malasavage				
Staff Support					

California Forward, James Mayer, Charles Gardiner, Krista Sloniowski, and Fred Silva College of Continuing Education, Sacramento State, Stephanie Lucero, Alex Cole-Weiss, and Julie Van Horn

*Tribal attendance in a meeting does not constitute proof of "participation" or consultation. Participation by Tribal members or administrators should be treated as an individual opinion and should not be considered as speaking on behalf of a Tribe or group of Tribes. Attendance of Tribal NCRP Representatives, that of the NCRP Tribal Engagement Coordinator, or of NCRP non-Tribal Representatives does not constitute consultation or proof of regional Tribal participation.

Tribal Engagement. Outreach and coordination with Tribes in the North Coast region and Russian River commenced in late November 2017. Early draft documents were shared with NCRP Tribal coordinators and some Tribes. In spring 2018, EPA Directors for several Russian River Tribes assisted in developing an invitation list of Tribal contacts. DWR's Tribal Advisor and the study team convened a meeting in April 2018 at the Hopland Rancheria to discuss to discuss the approach for Tribal engagement. Based on these conversations, DWR and the study team continued the outreach and coordination approach, inviting interested Tribal environmental coordinators to participate in the Coordinating Group and attending a Mendocino-Lake-Sonoma Tribal Environmental Program meeting and other briefings.

Based on continued concerns expressed by several Tribes, DWR distributed a written invitation in June 2018 to 25 Tribal chairmen and coordinators to participate in the study, beginning with a conference call in July. Subsequent workshops and conference calls were conducted in August and October. DWR engaged the Consensus and Collaboration Program from the College of Continuing Education at Sacramento State to conduct an independent assessment of Tribal engagement efforts and provide recommendations for future engagement (see Attachment 3). See Section 2 for additional information on Tribal comments.

1.4 Managing Water Resources at the System Scale

Water systems – both natural and constructed – present incredibly complex planning challenges because they are systems of systems. However, these natural and engineered systems are not managed as such. Dozens, and sometimes hundreds, of property owners, agencies, jurisdictions, Tribes, and stakeholders manage or steward various aspects of this system. Yet the only thing connecting their efforts at the macro level are the inherent interactions of the system itself. These system interactions often are not managed as a core purpose of any single entity.

Public water and land management agencies and stakeholders in the Russian River watershed historically have endeavored to work together to improve water quality, endangered species recovery, and land management. These successes establish a foundation to manage for even greater collective impact and positive outcomes for water resources, land uses, economic prosperity and community health and well-being across the Russian River watershed. Many participants noted that the watershed is a "system of systems," including headwaters, tributaries, mainstem, estuary, and land uses. A systems approach to the collective effort will likely be required to achieve the holistic changes many seek for the watershed.

This approach requires a planning and design process that defines sustainability at the system scale and identifies how to structure the interactions among different elements of water resource management for mutual benefit. Such an approach can help ensure that the scale and nature of the solutions match that of the problems. Eventually, such an approach can be used to define outcomes, indicators, and targets to achieve sustainability in this region. Once outcomes have been determined at the watershed scale, they can be used to inform the identification of governance, management strategies, regulatory alignment, and funding to prioritize and support project-level implementation opportunities and constraints.

Figure 1-1 depicts a simplified conceptual image of the major elements of watershed, or system-scale, sustainability management:

Governance and Decision-Making. Developing models for how entities in the watershed organize their authorities, coordinate and cooperate, and make decisions for collective action at the watershed scale to advance sustainability and resilience.

Assessment. Establishing and using outcomes, indicators, monitoring, and data management that track and evaluate current conditions and trends related to watershed sustainability, including physical and socio-economic conditions in the watershed and other management elements for ensuring implementation capacity and progress.



Planning and Design. Identifying, organizing,

prioritizing, and unifying management actions and investments to improve watershed sustainability using best available science and knowledge.

Funding and Finance. Identifying revenue sources, funding mechanisms, and financing approaches that can be linked together to pay for one-time investments, such as infrastructure, and ongoing costs, such as operation, maintenance, and incentive payments.

Regulatory Alignment. Identifying opportunities for regulatory authorities and resources to be deployed toward common watershed outcomes by assessing, integrating, and resolving conflicts among regulatory objectives and state, federal, regional, and local policies and requirements.

Communications and Collaboration. Developing approaches and mechanisms to inform, educate, and engage governments and interests across the watershed.

These elements were discussed with participants in the Russian River watershed and are foundational to increasing sustainability and resiliency of water resources, and how state actions can enhance and accelerate their development. As described below, these elements would be core activities of any future efforts for watershed sustainability and would be vetted through a broader outreach and engagement process.

Update 2018 does not require that local agencies take these actions. Rather it identifies how the State can coordinate a range of benefits and assistance for local and regional governments that do. These state actions include coordinating regulatory alignment, providing policy support, and developing stable long-term funding mechanisms.

2. The Russian River Watershed

This section provides an overview of the Russian River watershed and describes three important perspectives that guide current and future efforts to understand and advance sustainable water resource management for all uses and users in the Russian River watershed: Russian River Watershed Collaboration, Native American Tribes, and the North Coast Resource Partnership.

2.1 Watershed Description

The Russian River watershed is in the North Coast Hydrologic Region (Region 1, as defined by the State Water Resources Control Board). The watershed includes portions of Mendocino and Sonoma counties. It is bounded to the east by Lake and Napa counties. The north, west, and south boundaries are within Mendocino and Sonoma Counties. The watershed includes nine sub-basins containing 57 valleys. It

drains an area of approximately 1,485 square miles with the 100-mile main stem channel flowing southerly from the Laughlin Range about 15 miles north of Ukiah, and flowing south-southeast until Forestville, where it abruptly bends southwest, crosses the coast range, and drains into the Pacific Ocean near the town of Jenner. Elevation ranges from zero at the Pacific Ocean to 4,343 feet at Mount St. Helena in the Mayacamas Mountains.

The watershed is primarily rural with human population centers along Highway 101 and in or along the floodplain of the Russian River mainstem, which is comprised of a series of alluvial valleys separated by narrow bedrock channels. The largest communities



include Ukiah (population 16,075), Cloverdale (8,618), Healdsburg (11,254), Windsor (26,801), Larkfield-Wikiup (8,884), Santa Rosa (167,815), Roseland (6,325), Sebastopol (7,379), Cotati (7,265), Rohnert Park (40,971), Forestville (3,293), Guerneville (4,534), and Monte Rio (1,152). Communities within the watershed are socioeconomically diverse, with much of the upper reach and portions of the lower reach containing communities that qualify as disadvantaged (annual Median Household Income less than \$48,706).

The watershed is home to dozens of Native American Tribes (note that the map does not depict the locations of Tribes within the watershed). For millennia, the Tribes have lived along the Russian River and its tributaries or nearby, and they have managed their lands and the watershed for human uses and maintenance of natural resources.

Primary land uses in the watershed are rural residential, mixed agriculture, and small municipalities (upper reaches); wine grape cultivation (middle reaches); and mixed agriculture, rural residential, and recreational tourism (lower reaches). Most of the land in the watershed is privately owned (89.78%), with federal (5.41%), state (2.59%), local (2.15%) and tribal lands (0.08%) making up the remaining ownership. Land cover is primarily open space with 51 percent of the watershed having less than one housing unit per 160 acres. More than 4,000 miles of roads intersect much of the landscape. Just more than 10 percent of the watershed is conserved through designation as open space preserves, state and local parks, conservation easements, or other formal means.

Wine grape vineyards are a major land use supporting wineries and tourism. Other land uses include rural residential developments, timber harvesting, cannabis cultivation, and grazing. Riverbased recreation and tourism are an important part of the regional economy. Agricultural tourism is an emerging economic sector in the watershed.

The Russian River watershed receives imported water from the Eel River watershed through the Potter Valley project. Water from the Russian River is also exported outside the watershed by Sonoma Water to municipal water agencies in other parts of Sonoma County and in Marin County. Water supply in the basin is largely centralized for municipalities, either with their own supplies (Healdsburg, Geyserville and Cloverdale) or provided through Sonoma Water. Agricultural and rural residential water supplies are generally decentralized, with each site having its own source.

The watershed is contained within the Central California Coast ESU (evolutionarily





significant unit) for Coho and steelhead, and the California Coast ESU for Chinook. The watershed is within the North Coast Resource Conservation and Development Council and within the boundaries of three Resource Conservation Districts: Mendocino County, Gold Ridge, and Sonoma RCDs. These agencies work with local stakeholders to facilitate environmental and economic improvements throughout the watershed.

Human land uses and associated changes to natural systems have altered the dynamic equilibrium between river channel size and morphology; sediment transport and deposition; and flow volume and velocity in the Russian River. Currently, summer flows in the main stem are heavily regulated by releases from the two water storage reservoirs in the basin: Lake Sonoma and Lake Mendocino. Under this regime, flows are kept artificially high during summer months and low during winter months under all but the most extreme rain events. Augmentation from the Eel River through a tunnel near the headwaters of the Eel River into the East Branch of the Russian River has also increased water availability in the watershed. Sonoma Water breaches the sandbar during low flow conditions to prevent flooding in the town of Jenner. The sandbar breaches naturally during high flows.

Smaller local watersheds not controlled by the two storage reservoirs have more natural flow patterns (high in winter and low in summer), which can also influence conditions in the lower watershed.

Flood management, water supply, and hydropower generation are each important functions of the water management infrastructure. Water supply and flood management infrastructure include Coyote Valley and Warm Springs dams, which were constructed in 1958 and 1982 respectively. These dams, along with the Potter Valley Project on the Eel River, supply electricity through hydropower. The dams

and flood control levees along the Alexander Valley reach protect communities in the Russian River floodplain, particularly during high volume, concentrated rainfall events from Atmospheric Rivers. Sonoma Water operates water supply facilities adjacent to the Russian River to provide potable drinking water to 600,000 people in Sonoma and Marin Counties. Reclaimed water is extensively used as a

substitute for groundwater and surface water for landscape and agricultural irrigation; it also is used to augment steam production for geothermal power plants.

2.2 Russian River Watershed Collaboration

The Russian River region has a long history of coordination, collaboration, and innovation in water and land management to balance the needs of people and the environment. In the Russian River watershed, the importance of integrating the four Societal Values described in *Update 2018* is selfevident. For example, river-based **Enriching Experiences** are closely connected to **A Healthy Economy** for the region. Providing those **Enriching Experiences** depends on maintaining **Public Health and Safety** (high water quality and reduced flooding) and **Ecosystem Vitality** (healthy, attractive river, forests, and wildlife).

Figure 2-1 lists more than 25 initiatives to manage water supply, natural systems, water quality, and floods for the benefit of the region over the past 20 years. These initiatives involved collaboration among landowners, businesses, community organizations, public and private water managers, and local, regional, state, and federal governing and regulatory agencies. Several examples are described in the sidebars in this section. These initiatives and examples present a picture of how stakeholders have worked together to understand and address water resources challenges in the watershed. These efforts did not always result in agreement among all stakeholders or effective actions to improve water resources sustainability. The efforts depict an evolution of understanding, collaboration, and action.

Example Regional Initiatives

North Coast Watershed Assessment Program (NCWAP)

In 1999, the California Resources Agency and the California Environmental Protection Agency began developing an interagency watershed assessment program for California's North Coast. The purpose of the program was to develop consistent, scientifically credible information to guide landowners, agencies, watershed groups, and other stakeholders in their efforts to improve watershed and fisheries conditions.

The project generated considerable interest, collaboration, and valuable information, but did not sustain with limited State and regional funding capacity.

North Coast Resource Partnership (IRWM)

The North Coast Resource Partnership is an innovative, stakeholder-driven collaboration among local government, Tribes, watershed groups, and interested partners in the North Coast region of California. The North Coast comprises seven counties, Tribal lands, major watersheds, and a planning area of 19,390 square milesrepresenting 12% of California's landscape. The NCRP integrates long term planning and highquality project implementation in an adaptive management framework—fostering coordination and communication among the Region's diverse stakeholders.

The program established a regional collaborative infrastructure supported by State grant funding. The effort has resulted in coordinated project planning and successful pursuit of more than \$67M in state and federal grants to the region. Local and regional funders such as SCWA have supported the collaborative efforts through periods of intermittent State bond funding (see additional information below).

Figure 2-4 RUSSIAN RIVER INITIATIVES TIMELINE



2.2.1 Evolution of Watershed-Scale Problem-Solving

Within the Russian River region (and the entire North Coast), a watershed-scale, stakeholder-driven, problem-solving approach to natural resource management and pollution control has been evolving for several decades.

This evolution has progressed through three loosely defined periods of development, in which the agencies came to understand the multi-layered issues, the limitations of individual actions, and the potential for collective actions. The three periods also demark the efforts made to actualize the awareness that integrated action is essential to improving watershed sustainability. While the end point is not yet defined, leaders are committed to working collaboratively to establish the desired outcomes and the coordinated actions to achieve them.

1. The Early Days

During the Early Days, organizations with responsibilities for water supply, water quality, flood management, and other aspects of the watershed made independent project investments and separately implemented regulatory and non-regulatory programs to address isolated goals and conditions. These efforts provided substantial benefits, but were primarily permitted and implemented at the project scale with little attention to cumulative effects or larger-scale system functionality. Citizen activism around specific projects, programs, and watershed issues played a critical role in this period in raising awareness about potential adverse consequences of planned actions and suggesting alternative approaches

These efforts, while successful in achieving their goals, had unintended impacts on system-scale watershed processes. As organizations understood and sought to address these impacts, they discovered interrelated processes and commonalities among organizational missions and objectives. The organizations kept "bumping into each other" and finding where the authorities or capacities of other agencies could fill gaps in their own. During this period, several organizations attempted to broaden their approach to resource management by initiating the development of watershed plans. These plans generally had a single focus (e.g., habitat restoration, pollution control, or

Example Regional Initiatives

Coho Broodstock Program

The Russian River Coho Salmon Captive Broodstock Program is working to supplement the wild Russian River Coho population in the hope of restoring it to a sustainable size. Since 2001, a collaborative partnership among federal, state, and local agencies has been breeding Coho salmon from local genetic stock at the Don Clausen Fish Hatchery at Lake Sonoma and releasing them as juveniles into historic Coho streams in the Russian River watershed.

This program has been a collaborative success driven by efforts to identify specific actions to increase fish populations and track and report on results.

Project Partners:

- U.S. Army Corps of Engineers
- National Marine Fisheries Service
- California Dept. of Fish and Wildlife
- Sonoma County Water Agency
- University of California Cooperative Extension/California Sea Grant Extension Program

Water Quality Credit Trading and TMDLs

The Water Quality Credit Trading Framework seeks to provide National Pollution Discharge & Elimination System (NPDES) permittees with cost-effective and environmentally beneficial options for complying with effluent limitations for specifically named pollutant discharges to surface waters. The Framework generally supports trading of water quality credits between NPDES permittees (i.e., point source dischargers or credit buyers) and unregulated non-point sources (i.e., credit generators or sellers). The Framework is available to the City of Santa Rosa and the Town of Windsor, and any other NPDES permittee in the Laguna watershed who may in the future be authorized by the Regional Water Board to participate in water quality trading.

Project Partners:

- North Coast RWQCB
- City of Santa Rosa
- City of Windsor
- Sonoma Resource Conservation District

flood protection) toward which individual projects would then be implemented, with consideration of impacts and mitigation for other resources. While these plans often included the broad participation of watershed stakeholders in their development, they remained focused on single issues.

2. The Experimentation Period

Over time, state and regional water managers began experimenting with watershed-based approaches to multifaceted water resource issues. This period is characterized by several initiatives, often collaborative and supported with state or federal funding, to conduct watershed monitoring, assessment, or planning. Examples include the Russian River Watershed Council, North Coast Watershed Assessment Program, and Russian River Integrated Coastal Watershed Management Plan. These and other efforts compiled valuable information, increased understanding of system-scale issues and problems, and, most importantly, began to establish the culture and capacity for collaboration and integrated thinking.

The "Experimentation Period" activities produced an important base of knowledge and experience for the region, identifying willing partners and establishing watershed-scale thinking as the norm. However, leaders noted that the value was limited because the efforts typically stopped after a few years, primarily due to intermittent federal and state funding and a lack of shared governance and funding at the watershed level. In addition to the lost momentum, the region loses as much as 70 percent of the knowledge, experience, and capacity as planning efforts conclude, people move to other programs or retire, and implementation activities wane.

