

Executive Summary

Dominant forest type(s): Yellow pine, mixed conifer, fir, montane forest and chaparral, subalpine

Total acreage of the landscape: 390,904 **Total acreage to receive treatment:** 38,500

Total number of NEPA ready acres: 1,080 **Total number of acres in NEPA process:** 18,000

Description of the most significant restoration needs and actions on the landscape: *Needs:* Reduce risk of uncharacteristic fire and threat of wildland fire to lives and property; restore watersheds, meadows and streams to proper functioning condition; restore forest structure, ecological processes, and function; create more-resilient vegetation conditions; reduce wildfire suppression costs. *Actions:* Remove surface and ladder fuels; thin overstocked stands; thin plantations; restore meadows and streams; reconstruct, realign and decommission roads; construct fuel breaks; replant burned areas; treat cultural sites; employ prescribed fire.

Description of the highest priority desired outcomes of the project at the end of the 10-year period: Reduced risk of uncharacteristic fire and threats to lives and property; more-natural fire regime; restored cultural sites; restored streams, meadows and watersheds; more-resilient vegetation; restored forest structure, processes and function; protected municipal water supply; sustainable local jobs and improved social conditions resulting from creation of a re-tooled forest economy. Desired outcomes occur in the collaborative partners' stewardship efforts to create a healthy balance between the environment, community, and economy – a triple bottom line.

Description of the most significant utilization opportunities linked to this project

Biomass utilization for energy and heating, soil amendments, compost, landscaping chips, firewood, animal bedding, saw logs, designer fencing, agricultural and architectural posts and poles, furniture wood, wood pellets, and non-timber forest products.

Name of the National Forest, collaborative groups, and other major partners: Eldorado National Forest, Stanislaus National Forest, Amador-Calaveras Consensus Group (ACCG)

Describe the community benefit including number and types of jobs created. 204 direct and indirect jobs, reduced unemployment, more-stable communities, reduced poverty levels, renewed forest employment of local residents with deep ties to the forest landscape, restored cultural sites, creation of a re-tooled forest restoration economy including increased recreational opportunities for tourism, increased business opportunities, creation of local value-added products focused on local markets through a community-based cooperative effort; reduced levels of crime and incarceration, and other social costs related to high unemployment and poverty.

Total dollar amount requested in FY11: \$730,000

Total dollar amount requested for life of project \$16,653,850

Total dollar amount provided as Forest Service match in FY11: \$2,196,697

Total dollar amount provided as Forest Service match for life of project: \$21,564,345

Total dollar amount provided in Partnership Match in FY11: \$1,091,655

Total dollar amount provided in Partnership Match for life of project: \$5,599,405

Total in-kind amount provided in Partnership Match in FY 11: \$129,795

Total in-kind amount provided in Partnership Match for life of project: \$1,465,136

Time frame for the project (from start to finish): summer 2011 through fall 2020

Table of Contents

- Ecological, Social and Economic Context3
- Summary of the Landscape Strategy5
- Proposed Treatment8
- Collaboration and Multi-Party Monitoring11
- Utilization13
- Benefits to Local Economies17
- Funding Plan19
- Attachments
 - Attachment A: Planned Accomplishment Table
 - Attachment B: Reduction of related wildfire management costs
 - “Results- Cost Savings” of R-CAT spreadsheet available on the CFLRP website
 - Documentation of assumptions and data sources used when populating the R-CAT spreadsheet
 - Attachment C: Members of the Collaborative Table
 - Attachment D: Letter of Commitment
 - Attachment E: Predicted Jobs Table from TREAT spreadsheet
 - Attachment F: Funding Estimates
 - Attachment G: Maps

Ecological, Social and Economic Context

The collaborative Amador-Calaveras Consensus Group’s (ACCG) “Cornerstone Project” proposed for the Community Forest Landscape Restoration Program (CFLRP) encompasses the Amador Ranger District (Eldorado National Forest) and the portions of the Calaveras Ranger District (Stanislaus National Forest) lying north of the North Fork Stanislaus River in California’s Central Sierra Nevada. The area includes the headwaters of four significant California rivers: the Stanislaus, Calaveras, Mokelumne, and Consumnes. The 390,904 acre Cornerstone Project planning area is nested in a larger ACCG strategy for an 840,316 acre All-Lands planning landscape. The All-Lands area includes private lands and is extended west to State Highway 49. The watersheds are important ecological, social and economic resources whose value extends from the Sierra west to the San Francisco Bay Area. The Mokelumne watershed alone provides municipal water for more than 1.4 million East Bay area residents.

