

North State Jobs First – Natural Resources Sector

Activation Plan Strategic Overview Narrative - DRAFT

Summary

Natural Resources: Toward a Sustainable, Resilient Forest-product Industry

The forested watersheds of the North State Region are the foundational natural and economic asset and the context for community vitality and resiliency. The fate of the region rests on improving and accelerating management of these vast forests to reduce catastrophic wildfires and help watersheds and communities adapt to climate change. These activities can produce economically vibrant businesses with living wage jobs.

The natural resources sector was prioritized for immediate action because of the imperative to develop forest-based enterprises as a basis for financially and ecologically sustainable forest management. As a primary economic sector, environmentally sound wood utilization enterprises also hold the highest potential for secondary forest-related businesses to generate economic benefits throughout the region.

The North State Strategic Plan provided 11 recommendations for advancing the Natural Resource Sector. (The full recommendations are in the Appendix.)

Two of those recommendations focused on **forest management activities**, including the extraction of excess woody biomass:

Strategy NR-1: Restoration activities must be increased and prioritize both burned landscapes and remaining green forests. Time is of the essence.

Strategy NR-2: Train and support workers to conduct environmental analyses and produce environmental documents (NEPA required for federal land projects and CEQA for private land) to ensure projects are tied to prioritized restoration projects and timber and biomass is made available for community scale producers.

Three recommendations focused on **wood utilization enterprises**:

Strategy NR-3: Create a regenerative (circular) economy that produces value-added wood products that are sold locally, regionally, statewide, and beyond.

Strategy NR-4: Create value-added marketing consortia for small- and mid-scale producers. Network producers for efficient and effective marketing and sale of products.

Strategy NR-5 : Develop safe, family wage jobs to attract and maintain workers. This should be done with both in-woods and manufacturing jobs, with support for training and work experience, and responsive to the needs of those who have been out of the workforce or marginalized.

Five of those recommendations focused on **state or federal funding policies**:

Strategy NR-6: Advance payments for the ecosystem services and invest these payments in landscapes and community business that use the byproducts of restoration work to create jobs and improve forest and watershed health.

Strategy NR-7: Establish permanent allocations to integrated regional water management, expansion of upper watershed accounting, and coalition-building between headwaters and downstream representatives to address the disparity between the regions of high-elevation water sources and beneficiaries. This will require a commitment from the State of California and include hydropower operators and downstream water users.

Strategy NR-8: Declare source watersheds as integral components of the state's water infrastructure. This expands on Assembly Bill 2480, signed by Governor Brown in 2016, and addressing source watersheds as integral components of the state's water infrastructure that is now restricted to reservoir and conveyance infrastructure. This will help link upper watershed improvements to reliable and quality water supplies and make eligible forest and watershed improvements for the same forms of financing as other water infrastructure projects.

Strategy NR-9: Establish a bipartisan coalition to advance source watershed funding that is linked to wildfire mitigation, forest health, salmon recovery and water quality monitoring that is standardized and consistent.

Strategy NR-10: Base funding for watershed protection, water supply, flood control, and water infrastructure based on watershed acreage or other values and not on population totals, which is the current practice.

One recommendation focused on the potential for **carbon sequestration**:

Strategy NR-11: Explore the potential of the North State for CO₂ storage and commercialization of storage in mafic and ultramafic rock.

Tactics

To advance these recommendations, communities and employers within the region will need to proceed on two levels: developing nimble yet effective ways to work together regionally across sectors and geographies while also targeting and tailoring specific technical assistance to support individual projects.

The region-wide network is required to: 1) build a shared understanding and support for regional priorities, 2) increase learning within the region consistent with the value of self-reliance, and 3) build relationships and effectively communicate the state and federal policies required to support community and regional needs.

While this civic capacity building is important to advance all of the natural resource-related recommendations, it is essential for influencing decisions at the state and federal levels as required by recommendations six through 10.

The initial tactics to advance recommendations one through five will involve targeted and tailored technical assistance. Decades of similar efforts have informed what works and what doesn't work, as well as what is needed and how that technical assistance must be delivered.

The North State team has been examining successful and unsuccessful organizations and projects to identify exemplars in building regional coherence and providing project-focused technical assistance. Action Plan activities will incorporate lessons learned from these exemplars to increase the potential for success.