3. The Partnership Period

Russian River water managers now consider themselves in a third period defined by a growing commitment to apply what has been learned and developed through a series of successful partnerships and one-off innovations to develop a system-scale and collaborative approach to address bigger challenges. For example, in watersheds with extraordinarily difficult legacy issues, the North Coast Regional Water Quality Control Board has taken a different approach, pulling together the "stakeholders" impacted by a problem to develop more effective solutions than would be provided by individual permits. Recent partnerships on the Russian River have yielded multientity stormwater management, water quality credit

Example Regional Initiatives

Russian River Regional Monitoring Program (R3MP)

The North Coast Regional Water Quality Control Board is calling for the development of a Russian River Regional Monitoring Program (R3MP) to assess the effects of environmental regulatory and management policies, programs, and projects on the health of the Russian River watershed. The anticipated functions and benefits of the R3MP include the following:

- Help realize inter-agency adaptive watershed health care.
- Maximize the value and minimize the costs of collecting environmental data.
- Minimize unnecessary redundancy among monitoring efforts.
- Deliver robust assessments of baseline health conditions and trends.
- Objectively evaluate project and program effectiveness.
- Improve data access and visualization.
- Improve public outreach and reporting.
- Improve protection of aquatic resources for wildlife and people.

During 2017-18, the R3MP Steering Committee will develop a governance plan, a business model, and the R3MP Charter. A Watershed Atlas (https://r3mp.ecoatlas.org/) has been launched for sharing and visualizing monitoring information. Plans are underway for the R3MP to assess the effects of stormwater and non-point source runoff on the physical, chemical, and biological integrity of the Watershed's aquatic resources, as affected by the historic wildfires of October 2017. This initial monitoring effort will establish new capacities to assess and report on baseline health conditions. The R3MP can be broadened in the future to serve additional regulatory and management programs affecting the health of the Russian River Watershed, as guided by the Steering Committee.

trading among wastewater dischargers (point sources) and private land owners (nonpoint sources), and private/public collaboration to support critical salmon habitat. Other examples of regional partnerships cited by stakeholders include the 2012-2016 drought response, response to the 2017 wildfires to protect water quality and restore the watershed, and efforts to collaborate on grant opportunities for the region.

While these efforts have enhanced the efficiency and effectiveness of regulatory programs and engaged private and non-governmental partners, regional leaders continue to recognize conflicts among programs and see opportunity in the next evolutionary period to consider integrated goals for the region and to address conflicts at the system-scale.

2.2.2 Ingredients of Regional Success

Participants identified three primary ingredients for the successful evolution from the Early Days to the Partnership Period and beyond. The quotes shown below are drawn from the discussions.

1. Watershed as Place—Connecting to Water and Land

The communities of the Russian River watershed know they are connected to the waters and land in the region. Regional leaders—in public agencies, non-governmental organizations, and agriculture—share a strong sense of place for the region that is based on the essential interactions of land and water:

- The river, a major water source for approximately one million people, is central to the region's geography, economy, and identity.
- The region's long agricultural history has created deep awareness of the relationship between the river, irrigation, agriculture, and local food production.
- The tourism economy is directly related to the land and river and must be protected in essence and image.

"We are closely connected to the river—our water comes from the watershed; we are close to the river."

"We have a close connection to agriculture—our food and fiber comes from the landscape and the rural lifestyle it embodies."

"We are connected to the natural beauty and recreational opportunities associated with the wild lands, open space, and rural settings of the Russian River."

For example, Sonoma Water's mission is predicated on managing at a watershed scale⁶. Sonoma Water uses the river as conveyance—rather than pipelines—which establishes a connection to and necessity for system-scale management.

2. Leadership Vision and Organizational Evolution

Organizations are stretching beyond their historical charters and responsibilities to understand and act on watershed challenges. This broader view is necessary for stakeholders and agency officials to see how actions can be linked together to increase benefits.

⁶ The mission of the Sonoma County Water Agency is to effectively manage the water resources in our care for the benefit of people and the environment through resource and environmental stewardship, technical innovation, and responsible fiscal management.

Aware of the limits of their individual authorities, and having experienced the potential for integrated action, agency leaders are seeking durable mechanisms for developing system-scale solutions. As a

"When we look beyond our own interests, we can see the problems are not solved."

result, the region is on a path to leave behind the silos of the Early Days and address challenges through an evolving culture of collaboration and integration.

3. Relationship Connections

The communities of the Russian River watershed recognize the importance of human relationships. Leaders throughout the region have supported joint problem-solving to build relationships and resolve conflicts. Key operating principles include:

- Working for the greater good. Leaders work for the good of the watershed and community.
- Working outside of charters. Organizations stretch to find solutions.
- Working with others. Engaging with and learning from community members, businesses, and non-governmental organizations.
- **Building trust in each other**. Individuals and organizations build trust through continuity of effort and results.
- Working with what they have. Organizations identify and share knowledge, authorities, and resources.

"Organizations need to see joint and individual benefit to make it work. Everyone must act with enlightened self-interest."

Collectively, planning and regulatory initiatives over the last several decades in the Russian River watershed have established critical capacities for improving sustainability at the watershed or regional scale, including the following:

- Extensive and detailed data and knowledge about natural resources in the watershed.
- Aligned or collaborative governance structures for water and land programs.
- County-wide and regional funding mechanisms for water and land programs.
- Social capital (relationships, social networks, and goodwill) to work across interests and organizations to identify and solve problems.
- Willingness and enthusiasm for sharing lessons learned and opportunities to assist the State and other regions.

While the region has capacity and experience working across organizational functions, ongoing challenges limit progress at the system scale, including the following:

- Intermittent funding and support for integrated planning and management.
- Multiple jurisdictions and authorities involved in water and land management.
- Complexities and differences associated with public and private management of water and land in urban and rural landscapes. For example, residential water in incorporated communities is provided by public retailers and a surface water wholesaler (Sonoma Water), while smaller communities and rural residences are self-supplied, supplied by private water companies, or

both. Rural residential and agricultural users depend on groundwater and urban areas generally rely on surface water or groundwater directly influenced by surface water.

 Inadequate financial capacity to address challenges in rural and underserved communities, including homelessness.

2.2.3 What Next?

Participants identified several important next steps to advance an integrated, collaborative approach for watershed sustainability.

1. Synthesis

Goals, objectives, assessments, and other information from prior watershed assessment, planning, and implementation efforts should be collected and synthesized to inform current understanding and update watershed vision and goals. This effort would help define the direction for the next steps and focus collaborative efforts on the high priority challenges in the watershed.

2. Collaborative Infrastructure

Collaborative infrastructure—a coordinated mechanism or structure for shared decision-making or governance and consistent funding—is needed to support and sustain system-scale work. This "hub" should be neutral with no special interest orientation. The "collective impact model" suggests that a neutral entity should serve as a "backbone" for collective action. The Russian River Confluence is

"There has to be a universal creed and convener to bring them (varied interests) together. No single organization is universal enough to make it work."

"We need an air traffic controller."

discussing how to develop a structure for continuous collaboration and support. Core partners will need to identify ways to commit staff and resources for the long-term to help establish and implement a collaborative watershed governing body. Similarly, third parties—foundations, non-profits, and others— may be necessary to help build the platforms necessary to support watershed-scale assessment and adaptive management.

3. Core Values and Policies

The region should explore opportunities to explicitly establish core values, foundational policies, and governance principles that define the region's ambitions and expectations for problem solving. By way of example, such core values and policies may reflect the following types of approaches and experiences:

- Urban limit lines adopted across Sonoma County were a substantial support for one of the core missions of the Sonoma County Agricultural Preservation and Open Space District.
- The North Coast Regional Board is working with U.S. EPA to change the focus of the TMDL programs and take a watershed "stewardship" approach to meeting the goals of the Clean Water Act.

2.3 Tribal Comments

As described above, outreach and coordination with Russian River and North Coast Tribes was initiated in November 2017 and continued through January 2019. In 2018, the outreach and engagement activities included the following:

- Tribal coordination meeting in April to discuss the Tribal engagement approach.
- Invitation letter to Tribal Chairs and coordinators in and near the Russian River watershed in June.
- A conference call with Tribes in and near the Russian River to discuss Tribal engagement interest and opportunities in July.
- A Tribal Perspectives workshop to discuss the study and provide feedback and recommendations on outreach efforts in August.
- Follow-up conference calls in September and October to provide updates on outcomes from the August workshop.
- Participation by interested environmental directors and other Tribal administrators in the Coordinating Group meetings and public workshops.

As a follow up outcome identified in the August 2018 workshop, in November 2018, the Tribal Representatives of the North Coast Resource Partnership (NCRP) submitted a letter to DWR regarding Tribal engagement for the Russian River Pilot and other similar water resources efforts. This letter was supported by a letter from the NCRP Chair and Vice-Chair. The primary concerns and recommendations contained in these letters are as follows (the full letters are included in Attachment 2).

- 1. This project did not include meaningful Tribal engagement. DWR and the project team should have coordinated with and consulted with North Coast Tribes before initiating the project to discuss the scope of activities and how to ensure meaningful Tribal engagement.
- 2. DWR should restart the process of this project to include each and every Tribe with ties to the Russian River watershed during the project development phase to develop a truly integrated watershed plan. This initial engagement should be conducted to respect each Tribe as a sovereign government.
- 3. Any goals, metrics, plans, or actions from the Russian River Pilot do not include or incorporate Tribal perspectives. The contents of this report do not include information and knowledge from the Tribes and the report has not been reviewed by all of the Tribes in the watershed. Therefore, DWR, the Water Plan, and other state agencies should not use or rely on the information from the Pilot as representative of the watershed and Tribal perspectives.
- 4. DWR should not publish the Russian River Pilot report. If DWR elects to publish the report, it does not have Tribal support. The report should include a qualifier statement about Tribal engagement [the qualifier statement is shown in the sidebar and is included in other sections of this report].

This pilot did not include meaningful Tribal engagement. Therefore, the goals, success metrics and any subsequent actions relying on it would be are incomplete and inaccurate. As a first step to utilizing any information in this document, or the California Water Plan to which it is attached, each Tribe with traditional territories in the source waters, footprint area or receiving waters must be invited early in planning processes to meaningfully consult with the agency or entity initiating the project.

Tribal attendance in project meetings does not constitute proof of participation or consultation.
 Some attendees felt their comments were not considered or incorporated. Additionally, the attendance of Tribal NCRP Representatives, that of the NCRP Tribal Engagement Coordinator, or

of NCRP non-Tribal Representatives does not constitute consultation or proof of regional Tribal participation.

6. The Russian River Pilot should not serve as a demonstration of how to conduct Tribal engagement for watershed planning and management.

The comment letter also included several recommendations regarding Tribal engagement for this project and other similar efforts, including the following:

- 1. "DWR should clearly engage in government to government conversations prior to this or any future project or pilot that is under consideration, and cannot defer or delegate this obligation.
- 2. State agencies should develop procedures to accompany and guide agency leadership, staff, and any hired consultants regarding Tribal engagement, communication, collaboration and consultation policies. To that end the NCRP Tribal Representatives and our support staff would like to support DWR in developing these procedures.
- 3. Funding should be provided to participating Tribes to devote staff time to fully provide their expertise and meaningful engagement in this activity or future project funded by DWR."⁷

DWR and the participants in the Coordinating Group concur with the intent and spirit of these comments. That is, thorough and meaningful Tribal engagement is critical for developing effective management strategies and actions for a sustainable Russian River watershed. Several individuals with Tribal affiliations participating in the activities to date noted that their Tribes share the overall intent of an integrated, wholistic approach for managing the watershed. There is valuable knowledge, experience, and creativity to be shared among all parties. The approach described in Section 4 is designed to re-initiate Tribal engagement activities, including coordination with NCRP Tribal Representatives and Policy Review Panel, government-to-government conversations among the State and Tribal governments, and engagement in efforts to develop a long-term vision and goals for the watershed. The details and timing of this engagement would be worked out among all parties.

Furthermore, DWR intends to continue working with the North Coast Tribes and others through the Water Plan Tribal Advisory Committee to develop and improve protocols for Tribal engagement in water resources management.

Based on the Tribal engagement efforts to date, the following is an initial list of Tribes in the North Coast region compiled from the North Coast Resource Partnership⁸ and DWR. Future efforts can begin with this list for engaging Tribal Nations and leadership in Russian River watershed sustainability efforts. Additional coordination with the North Coast Resource Partnership Tribal Representatives, the State of California's Native American Heritage Commission, U.S. EPA, and others may identify additional Tribes with interest in the Russian River.

⁷ North Coast Resource Partnership Tribal Representatives, November 15, 2018

⁸ North Coast Integrated Regional Water Management Plan Phase III, Appendix P, August 2014

Native American Tribes of the North Coast			
٠	Bear River Band of Rohnerville Rancheria	•	Middletown Rancheria of Pomo Indians of
٠	Big Lagoon Rancheria		California
٠	Big Valley Rancheria of Pomo Indians	٠	Mishewal Wappo of Alexander Valley
٠	Blue Lake Rancheria	•	Nor-Rel-Muk Nation
•	Cahto Tribe of the Laytonville Rancheria	٠	Noyo River Indian Community
•	Cher-Ae Heights Indian Community of the	٠	Pinoleville Pomo Nation
	Trinidad Rancheria	٠	Pit River Tribes of California
٠	Cloverdale Rancheria of Pomo Indians of	٠	Potter Valley Tribe
	California	٠	Quartz Valley Indian Community
٠	Cortina Band of Wintun Indians	٠	Redwood Valley Little River Band of Pomo
٠	Coyote Valley Band of Pomo Indians of		Indians
	California	٠	Resighini Rancheria
٠	Dry Creek Rancheria Band of Pomo Indians,	٠	Robinson Rancheria of Pomo Indians
	California	٠	Round Valley Reservation/Covelo Indian
٠	Elem Indian Colony of Pomo Indians of the		Community
	Sulphur Bank Rancheria	•	Scotts Valley Band of Pomo Indians
•	Elk Valley Rancheria	٠	Shasta Indian Nation
•	Federated Indians of Graton Rancheria	•	Shasta Nation
•	Grindstone Indian Rancheria of Wintun-	٠	Shebelna Band of Mendocino Coast Pomo
	Wailaki Indians		Indians
•	Guidiville Indian Rancheria	•	Sherwood Valley Rancheria of Pomo Indians of
•	Habematolel Pomo of Upper Lake		California
•	Hoopa Valley Tribe	•	Tolowa Dee-ni Nation - Smith River Rancheria
•	Hopland Band of Pomo Indians		of California
•	Karuk Iribe	•	
•	Kashia Band of Pomo Indians of the Stewarts	•	
_	Point Rancheria	•	Winnemem Wintu Tribe
•	Kiamath Tribes (Kiamath, Miodoc & Yanooskin)	•	Wiyot Tribe-Table Bluff Reservation
	NULIVITION OF LOWER LAKE RANCHEINA	•	Yokaya Deme Wintun Nation
	Lyllon Rancherld Of California Manchester Rand of Rome Indians of the	•	Yurak Triba of California
	Manchester Bancheria, California	•	TUTOK TITDE OF CAIITOTINA
*This pilot did not include meaningful Tribal engagement. Therefore, the goals, success matrics and any			

*This pilot did not include meaningful Tribal engagement. Therefore, the goals, success metrics and any subsequent actions relying on it would be/are incomplete and inaccurate. Source: North Coast Integrated Regional Water Management Plan Phase III, Appendix P, August 2014

Department of Water Resources

2.4 North Coast Resource Partnership

The North Coast Resource Partnership (NCRP) works collaboratively across Northern California to enhance natural and working lands and built infrastructure. For more than 12 years, the NCRP has successfully reduced conflict, integrated federal, state, regional, and local priorities and utilized a multi-benefit approach to identify and seek funding for the highest priority project needs throughout the region. The focus of the NCRP includes forest and watershed health, salmonid recovery, water quality and supply, intra-regional cooperation, energy independence, climate change mitigation and adaptation,

public health and economic vitality. The NCRP has ranked highly in numerous grant solicitations and has brought more than \$67 million in water, climate change, and ecosystem restoration grant funding to the North Coast for more than 90 projects, while leveraging more than \$110 million in matching funds.

Over the past 15 years, the NCRP has developed a successful collaborative governance structure among Tribes, local government, water managers, and non-governmental organizations. This governance structure arose from and was supported by the IRWM program. The NCRP has successfully served the diverse governments and interests in the region and pursued grant funding and other investments for priority initiatives and projects to sustain water and natural resources. It has become a model governance structure for the IRWM program.