The All-Lands area within which the Cornerstone Project is located includes lands managed by the USFS, US Bureau of Reclamation, Bureau of Land Management (BLM), State of California, a large industrial timberland owner, utility companies and myriad private landowners. Lower elevation lands consist largely of privately held rangelands and oak woodland, trending to yellow pine and mixed-conifer forest that includes sprawling residential development, small private timber holdings, and scattered BLM parcels. At mid-elevations, pine and mixed-conifer lands held by Sierra Pacific Industries dominate much of the landscape. The USFS manages a large portion of the mid and upper watersheds, including high-elevation designated wilderness with montane forest and chaparral habitat types. The All-Lands area’s key resources and risks are common among land ownerships, and cumulative impacts to those resources must be considered.

<i>Land Ownership (in acres)</i>	<i>ACCG All-Lands Area</i>	<i>CFLRP Planning Area</i>	<i>% of CFLRP Planning area</i>
USFS	303,122	303,030	77
BLM and US Bureau of Reclamation	40,192	32	< 1
State of California (DFG, CalFire, State Parks)	5,145	3,034	< 1
Private, including local jurisdictions	491,857	84,808	22
<i>Total acres</i>	<i>840,316</i>	<i>390,904</i>	<i>100</i>

(See Attachment G: Maps, for area delineation.)

These forested mountain and foothill landscapes have served as the region’s socio-economic foundation for thousands of years. Before the 1849 California Gold Rush, the native Miwok and Washoe people employed fire as a management tool as they moved seasonally through the watershed and lived sustainably on its rich abundance of plants, fish and animals. After the Gold Rush, cattle ranchers continued to employ fire. As settlement expanded, fire was excluded as timber harvest dominated forest management and exurban sprawl brought more residents to the wildland-urban interface (WUI). Over time, these forests have decreased in fire resiliency and the local landscape has become less fire-resistant as the number, type and value of resources at risk has grown. Meanwhile, local communities that have suffered from boom-bust economic cycles are struggling to develop more-sustainable local economies.

In addition to producing high-quality water for agricultural and urban domestic and industrial uses, the watersheds provide habitat for state and federal threatened, endangered, candidate and sensitive wildlife, including the valley elderberry longhorn beetle, California red-legged frog, Sierra Nevada yellow-legged frog, foothill yellow-legged frog, Yosemite toad, California spotted

owl, American marten and willow flycatcher. They include historic and active Miwok and Washoe cultural sites as well as world-class recreational opportunities. These watersheds have provided jobs for generations of local residents.

The watersheds are also home to thousands of WUI residents, many of whom struggle with poverty brought about in no small part by the near-collapse of the local timber industry. Local residents have deep ties to the land. They include Native American people who have called these watersheds home for thousands of years, descendants of early miners and ranchers, families who made their living in the forest for four generations. Despite the rich landscape, some hard-hit communities suffer unemployment rates more than twice the national and state averages, with accompanying stresses that have frayed the social fabric. Consequently, the ACCG’s guiding principles recognize that a successful All-Lands forest strategy must be grounded in *locally based* economic activity, local markets, and local jobs that can be sustained for years to come. Fortunately, the region’s timber harvest and sawmill heritage has left a workforce with the skills, equipment and desire to work in the natural environment and willingness to invest time, money, energy, and ingenuity into developing a new and more diversified local forest stewardship economy. They are joined by newer residents who have skills to help build local capacity and an interest in developing a sustainable community.