This overall implementation approach – regional coordination and project-focused assistance – will also be used to implement recommendations for the agriculture, tourism and health sectors, providing coherence for regional leaders while meeting the specific needs of initiatives, projects and activities. The role of the convening team and North State Jobs first collaborative will be to guide and engage the region in this approach. A stepwise process, including starting with interviews and one on one or small group discussions to gain understanding of needs will be followed by tailored technical assistance and collaborative learning.

The region will deploy the following tactics over the next 12 to 18 months:

1. **Activate Regional Leadership.** The region needs to build upon the momentum of the Jobs First planning process to further develop and sustain a convening function – evolving toward a collective impact model – to mature, build support for and communicate a regional vision for improved economic, social and climate resiliency.
 - Participants in the strategic planning process enthusiastically endorsed the vision in the plan calling for a regional economy that was mission-driven, regenerative and caring, one that provides more opportunities and for faster recovery from disruptions and disasters.
 - This convening capacity will need to be nurtured from within to build trust and establish the value proposition among geographically distanced community leaders whose experiences have taught them to rely mostly on themselves.
 - The structure and formality will grow in time into a cross-sector collective impact collaborative that aligns behind shared goals, communicates as a region, coordinates shared activities and measures progress. In the coming months, regional leaders will explore how the backbone organization could grow out of existing cooperative efforts, such as a next generation version of the Sierra-Cascades all Landscapes Enhancement (SCALE) collaborative or the HRTC. North State Together is already a vibrant regional

network focused on education and workforce. An exemplar of a formal regional cross sector convener is Valley Vision in the Capital Region.

2. **Promote Shared Vision.** This regional leadership will identify and execute priority actions related to the three primary functions: 1) promote a regional vision, 2) curate learning within the region, and 3) strengthen relationships external to the region.
 - The North State team will conduct a series of follow up meetings in each of the 10 counties within the region to broaden awareness, particularly among elected officials, and engage participants in specific elements of the implementation plan.
3. **Determine Precise Technical Assistance Needs.** The Jobs First team will develop a detailed inventory of all woody biomass projects in the region, document progress, the status of project plans, and common technical assistance needs.
 - The inventory will track existing, developing and planned wood utilization projects. The inventory will provide the details required to target and tailor technical assistance as projects progress, and to identify common challenges that are amenable to coordinated support.
4. **Provide Tailored Project-focused Support.** The team will develop a technical assistance model and a mechanism for financially sustaining the organization or network.
 - The model or models will be based on a recent assessment of previous and existing technical assistance efforts.
 - Partnerships with existing technical assistance efforts will be explored as a way to accelerate progress.

Two Organizational Structures Will Support Implementation

The region will pursue two coordinated organizational structures: One to advance the region’s vision to action and the second to provide focused support for initiatives, projects and activities.

Advancing a Regional Vision

The North State’s history and characteristics will require it to develop formal organizations over time while demonstrating the value proposition for individual communities and counties.

This evolutionary approach is necessitated in part because the region has not benefited from the substantial public and civic funding and infrastructure of other parts of the state. Some examples:

- The region has not received the dedicated and ongoing funding that supports the regional planning of multi-county Metropolitan Planning Organizations.
- The region also lacks the significant philanthropic investments of the state’s urban areas or the civic infrastructure provided by active community foundations.

- The region, with a couple of small exceptions, lacks the access to federal financial support provided by Community Development Financial Institutions.
- Ironically, the region – an epicenter of catastrophic wildfire and the ensuing insurance crisis – also does not benefit from the California Organized Investment Network, which was established solely to encourage insurance companies to invest in underdeveloped communities.

This lack of investment in nonprofit organizations and small businesses has contributed to the low social capacity assessed and presented in the North State’s Strategic Plan and to the uncultivated relationships across business, civic and public sectors, and across the region.

From this starting place, North State stewards seek to build relationships, support learning networks, and coordinate activities as a prerequisite to the more formal structures that exist in virtually all other parts of California. The short-term tactics will seek to fortify and connect existing networks and work to increase the value of cooperative efforts and participation of cross-sector leaders.

Initial efforts will be focused on wood utilization and the natural resource-related recommendations, followed closely by agriculture, tourism and health.