The NCRP consists of a collaborative partnership among the NCRP Policy Review Panel (PRP), the Technical Peer Review Committee, project staff, consultants, and the stakeholders within the North Coast region. With the exception of Modoc County, which has one representative, the PRP consists of two representatives appointed by each county's Board of Supervisors and three Tribal representatives appointed by North Coast Tribes. The PRP is the governing and decision-making body providing policy level direction and oversight for the NCRP planning process, including development of the IRWM Plan and project proposals.

The NCRP updated the North Coast IRWM Plan⁹ in 2014 to set the following goals and objectives for the region.

GOAL 1: Intraregional Cooperation and Adaptive Management

Objective 1 — Respect local autonomy and local knowledge in Plan and project development and implementation.

Objective 2 — Provide an ongoing framework for inclusive, efficient intraregional cooperation and effective, accountable NCIRWMP project implementation.

GOAL 2: Economic Vitality

Objective 3 — Ensure that economically disadvantaged communities are supported and that project implementation enhances the economic vitality of disadvantaged communities.

Objective 4 — Conserve and improve the economic benefits of North Coast Region working landscapes and natural areas.

GOAL 3: Ecosystem Conservation and Enhancement

Objective 5 — Conserve, enhance, and restore watersheds and aquatic ecosystems, including functions, habitats, and elements that support biological diversity.

Objective 6 — Enhance salmonid populations by conserving, enhancing, and restoring required habitats and watershed processes.

GOAL 4: Beneficial Uses of Water

Objective 7 — Ensure water supply reliability and quality for municipal, domestic, agricultural, cultural, and recreational uses while minimizing impacts to sensitive resources.

9

https://northcoastresourcepartnership.org/site/assets/uploads/2018/04/NCIRWMP_PhaseIII_Aug14_final_w_app_endix.pdf.

Objective 8 — Improve drinking water quality and water related infrastructure to protect public health, with a focus on economically disadvantaged communities.

Objective 9 — Protect groundwater resources from over-drafting and contamination.

GOAL 5: Climate Adaptation and Energy Independence

Objective 10 — Assess climate change effects, impacts, vulnerabilities, and strategies for local and regional sectors.

Objective 11 — Promote local energy independence, water/ energy use efficiency, GHG emission reduction, and jobs creation.

GOAL 6: Public Safety

Objective 12 — Improve flood protection and reduce flood risk in support of public safety.

The North Coast IRWM Plan seeks to integrate local, Tribal, regional, state, and federal priorities to guide the identification and implementation of projects. The priorities used to select projects and contribute to the goals and objectives include the following:

- Economic Benefits
- Energy Independence
- Groundwater Protection
- Public Safety
- Salmonid Habitat Improvement
- Water Quality Improvement
- Water Supply Reliability
- Watershed and Habitat Improvement

The North Coast IRWM Plan also incorporates a watershed-based planning approach. The NCRP has worked with local water managers, Tribes, and stakeholders to prepare Integrated Coastal Watershed Management Plans for five watersheds, including the Russian River (2012). The Russian River Integrated Coastal Watershed Management Plan¹⁰ describes 60 objectives to contribute to the following six goals:

- GOAL I: Enhance Watershed Processes and Improve Land Use
- GOAL II: Protect and Enhance Hydrologic Function and Water Supply
- GOAL III: Protect and Improve Water Quality
- GOAL IV: Protect and Enhance Native Biodiversity and Ecosystem Processes
- GOAL V: Develop and Maintain Public Stewardship
- GOAL VI: Engage in Ongoing Technical Assessment and Adaptive Management

The NCRP represents an effective model for regional collaboration and governance among all governments and interested parties. The ideas presented in this report for system-scale governance and planning in the Russian River watershed build on this model and the discussions among governing bodies, Tribes, and stakeholders. The ideas represent a potential alignment among NCRP and Russian River governance, through which the region and the State can explore regulatory alignment, funding, and performance approaches to improve water resources sustainability for people and the environment.

23

¹⁰ <u>http://mcrcd.org/wp-content/uploads/2018/08/RussianRiverIRWMP_final.pdf.</u>
3. Learnings, Principles, and Ideas for Sustainable Watershed Management and Resiliency

This section describes several important features that can form the basis of future efforts to advance sustainable water management for the Russian River watershed: (1) a summary of seven key learnings from study activities; (2) a listing of seven principles derived from those learnings; and (3) a Condition Statement that was informed by discussions with some stakeholders in the watershed and distills and summarizes previous descriptions of watershed conditions.

3.1 Learnings from Initial Russian River Activities

1. Watershed vision and goals are hard to sustain. Several participants noted that there had been at least two prior efforts to develop a vision and goals for the Russian River watershed. They noted that those efforts had been valuable collaborative efforts, but the vision and goals do not currently guide planning, decision-making, and implementation. Two primary reasons were cited. First, state or federal funding was available to develop vision and goals through a two- or three-year process, but then stopped. Second, there was no coordinating entity or governance structure for continuing collaborative discussions and applying the vision and goals through plans and actions. Without accepted vision, goals, or plans for the watershed or a coordinating entity for the entire watershed, testing or applying the DWR Sustainability Outlook or other approaches for measuring watershed outcomes is not feasible. This early learning re-shaped the activities of this study to explore the key functions needed for watershed-scale coordination.

Key Learning: The means and mechanisms for continuous coordination and action are needed to set and sustain a vision and goals for the watershed.

2. Engage Tribes early in a meaningful way. As described in Section 2.3, Tribal Comments, Tribal engagement is critical for the success of any watershed-scale planning and implementation. Tribes have unique knowledge, experience, and needs regarding watershed sustainability. Several Tribal participants noted the challenge and complexity of engaging all Tribes with an interest in the Russian River and suggested that the NCRP governance structure would be an effective model for co-governance with the Tribes in the Russian River. Therefore, Section 4 describes an approach for an initial team of state, local, and Tribal leaders to initiate efforts to engage all Tribes with an interest in the Russian River and develop an appropriate governance and coordination structure.

Key Learning: Reinitiate Tribal engagement to invite participation from all Tribes with an interest in the Russian River, incorporate Tribal knowledge and perspectives in a manner appropriate to and directed by Tribes, and build a governance structure to sustain ongoing communication and participation.

3. **Collaboration has improved outcomes**. Many participants noted the history of collaboration to address problems and challenges in the watershed. Their perspectives are captured in Section 2.2, Russian River Watershed Collaboration. Participants noted that regulating agencies, implementing agencies, and stakeholders have been able to consider and develop alternate approaches for achieving watershed enhancements and regulatory objectives. In many cases, these approaches have improved outcomes, increased efficiency, and provided multiple benefits more effectively than traditional permitting processes. Regulatory processes provided important incentives for collaboration and innovations provided better outcomes. Participants recognized that watershed-scale challenges are exceedingly complex and that collaboration among governing bodies, regulatory agencies, implementing agencies, Tribes, and stakeholders is necessary to improve regulatory alignment, achieve watershed and regulatory objectives, and increase efficiency and effectiveness for improving water resources sustainability.

Key Learning: Multi-jurisdictional and stakeholder collaboration is essential for achieving watershed sustainability.

4. **Synthesis is needed for effective planning**. Participants noted that a lot of plans and studies have been completed in the watershed, a great deal is known about the watershed, but understanding and action based on that knowledge has been elusive. Many participants noted that watershed efforts should synthesize and refine the prior work to improve understanding and alignment. That synthesis should inform understanding of how the major systems function and interact in the watershed, which would form a more robust foundation for system-scale evaluation, planning, and implementation. Existing initiatives, plans, and programs should be mapped to identify priorities, gaps, and opportunities for improved efficiency.

Key Learning: Shared knowledge and understanding of the watershed is critical for effective coordination, planning, and problem solving.

5. A systems approach requires new learning. Throughout 2018, the Coordinating Group discussed the key features of the watershed and the systems that interact within it. There was broad acknowledgement of the diversity and complexity of the watershed and uncertainty about the scope and scale of a systems approach for planning and management. The watershed is a complex interaction of natural functions, human uses and impacts, social benefits, and organizational missions. The group characterized the watershed as a system of systems—subject to changing and evolving influence from the surrounding economy, climate, and other forces. Therefore, a systems approach includes both complexity and uncertainty. Managing complexity and uncertainty at the watershed scale requires planning techniques that differ from project planning and regulatory compliance. New learning about these approaches, tools, and terminology is needed to inform collaborative efforts.

Key Learning: New language, approaches, and tools are needed to understand, plan, and manage the watershed as a system of systems and to reconnect natural systems to improve their functionality.

6. **Communications and collaboration are foundational**. Throughout this study, participants noted the importance of engaging all interests in watershed planning. Many noted the importance of underrepresented or hard to reach communities, including rural residents and landowners, disadvantaged communities, Tribes, and the upper and lower Russian River. Participants also noted the importance of increasing the awareness of and connection to the Russian River among all residents and businesses to build ownership and stewardship for the river and support for sustainability investments. Also important to many participants is the recognition that progress is made through trust-based relationships and partnerships that are built through frequent collaboration, personal interaction, and successful problem solving.

Key Learning: Comprehensive outreach, education, and engagement are critical to build understanding and support, connect people with the watershed, and align competing interests to maximize benefits for people and the watershed.

7. **Backbone support is needed**. Participants noted that several important functions are needed to support continued progress. These functions include: convening and facilitation; coordination and communications among participants; systems planning and design, and outreach and education to the broader community, affected interests, and funders. Participants noted that the convening and facilitation function is best provided by individuals or organizations without an interest in the outcomes in the watershed. Other functions can be provided by participating organizations, work groups, and experts. Several participants noted the value and importance of State participation and support in convening this study. The Coordinating Group acknowledged that a long-term

commitment to backbone support is needed to ensure there is sufficient time and engagement to build understanding, trust, relationships, partnerships, and decision-making that will foster collaborative problem-solving and a sustainable watershed.

Key Learning: Fostering trust-based partnerships across the watershed requires a long-term commitment to the backbone functions for convening, coordinating, planning, and communicating.

3.2 Unified Understanding of Foundational Principles

Throughout this study, participants articulated seven essential principles for advancing sustainable water resources management in the watershed.

1. Watershed Scale Is Important.

Participants broadly recognized that applying a system-scale approach for water resources sustainability is necessary and appropriate and that the watershed is the correct scale of the Russian River system. Water resources within a watershed are interconnected in numerous ways and support the overall health of natural systems and the communities that rely on them. Many participants noted that the watershed is a "system of systems," including headwaters, tributaries, mainstem, estuary, and land uses. Water resources problems cannot be addressed fully without simultaneously addressing how lands are managed throughout the watershed.

2. The Needs of All Users Must Be Balanced Within the Watershed.

The Russian River watershed is home to an array of natural systems and a wide variety of human uses. For millennia, Native American Tribes managed the watershed in concert with cultural and spiritual practices and sustenance needs. Ranchers and growers have earned their livelihood from the lands. Urban and rural residents are sustained by water, food, recreation, and waste management in the watershed. Natural systems have been disrupted by human activities, resulting in many natural functions that are out of balance. Participants recognized that human uses must be balanced to meet all needs <u>and</u> that collective efforts to protect and restore the natural functions in the watershed will increase sustainability and resilience for both nature and people.

3. A Realistic, Scientific Basis Must Form the Foundation for Action.

Early discussions acknowledged the complexity of the natural systems in the Russian River watershed. Participants noted that system-scale planning frequently deals with complexity by oversimplifying issues and challenges. Therefore, planning, design, and implementation must be built on and remain connected to a realistic, scientific basis for how systems function and change. The participants identified the evolving understanding of alluvial valleys in the watershed as an important basis for understanding how the watershed, the river, sub-watersheds, and tributaries function.

4. Understanding Historical Knowledge Is Imperative.

Participants noted that substantial research, assessment, and planning have been undertaken in the watershed over the last three decades. Participants also noted that the Tribes have an extensive body of knowledge about the watershed and traditional approaches to natural resource management, but this this breadth of knowledge and experience is not well integrated with or applied to watershed management questions and approaches.

5. Problem-Solving Is Multi-Organizational.

Participants acknowledged that watershed problem solving requires cross-jurisdictional collaboration. One participant noted, "All of the problems that could be solved by a single organization have been

solved." Participants described their experiences working across jurisdictions to address challenges in the watershed, noting that organizations were willing to "work beyond the confines of their missions" to achieve broader goals for the watershed. While significant progress has been made in collaborative problem solving, the participants noted that much more work still must be accomplished.

6. Collaborative Governance Is Critical, but Elusive.

Participants acknowledged that working together is the preferred way to address the challenges across the watershed. Efforts have been under way for a few years through the Russian River Confluence to define an inclusive, collaborative approach for the watershed. Perspectives differ on the purpose, role, and structure of such an organization. Several participants expressed a strong interest in a co-governance approach where the Tribes have a meaningful role in watershed-scale decision-making, similar to the North Coast Resource Partnership. Many participants have acknowledged the challenges and difficulties in engaging and collaborating with all governments and interests across the entire watershed.

7. Winning Hearts and Minds Throughout the Watershed Is Essential.

Participants acknowledged the essential role of education, outreach, and engagement in building successful solutions for the watershed. Many participants noted that outreach and engagement should be the first activity to reach beyond the usual water resource managers, connect people to the value of the watershed, and build a sense of stewardship for the watershed. Others also noted the importance of public understanding for gaining support and funding for the necessary investment and for changing the behaviors that are detrimental for the watershed.

These seven common themes form the foundation for increasing the focus and effectiveness of efforts to address watershed conditions and challenges.

3.3 Watershed Conditions and Challenges

During the course of the study, participants reviewed and discussed current understanding of the conditions in the watershed and the factors that led to current conditions. The following Condition Statement is a high-level summary of the study purpose, conditions, challenges, needs, opportunities, and potential solutions in the watershed. It can serve as the starting point for additional engagement.

As stated elsewhere, the contents of this report do not include comprehensive information and knowledge from the Tribes and the report has not been reviewed by all of the Tribes in the watershed. Therefore, information from the condition statement should not be used or relied upon as representative of the watershed and Tribal perspectives in the watershed.

3.4 Next Steps

The observations of the participants are based on their extensive experience in prior planning and project development in the watershed. Much work is still needed to review and synthesize the knowledge and understanding from prior work to shape future goals and actions. The following section introduces the key elements of success and an initial model approach for collective action in the watershed—aligned with and supported by the State—to reconnect people and the watershed for the benefit of people and natural resources.

The Purpose

The Russian River Pilot is exploring how to increase the scale and scope of collaborative actions within the watershed to meet human needs, reconcile societal and ecological functions, and restore environmental attributes.

The pilot has three complementary objectives:

- 1. To inform and inspire efforts within the watershed to formalize and strengthen communication and collaboration among federal, state and local public agencies, Tribal nations, community organizations, and private landowners.
- 2. To identity and promote changes in state statute and administrative practices that would enable and encourage integrated projects with multiple benefits that significantly increase sustainability and resiliency.
- 3. To assess the applicability of the DWR Sustainability Outlook as a tool for guiding and evaluating regional/ watershed sustainability.

Over several decades, leaders in the watershed have progressed from adversarial approaches for resolving conflicts and competing demands toward cooperative projects that make better use of public resources and accomplish more public good. This condition statement conveys a high level "system" view of the water resource challenges and the potential for more formalized collective action to solve legacy issues, meet current needs, and adapt to changing conditions.

As described below, engagement, coordination, and cooperation among state, federal, regional, and local agencies, Tribes, stakeholders, and the public are needed to plan, motivate, and implement action towards a more sustainable and resilient Russian River watershed.

The preliminary lessons learned, concepts, and recommendations of the Russian River Pilot are summarized in a report for consideration by stewards within the watershed and the California Department of Water Resources (DWR) in early 2019. The long-term intent is that Russian River stewards lead a collaborative effort among all governments and interests, with support from DWR and other state agencies.

The Conditions

Sonoma and Mendocino counties, like many coastal counties in California, are blessed with a temperate climate and diverse and beautiful landscapes. These landscapes were formed by the movement of mountains through earthquakes and uplift, contoured by storms and floods, adorned by vegetation adapted to fire and drought, and stewarded by Native American Tribes.

European settlement of the Russian River watershed quickly and dramatically altered this landscape with agricultural and urban development. Floodplains that were frequently inundated were altered and realigned to reduce flooding and support agriculture. Dams were built to hold back floodwaters and to stabilize water supplies, a vital component to the growth of communities in the watershed. Forest fires were prevented or suppressed to protect property. These alterations allowed for the growth and prosperity of communities in the floodplain.