<i>General County Characteristics</i>	<i>Amador</i>	<i>Calaveras</i>
Population (2009)	37,876	46,731
Land Area - in square miles (2000)	593	1,020
Persons per square mile (2000)	59.2	39.8
Persons Below Poverty (2008)	9.8%	11.5%
Children Below Poverty (2009)	16.1 %	17.5%
Labor Force (2010)	17,390	20,080
Unemployment Rate (March 2010)	14.5%	17.1%

Source: U.S. Census Quick facts, 2009, California Employment Development Department, April 2010.

Fuel and fire conditions; related desired outcomes

At lower- to mid-elevations, these watersheds are characterized by high fuel loads and a high risk and history of uncharacteristic fire. The area has a recent history of large, stand-altering fire, which unless mitigated, will continue into the future, potentially exacerbated by the effects of climate change. That poses a significant risk to natural biodiversity and threatens lives and property, water quality, and cultural resources while potentially increasing federal fire suppression and post-fire restoration costs. In addition, the current fuel conditions threaten watershed function and speed the spread of invasive species.

Past fires have resulted in type conversion from mixed conifer forest to tall brush and chaparral. In addition, the overall exclusion of fire across this landscape has allowed type conversion from shade intolerant to shade tolerant species through development of non-natural, overly dense stands. That greatly increases the risk of uncharacteristic fire, particularly in local communities within the WUI.

The fire regime condition class is characterized as moderately or significantly departed from historic vegetation, with risk of key ecosystem component loss ranging from moderate to high, except at higher elevations. Higher elevation areas, mostly designated wilderness, fall closer to the historical range, with lower risk for loss of key ecological components. The fire regime in the area is predominantly designated as I (0-35 year frequency, low severity) with higher elevations areas having a fire regime of III (35-100+ year frequency, mixed severity). Areas in the highest elevation wilderness areas reach IV, (35-100+ year frequency, high severity).

Key desired outcomes of the Cornerstone Project include increased forest resiliency, a more natural fire regime, enhanced biodiversity, greater stand and landscape heterogeneity, proper functioning meadows and streams, reduced sedimentation, restored native cultural practices, sustainable communities, and protected and enhanced cultural and recreational resources. Regional benefits include protecting one of the State's most important municipal water supplies serving 1.4 million residents in San Francisco's East Bay area.

Economic factors

For more than 60 years, this area depended on timber production/extraction in statewide, national or global markets closely tied to building starts. With the consolidation of the timber industry and closure of local mills followed by the Great Recession's housing crash, local communities currently suffer from high unemployment and high poverty levels.

At the end of 2009, the California Employment Development Department (EDD) labor market database showed Calaveras County-wide unemployment at 15.2%, with a special sub-county EDD study indicating the small rural communities in or adjacent to the upper Mokelumne River watershed and near the Cornerstone Project area at 26.4% —well above the 12.1% California average and the 9.7% US average at the time. More-current data continues to show the weight of high unemployment on these communities. Another significant local health indicator is the number of children eligible for subsidized school lunches. In the communities of Rail Road Flat and West Point, the number of students eligible for the program was 86% and 82%, respectively.

The ACCG All-Lands triple bottom line strategy is intended to address this serious socioeconomic decline. Community economic development activities underway in response to the local situation will benefit from the Cornerstone Project strategy while providing the synergy to move it ahead. Local businesses need a sustainable supply of material to support long-term ventures, while the All-Lands approach needs economically viable ways to use biomass and small-diameter forest products. And both public and private land managers will increasingly need alternatives to piling and burning vegetative debris as air quality regulations become more restrictive.

More diversified forest-based economic activity, including various value-added manufacturing sites and products, will stabilize the local economy and communities while using restoration products from the National Forests System (NFS) lands (see Utilization section), reducing forest management costs. In addition, grant funds have already been secured and invested in training local residents for restoration activities and developing innovative agreements to ensure that local businesses will be able to more effectively partner with the Forest Service to benefit the local economy. CFLRA grant funds for the Cornerstone Project will provide an enormous boost to help re-tool the local economy and put people back to work in productive, sustainable forest restoration activities.