Forest management defines the region’s history and future – most imminently the threat of climate change and catastrophic wildfire and agonizing efforts to develop community-scale wood utilization businesses. The businesses are essential as an economic cornerstone for removing excess woody biomass from the forests and to create primary jobs with the potential to support vibrant communities.

While the vision appears to be shared by local, state and federal leaders, local leaders largely lack the authority, control or financial resources required to effectively pursue their vision. Most of the forested land is owned by the federal government, making it difficult to ensure an adequate supply of feedstock. Most of the state resources are distributed through dozens of competitive grant programs managed by multiple agencies that even in the aggregate do not fund all of the pre-requisites of a complete management or economic development strategy. Lacking this physical and policy infrastructure, private investors are few and far between..

The 2024 Jobs First strategy and this activation plan are designed to better develop and coordinate the control and resources held by communities and more effectively communicate shared needs to state and federal officials, as well as institutional investors.

North State Jobs First Catalyst Projects

During the North State Jobs First Planning Phase, the HRTC, advisory/scoring committee worked to develop a robust project application and review process from throughout the North State region. The process paralleled the coordination and development of the North State Regional Plan resulting in funded (23 total projects) and unfunded projects that align with the strategies and

tactics to support and grow the natural resources, agriculture, health and tourism sectors. The majority of awarded projects have multi-county impact with various partners and have the potential for scalability.

The North State co-convening team is committed to providing technical assistance to the projects that were awarded, as well as seeking leveraged funding for the projects' next phases. While there were projects that were not awarded funds, the unfunded projects still exemplify the strategic direction that the region is seeking to advance its economy and livable wage jobs. The co-convening team encourages those projects to remain engaged with the HRTC to refine their project proposals, identify additional partners, and possibly leverage the funded projects for increased synergies.

Implementation Actions / Alternatives:

The work plan details specific steps that will be taken to explore and discern the right next steps for developing networks and over time organizational structures to steward the region's vision, build relationships and communicate effectively within and from the region. Among the options that will be considered:

- ★ Build upon SCALE to better connect North State collaboratives and broaden their reach and influence with local officials.
- ★ Connect with the Northern CA Water Association to explore common cause on watershed management and headwater investment.
- ★ Evolve and sustain the HRTC partners and structure to incorporate and advance the regional vision as recommendations are implemented and catalyst projects are developed.
- ★ Explore the assets and experiences of the North State Together collaborative to broaden communication to other sectors that depend upon and benefit from effective education and workforce development initiatives.

Supporting Specific Projects

A technical assistance network will be matured and curated to tailor expert assistance to individual projects or projects navigating similar project-related challenges. While every project has distinct characteristics, the projects – both wood product and biomass energy – follow similar paths and face similar often prohibitive challenges:

- Funding and financing, from the initial steps until financially sustainable operation.
- Site selection and often remediation, environmental analysis and other threshold regulatory and permitting approvals.
- Product selection, which includes a market analysis, the identification of production partners and customers – a planning and development process that can trigger additional infrastructure improvements and more regulatory approvals.

- Feedstock development and guarantees, often requiring elusive long-term agreements with federal land-holding agencies.
- Workforce development, directly for the facilities and indirectly for the forest management work that generates feedstock.
- Construction, start-up and full operation – typically including a litany of unknown, unpredictable but ultimately unsurprising problems that delay projects, increase costs or reduce marketability.

At any one time, the region may have a dozen or more projects somewhere in this pipeline. Individual proponents – ranging from experienced forest-based businesses to community organizations to local government agencies – are essentially on their own.

Some of the challenges are universal and extremely difficult to overcome on a project-by-project basis, including staffing and resources for environmental assessments, securing long-term contracts for feedstock and developing an adequate capital stack. Some of the challenges require a deep understanding of wood products or energy industries, and relationships with key entrepreneurs and public officials.

In recent years, virtually every project has been highly dependent on public grants – from a variety of federal, state and even philanthropic agencies. The grants are usually competitive, narrowly focused, and seldom coordinated by grantors. The timing, availability and size of the grants are cyclical based on government budgets and political priorities.

No wonder private investors, even late stage investors, are scarce.

Regardless, as stated above, the fate and future of forested California and the people who live in and near the state’s emerald necklace are dependent on community-scale wood products enterprises.

The technical assistance network will be informed and potentially involve exemplars – existing organizations or collective efforts – that are successfully supporting projects with one or more challenges.