While these watershed alterations provided significant agricultural and community benefits, they also diminished many of the natural functions that sustained healthy watersheds, populations of native species, and high-quality water. Development and a growing population also introduced many new inputs—nutrients, contaminants, and invasive species—that have had detrimental effects on water quality and native plants and animals. In the past, the Russian River had sufficient water quality and supplies to support human water needs, the economy, the ecosystem, and recreation. Now, at times, the river cannot meet all of those needs.

> This pilot did not include meaningful Tribal engagement. Therefore, the goals, success metrics and any subsequent actions relying on it would be/are incomplete and inaccurate. As a first step to utilizing any information in this document, or the California Water Plan to which it is attached, each Tribe with traditional territories in the source waters, footprint area or receiving waters must be invited early in planning processes to meaningfully consult with the agency or entity initiating the project.

The Challenges

Today, there is a growing recognition that protecting communities, preserving working lands, balancing water supplies and needs, and restoring the natural resources of the Russian River watershed are critical for maintaining the quality of life in the region. The region aspires to simultaneously nurture a vibrant economy with thriving ecosystems, healthy communities, and cultural and recreational opportunities. Yet these goals are increasingly threatened by the natural forces of floods, fires, droughts, and earthquakes and, to varying degrees, by the human activities that use and alter the watershed. Some of the challenges:

- River and stream channels have been narrowed and hardened, accelerating flows, increasing erosion, and in some cases transferring flooding problems to other parts of the watershed.
- Floodplains have been disconnected from the river, reducing flood storage, groundwater recharge, and important habitat and feeding grounds for aquatic and riparian species.
- Urban and wildland-urban interface areas have been developed and paved, increasing runoff and moving pollutants to rivers and streams, contributing to unhealthy conditions and unsafe fishing areas.
- Competition for water supplies in summertime and drought years has in some areas accentuated shortages for people and the environment, while in wet periods flood flows have damaged communities and natural systems.
- Conditions and actions in the upper watershed, tributaries, and mainstem naturally flow downstream to cause additional problems in the Lower Russian River—pollution, sediment, flood waters, etc.

Much work has been done to address these and other related challenges in the watershed. However, the challenges are expected to get more difficult as future weather patterns are predicted to be more variable and more intense—with longer dry periods and more severe wet periods.

The Need

As in other watersheds, traditional efforts to address these problems have been conducted in relative independence from each other, e.g., flood problems addressed by flood managers, water quality problems addressed by regulators, water supply problems negotiated in times of drought. This approach often put one need in competition with another for scarce resources or resulted in unacceptable "win-lose" solutions. Innovative leaders began looking for, and finding, ways to work through the rules or to get ahead of the rules by coordinating authorities, sharing resources, working together to find new resources, avoiding win-lose, and achieving win-win.

These experiences have persuaded seasoned stewards-public managers, Tribes, private landowners, and advocates-that a more holistic approach to watershed management and a more systematic way of designing projects and aligning efforts is both essential and possible. As these watershed entrepreneurs found ways to function at a higher degree of coordination than the system was designed to provide, they now seek to adapt the governance, regulatory, and funding "systems" to better serve the societal, cultural, and ecological needs within the watershed. Governance: Federal, state and local public-sector agencies are largely defined by individual functions and discrete authorities and obligations-encouraging single-purpose actions, fragmented decision-making, and avoidable conflicts. Landowners-agricultural, rural residential, urban, and suburban-have different understandings and interests in natural resources. Business, environmental, and other community organizations have their perspectives and priorities. Tribes have a long history of integrated stewardship of the watershed. Effective collective action requires communication, coordination and collaboration, a shared vision, shared priority actions, and shared resources.

Regulations. Regulations have been developed in response to the most serious harms and consequences from human activity, have provided important protections against further degradation, and supported recovery. But regulatory responses also can be costly, difficult to tailor to individual circumstances and limited in their effectiveness. In total, different regulations from different agencies can make projects, even those with large environmental benefits, impractical and cost prohibitive. Innovative regulatory approaches, particularly as part of coordinated efforts, can provide motivation and assurances, secure resources, and justify investments. As part of coordinated efforts, regulators may find more efficacious ways to meet regulatory objectives.

Funding. Integrated projects with multiple benefits require braided funding streams, new funding streams associated with nontraditional benefits, and financing mechanisms that can accommodate the diversity of activities and beneficiaries. Building and sustaining a collaborative process also requires resources that often must be established before there are projects that can provide financial support for that process. While the benefits of collaborative action are very clear, the funding models are still murky.

The Opportunity

The river, the watershed, and the regional economy are constantly evolving and adapting. Today, there is more knowledge and understanding about how natural systems function and how human activities affect the watershed. Many watershed groups, Tribal nations, and local and state governmental agencies are engaged in efforts to increase the safety of communities and the health of the watersheds. Three specific efforts are underway to better organize the governance, scientific understanding, and social connections for the Russian River watershed. These efforts are instructive in terms of the next steps for collective action in the watershed:

- The North Coast Resource Partnership (NCRP) was formed in response to the State of California efforts to encourage integrated regional water management. The NCRP represents the first system for governance and prioritization for watershed efforts throughout the north coast, including the Russian River watershed.
- The North Coast Regional Water Quality Control Board is developing the Russian River Regional Monitoring Program to help assure that publicly and privately funded environmental monitoring in the watershed is adequately standardized, coordinated, and accessible.
- The Russian River Confluence, hosted by the Russian River Watershed Association, has brought together a diverse set of stakeholders, governing bodies, and Tribes to inform and involve the community and drive action towards a healthy, resilient, and regenerative Russian River watershed.

These efforts are establishing a foundation for more comprehensive management approaches that support all beneficial uses and promote resiliency to climate change and other natural and man-made impacts. While incremental improvements will continue to be made, more collaborative and integrated actions will be required to secure a healthy and vibrant watershed. Additional attention and resources are needed to:

- 1. Develop a shared vision for the overall watershed, an understanding of the distinct characteristics of individual tributaries, as well as the upper, middle and lower reaches of the river.
- 2. Develop systematic coordination and governance to inform, align, and integrate key policies, projects, and management activities in the watershed.
- 3. Better collect, coordinate and assess monitoring data to understand current and changing conditions, to craft strategies and assess the impacts of new actions.
- 4. Integrate land-use and natural resource regulations into broader infrastructure investments, management practices, and restoration activities.
- 5. Build understanding and stewardship among public, private, and civic sector leaders, Tribes, landowners, and residents across the watershed and generations.

The Watershed

The search for solutions to these foundational challeng with understanding the natural river system and the rel of land management, water use, and urban and ag practices.

The Russian River has seven major alluvial valleys lead lower river and estuary. These valleys are diverse lau within which the natural processes seek to balance tl and outputs of water, gravels, and sediment to s diversity of plants and animals. Human activity in each valleys alters flows and sediment movement, whi natural conditions and habitat.

Several important water management activities affer valleys and the river system today. Imports from the l (Potter Valley Project) and exports outside the waters flow volumes. Coyote Valley Dam (Lake Mendoc Warm Springs Dam (Lake Sonoma) alter flows, temperature, and sediment movement. Surface and water use alters stream and river flows, while un agricultural runoff and wastewater discharges affer quality.

Documenting the natural processes, disruptions, the ecological knowledge, and desired conditions in each alluvial valleys and for the river system is an importate activity to help identify the long-term actions to restor functions and support economic and cultural activity.

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The Solutions

Solutions designed at the system scale have the potential to restore and replicate natural functions and coological systems. Collective actions and throughout the watershed can reconcile modern uses and support the watershed's natural restorative ability. To reverse adverse trends and move toward a sustainable watershed, the root causes and their consequences must be understood and addressed through adaptive and resilient stewardship coordinated intent by land and water authorities, in cooperation with landowners and residents of the watershed.

Watershed stewards seek to re-establish the natural functions of the river system and balanced socio-economic connections to the river not to pre-settlement conditions, but to conditions that support and sustain the region today:

- Water storage and retention to sustain the region through droughts.
- Watershed and river system management to reduce flood damage.
- Land management to reduce fire risk, moderate runoff, and improve water quality.
- Resource management that allows natural systems to regenerate.
- Community education to increase stewardship of the watershed and change the detrimental behaviors in the watershed.

With these conditions in mind, regional leaders, Tribes, and land and water managers can identify the best indicators of the health of the natural system, the alluvial valleys, and the communities that depend on them and quantify the water volumes, speeds, and quality needed for a healthy, resilient system and to guide action and investment.

The California Department of Water Resources Russian River Pilot is providing a forum, through which a roadmap towards a healthier Russian River watershed is being crafted.



4. Organizing for Collective Action

4.1 Elements of Success

Participants in this study identified and discussed the necessary elements for success to improve water resources sustainability at the system scale. These six elements were developed by and with participants for considering how water and land management in the Russian River watershed can be aligned to protect and enhance natural system functions, support people and communities, and adapt to changing natural forces and human activities. The necessary elements, which must be discussed and vetted more broadly across the watershed, include:

- Governance and Decision-Making
- Data Collection, Monitoring, and Assessment
- Planning and Design
- Funding and Finance
- Regulatory Alignment
- Communications and Collaboration

Historically, water management in California has tended to proceed along a linear path where a problem or challenge is identified, a project is designed and engineered to resolve it, and funding is sought to pay for it. In contrast, system scale management requires managing for the benefit of the "system of systems" that constitutes the entire watershed, including its rivers and streams, affiliated lands and ecosystems, and social and economic systems that provide for the well-being and prosperity of people. This approach is in harmony with *Update 2018*, which envisions use of the Sustainability Outlook as an iterative tool where actions, planning, adaptation, and tracking are in constant play and evolution to achieve sustainable system scale management of the watershed.

The collective action model described below demonstrates the interrelated nature of these key elements. For example, improved coordination and alignment of regulatory processes will be critical for addressing the inter-connectedness of natural systems and communities within the watershed. At the same time, the funding and financing approach can include efforts to increase efficiency of current regulatory and operational activities and free up resources for implementing collective and integrated actions. Similarly, data collection, monitoring, and assessment must inform the planning and design of sustainable management activities. And effective communication and collaboration, which can be fostered through a collective action structure, must permeate all the other elements.

Governance and Decision-Making. The Russian River watershed is bisected by dozens of governing bodies and Tribal governments with varied roles and responsibilities in water and land management. In addition, private landowners, non-governmental organizations, and others play critical roles in managing resources and shaping plans and programs. At the watershed scale, each of these interests own a piece of the problem and are part of the solution, but no single entity owns the whole. Participants in the study noted that organizations and individuals must stretch beyond their missions and perspectives to support the benefits for the system as a whole. Decision-making mechanisms and processes must recognize governmental and organizational responsibilities and authorities, while at the same time guiding actions towards water resources sustainability.

Data Collection, Monitoring, and Assessment. Participants in the study concluded that a watershedwide approach for data collection, monitoring, and assessment is needed to inform decision-makers, managers, stakeholders, and the public in three areas: (1) aligning data collection and monitoring with watershed goals and desired outcomes, (2) organizing and managing data collection and monitoring, and (3) assessing conditions, effectiveness of actions, and progress towards goals.

Planning and Design. Participants agreed that a system-scale planning and design process must be built upon a solid scientific basis and knowledge of how the natural systems function that also recognizes historical, community and economic values. A planning process must consider goals and solutions at the systems scale to provide the framework to connect programs and projects and maximize benefits for the watershed.

Funding and Finance. Understanding overall funding capacity within the watershed will be necessary for planning system-scale solutions. Creative financing approaches that leverage existing resources, take advantage of economic growth, and generate new funding sources and partners will be needed for investments that provide multiple benefits at the local and watershed scale.

Regulatory Alignment. With the growing recognition of the inter-connectedness of natural resources and communities, regulating a single resource in the system is no longer feasible or practical. Improved coordination and alignment among all regulatory processes should proceed at three levels: (1) aligning regulatory policy goals, watershed conditions, and regional outcomes, (2) coordinating regulatory processes with watershed planning and design, and (3) developing and coordinating project review and approval processes within existing regulatory frameworks.

Communication and Collaboration. Community understanding, ownership, and support are critical for the success of any watershed initiative. Engagement and collaboration among federal and state agencies, Tribes, local and regional government, business and civic organizations, and landowners and residents are the foundation for community ownership and support. Indeed, many of the study participants noted that communications and collaboration is the <u>most</u> important activity towards watershed sustainability for several reasons: (1) a broader connection to the watershed and sense of stewardship is needed in all communities; (2) support and agreement of varied interests and the community at large is needed to fund the necessary actions; and (3) changes in attitudes and behaviors are needed to improve conditions in the watershed.

4.2 Toward a Collective Action Model for the Russian River Watershed

Participants discussed the Russian River watershed as a system of discrete, connected alluvial valleys from the headwaters to the estuary, each with distinct tributaries and varied challenges. The "conditions" in the watershed have been explored and expressed as the consequences of legacy choices. And the aspirations of many have been voiced as the desire to find ways to work better together to meet current and future needs, to restore functions, to reconcile natural systems and human behaviors, and to promote these desires through the uncertainties of climate change.

One way to navigate toward sustainability and resiliency within the parameters of unpredictable change is to govern with the values and calculations based on a long-term time horizon of up to 500 years.

This multi-century governance perspective should recognize the current systems – hydrological and legal, biological and financial, geological and political – that are the basis of all future actions. The structure should also embody characteristics, attributes and "A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise."

Aldo Leopold, Sand County Almanac

abilities that will be needed to plan, decide, and execute in different ways. These assets include:

- More authentic and enduring ways to establish a common vision and values and, based on those values, to sustain a commitment to pursue that vision.
- More respectful and effective ways to build understanding and to resolve conflicts among interests from different perspectives with different priorities.
- More creativity and trust to develop alternative ways to accomplish the intended objectives of siloed and fragmented regulatory schemes, taxation authorities, and legal responsibilities.
- The ability to develop shared investment strategies public and private dollars and other resources—to secure greater benefits than can be achieved by individual actions.
- The capacity to experiment and innovate and learn, and to fashion accountability mechanisms that accommodate risk and reward transparency to promote innovation and learning.

These desired characteristics, attributes, and abilities are the design parameters for the structures and processes of a collective action initiative. In addition, some of these activities are already underway within the Russian River watershed.

The following description is a template for further developing the overall approach, as well as a basis for then adapting and aligning existing activities into a coordinated effort. Those existing efforts have been referenced in planning discussions, but not yet incorporated into the template.

4.3 Toward an Authentic Vision and Enduring Commitment to Collective Action

Participants described the need for a process that could yield a pragmatic vision that incorporates stakeholder input and secures commitments from key leaders with the authority to execute against the goals and objectives. The process involves six primary activities:

1. Engage all governments and interest groups to increase involvement and build trust. A

prerequisite task is to build trust among all interest groups in the watershed, beginning with Tribal governments. An initial team would need to determine the issues and considerations that are important to all of the groups, and create a starting place that all can support. The initial team

would facilitate the development of a path forward embraced by all, including the definition of roles and responsibilities for governing the process.

2. Develop scenarios to engage the public on possible future visions. Based on existing scientific analysis, two or more scenarios would be developed to forecast possible futures of the watershed and illuminate the benefits and consequences of collaborative resource management considering expected escalating extremes in weather, hydrology, and fire behavior as a result of climate change. At least one scenario would reflect a continuation of the status quo—episodic coordination among Tribes, public agencies, and community-based organizations. Another scenario could reflect the functional integration of legal authorities and financial resources, multi-benefit public projects, and public-

Backbone Support

Collective action efforts require support for leader engagement, internal and external communications, data and information gathering, and work groups management.

Backbone support is best provided by a trusted neutral organization with adequate resources.

private activities to produce a more resilient, productive, and sustainable watershed.

The scenarios would be discussed by interest groups and the community at large to develop an understanding of the choices—including the choice to do nothing different—and the effort and activities that would be required to manage the watershed toward a preferred future. The stewards of this process would ensure that all perspectives and interest groups are meaningfully involved, document common ground, and secure pre-commitments to support the results of the process.

- 3. Map primary projects and activities of public agencies. Documenting and overlaying existing activities can reveal current priorities and resource allocations. This map can also reveal gaps and opportunities for interagency collaboration and efficiency. This exercise would be conducted concurrently with the development of the scenarios to shape the scenarios and to inform cross-agency discussions on the types of programs and projects that could improve conditions in the watershed.
- 4. Engage key leaders to establish priorities. The activity maps and the publicly vetted scenarios would be discussed by a small group of leaders with the legal authority and resources to determine the watershed's future. The sessions would be designed to explicitly understand tradeoffs and to set priorities. The leaders would seek agreement on what should be done, what it

Tribal Engagement

The North Coast Resource Partnership Tribal Representatives have commented that the Tribal engagement process for the Russian River Pilot did not include meaningful Tribal engagement and that DWR should restart this process to include every Tribe with ties to the Russian River (see comment letters in Attachment 2). As such, the proposed collective action model and potential next steps are not inclusive of information from a significant number of Russian River Tribes, and the content has not been properly reviewed by all of the Tribes or stakeholders in the watershed.