Summary of the Landscape Strategy

The Cornerstone Project's landscape strategy is consistent with the ACCG Principles and Policies for Forests and Watersheds—to implement a collaborative approach for restoration plan development, land treatment project design and implementation, and multi-party monitoring to inform adaptive management, with a focus on sustainability in three dimensions: environment, community, and economy. Planning and implementation will be grounded in these principles of the ACCG, applicable law, adopted land management and wildfire protection plans, and the best available science. If funded, the CFLRP Cornerstone Project will be a groundbreaking demonstration of how NFS lands can fit within a collaborative All-Lands stewardship approach to a large landscape.

The larger All-Lands planning area that extends west from the Cornerstone Project is a mix of NFS lands, BLM lands, state park, utility company holdings, industrial timberland, WUI, small timber holdings, a state demonstration forest (expansion planned), ranches, farms and exurban development. This mix allows the integration and monitoring of NFS lands planning and activities with community wildfire protection plans, three county general plans, three Federal Energy Regulatory Commission licenses, BLM's resource management plan, East Bay Municipal Utility District's Watershed Analysis Risk Management Framework (WARMF), state forest and climate change plans and research, and work already being done by state and local agencies. Cornerstone Project success will lead to better All-Lands integration.

Significance and condition

The forest, riparian, and meadow landscapes in the Cornerstone planning area support great biological diversity and include habitat for Region 5 Forest Service sensitive species, including California spotted owl, northern goshawk, willow flycatcher, American marten, Sierra Nevada yellow-legged frog, foothill yellow-legged frog, and Yosemite toad, as well as potential restoration habitat for Central Valley steelhead and fall-run Chinook salmon. The area is also within the historical range of the Pacific fisher, though fisher are not believed to exist presently in the project area. Critical habitat for these species is threatened by uncharacteristic fire due to unnatural buildup of surface and ladder fuels, forest type conversion, and unnaturally dense forest stands with little structural or spatial heterogeneity.

The region has had large stand-replacing fires in recent years, and a number of plantations in the project area need precommercial and commercial thinning to move them toward a more natural forest structure. There is a need to create additional quality habitat for spotted owls, goshawks, marten, and Pacific fisher. Public lands in the project area are especially important for wildlife due to recent, large-scale conversion of adjacent industrial timberlands to even-aged plantations.

The forested watersheds are the headwaters of one of California's most important high-quality municipal water supplies, the Mokelumne River, which benefits more than 1.4 million urban residents. The 840,316 acres of all-lands area in which the 390,904 acres of Cornerstone Project planning area is nested includes WUI lands occupied by thousands of residents with deep historic and cultural ties to the landscape, important cultural resources including the Mokelumne Archaeological District, rivers eligible for National Wild and Scenic River designation, and world-class recreational areas that attract visitors to the region.

Strategy

Consistent with ACCG triple bottom line *Principles and Policies for Forests and Watersheds* (see supplemental information links below), the Cornerstone Project intends to:

- Restore and maintain high-value watersheds in a proper functioning condition.
- Reduce threats to water quality and air quality from wildland fire.
- Reduce threats to lives and property in the wildland-urban interface (WUI).
- Reduce wildfire protection costs.
- Restore and maintain forest structure, function and ecological processes to promote aquatic and terrestrial health, biological diversity, and habitat for a variety of native species, especially species at risk.
- Create more resilient vegetation conditions to meet ecological and social goals.
- Restore and protect prehistoric, historic, and active cultural sites in a sensitive manner.
- Reintroduce fire as a management tool and create conditions that allow prescribed fire to be used in the future.
- Build on existing energy and other infrastructure available to utilize woody biomass.
- Create sustainable local, restoration stewardship-related economic activity and local jobs based on restoration treatment work and development of diverse woody biomass and small-diameter tree by-products and local markets.
- Collaboratively involve the diverse ACCG interests in project planning, implementation, monitoring and adaptive management.
- Contribute to greater community stability through ongoing, sustainable restoration activities on public and private lands.
- Integrate ecological restoration with social goals, such as local employment and community social infrastructure development.
- Enhance appropriate recreation opportunities.
- Demonstrate the benefits of collaborative resource management in the region.