Resourcing Across the Strategy

The North State has been historically challenged with preparing, applying and managing public funding grant programs to move projects and initiatives forward for the region. As described in the North State Regional Strategic Plan (North State Plan), lack of capacity continues to be the top barrier for the region’s leadership within jurisdictions, businesses, community-based organizations and other groups across all industry sectors. The North State, alongside other under-resourced regions, advocate for more funding opportunity-related activities: project and application technical assistance, longer planning project periods, equal funding allocation across all regions (despite population base), and limited amounts or alternate methods to meet match requirements. The

North State Jobs First Catalyst Fund project award process is a first step in addressing these challenges.

The North State Jobs First Convening Team encourages organizations, initiatives and projects to diversify funding streams without losing sight of the overarching objectives and goals. Seeking grant funding because it is available can lead organizations and projects in a direction that is divergent from their mission and is often unsustainable. A more strategic approach is to identify funding opportunities that leverage and build upon existing efforts and projects. This approach is critical to building financial sustainability and resilience to the ever-changing priorities of state and federal decision-makers.

The North State Jobs First Convening Team is committed to supporting awarded Catalyst projects by identifying additional funding (with a focus on state and philanthropic sources), as well as assess non-awarded Catalyst projects for areas of improvement, partnership opportunities, and cross sector and cross-county collaboration to better position the projects for future funding opportunities, and planning and development technical assistance.

The North State continues to have success in regional applications integrating multiple partners with many cross-jurisdictional teams included. The Jobs First Convening team supports and advocates for continued, intentional efforts to leverage and harness the expertise from multiple collaborators to help mitigate the challenges of capacity, to utilize the experience from past projects and to emphasize the talent that exists throughout the region - but may not be present in all communities. It is imperative that the North State region remains cohesive and collaborative to combat the historical barriers that have prevented attracting and retaining the talent and financial resources so necessary for growth and development. Key examples include the following:

- *EDA Good Jobs Challenge*
 - 9 Applicant Organizations – 20 + Partners
- *K-16 Collaborative*
 - Shasta College and 10 County Collaboratives
- *High Road To Tribal Forest Restoration and Stewardship*
 - 10 + Partners including Tribal Partners
- *North State CA Jobs First*
 - 100 + Partners
- *Siskiyou Climate Collaborative*
 - 7 Initial Partners

Another recommended strategy is to review on-going funding streams (for example, Strong Workforce Grants) to coordinate with higher priorities for the North State region over the ever-changing direction of state agencies in coordination with other state-wide regions. It is critical to align priorities of practitioners and local leaders with state objectives especially as state leadership develops and implements the Economic Development Blueprint.

North State Funding Tactics:

- Identify connections and leveraged opportunities between Catalyst projects (funded and unfunded), regional and state-wide initiatives, and cross-sector and jurisdictional boundaries
- Explore capital stacking opportunities: New Market Tax Credits, public funding sources, philanthropic engagement, and private sector resources
- Diversify public sector sources: federal, state and local
- Engage the North State philanthropic sector to assess strategies identified in the North State Plan and potentially align with philanthropic priorities
- Cross subregional collaboration and collaboration between statewide rural and urban geographic regions

Implementation Actions

1. Develop an inventory of projects utilizing the funded and unfunded Catalyst project awards as a starting point.
2. Assess alternatives for partnering with existing organizations, initiating new networks and linking with catalyst projects
3. Pilot technical assistance with selected projects

Develop to develop the financial infrastructure, including:

- Establish more CDFIs
- Work with McConnell foundation and Resource Legacy Fund to strengthen relationships from urban foundations.
- Partner urban community foundations to fortify community foundations within the region.