Based on these comments and other input received from Tribes throughout the project, DWR is continuing to improve its Tribal engagement policies and protocols to support and ensure early and meaningful engagement of Tribes in water resources planning activities.

The coordinating group acknowledged and supported the early and continuous engagement of Tribes to ensure meaningful participation of Tribal governments in the six primary activities described here to develop a vision and collective action for a sustainable Russian River watershed.

would take for the priority actions to be approved and pursued and make personal commitments to publicly champion proposals.

- 5. Broader engagement of elected leadership to establish commitments. The key leaders would engage in discussions with colleagues on how agencies could advance the preferred scenario and priority actions. The collective action would proceed if a majority of leaders from essential agencies reach agreement on the action plan, reflected in operational MOUs among the agencies.
- 6. Community engagement on implementation challenges and opportunities. The preferred scenario and priority actions would be explained and explored in one or more community workshops, so stakeholders and interest groups can help to identify and solve for implementation challenges and be more specific about their commitment to support and contribute to the preferred future.

The public agencies and major interest groups would need to agree on a way to organize and support the activities required to develop the vision and action plan, and then manage shared projects, coordinate related activities and communicate among the agencies and with other partners and the public.

This process could be developed and initiated by a core group of cross-sector leaders who have demonstrated a commitment to collective action, and it could build on and incorporate activities that are already under way, such as the Russian River Confluence and the Russian River Regional Watershed Monitoring Program.

4.4 Core Mechanisms: Data, Planning and Design, Finance, Regulations, and Communications

Collective action needs to coordinate—and in some cases directly manage—the core administrative mechanisms that enable or frustrate cooperative efforts. Many public decisions and projects are shaped and limited by the quality and use of data, the adequacy and flexibility of funding streams, the scope and specificity of regulations, and the flow of information that supports transparency and trust, shared understanding and informed decision-making.

4.4.1 Data Collection, Monitoring, and Assessment

Several efforts have measured aspects of the Russian River watershed and the Russian River Regional Monitoring Program seeks to align and increase the value of existing monitoring efforts. To build upon these approaches and further inform and coordinate activities among policymakers, program administrators, land managers, and public advocates, data must be managed to enable the following:

- Assess conditions and inform analysis on the factors contributing to those conditions.
- Develop a shared understanding of conditions and drivers to inform an overarching vision, establish goals and desired outcomes, and measure changes and progress.
- Inform the design and implementation of multi-benefit projects, as well as experiments intended to yield more efficient and effective approaches to multi-use resource management.
- Establish benefit-derived funding formulas required for multi-benefit projects.
- Enable innovations in performance or outcome-related regulatory approaches.

A formalized multi-agency coordinating structure could determine if existing data management efforts can satisfy these and other needs, provide clarity and appropriate guidance on data collection, sources, and public accessibility, and determine what additional action is necessary. The collective effort should rely heavily on data to inform its own deliberations and decisions and advocate for using increasingly

sophisticated analytical tools to increase benefits, encourage continuous improvement and support innovation in resource management.

4.4.2 Planning and Design

The Russian River watershed is a complex interaction of natural and human functions on land and water. Numerous efforts have assessed these interactions and identified actions to improve conditions in the watershed. Leaders have a growing understanding of these interconnection and emerging technologies are improving the ability to model and manage for these complexities. This knowledge and these tools enable the system-scale planning and design required to address system-scale problems.

As the collective effort advances its initial action plan, it could build the analytical capacity solve greater challenges with the following steps:

- Further synthesize past studies, assessments, and plans to improve understanding of the system and uncertainties.
- Understand and describe the underlying natural functions and connections at the watershed scale using best available science, including data, traditional ecological knowledge, and new technologies and innovations.
- Identify and quantify desired system outcomes to contribute to the watershed vision.
- Identify, assess, and prioritize system changes and improvements to improve watershed outcomes.
- Coordinate and align state and regional efforts for assessment, regulatory approvals, and funding mechanisms to advance and incentivize priority system changes.

The collective effort should establish a Work Group and charter for initiating the watershed-scale synthesis and framing to align and define watershed outcomes and needed changes. The Work Group should build on recent science in the watershed, including the Russian River Independent Science Review Panel Conceptual Model of Watershed Hydrology, and align with the DWR Sustainability Outlook for public health, environmental, economic, and social outcomes.

4.4.3 Funding and Finance for Collective Impact

Traditional funding streams for water resources tend to focus on project-level planning and investment, which does not necessarily contribute to system-scale solutions that could achieve desired watershed outcomes more efficiently. Managing for system-scale sustainability will require funding and financing strategies designed to encourage integrated approaches. Collective actions, including public-private partnerships, have the potential to more efficiently and effectively improve water quality and public health, increase water supply reliability and reduce flood damage, restore ecosystem health and economic resiliency.

Sonoma County, in cooperation with Santa Clara and Santa Cruz counties, recently completed a report estimating the value of natural capital in the County. Natural capital is the economic value of services provides by natural and working lands, such as water and air quality, recreation, and aesthetics. The report estimated that the benefits from protecting and stewarding Sonoma County's working and natural landscapes to be \$2.2 to \$6.6 billion per year. This estimate includes the annual value for all public and private working and natural lands in the county, not just those within the Russian River watershed.¹¹ These estimates demonstrate that investment in natural resource management in the Russian River watershed could provide substantial returns for the region.

¹¹ Sonoma County Ag + Open Space. (2018). <u>Healthy Lands & Healthy Economies: The Multiple Benefits of Sonoma</u> <u>County Working and Natural Lands</u>. Santa Rosa, CA.

However, those benefits and others can only be realized by strategic and coordinated investments. Four key funding and financing strategies are applicable:

- 1. Capture and reinvest growth in public revenues.
- 2. Braid funding streams to support integrated projects that provide the greatest value to the sustainability of the watershed over the long-term.
- 3. Align existing resources, including those allocated to regulatory and operational activities, to provide the data, monitoring, system analysis and planning required for collective and integrated actions.
- 4. Leverage capacity within the watershed to attract new resources and generate new investments, including private sector investment and avoided costs financing.

This advanced model for funding and financing needs to allow revenue to be fully aligned with beneficiaries. For example, investments in headwaters that benefit the entire watershed should be able to proportionately tap resources from throughout the basin. Although projects with fewer beneficiaries may need to rely primarily on a narrow range of funding sources, coordinating those projects through a collective action effort can achieve economies of scale, particularly for data analysis and planning.

As the watershed identifies its priorities and specific outcomes to be achieved, these fiscal elements should be explored, and as limitations in existing law are discovered, the State will have an opportunity to modernize those provisions to enable integrated actions.

1. Capture and reinvest growth in public revenues.

The long-term health of the region's economy will depend on the sustainability of the watershed and water resources, in particular – justifying the reinvestment of some portion of growing revenues into projects that will help to sustain that growth. The region's growth, while below the Bay Area as a whole, is strong. Although the fires of 2017 and 2018 dampened that growth in the short-term, the North Bay in general, and the two county Russian River watershed in particular, are likely to see continued economic growth.

State law provides several ways to capture the growth in the regional economy primarily through the property tax for a variety of purposes, in this case for infrastructure and other watershed-wide activities including assessment and planning. One applicable tool is the Enhanced Infrastructure Financing District, which allows for agencies with shared interests (e.g., the counties, cities, water agencies, and other local districts) to jointly fund projects to meet a common interest. Participating agencies form a Public Finance Authority governed by those agencies, which can develop and implement a funding and financing plan.

The districts can deploy several tools, including benefit assessments, special taxes and fees, as well as a dedicated portion of the growth in property or sales taxes. For example, an EIFD could be set up to cover the two-county watershed and capture a portion of the growth in the property tax that is attributable to the growth in each counties portion of the watershed. Assuming a 3 to 4 per cent growth in the property tax in the watershed would produce \$40 to \$50 million in annual growth, a small share of that growth could be dedicated to a continuing effort that focuses on monitoring progress toward watershed sustainability.

That modest allocation of growing revenues could support a collective action structure and process that could lead to a variety of coordinated and integrated projects that would attract or be eligible for public funds and private financing.

2. Braid funding streams to support integrated projects that provide the greatest value to the sustainability of the watershed over the long-term.

The funding tools for water and water resource products are well known. They include fees charged for the use of water, assessments on property that have an identifiable benefit from the investment, and specific taxes on parcels or on transactions such as a sales tax. Funding for major projects can be raised upfront with borrowed money repaid over time, either with fees in the case of "revenue bonds" or with property taxes in the case of general obligation bonds.

Integrated projects create the opportunity to braid funding sources and leverage financing tools to pay for activities that might not be economical on their own and can provide benefits not traditionally covered by individual funding sources. Moreover, integrated projects by design seek to provide multiple benefits—such as flood control, groundwater recharge, and ecosystem restoration—rather than being designed for one benefit and mitigating harm to the others.

3. Align existing resources, including those allocated to regulatory and operational activities, to provide for data gathering, monitoring, system analysis and planning required for collective and integrated actions.

Without affecting the underlying obligations and authorities of regulatory or operating agencies, the collective action funding and financing strategy could align and coordinate data gathering, monitoring, and planning activities to reduce duplication and maximize the benefits of such activities so that they benefit individual and collective actions. Agreements among the agencies can ensure transparency and accountability and that the information is used to meet the objectives of collective action. In addition to the potential efficiencies, the coordination of analytical capacity further encourages the integration of projects and operations.

4. Leverage capacity within the watershed to attract new resources and generate new investments, including private sector investment and public-private partnerships and capturing avoided costs.

Private Sector Investment. The "Public-Private Partnership" model relies on private equity investment that will advance the sustainability of the watershed as well as provide a return on the investment. Opportunities for private sector investment assume an investor interest in supporting sustainable resources and an income stream that will provide a return on the capital invested. Linking both can provide another source of funding for watershed sustainability activities. Although most resource investments come from public resources, private equity investment that improves specific properties could be funded through assessments on benefiting properties. A variety of projects could use the Public-Private Partnership model where risk is spread between public and private parties.

This would require the collective effort to be able to integrate private sector investment into the financial resource base. California's history of private sector investment has focused on major capital facility projects and not on resource management activities. However, the range and variety of potential resource management activities provides a promising opportunity to attract private equity investment in the Russian River watershed.

Avoided Cost Financing. Impact funding is the product of avoided cost where specific investments reduce costs over time. This assumes that the savings then can be appropriated as an income stream dedicated to securing the financing of the activity. For example, reductions in insurance premiums can be used to finance investments in risk reduction actions.



4.4.4 Regulatory Alignment and Innovation

As California grew and prospered, regulatory processes were established to protect ecological aspects of watersheds, including flow regimes, water quality and habitat for endangered species. Regulations also were crafted to protect societal and economic values, including flood control, groundwater, and water efficiency. These regulatory processes provide an important incentive and mechanism for addressing adverse impacts of development activities. As the scope and specificity of regulations increase—along with the impact of human development—so do the costs and complexity of compliance.

Early innovators in integrated projects and public-private partnerships discovered an additional burden —that multiple and narrowly crafted requirements by different government agencies can frustrate potentially cost-effective projects that would advance the desired outcome of the regulation better than compliance alone.

A watershed-wide effort that brings the major stakeholders together—including regulators—creates the opportunity to explore innovative regulatory approaches. At the highest level, regulatory goals can be aligned within and integrated into the vision for the watershed, the goals, objectives and monitoring protocols. Regulators can be partners in setting priorities and staffing work groups. Planning and design work can then focus on solving for those integrated goals and objectives. Funding and finance activities can explore incentives to achieve system outcomes and regulatory goals.

At the project level, several types of innovative regulatory approaches surfaced in exploratory discussions. In some cases, these approaches may result in more private investment and changes in private land management practices. In other cases, innovations may encourage rather than discourage multi-benefit projects designed to enhance ecological and societal objectives. These are examples of approaches that can be pursued on a case-by-case basis within the context of a transparent and collective effort to better manage the watershed.

- Programmatic permits with streamlined approval. A programmatic permit that clearly establishes the unacceptable harm, acceptable mitigation, and "best management practices" can simplify administrative review and compliance requirements for individual projects.
- Integrated permitting. For common activities that require multiple permits, the regulating
 agencies can coordinate and integrate definitions, standards, applications and reporting
 requirements to reduce the cost and complexity without reducing protections.
- Early and simultaneous review. For larger, integrated, multi-benefit projects, regulators can engage early and simultaneously to identify ways that projects can be designed to reduce harm and improve ecological benefits, resolve competing public objectives and potential conflicts among regulators, and reduce the time and cost of review so projects with ecological benefits are economically viable.

4.4.5 Communications

Effective communications are required at all levels and across all activities. To be effective, information must be tailored to the audience and the purpose, it must be received and understood, and it must be two-way. Collaborative community efforts require all to have a voice, and all to listen.

The Russian River watershed effort would need to develop an overall communications strategy and specific plans and protocols for each purpose. For illustration:

Communications from the watershed's collective effort to the broader community

Audience and Purpose: Public, private, and civic sector leaders and the interested public need the information necessary to build understanding and ownership of the watershed, comment on high level goals and specific proposals, and stay informed of progress and how they can contribute.

Mechanisms and Messages: The collective effort should develop an interactive website that provides access to detailed information and developments, a narrative and storytelling about the watershed, and solicits input and other ways community members can get involved. The collective effort may want to hold community meetings, participate in community events, partner with other organizations, etc.

Specific plans: The collective effort should develop a plan to engage the public in the purpose of the watershed effort, the visioning process, and how people can participate. The collective effort also could develop a plan for communicating with key leaders and allied organizations throughout its development and its pursuit of specific projects, outreach "campaigns" focused on specific projects or individual behaviors that can enhance sustainability, and a plan for routinely providing a stewardship brand of accountability.

Metrics: The activities should be evaluated to make sure they are supporting the goals of increasing understanding, ownership, support and trust.

Communications among collective action partners

Audience and Purpose: Collaboration requires equal access to information, transparency among the members and their shared activities, and efficient ways to provide input and feedback.

Mechanisms and Messages: The backbone organization needs to develop and support simple protocols that ensure communications are clear, complete, and efficient for discussions and decisions by the cooperating agencies and work groups.

Specific plans: The cooperating agencies should offer clear and understandable distillations of more detailed analysis and projects. Active community members will rely on this information. Work Group

members should communicate among themselves on the progress of specific tasks, issues to be resolved and reporting back to the agencies. Managers of the cooperating agencies would want to track routine and shared activities, and report progress to their agency leadership. While not all of this information needs to be prepared for public consumption, all of it will be public information.

Metrics: The activities should be evaluated to ensure they are supporting good decision-making, effective collaboration, problem-solving, and trust.

5. Next Steps and Draft Recommendations

The following are proposed next steps to be undertaken by an initial team to continue the discussions initiated by this study and develop the relationships, coordination, vision, and goals described above. The initial Task Team would form from representative leaders from local interests, local and regional government, Tribal governments, and state and federal agencies. The task team would dissolve once a collective action coordination/governance structure is established for the watershed.¹²

5.1 Governance and Decision-making

- 16. **Coordinate with NCRP**. Identify a small group to meet with NCRP Russian River leadership and subsequently with NCRP Policy Review Panel to discuss and resolve roles, relationships, and coordination issues, including NCRP role and relationship to watershed system approach for Russian River and NCRP expectations for Tribal engagement and governance role for Russian River.
- 17. **Invite and engage Russian River Tribes and other key interest groups**. Establish a core group of federal, state, Tribal, regional, and local leaders to formally engage with Tribes and invite others (e.g., lower and upper Russian River, rural representatives, disadvantaged communities, Eel River interests) to participate in watershed governance and establish respective roles.
- 18. Seek initial guidance and direction from elected and community leaders. Develop presentation to elected leaders to describe initial coordination and planning approach and seek guidance on priorities.
- 19. **Revise process for developing a shared vision and collective action**. Based on results of the first three steps, reframe the collaborative approach and determine the roles and relationships of Russian River Watershed Association, Confluence, NCRP, regulatory agencies, and others.