The Cornerstone Project will prioritize treatments that reduce wildfire risk to lives, habitat, water quality and property while restoring overstocked and homogenous stands, degraded meadows, degraded roads, plantations, damaged streams, and lands burned in previous wildland fires. Treatments will be designed to maximize local social and economic benefits as well as ecological benefits. Treatments are anticipated to be carried out within the framework of long-term National Forest stewardship agreements that include local partners in restoration treatments.

The project is consistent with Forest Service Region 5's emphasis on ecological restoration as a strategic focus. Within that framework, both National Forests involved in the Cornerstone Project are developing specific projects and plans consistent with the adopted forest plans and General Technical Report PSW-GTR-220, *An Ecosystem Management Strategy for Sierran Mixed-Conifer Forests* (North et al, 2009 plus addendum). This grounds their work in the latest science for the region and provides guidance on a landscape and project scale to ensure that fuel reduction and forest restoration projects are ecologically sound.

The All-Lands program intends to use a community-based partnership that builds social and economic capacity by creating jobs and promoting value-added businesses, products,

infrastructure, and markets while restoring the landscape. ACCG partners anticipate leveraging CFLRA funding with additional federal and nonfederal investment for restoring BLM lands and private watershed lands, and demonstrating the benefit of a collaborative approach, as well as coordinated monitoring of cumulative impacts and results.

Supplemental information

[Amador Calaveras Consensus Group Memorandum of Agreement](#)

[Amador Calaveras Consensus Group Principles and Policies for Forests & Watersheds](#)

[Assessing Climate Variability and Change, Pacific Southwest Research Station](#)

[General Technical Report PSW-GTR-220, *An Ecosystem Management Strategy for Sierran Mixed-Conifer Forests* \(North et al, Rev. 2009\)](#)

[Regional Noxious Weed Management](#)

[Bureau of Land Management Sierra Resource Management Plan](#)

[Pioneer-Volcano Community Conservation Wildfire Protection Plan](#)

[Amador-Calaveras Cooperative Association for Biomass Utilization Memorandum of Agreement](#)

Proposed Treatment

The ACCG chose the Cornerstone planning area for the CFLRP application because it reaches from the headwaters of key local watersheds down into to the WUI. The lands of the upper Mokelumne River watershed, located in California's central Sierra Nevada, are the Cornerstone Project's primary focus area for ecological restoration. Including lands within two National Forests, BLM, and state and private lands, the proposed CFLRP restoration program implements a truly collaborative consensus based approach to watershed management. The CFLRP planning area consists of 303,030 acres of National Forest System lands integrated with other land managers in the Mokelumne and adjacent watersheds; these 303,030 acres make up 77% percent of the CFLRP planning area. The restoration proposals described below are integrated from an ecological and social needs perspective. Implementing this proposal will result in accelerated improvement of landscape, watershed, social and economic conditions in the area.

Historically, the ecosystems and watersheds within the proposed Cornerstone Project area have been significantly altered by changes in the fire regime, timber management practices, landscape fire exclusion, stand-replacing fires, residential encroachment and development, agricultural and grazing practices, and other associated activity. As a result, area fuel loads are abnormally high, most streams and meadows are below their proper functioning condition, people and property are at high risk from wildfire, and there is the need to protect, maintain and enhance quality habitat for threatened and endangered species. Restoration of the area is also important because the Mokelumne River headwaters alone provide a direct municipal water supply of clean water to more than 1.4 million citizens downstream. In addition, the landscape is the home to keystone species such as California spotted owl, American marten, Sierra Nevada and foothill yellow-legged frog, and Yosemite toad, all adjacent to a wildland-urban landscape that is home to many thousands of residents.

Although there are many desired conditions that we are striving to achieve within this CFLRA proposal, in general the main strategies of the proposed vegetation treatments is to:

- Protect, increase, and perpetuate desired conditions of old forest ecosystems and conserve associated species while meeting people's needs for commodities and outdoor recreation;
- Increase the frequency of large trees, increase structural diversity of vegetation, and improve the continuity and distribution of old forests across the landscape; and
- Restore forest species composition and structure following large scale, stand replacing disturbance events.