Tactical Work Plan

Tactic & Overview	Task	Responsible Party	Timeline
Activate Regional Leadership	Continue convening subcommittee for the natural resources sector and include additional practitioners and exemplar partners to deepen working relationships, review funded projects and expand	Co-convening Team with sub committees	Beginning February 2025

	<p>tactics for implementation of the Regional Strategic Plan.</p> <p>Identify partners in subregions to be leaders within each sector to ensure the region stays connected and engaged.</p> <p>Hosting regular meetings (HRTC, subcommittees, advisory committee), as well as one-time learning events, workshops, or expos.</p> <p>Facilitating peer-to-peer introductions and networking opportunities</p>	<p>Co-convening team, HRTC, advisory committee</p>	<p>April, August, and November 2025/ 2026 Schedule TBD</p>
<p>Promote Shared Vision</p>	<p>Build upon the community capacity workshops completed throughout the planning process. Host workshops in each of the 10 counties to engage the Regional Strategic Plan, connect funded awards with existing and new partners, seek assistance to improve unfunded projects to move toward eligibility for funding or to collaborate with other projects.</p> <p>Develop regular cadence of outreach to entire North State region: newsletter, social media, video projects</p>	<p>Subregional partner leads identified in the previous tactic with support from co-convening team</p>	<p>March 2025 - July 2026</p>

<p>Determine Precise Technical Assistance Needs</p>	<p>Through the community capacity workshops and HRTC meetings, conduct an inventory of needs of individual counties, subregional areas and the entire region.</p>	<p>Advisory Committee and HRTC with co-convening team support</p>	<p>Beginning February 2025</p>
<p>Provide Tailored Project-focused Support</p>	<p>Assess funded projects needs and growth opportunities. Identify expertise within the co-convening team, advisory committee and HRTC members. Review unfunded projects to determine needs and connect with resources.</p> <p>Develop a mechanism for sharing best practices, connecting projects and initiatives to subject matter experts. For example, a Community Biomass Handbook</p> <p>Develop templates or tool kits, for example, getting through permitting processes</p> <p>Assemble teams of on-call experts or consultants with subject-matter expertise in financing, marketing, grant opportunities, wood species and feedstock supply, business development, and other needs identified by the inventory.</p>	<p>Advisory Committee and HRTC with co-convening team support</p>	<p>Beginning February 2025</p>

	<p>Facilitate interaction with official entities such as SBA, economic development, and workforce.</p> <p>Organize field trips to successful models.</p>		
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Goals and Metrics Across the Strategy

Sector-level outcomes

1. Volume of woody biomass processed to provide economic and environmental uses.
2. Financial sustainability of wood-related businesses
3. Number of quality primary and secondary jobs.

Shorter term progress measures

1. Participation in and progress of regional convener
2. Number / percentage of technical assistance needs adequately met.
3. Number and progress of projects in the pipeline (based on inventory)
4. Number and median income of project-related jobs.

Expectations for reporting progress on measures

1. Monthly virtual meetings of executive committee of the regional convener
2. Monthly virtual meeting of projects seeking / receiving technical assistance
3. Quarterly in-person meeting of the regional convener.
4. Posted and promoted scorecard and storytelling
5. Annual regional in person meeting of cross-sector leaders (linked with a quarterly regional convening meeting)

Dependencies and Risks

Key dependencies

1. Other regions in California that are downstream of the region are highly dependent on the North State for its watersheds and runoff, its oxygen-producing and carbon sequestering forests, and its beautiful vistas and recreational opportunities. The region, in turn, is dependent on the public, private and civic sector resources and capacities of urban California. These interdependencies are the basis for mutually beneficial relationships, public policies and business and civic partnerships.
2. Community-based projects are highly dependent on one-time, competitive and unstable funding from state and federal grants. This dynamic creates both an existential dependency as well as a risk.
3. In addition to funding, public and private community enterprises are highly dependent on highly fragmented state and federal initiatives, departments, services and management actions. This dynamic greatly increases complexity and transaction costs that can easily overwhelm the limited capacity of rural governments and organizations, adding significant risk to strategies and projects.

Key risks

1. In addition to funding and fragmentation, efforts to develop a regional voice will need to navigate political divisions and geographic distance that discourage trust and encourage isolation.
2. Efforts to tailor effective project-based technical assistance will need to overcome obstacles that are beyond the control of a project, including management actions by state and federal agencies, global economic trends and natural disasters.

Complete Natural Resource Recommendations

Strategy NR-1: Restoration activities must be increased and prioritize both burned landscapes and remaining green forests. Time is of the essence.