5.2 Planning and Design

- 20. **Develop initial future scenarios.** Based on existing scientific analysis and to inform initial engagement and leadership direction, develop two or more scenarios of possible futures for the watershed considering land use, water management, ecosystem functions, governance, and responsibilities. At least one scenario would reflect a description of dynamic equilibrium of the watershed and the alluvial valleys as suggested by the Independent Science Review Panel.
- 21. **Map existing initiatives and goals**. Review and compile major initiatives and goals to identify opportunities, needs, and gaps and inform the scenarios—flood, restoration, groundwater, water supply, stormwater, water quality, land/watershed management.
- 22. Build the scientific foundation to characterize implementation challenges and opportunities. Build on the framing established by the Independent Science Review Panel Conceptual Model and characterize issues and needs in seven alluvial valleys and estuary. Map hydrologic and ecological existing and historic conditions and characterize hydrologic functions, issues, needs and performance specifications and targets for achieving hydrologic dynamic equilibrium. Develop and map an opportunities and constraints assessment for multipurpose strategies.
- 23. **Design a process to develop regional vision and outcomes**. Synthesize watershed performance targets with regional land use planning, fire and disaster resilience planning, and other regional

41

¹² This pilot did not include meaningful Tribal engagement. Therefore, the goals, success metrics and any subsequent actions relying on it would be/are incomplete and inaccurate. As a first step to utilizing any information in this document, or the California Water Plan to which it is attached, each Tribe with traditional territories in the source waters, footprint area or receiving waters must be invited early in planning processes to meaningfully consult with the agency or entity initiating the project.

issues for a multi-purpose regional vision. Build on guidance provided by elected leaders (#3) and coordinate and align with other regional visions and initiatives.

5.3 Data Collection and Monitoring

24. **Coordinate and align with R3MP**. Continue to expand scope of monitoring efforts to align with watershed system needs and planning and design process. Share scope and development process for Russian River Regional Monitoring Program (R3MP). Align with watershed vision and outcomes (#7) and DWR Sustainability Outlook. Consider role local residents and non-profits can play in citizen-science monitoring to track State's Sustainability Outlook indicators and other important indicators.

5.4 Regulatory Alignment

- 25. **Identify regulatory innovations and enhancements**. Use case studies, both past and present, to identify how innovations in regulatory and land use approaches can support outcome-oriented approaches and improve efficiency. Explore the intersection between regulation and private stewardship and incentives.
- 26. **Innovation incubator**. Explore a regulatory innovation incubator to encourage more focus on the desired outcome(s) and what could be done to get there. Identify and illuminate conflicting regulations and seek resolution.

5.5 Funding and Finance

- 27. **Identify backbone funding**. Identify funding sources for initial convening and engagement, planning and design, and other backbone support.
- 28. Assess long-term funding capacity. Identify local and regional funding capacity for long-term investment.
- 29. **Consider funding options**. As actions and investment are identified, consider a full range of funding options, including the novel funding mechanisms identified in *Update 2018*, tax increments, incentives and abatements, avoided cost financing, and voluntary actions and private investments.

5.6 Communications and Collaboration

30. **Develop communications plan**. Develop communications priorities and scope of communications activities to coordinate and align existing communications, understand what people know and think about the river, provide basic education and cross-cultural communication, and support leadership and community learning on systems science and planning.

5.7 Possible State Actions

The following are suggested state actions developed through this study.

- 6. Identify sustainable funding for backbone functions for watershed convening, assessment, and planning for a 10-year timeframe to support the development of the necessary human capital for sustainable water resources.
- 7. Fund and support a Russian River steward position through the State Water Resources Control Board.
- 8. Integrate and align grant programs to support integrated investments and multi-benefit programs and projects.
- 9. Improve and align regulatory processes:
 - Review and amend fee current structures that focus on compliance over collaboration.

- Review and amend current regulatory procedures that encourage litigation over collaboration and conflict avoidance/resolution.
- Review and amend funding streams to prioritize collaborative efforts to achieve watershed outcomes.
- Encourage high-level leaders of regulatory agencies to understand the positive outcomes of collaborative approaches and establish institutional support within the bureaucracy.
- Provide clarity and incentives for agencies that want to pursue alternative compliance approaches.
- Provide financial incentives for agencies pursuing collaborative approaches.
- Support efforts to build capacity and to replicate collaborative approaches.
- 10. Seek federal funds to support watershed coordination, assessment, planning, and Tribal engagement.

6. Attachments

Attachment 1 – Meeting participation Attachment 2 – Comments on Draft Report Attachment 3 – Tribal Engagement Assessment

Attachment 1 – Workshop Participation

The following individuals and organizations participated in one or more of the study workshops (October and December 2017 and July and October 2018) or the workshop with Mendocino County leaders (June 2018).

Name	Organization
John C. Jefferson	AT&T California
David Hines	CA Department of Fish and Wildlife
Megan Fidell	CA Department of Water Resources
Thomas Filler	CA Department of Water Resources
Lewis Moeller	CA Department of Water Resources
Bruce Burton	CA State Water Resources Control Board
Charles Gardiner	California Forward
James Mayer	California Forward
Fred Silva	California Forward
Krista Sloniowski	California Forward
Mark Rincon	City of Cloverdale
Curt Bates	City of Healdsburg
Dirk Medema	City of Healdsburg
Steve Brady	City of Santa Rosa
Jennifer Burke	City of Santa Rosa
Sean White	City of Ukiah
Alex Cole-Weiss	Consensus and Collaboration Program/Sacramento State
Steve Johnson	Conservation and Natural Resources Group (CNRG)
Kristan Kimball	Dry Creek Rancheria
John Nagle	E&J Gallo Winery
Elizabeth Andrews	Environmental Science Associates - Petaluma
Noelle Johnson	Gold Ridge RCD
Adriana Stagnaro	Gold Ridge RCD
Terri McCartney	Hopland Band of Pomo Indians
Craig Anderson	Landpaths
Carre Brown	Mendocino County Supervisor
Sara Dukett	Mendocino County
Devon Jones	Mendocino County Farm Bureau
Femke Freiberg	National Fish & Wildlife Foundation
Javier Silva	NCRP Tribal Representative
Bob Coey	NOAA Fisheries (NMFS)
Rick Rogers	NOAA Fisheries (NMFS)
Clayton Creager	North Coast Regional Water Quality Control Board
David Kuszmar	North Coast Regional Water Quality Control Board
Alydda Mangelsdorf	North Coast Regional Water Quality Control Board
Bryan McFadin	North Coast Regional Water Quality Control Board
Lynette Shipsey	North Coast Regional Water Quality Control Board
Matt St. John	North Coast Regional Water Quality Control Board
Chuck Striplen	North Coast Regional Water Quality Control Board
Brock Dolman	Occidental Arts & Ecology Center
Jeff Pringle	Orenco Systems
Joseph Soulia	Orenco Systems

45

Heather Cooley	Pacific Institute
Cora Kammeyer	Pacific Institute
Jason Morrison	Pacific Institute
John Mack	Permit Sonoma
Robert Pennington	Permit Sonoma
Eileen Nunez	Redwood Valley Little River Band of Pomo
Granville Poole	Round Valley County Water District
Adriane Garayalde	Russian River Confluence
Andy Rodgers	Russian River Watershed Association
Brenda Adelman	Russian River Watershed Protection Committee
Adryon Kozel	Russian Riverkeeper
Warner Chabot	San Francisco Estuary Institute
James Gore	Sonoma County Supervisor
Lynda Hopkins	Sonoma County Supervisor
Amie Windsor	Sonoma County 5 th District
Susan Upchurch	Sonoma County 5 th District
Karen Gaffney	Sonoma County Agricultural Preservation and Open Space District
William J. Keene	Sonoma County Agricultural Preservation and Open Space District
Bert Whitaker	Sonoma County Parks
Melanie Parker	Sonoma County Regional Parks
Cory O'Donnell	Sonoma County Water Agency
Brad Sherwood	Sonoma County Water Agency
Mike Thompson	Sonoma County Water Agency
Caitlin Cornwall	Sonoma Ecology Center
Ann Johnston	Sonoma Land Trust
John McCaull	Sonoma Land Trust
Valerie Minton Quinto	Sonoma RCD
Vanessa Nishikawa	Stantec Sacramento
Kari D. Shively	Stantec Sacramento
Alex H. Johnson	The Freshwater Trust
Monty Schmitt	The Nature Conservancy
Mia van Docto	Trout Unlimited
Antony C. Billes	U.S. Army Corps of Engineers
Michael Dillabough	U.S. Army Corps of Engineers
Nicolas Malasavage	U.S. Army Corps of Engineers
Stephanie Larson	UC Cooperative Extension
Bob Anderson	United Winegrowers for Sonoma County

Attachment 2 – Comments on Draft Report

Comments Received

- Judy Morris, Chair and Leif Hillman, Vice-Chair, North Coast Resource Partnership
- NCRP Tribal Representatives
- Frost Pauli, Mendocino County Farm Bureau
- Laurel Marcus, California Land Stewardship Institute
- Adriane Garayalde, Russian River Confluence (document edits)
- Brenda Adelman, Russian River Watershed Protection Committee
- Cora Kammeyer, Pacific Institute
- Don McEnhill, Russian Riverkeeper



Dear Mr. Gardiner,

I am writing this letter on behalf of the North Coast Resource Partnership (NCRP) to express our concerns about the way in which stakeholder outreach - and particularly Tribal outreach - was conducted for the Russian River Pilot. As you know, the Russian River is one of several watersheds within the larger hydrologic boundary that comprises Region 1 of the California State Water Resources Control Board and the planning and collaboration boundary of the NCRP. Past planning processes for the Russian River and other watersheds in the North Coast region have been formally integrated into the NCRP planning process and been approved by the NCRP Policy Review Panel.

Several of our Policy Review Panel (PRP) members (elected officials appointed by North Coast Tribes and counties) represent the Russian River watershed, and have voiced their opinions since the inception of the Russian River Pilot that there has been a lack of comprehensive and meaningful engagement of Tribal communities, as well as other stakeholders in this watershed – including economically disadvantaged communities. Our understanding is that NCRP staff, PRP members, and agency staff have all brought this to your attention, and/or to the attention of California Forward and DWR, and have suggested ways to remedy this oversight. Additionally, we have received a number of comments from Tribal leaders, other stakeholders, PRP members and members of our Technical Peer Review Committee (TPRC) stating that your organization has implied that there is a relationship between the NCRP and the Russian River Pilot, yet the NCRP PRP has never been approached to discuss such a relationship.

The NCRP has the honor and benefit of Tribal leadership and technical advising on our governance and advisory bodies, and deeply values and respects the perspectives of our Tribal leaders, two of whom are on the Executive Committee of the NCRP Policy Review Panel, representing Tribal interests from throughout the region. As you know, NCRP Tribal leaders and other indigenous groups have submitted a letter to you and DWR stating that they feel the Russian River Pilot has been a deeply flawed process since its inception, that these flaws have not been corrected, and that the Pilot should not be included in the California Water Plan update. Further, these Tribal leaders have suggested that the process should start over, be led by Tribes and other high capacity organizations in the Russian River watershed, and include early and ongoing consultation with the Tribes in the Russian River, as well as comprehensive outreach to other stakeholders.

We are writing on behalf of the North Coast Resource Partnership Policy Review Panel to support the concerns and recommendations expressed in the letter from our NCRP Tribal leaders and other Tribal partners in the North Coast region. Please do not hesitate to contact us if you wish to discuss this.

Best Regards,

Judy Morris, Chair, NCRP Trinity County Board of Supervisors

Copy: James Mayer, Kamyar Guivetchi

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Leaf Hillman, Vice-Chair, NCRP Director, Karuk Tribe Natural Resources & Environmental Policy



California Department of Water Resources P.O. Box 942836, Room 1115-1 Sacramento, CA 94236-0001 Nemeth.karla@water.ca.gov lewis.moeller@water.ca.gov Anecita.Agustinez@water.ca.gov

November 15, 2018

Dear Karla Nemeth, Lewis Moeller and Anecita Agustinez,

We the Tribal Representatives of the North Coast Resource Partnership (NCRP) demand that the Department of Water Resources (DWR) restart the process of this pilot to include each and every Tribe with ties to the Russian River Watershed from the beginning, during the project development phase to develop a truly integrated watershed plan. This initial engagement should be conducted to respect each Tribe as a sovereign government.

Because Tribes were not included in the development of this pilot the results are distressingly incomplete and inaccurate, and will lead to poor watershed management. The content of the report is not inclusive of information from a significant number of Russian River Tribes and the content has not been properly reviewed by all of the Tribes or stakeholders in the watershed.

We further strongly request that DWR not publish the Russian River Pilot report as a stand-alone document, as part of the Water Plan, or as an amendment to the Water Plan. Should you choose to publish it, you are doing so with the understanding that it lacks Tribal support.

We, the North Coast Resource Partnership Tribal Representatives further recommend the following regarding this and future projects;

DWR should clearly engage in government to government conversations prior to this or any future project or pilot that is under consideration, and cannot defer or delegate this obligation;

State agencies should develop procedures to accompany and guide agency leadership, staff, and any hired consultants regarding Tribal engagement, communication, collaboration and consultation policies. To that end the NCRP Tribal Representatives and our support staff would like to support DWR in developing these procedures;

Funding should be provided to participating Tribes to devote staff time to fully provide their expertise and meaningful engagement in this activity or future project funded by DWR;

That output and use of this pilot shall not be used as a successful model of Tribal engagement as this pilot exemplified how not to engage Tribes or to document meaningful Tribal participation. This pilot has taken North Coast Tribes and participating local agencies back to a time when Tribes were only included as an afterthought, a time when the full scope of a project was not shared with or developed with Tribes;

That none of the content of this pilot be cited or used by any agency or entity for this or any other watershed management plan, since much of the content was created outside of the stated intent or scope of this pilot. The lack of information for watershed planning goals, matrices, and suggested activities are glaring because we were not intentionally informing this portion of the pilot as it was not in the stated scope;

That the agency recognize that Tribal attendance in a meeting does not constitute proof of "participation" or consultation. Those Tribes that did participate did not feel their comments or concerns were not captured in the report. Mere attendance was mischaracterized as active "participation" in the process. In the North Coast it is important to note that the attendance of Tribal NCRP Representatives, the NCRP Tribal Engagement Coordinator, or NCRP non-Tribal Representatives does not constitute as consultation or proof of regional Tribal participation;

Again, we strongly recommend that DWR should not proceed to release the Russian River Watershed Pilot report and if you do you are doing so with the understanding it lacks Tribal support. Also, we strongly recommend that you remove reference to Tribes in the report, and that you include this disclaimer in the introduction of the document:

This pilot did not include meaningful Tribal engagement. Therefore the goals, success metrics and any subsequent actions relying on it would be are incomplete and inaccurate. As a first step to utilizing any information in this document, or the California Water Plan to which it is attached, each Tribe with traditional territories in the source waters, footprint area or receiving waters must be invited early in planning processes to meaningfully consult with the agency or entity initiating the project.

Please refer to the attached notes for more information, related Tribal conversations and supporting information.

Sincerely,

Sherri Norris NCRP Tribal Engagement Coordinator, California Indian Environmental Alliance (CIEA) PO Box 2128, Berkeley, CA 94702 www.cieaweb.org



On behalf of the Tribal North Coast Tribal Representatives:

Leaf Hillman, *Karuk Tribe,* North Policy Review Panel Tribal Representative, NCRP Vice-Chair

Edwin Smith, *Bear River Band of Rohnerville Rancheria,* Central District Policy Review Panel Tribal Representative

Brandi Brown, *Redwood Valley Little River Band of Pomo,* South District Policy Review Panel Tribal Representative

Toz Soto, *Karuk Tribe,* North Tribal Policy Review Committee Tribal Representative

Nathan Rich, *Kashia Band of Pomo of Stewards Point Rancheria,* South District Tribal Policy Review Committee Member

Cc: Charles Gardiner, California Forward

Notes gathered by North Coast Tribal Representatives and Tribal Engagement Coordinator

As of 10-15-18

On August 29, 2018, North Coast Resource Partnership (NCRP) Tribal Representatives and Tribes from the Russian River watershed area met to discuss this pilot. The following notes contain the first phase of recommendations on this subject from that meeting and from several other meetings of NCRP Tribal Representatives and the NCRP.

Unfortunately, there was no proper Tribal Engagement for this pilot. Tribal engagement did not begin during the development phase and was only considered as an afterthought in the process. Tribes were not invited to consult with the stat agency who had commissioned this project before it was developed. Thus, the methodology and initial steps did not include comprehensive Tribal perspectives, causing the goals and success metrics and any subsequent actions relying on this pilot to be incomplete and inaccurate. Multiple Tribes, local disadvantaged communities and other stakeholder groups have expressed that their information was not included, and that activities developed from the resulting document will not result in a successful and accurate watershed management plan.