- State and federal agencies must work together and with community and regional collaboratives to prioritize landscape needs and blend resources. The California Wildfire and Forest Resilience Task Force has stimulated essential interagency thinking and cross-boundary work with collaboratives, but support for collaboratives and tribes in the North State remains uneven, and their engagement is critical for identifying and working on landscape and community priorities.
- Effective landscape management involves anticipatory approaches to landscape fire. One risk management approach utilizes potential landscape control features, like roads and ridgetops, that are blended with information on forest conditions, ecological priorities and fire potential to pre-plan for wildfire and reduce impacts. These spatial areas are called Potential Operational Delineations (PODs) and represent new and needed work in advance of landscape fire.
- Consistent forest restoration and watershed health requires new revenue sources to avoid “boom and bust” allocations and natural resource employment. (These are discussed further below.)
- Reintroduction of fire, including cultural fire, into landscape restoration work must be supported. This will require reducing liabilities for private landowners associated with managed fire, better informing the public about the importance of managed fire, supporting research on prescribed and cultural fire, and supporting the organizations that are building the workforce to do this work. Support for a diverse fire practitioner workforce is key for successful reintroduction of fire and is an essential pathway to job creation and landscape restoration.

Strategy NR-2: Train and support workers to conduct environmental analyses and produce environmental documents (NEPA required for federal land projects and CEQA for private land) to ensure projects are tied to prioritized restoration projects and timber and biomass is made available for community scale producers.

Federal agencies lack personnel to complete timely analysis of needed projects. Assistance from non-governmental organizations, Resource Conservation Districts, and private companies can speed project documentation and landscape work. There are numerous examples demonstrating successful public and private partnerships getting work done, but is it uneven across the North State.

- To grow this educated and needed workforce, build with existing North State organizations and continue to develop regional public private partnerships. Focus on these organizations and partnerships and resist the temptation to outsource out-of-area contractors in order to create jobs and grow the regional economy.

Strategy NR-3: Create a regenerative (circular) economy that produces value-added wood products that are sold locally, regionally, statewide, and beyond.

- Facilitate public and private investment. Invest in community scale wood utilization facilities (e.g., sawmills, cross laminated timber manufacturing, bioenergy production other value-added products) to utilize logs and biomass from forests and create high quality, family-wage jobs.
- Support developers of wood utilization campuses that process a diversity of logs and less valuable biomass and contribute to California’s net zero goals. Numerous California executive orders, plans and policies call for this work. Regional assets include entrepreneurs interested in refining and building community scale operations and wood utilization businesses. Support programs that link entrepreneurs in peer learning groups and joint marketing and development programs.
- Identify, prioritize and clean up sites that historically supported manufacturing and industrial operations for reuse. Utilization of these sites avoids creation of new sites that require clearing and development, and can contribute to remediation of environmental hazards. The U.S. EPA Brownfields program focuses precisely on this work, funding non-governmental organizations to identify and clean up old industrial sites for reuse. Historic sawmill sites are often in central locations that lend themselves to remediation and redevelopment. There are numerous locations where old operations existed and where interest is high in utilizing these sites.

Strategy NR-4: Create value-added marketing consortia for small- and mid-scale producers. Network producers for efficient and effective marketing and sale of products.

- Explore the feasibility of partnerships with ADU companies and disaster rebuild.
- Create a certification/brand for community-based regenerative products and partner with a network of hardware stores for each.
- Dedicate funding to assess value added products produced, volumes sold, logs and lower value biomass used, acres treated among other measures to assess and adaptively improve consortia value.

Strategy NR-5 : Develop safe, family wage jobs to attract and maintain workers. This should be done with both in-woods and manufacturing jobs, with support for training and work experience, and responsive to the needs of those who have been out of the workforce or marginalized.

Example: Considerable success has been achieved with the High Roads Training Partnership focused on Tribes and forest restoration. This program mixes basic skill training, advanced skill training, Indigenous Traditional Ecological Knowledge (ITEK), with tribal trainers and pays for training, work experience, and advancing understanding of securing contracts and managing crews. All trainees are from underinvested communities and the program has growing interest.

Strategy NR-6: Advance payments for the ecosystem services and invest these payments in landscapes and community business that use the byproducts of restoration work to create jobs and improve forest and watershed health.