The scope and intent of this pilot project was not clearly provided to Tribes who were not asked to participate until the concluding phases. What we were invited to participate in was not consistent with formal Tribal consultation process and the information being gathered at these meetings was not consistent with the scope as it was provided to us. In the end it is has become our understanding that the scope was to showcase an outreach and communication method for all watershed stakeholders as a first step to create a subsequent watershed planning tool. However, we were being asked for matrices of success for the watershed, which is much different. It is our assertion that to use anything from this pilot for planning or implementation would be a mischaracterization of the information provided by Tribal participants in these planning meetings and would likely result in unintended negative outcomes to the watershed.

In the North Coast local agencies and Tribes have made great strides in respectfully communicating and are consistently trying to improve these processes. Russian River Tribes, NCRP Tribal Representatives and the NCRP are disappointed in the engagement of Tribes in this pilot, especially given that the location was chosen because of the success of the NCRP in Tribal engagement and we are dismayed that our communication and collaborative structure was not utilized in order for this pilot to be successful.

DWR should clearly engage in government to government conversations when this or any future project or pilot is under consideration, and throughout the implementation of the resulting project and cannot defer this obligation. Unfortunately, this pilot exemplifies the old way of Tribal engagement and shows that procedures are needed to accompany the newly

adopted state Tribal policies for communication, collaboration and consultation with Tribes. Principles of Tribal engagement includes that state agencies cannot defer their responsibility to communicate and consult with Tribes to a contractor. While the contractor can assist with outreach it remains the agencies responsibility of oversight to be sure that not only are Tribes being included early in the development of a project, but that the contractor and agency leadership continue to meet meaningfully with all Tribes from the source, footprint and receiving areas of any water project. State agencies, and by extension local agencies cannot defer their obligation to communicate, outreach to and consult with Tribes by deferment to any contractor or staff person. This responsibility lies with the governor's office and/or with the heads of each agency.

State agencies should develop procedures to accompany and guide agency leadership, staff and their consultants regarding Tribal engagement, communication, collaboration and consultation policies. To that end the NCRP Tribal Representatives and our support staff would like to support DWR in developing these procedures for agency staff to engage and be inclusive of Tribes from project development through to activities of implementation in order to arrive at successful water and/or watershed management. This pilot is an example of why policies are not enough and why procedures are needed.

The output and use of this pilot shall not be used as a successful model of Tribal engagement as this pilot exemplified how not to engage Tribes or to document meaningful Tribal participation. This pilot has taken North Coast Tribes and participating local agencies back to a time when Tribes were only included as an afterthought, a time when the full scope of a project was not shared with or developed with Tribes and when attendance during a meeting for scoping purposes was mischaracterized in the resulting documents as active "participation" in the process. Tribal attendance in a meeting does not constitute proof of "participation" or consultation. In the North Coast_it is important to note that the attendance of Tribal NCRP Representatives, that of the NCRP Tribal Engagement Coordinator, or of NCRP non-Tribal Representatives does not constitute consultation or proof of regional Tribal participation.

That none of the content of this pilot be cited or used by any agency or entity for this or any other watershed management plan, since much of the content was created outside of the stated intent or scope of this pilot, it is distressingly incomplete, and may cause poor watershed management. The lack of information for watershed planning goals, matrices, and suggested activities are glaring because we were not intentionally informing this portion of the pilot since it was not in the stated scope. The content of the report is not inclusive of information from a significant number of Russian River Tribes and content has not been properly reviewed by all of the Tribes or stakeholders in the watershed. We ultimately recommend that this Pilot report not be released since it could be misused or mistakenly cited. We know that even if we were to edit this existing draft document it would not result in fully useful watershed goals, matrices or recommended activities. The result of such use would be detrimental to the sustainability of the Russian River watershed since the document in its current state lays out the building blocks to develop an incomplete and inaccurate watershed management plan. Since the outcomes of this Pilot are to be attached to the CA Water Plan,

we are concerned that it may unintentionally or inadvertently direct the reader towards steps which could result in poor advice that may guide future workplans and/or activities.

That should DWR proceed to release the resulting Russian River Watershed Pilot report that the following disclaimer shall be included in the introduction and that it be referenced in all areas where Tribes or Tribal information are included in the document:

This pilot did not include meaningful Tribal engagement. Therefore the goals, success metrics and any subsequent actions relying on it would be are incomplete and inaccurate. As a first step to utilizing any information in this document, or the California Water Plan to which it is attached, each Tribe with traditional territories in the source waters, footprint area or receiving waters must be invited early in planning processes to meaningfully consult with the agency or entity initiating the project.

DWR should restart the process of this pilot to include each and every Tribe in the Russian River Watershed at the beginning during project conception so that project design, goals and metrics of success will be guided by those Tribes who were the first inhabitants, stewards and managers of the watershed, and who are working towards balanced restoration of the watershed today.

Funding should be provided to each Russian River Tribe to devote staff time to document and provide their expertise and baseline information, grounded on the historic functions of the watershed itself and the role of Tribal Peoples' as stewards for future generations to utilize the watershed. Historically, this watershed had supported thousands of Indigenous people who developed the first integrated management approaches wherein the hydrology and ecology of the watershed was interconnected. The ecosystems and Tribes themselves had evolved together to arrive at a holistic and balanced system. Indigenous Peoples' perspective must be the starting point to understand the matrices of success for the watershed and must be established as the baseline before we can collaboratively overlay the needs of stakeholders and the artificial jurisdictional constraints in the region. Traditional Ecological Knowledge must be part of any watershed management plan from plan inception, and this must be applied in co-management with the Indigenous Peoples' cultural practitioners who are historically from the places in the appropriate sources, project footprint area and receiving waters.

That DWR utilize and fund the existing structures in the Russian River Watershed to coordinate the initial outreach, arrive at an agreed upon methodology, gather Tribal perspectives from the entire watershed, incorporate these into the wider watershed wide plan, and to support watershed wide Tribal review of the complete the final document. The NCRP Tribal Representatives structure, with additional existing Tribal coordination and/or meeting structures could assist in the development and implementation of future watershed planning projects with prior notification, agreement and funding for Tribal staff and associated project expenses. This would begin with pilot planning through to implementation. In the case

of this pilot, we were asked to outreach to Tribes without a clear understanding of the pilot and without funds to fully support our work or Tribal participation. To assist, we would have had to pull from our existing funding source which at this time is solely the Proposition 1 Disadvantaged Communities Tribal Involvement program with a separate established scope and budget. DWR needs to provide clear scope of work and or resources in order for tribes to dedicate time in our annual work plans.

Again, DWR needs to restart the Russian River Watershed Pilot, and dedicate support for staff of each Tribe in the watershed to begin at the beginning; not to attempt to repair a document that is so fatally flawed. This will enable all Russian River stakeholders to arrive at a full understanding of the watershed and how it historically functioned. Afterwards we will be successful in overlaying the added contemporary beneficial uses of water, developing goals, matrices of success and suggested activities.



November 16, 2018

Via Email: Charles@CatalystGroupCA.com

Charles Gardiner California Forward

RE: Comments on the Russian River Pilot for the California Water Report to the Region and DWR Draft Report

Dear Mr. Gardiner,

The Mendocino County Farm Bureau (MCFB) is a non-governmental, non-profit, voluntary membership, advocacy group whose purpose is to protect and promote agricultural interests throughout the county and to find solutions to the problems facing agricultural businesses and the rural community. MCFB would like to submit comments on the Russian River Pilot for the California Water Report to the Region and DWR Draft Report.

Glossary

Metrics: It is stated that, "specific metrics have not been identified yet."

• Without metrics, it is a challenge to explain this report and the future process that may evolve from the recommendations in this report.

Region: It is stated that, "region is used non-specifically to describe the area within and around the Russian River watershed. The North Coast Regional Partnership is a governance structure developed through the Integrated Regional Water Management Program for the North Coast Region, which includes the Russian River watershed."

- If this report is about the Russian River, then the region should be limited to the Russian River watershed and the definition should specify that.
- The North Coast Regional Partnership includes the Russian River, but the "North Coast" region is much larger than the Russian River watershed.
- MCFB is in support of limiting the definition of region to the Russian River watershed.

Targets: It is stated, "For this report, targets have not been identified."

• It is understood that targets could be identified in the future. However, any targets/thresholds/desired conditions would need to be thoroughly vetted.

• Conflicting regulatory processes for achieving targets/thresholds/desired conditions within the watershed have proven to be a challenge in the past.

Project Purpose

P. 5 Table 1.1

- This table lists participants in the process to date. Participation from private property owners and rural community members was minimal.
- Since this draft and final plan will need buy in from these groups, it is critical that any future planning processes improve engagement with private property owners and rural communities.

P 6. Tribal Participation

- It is appreciated that a thorough outreach effort is being implemented to receive feedback from the tribal community
- Since this plan is specific to the Russian River watershed, the priority should be given to participation for the tribes that are <u>within</u> the Russian River watershed.

P. 7. Assessment

• In assessing socio-economic conditions, one component of this analysis needs to include the economic impact for existing regulatory burden related to water regulations on the regulated community within the Russian River watershed.

The Russian River Watershed

P. 10.

It is stated, "Augmentation from the Eel River through a tunnel near the headwaters of the Eel River into the East Branch of the Russian River has also increased flow in the river."

• This statement is not correct. The Potter Valley Project and related Eel River diversion provides water resources that are stored in Lake Mendocino. The stored water is released into the Russian River based on guidance documents for flow that have been established by a number of regulations and agencies.

This statement should be amended to read, "Augmentation from the Eel River through a tunnel near the headwaters of the Eel River into the East Branch of the Russian River has also increased flow in the river provided an additional water source for the water supply that is stored in Lake Mendocino. Water releases from Lake Mendocino and related flows are managed by the U.S. Army Corps of Engineers and/or the Sonoma County Water Agency depending on storage levels in Lake Mendocino."

P. 11

• In regards to reclaimed/recycled water use within the Russian River watershed, the recycled water project currently in the construction phase through the City of Ukiah should also be mentioned.

Evolution of Watershed Scale Problem Solving

P. 13/14

- Legacy problems is a loose term that has been used in a number of water related regulations within the Russian River watershed.
- Are there specific examples of legacy problems that this pilot project would consider addressing?
- Has there been consideration of the additional impacts that could be created by attempting to address some of these legacy problems that may have self-mitigated over time?

P. 17

It is stated that, "Rural residential and agricultural users depend on groundwater and urban areas generally do not."

• This statement is not true. There are a number of municipalities within the Russian River watershed that are dependent on groundwater resources to deliver water to customers within the more urban areas of the watershed.

Organizing for Collective Action

P. 25

Data Collection

- In terms of any data collection, monitoring, assessment, it is important to determine who will be using the data and what it is being used for.
- Making data public and open to interpretation will be met with resistance.

Regulatory Alignment

- MCFB supports the concept of regulatory reduction and alignment.
- It needs to be understood that regulatory agencies may resist this concept due to potential reductions in regulatory authority or funding (fees and fines).
- A system focused on achieving watershed goals through incentives versus regulations would be a desired outcome of any further discussion of this pilot project concept.

Toward a Collective Action Model for the Russian River Watershed

P. 26

It is stated, " *The conditions in the watershed have been explored and expressed as the consequences of legacy choices.*"

- Humans have been present in the Russian River watershed in some way for the last 100+ years. There will always be a human factor that needs to be considered in watershed management.
- The legacy of human presence will not be able to be eliminated in a vision of a "natural" state for the watershed.

• Focusing only on undefined legacy choices and resolving issues from decades past, is not necessarily the best vison for ensuring improvement on future human related water uses in the watershed.

A Governance Structure For Collective Watershed Management

MCFB does not disagree that improved coordination and discussion of water management within the Russian River watershed is a concept worth pursuing. However, there is question over the need to create yet another governance entity that could require independent staff, funding, etc. with undefined goals or specific desired outcomes.

Funding and Finance for Collective Impact

- All of the references in this section are Sonoma County specific with no data included for Mendocino County.
- MCFB does not agree with the discussion of bonds, property tax, special parcel taxes or other assessments without having a defined need or use for any funding that would be collected.
- Since agricultural property owners are historically subject to greater burdens from property taxes, parcel taxes, etc. (as well as existing water related regulatory fees), this would not be the preferred method of pursuing funding for watershed related projects.

MCFB appreciates the opportunity to submit comment on the Russian River Pilot for the California Water Report to the Region and DWR Draft Report and we encourage the consideration of the comments expressed above. If there are any questions, please feel free to contact the MCFB office.

Sincerely,

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Frost Pauli President

CC:

Mendocino County Supervisor, Carre Brown
CALIFORNIA LAND STEWARDSHIP INSTITUTE

Charles Gardiner California Forward

Subject: Comments on Russian River Pilot for the California Water Plan Report to the Region and DWR

November 16, 2018

Dear Charles:

Thank you for the opportunity to comment on the Draft Report for the Russian River Pilot. I have carried out natural resource planning, monitoring and project implementation in the Russian River watershed since 1990. I have seen many similar government efforts come and go. I direct the organization, the California Land Stewardship Institute (CLSI), that established a major effort and produced a peer-reviewed scientific report that provides a basis of knowledge for the Russian River – the Russian River Independent Science Review Panel (ISRP). This panel of nine scientists produced the most comprehensive report on the history and current condition of the Russian River watershed. CLSI also runs the largest environmental program for private landowners in the Russian River - the Fish Friendly Farming (FFF) and Fish Friendly Ranching (FFR) Certification Programs. Through the FFF and FFR programs hundreds of landowners of over 100,000 acres have voluntarily been certified and implemented environmental improvements on their land. Our certifiers are regulatory agencies.

Our organization's efforts in the Russian River demonstrate a type of collaborative activity your report ignores – non-governmental programs. The Russian River watershed is primarily private land. Watershed management decisions are made by thousands of private landowners whether they own hundreds of acres of grazing or agricultural lands or a small urban lot. The greatest challenge to improving conditions in the watershed is improving decisions made by all these landowners. This type of improvement will not be accomplished through government regulation or a centralized watershed council. Water conservation efforts provide an example. One of the most successful programs in California to reduce urban water use have been rebate programs to replace toilets and shower heads with new models that limit water use. The government can set rules for new houses, but has to act cooperatively and use incentives to accomplish improvements that benefit the environment.

The government does not have a record of successful land management decisions when it comes to improving or sustaining environmental conditions in the Russian River watershed. From the early days of the US Dept. of Agriculture putting car bodies in river banks, to the Ca. Dept of Fish and Game poisoning streams to kill all the fish so that hatchery trout could be planted, to the State Water Board deciding Coyote Dam should release abundant summer warm water into the river for salmon habitat, to the greatly misguided Army Corps of Engineers Russian River channelization project which straightened, narrowed and hardened miles of the river channel, to Sonoma County permitting massive gravel pit mines knowing they would negatively affect the river, groundwater, private land and infrastructure; the examples of failed government actions are numerous and wide reaching. Are current government actions better? We still see large rock riprap projects on the river and many restoration projects that fail due to poor science and undereducated personnel. There are numerous reports of this problem nationwide.

CERTIFIED



Fish Friendly Farming[®] Environmental Certification Program www fishfriendlyfarming.org The primary idea in the Russian River Pilot Report is to create a centralized government-based structure to "manage" the watershed. Typically, these approaches focus on regulatory solutions and government actions. This concept was tried and failed with the Russian River Watershed Council. Creating new bureaucracies is expensive and unnecessary and did not work the first time around.

We would like to suggest a different viewpoint and approach.

1. There are several statements in the report that imply that floods and fires threaten the ecosystem. This is silly. Ecosystems are adapted to floods, fires and droughts and are often improved by these events. Even with climate change the ecosystem will adapt. These natural processes are the managers of the watershed and given the predictions for the increase in extreme events will have more effect than human efforts to manage anything. The focus should be on getting essential human land uses out of the way of these natural processes to reduce property damage and allow the ecosystem to adapt naturally.

2. Human management of natural resources is largely the problem. As stated earlier there have been many bad ideas with long term consequences carried out by government agencies that were put forth to improve natural resources. These ideas continue and will likely result in more failures. The Russian River Watershed Council produced several very bad "restoration" ideas that had no basis in science, but were supported due to the politics of the council. A priority of any pilot effort should be to limit human interference with natural processes in streams. We need to focus on changing human actions and the poor developments, roads and poorly located houses and stop manipulating natural systems.

3. Focus on incentives to make changes not regulations. Regulation and centralized, top down efforts remove decision making from individuals, create decisiveness and conflict, and do not sustain improvements. For example, give landowners a tax break or a payment if you want to allow the creek to widen on their proerty, or if you want to change stream flow by decreasing the use of water by others. This approach will help to balance economic uses and environmental improvements and create a group of landowners who feel good about these fundamental changes. Further they will spend their resources to maintain improvements. It is also likely that this approach is cheaper than forcing actions through regulatory processes.

4. Increase the use of independent science in the design of all projects that affect creeks or habitats. The failures of so many "restoration" projects is due to the lack of good inter-disciplinary science. Projects in the Russian River are in great need of improved design and monitoring.

If this effort is to be a pilot for the rest of the state it needs a more creative and innovative approach with a full range of ideas and tools, not the same old idea that failed previously. We look forward to attending future meetings and discuss this effort further.

Sincerely,

Jame Mary

Laurel Marcus Executive Director

cc: Mendocino County Farm Bureau Sonoma County Farm Bureau Sonoma County Winegrape Commission Supervisor Carre Brown Supervisor James Gore Brenda Adelman Comments

October 14, 2018

I downloaded and am reading the draft and so far I think it's much improved over last draft.

It's odd though that I had been invited to take part in this process, but my name and our group is not on the list of participants. I had attended all meetings and wrote comments on first draft, which were never responded to for Russian River Watershed Protection Committee. I would hope you would be able to add our name.

Brenda

October 15, 2018

Charles:

Why not list all of the people who participated? It will look a lot more inclusive.

Brenda

I just came across some research quantifying the dollar value of natural capital in Sonoma County (<u>white</u> <u>paper</u> and <u>technical report</u>). Page 13 of the white paper has a nice table delineating the \$ estimates for various ecosystem services like water supply, natural beauty, air quality, etc.

I wanted to share these resources with you because calculating ecosystem values was something that was raised in the last Russian River Watershed pilot meeting. I think that being able to communicate a financial value to healthy rivers and lands is hugely helpful in developing a watershed ethic and incentivizing / funding watershed collaboration. I know this research is only focused on Sonoma County, not the whole watershed, but I thought it would be a good place to start.

Best, Cora

--

Cora Kammeyer

Research Associate Pacific Institute Email: ckammeyer@pacinst.org Phone: (510) 251-1600 ext. 114 @CoraKammeyer Hello Charles and RR Pilot crew,

There always seems to be an effort to prohibit or limit Citizen Lawsuits and saw a couple references to 3rd party lawsuits and Enforcement in last week's presentation.

In order that this process be fully informed I offer two reports on the value of Citizen Enforcement via Clean Water Act as the reality is we have great laws to protect and restore clean water but we lack the willpower. During a recent conversation Speaker Rendon told us, "we all support clean water until the lobbyists start banging on our door". Those lobbyists know clearly that money spent to comply with clean water law - comes straight off the bottom line. Of course in every facet of life some people try to game the system and certainly true here but throwing baby out with bathwater for that tiny minority is senseless if value is found in the 3rd party lawsuits and clearly Reed Sato w AG's office think's it backfills the massive funding gap for SWRCB between fees and what Clean Water really costs. We're advocating for expanding citizen AG privilege to CA CWA again this leg session.

In the context of the RR Pilot, I do not think there is any evidence that 3rd party lawsuits are preventing forward progress. I think the issue with regulations getting in the way to stop good projects is more different Fed, state and local agencies that have conflicting rules or regs in my experience.

I will include this in our comments to CWP but wanted to share with all of you as well.

Many Thanks, Don McEnhill Russian Riverkeeper

Toward Russian River Sustainability

Attachment 3 – Tribal Engagement Assessment

Russian River Watershed Pilot Project

Assessment Final Report: Lessons Learned

Prepared by the Consensus & Collaboration Program (CCP), CSUS College of Continuing Education

Contents

Introc	luction1
Project Background1	
Ass	essment Method and Approach2
Key Findings2	
1.	There is uneven understanding of project goals and outcomes2
2.	Stakeholders and Tribes are interested in the Sustainability Outlook tool
3.	The pilot project timing and approach is inconsistent with Tribal expectations on engagement3
4.	Tribes are unique governments, not stakeholders3
5.	Tribal content was incorporated as a separate thread in the Russian River Pilot Report4
6.	There is a need for a greater understanding of the Russian River watershed
Lessons Learned	
Recommendations	
Appendix A: List of interviewees who participated in formal one on one interviews	
Appendix B: Tribal Perspectives Workshop Participants7	
Appendix C: List of interview questions	

Introduction

The Russian River Pilot is a project of the Department of Water Resources (DWR) California Water Plan Update 2018 (Update 2018) to explore how watersheds can utilize the Sustainability Outlook tool to build on the successes of the Integrated Regional Water Management (IRWM) Program and improve progress towards sustainable water resources management in future IRWM activities. DWR heard concerns regarding the pilot's engagement of Tribes and requested CCP conduct an assessment in fall 2018 to identify key issues of concern, potential project revisions DWR could make to address those concerns. Through the course of this project DWR requested development of a lessons learned memo to accompany the pilot project report.

Project Background

The primary goal of the project is to pilot an approach or the Outlook tool for measuring and guiding sustainability at the watershed (or system) scale within the Russian River watershed. As part of Update

2018, DWR has developed a Sustainability Outlook as a tool to assess statewide water resources sustainability through local watershed evaluation. A secondary goal of the project is to identify how the State of California could support local and regional efforts to improve sustainability, specifically through improvements in regulatory processes, funding and finance, and collaborative governance. Based on initial discussions, these recommendations will include ways to support the existing IRWM governance models currently utilized in the Russian River watershed.

The Russian River Pilot project began in fall 2017 with initial discussions and framing. A coordinating group began meeting regularly in 2018 to continue framing discussions regarding the Russian River Pilot project. The focus on the project was for local discussions to describe the condition of the Russian River and challenges for water resources sustainability, and then identify watershed actions and recommendations for Update 2018. The concepts and recommendations from the Russian River Pilot will be included in Update 2018, scheduled for release in December 2018. In addition, the intent is that this initial pilot establishes interest and support among local, regional, and state leaders to continue a collaborative planning and implementation effort in 2019 and beyond to assess, prioritize, and implement management actions that improve water resources sustainability for the Russian River watershed.

Assessment Method and Approach

CCP facilitators consulted with DWR and project consultant staff to identify opportunities for CCP to attend and observe project coordination meetings, public workshops, and other project-related activities. Based on DWR recommendations and project goals in the watershed, CCP also developed a list of key stakeholders to interview regarding the project. Interview questions focused on stakeholder understandings of the Russian River Pilot project, perspectives and input, including project scale, goals and outcomes, and discussions of ways that Tribes and Tribal representatives within the Russian River were engaged with the pilot project. In addition, CCP organized a workshop among Tribal representatives to discuss their perspectives on the project and sustainable water resource management in the watershed to foster greater understanding of the project by Tribes in the Russian River watershed and enable DWR and consultant staff to garner better understanding of Tribal concerns and perspectives. Through attendance, observation, informal discussions with Russian River Tribal representatives and formal assessment interviews, CCP developed the list of key findings and lessons learned presented in this report.

Key Findings

While select individuals were identified for formal interviews, these findings are based on multiple interactions with Russian River Pilot project participants, interviewees, Tribes and Russian River watershed stakeholders. All Tribal representatives in this assessment emphasized that Tribes are governing bodies with unique and integral roles in the watershed. Where appropriate, distinctions will be made between themes heard solely from Tribal representatives, interviewees, or watershed stakeholders. However, most findings provided herein, were shared among all groups engaged as part of this assessment.

1. There is uneven understanding of project goals and outcomes.

Russian River watershed stakeholders and Tribes are interested in and committed to sustainable resource management in the watershed, including water, land, and forests. However, not all have a

clear understanding of how the pilot project relates to current efforts in the area. All interviewees provided a different summary of the pilot project goals and objectives. Uncertainty and lack of clarity regarding the project goals and outcomes was a prevalent theme among Tribal representatives in the Russian River watershed. This uncertainty was identified as a reason for limited Tribal engagement early on when the pilot project first started engaging with Tribes. For example, participants were unclear regarding how the project contributes something substantively different from North Coast Resource Partnership (NCRP) and/or would support the NCRP.

2. Stakeholders and Tribes are interested in the Sustainability Outlook tool.

All assessment participants expressed support in a watershed approach to resource management. Many emphasized a need for shared understanding regarding the breadth of watershed by identifying areas with distinct management needs in a watershed the size of the Russian River. Nearly all assessment participants expressed support for the Outlook tool. However many felt that the timeline and process for the Russian River Project did not allow for sufficient exploration or understanding of the usability of the Outlook Tool. A few Tribal representatives expressed concern with how the Outlook tool defined and prioritized Tribal priorities.

3. The pilot project timing and approach is inconsistent with Tribal expectations on engagement.

Russian River watershed stakeholders and Tribes both expressed concern that the pilot project did not engage Tribes in a timely fashion. Tribes felt more advance notice was needed to fully and respectfully engage Tribes through appropriate governing bodies (e.g. NCRP, Tribal Councils, etc.). Stakeholders and Tribal representatives both expressed concerns with the overall project timeline, as well as when Tribes were engaged. The need to engage Tribes early and not at a different timeline than others was emphasized by assessment participants.

Likewise, stakeholders and Tribes both felt that existing collaborative resource management structures (e.g. NCRP) were not properly engaged early in the project. Many felt that engaging these structures and groups early in the project design could have ensured that proper avenues or processes for soliciting input from Tribes was followed. For example, individual Tribes' leadership needed time to review and assign appropriate staff/representatives to engage in the process. Likewise, Russian River watershed Tribes required time to discuss how to appropriately express unified and divergent Tribal perspectives.

A few assessment participants also emphasized that this project began while the area was dealing with significantly destructive wildfires, whose impacts included the loss of homes and lives. The first pilot meeting was convened three weeks after the wildfires occurred the watershed. Wildfire impacts affected stakeholders' psychological, logistical, and emotional ability to engage in this process. These impacts and timing of the pilot project also affected the understanding of project outcomes, allocation of resources into the project, and overall outcomes of discussions.

4. Tribes are unique governments, not stakeholders.

All Tribal representatives emphasized the need to acknowledge the role of Tribes as governments, and not solely as stakeholders. Tribal perspectives on this topic overlapped with discussions regarding the project timeline and timing of Tribal engagement. Discussions also emphasized the need to ensure that engagement processes do not assume that all Russian River Tribe perspectives are universal or perfectly aligned with each other. Tribal representatives emphasized that a single Tribe cannot speak for all Tribes within the watershed absent a formal, intergovernmental agreement (as with NCRP), which currently does not exist in the watershed.

5. Tribal content was incorporated as a separate thread in the Russian River Pilot Report.

Russian River watershed stakeholders and Tribes felt there was a significant lack of Tribal history, sustainable resource management practices, and current Tribal management approaches in the Condition Statement. However, some Tribal representatives expressed concern with only incorporating Tribal perspectives as separate content and emphasized that Tribal perspectives should be integrated throughout the Russian River Pilot project. Many stakeholders and Tribes emphasized the importance of early and collaborative discussions and engagement with Tribes to ensure appropriate incorporation of Tribal perspectives. A few Tribal representatives felt that coordinating group discussions did not sufficiently support and validate Tribal science and traditional ecological knowledge.

6. There is a need for a greater understanding of the Russian River watershed.

Russian River watershed stakeholders and Tribes expressed the importance of ensuring that the pilot project process and engagement strategies are developed and implemented locally. These discussions focused on ensuring knowledge of the multiple ongoing efforts in the Russian River watershed, and garnering local support of similar efforts in the future. Discussions also emphasized the importance of understanding the role Tribes play in the Russian River watershed.

Lessons Learned

- The outcomes and processes for the Russian River Project were overly dictated by timelines.
 - Effective Tribal engagement takes time and project timelines should ensure sufficient time is provided.
- Local support and engagement are essential to success. While this is a standard best practice, it is particularly prevalent in such a large and diverse watershed with existing governance structures and projects. Local support can help clearly define outcomes and ensure support by local residents through early project process design, messaging, and implementation.
- Proper Tribal protocols and procedures must be incorporated into engagement processes.
 - Unless agreed to by all Tribes, a single Tribe cannot represent all Tribal perspectives in a watershed.
- Tribes must be incorporated into overall watershed discussions, not through a separate process.
- While Tribes are unique, they should be engaged at least at the same time (and potentially earlier) than other project stakeholders. Earlier engagement can ensure respectful incorporation of Tribal perspectives.
- Not all Tribes are equally resourced and staffed, so while some Tribes may possess sufficient resources and staffing to engage in new initiatives with tight timelines, others do not. Tribes

with staff specialists versed in topics related to the Russian River Pilot project are usually constrained by their own (largely federal) funding programs and associated work plans.

Recommendations

- Ensure understanding of key stakeholders in the watershed, including Tribes.
 - Consider existing processes and timeframes for Tribal engagement when developing project timeline/frame.
 - Develop local support of projects before implementation. Ensure all necessary authorities understand and support project goals.
 - > Work with existing entities and along proper communication channels.
- Develop a stakeholder outreach and communication plan to clearly define project outcomes and goals. Ensure these plans incorporate any needed consultation with Tribal governments or governance entities (e.g. NCRP).
- Engage local entities and liaisons in project design (including pre-planning) and implementation.
 - DWR should consider funding Tribal engagement for initiatives such as the Russian River Pilot project.
- Incorporate traditional and Tribal resource management discussions as a part of all reports or statements regarding projects. Research local traditional practices and incorporate discussions with all Tribes within a project area to ensure adequate inclusion of Tribal perspectives.
- Develop local protocols for Tribal engagement and consultation.
- Follow appropriate Tribal protocols for engagement, emphasizing Tribes as individual and unique governing bodies.

Appendix A: List of interviewees who participated in formal one on one interviews

- 1. Chuck Striplen, North Coast Regional Water Quality Control Board
- 2. Nathan Rich, Kashia Band of Pomo Indians
- 3. Emily Luscombe, Coyote Valley Band of Pomo Indians
- 4. Meyo Marrufo, Guidiville Indian Rancheria
- 5. Karen Gaffney, Sonoma County Agricultural Preservation and Open Space District
- 6. Adriane Garayalde, Russian River Confluence
- 7. Clayton Creager, North Coast Regional Water Quality Control Board

Appendix B: Tribal Perspectives Workshop Participants

- 1. Dean Rogers, Robinson Rancheria
- 2. Deb Kollars, CA Forward
- 3. Charles Gardiner, CA Forward
- 4. Sherri Norris, California Indian Environmental Alliance
- 5. Kirstan Kimball, Dry Creek Rancheria
- 6. Jade Swor, Potter Valley Tribe
- 7. Lianna Vasquez, Hopland Band of Pomo Indians
- 8. Brandi Brown, Redwood Valley Rancheria
- 9. Lewis Moeller, DWR
- 10. Thomas Filler, DWR
- 11. Brenda Tomaras, Lytton Rancheria
- 12. Orval Elliott Jr., Hopland Band of Pomo Indians
- 13. Tyrone E. Mitchell, Yokayo Pomo Tribe
- 14. Javier Silva, Sherwood Valley Band of Pomo Indians
- 15. Christina Snider, Governor's Office of the Tribal Advisor
- 16. Chuck Striplen, North Coast Regional Water Quality Control Board
- 17. Stephanie Lucero, Sacramento State

Appendix C: List of interview questions

- 1. Tell us about your role in the you/your agency's/organization's role and location in the Russian River watershed and/or North Coast Resource Partnership IRWM.
- 2. What is your familiarity with the Russian River Pilot project? Can you explain it to others, do you feel you understand the purpose?
 - a. What is the level of understanding (or lack thereof) by regional/watershed stakeholders and constituents about the Russian River Pilot project?
- 3. How did you find out about the Russian River Pilot project? How do you stay informed?
- 4. What are the essential organizations, groups, agencies, Tribes, governing bodies, or individuals to include in the pilot project discussions?
- 5. What do you recommend should be done or is working to ensure these groups, agencies, Tribes, governing bodies and individuals are part of the pilot project discussions?
- 6. What are the main issues and desired outcomes for sustainability in the Russian River? Do you feel the pilot can or is capturing those outcomes?
- 7. How could the pilot project tool be helpful in measuring sustainability for the Russian River?
- 8. What is needed to make this tool useful or ensure its use by Regions and/or watersheds?
- 9. Is the project on the right trajectory, is it at the right scale (region/watershed/other?) Why?
- 10. Do you think this tool can be helpful in other watersheds?
 - a. If not, what is needed to make the pilot project tool usable?
 - b. If yes, how?
- 11. Is there anything else you think I should know that we have not discussed?
- 12. Is there anyone else you would suggest I interview?