For decades, payments for ecosystem services that include habitat, clean air, flood attenuation, healthy water flows, hydropower, carbon storage, among others, have not been supported at anything close to the levels needed to sustain these services, benefits and the integrity of the systems that produce them. Climate change, drought, reduced forest restoration and fire suppression have all contributed to the increase in destructive catastrophic wildfire. Considering fires statewide, California Air Resources Board (2022) reported that between 2017 and 2021, 45,000 fires burned almost 10 million acres and released an average of 53 million metric tons of CO₂ equivalent annually. Many of

these—most notably the largest fires—occurred in source watersheds of the North State, compromising reservoirs, hydropower production, transmission lines, human health, and fundamentally undermining the State’s carbon goals and water security. California’s water users rely on North State watersheds: 75 percent of California’s rain and snow is received in the watersheds north of Sacramento; 80 percent of California’s water demand comes from the southern two-thirds of the state (California Department of Water Resources).

Strategy NR-7: Establish permanent allocations to integrated regional water management, expansion of upper watershed accounting, and coalition-building between headwaters and downstream representatives to address the disparity between the regions of high-elevation water sources and beneficiaries. This will require a commitment from the State of California and include hydropower operators and downstream water users.

Strategy NR-8: Declare source watersheds as integral components of the state’s water infrastructure. This expands on Assembly Bill 2480, signed by Governor Brown in 2016, and addressing source watersheds as integral components of the state’s water infrastructure that is now restricted to reservoir and conveyance infrastructure. This will help link upper watershed improvements to reliable and quality water supplies and make eligible forest and watershed improvements for the same forms of financing as other water infrastructure projects.

Strategy NR-9: Establish a bipartisan coalition to advance source watershed funding that is linked to wildfire mitigation, forest health, salmon recovery and water quality monitoring that is standardized and consistent.

Example: The Metropolitan Water District of Southern California serving 19 million people recently agreed to invest in a Forest Resilience Bond designed to create a revenue stream that will finance upfront forest restoration work in the Feather River and Sacramento River watersheds. The bonds are offered by Blue Forest and will provide the Butte Resource Conservation District and the Sierra Institute for Community and Environment support for forest restoration projects.

Strategy NR-10: Base funding for watershed protection, water supply, flood control, and water infrastructure based on watershed acreage or other values and not on population totals, which is the current practice. The political power and votes in California reside in largely coastal urban centers along with some major population centers in the Central Valley. Changing this formula will help avoid embedding regional inequities in new funding. Passage of Propositions 1 and 68 demonstrated that California voters support watershed health and restoration, but because funding was based on population, they privileged smaller watersheds near population centers at the expense of vital North State watersheds that serve and affect all of California.

Proposition 4, the Safe Drinking Water, Wildfire Prevention, and Protecting Communities and Natural Lands From Climate Risks, like its predecessor watershed health and restoration bonds, is favored to pass in November. While the formula for distribution of some of these dollars are fixed, the amount of downstream benefit provided with upstream restoration and recovery warrants continued attention and monitoring to assure investment in headwaters regions. Bonds can fill important funding gaps, but long-term, thoughtful stewardship requires durable and consistent sources of funding for upper watershed health and building economies to support this work over the long term.

Strategy NR-11: Explore the potential of the North State for CO₂ storage and commercialization of storage in mafic and ultramafic rock.

The North State region is recognized by Lawrence Livermore National Laboratory (LLNL) as critical for California's new carbon economy largely through utilization of biomass and conversion technologies, including carbon storage. Jobs First funding supported a preliminary assessment of the North State by LLNL that examined more traditional sedimentary storage along with storage in igneous and metamorphic rocks through carbon mineralization. Glenn and Butte counties hold the most potential for sedimentary geologic CO₂ storage, with a capacity of 1.6 – 29 billion tons of CO₂. LLNL reported that the wide range reflects uncertainty in key parameters used to estimate storage potential in the North State sedimentary layers. The North State contains an abundance of ultramafic and mafic rocks, such as serpentinite and basalt in which storage of CO₂ can be achieved through carbon mineralization, which is akin to rock weatherization. LLNL identified the potential CO₂ storage capacity in this rock in the North State at hundreds

to thousands of billions of tons (Gt). This process is less scientifically advanced than CO₂ storage in sedimentary rock requiring additional research and policy support. One example of this work is Department of Energy funding for an exploratory well in Lassen County for CO₂ storage. Efforts elsewhere are underway to better characterize the resource and commercialization processes. See LLNL report on Carbon Storage available on the North State Jobs First website.