The Cornerstone strategy proposes a wide variety of treatments designed to systematically address these conditions and improve overall watershed health. Treatments include vegetation and wildlife habitat improvements; road maintenance and decommissioning; meadow, stream and lake restoration; wildfire revegetation; archaeological site rehabilitation and others, as shown in summary below (see Attachment A for additional treatments and details). Additional projects are likely to be included as the project's adaptive management and monitoring program moves ahead. In addition, projects carried out in collaboration with adjoining private and other public landowners are likely to be added as the ACCG's all-lands program develops and expands.

- Invasive species removal and monitoring – 5,500 acres
- Biomass and small-diameter tree removal – 66,400 tons
- Culturally sensitive restoration on Northern Miwok and Washoe cultural sites – 400 acres
- Reintroduction of prescribed fire treatments (including traditional Northern Miwok, fire-based management practices) - 33,000 acres
- Replanting areas devastated by high-severity, stand-replacing fire – 4,560 acres
- Stream and lake restoration – 6.5 miles and 32 acres, respectively
- Aquatic organism stream passage – 10 sites
- Watershed acres improved – 930 acres
- Road reconstruction, maintenance, realignment, and decommissioning – 787 miles
- Fuel break construction and maintenance – 500 acres
- Commercial thinning of natural stands and plantations – 143,305 CCF
- Pre-commercial thinning of plantations – 5,070 acres
- Trail construction and maintenance – 130 miles
- Meadow enhancement – 100 acres

(See Attachment G, maps for proposed treatment areas.)

For FY 2011 the Calaveras Ranger District is on schedule to sign National Environmental Policy Act (NEPA) decisions in May that will allow it to implement the planned road maintenance, watershed improvements and commercial / pre-commercial thinning on 330 acres of plantations. Currently under completed NEPA for 2011 projects are: 420 acres of fuel break construction / maintenance, 20 acres of enhancement within Native American cultural sites, monitor and control invasive/noxious weeds (oblong spurge, yellow star thistle and scotch broom) within 91 acres of plantations, and prescribed fire on 250 acres of National Forest System (NFS) lands.

For FY 2011 the Amador Ranger District has three projects with NEPA decisions and contracts in place to implement for fuels reduction projects, and prescribed burning projects. An

additional fuel reduction project, and meadow restoration project is on schedule to sign NEPA this spring that will allow implementation of the planned projects in 2012 through 2015.

Currently showing in Attachment F is money that is only being spent on National Forest System (NFS) lands, and money proposed to be spent on NFS lands. For fiscal year 2011 the Calaveras Ranger District of the Stanislaus National Forest has received approximately \$1,091,655 in partnership grant money to implement trail construction and trail improvements within the Cornerstone project area. An example of how the funds requested for fiscal year 2011 will be utilized is to: remove biomass and masticate brush within pre-commercial thinning plantations, improve and enhance roads and watershed conditions within thinning treatment areas, monitor and control invasive/noxious weeds (oblong spurge, yellow star thistle and scotch broom) on 91 acres of plantations, maintain and/or construct 420 acres of fuel breaks (a majority within the WUI), enhance 20 acres of Native American sites with cultural landscape stewardship, and initiate prescribed fire on 250 acres of NFS lands.

Project implementation will increase over time as the ACCG, Forest Service and other partners increase capacity for project scope and complexity. For example, the first two years of projects will have NEPA analyses completed. These initial projects are “shovel ready,” available to obligate CFLRA funds, and implement consistent with ACCG principles and goals. Out-year projects, beginning in 2013, will have the full influence of the collaborative, which is poised to begin the critical work that the Forest Service has not had the funds or even the expertise to achieve. We expect that CFLRA funds will allow, through experimental design and monitoring, the completion of ecological restoration projects that create new, local jobs, value-added products and sustainable economic activity, with accompanying social benefits in communities hard-hit by economic decline. Projects will be designed to develop innovative sources and types of forest products, consistent with the triple-bottom-line emphasis on coordinating improvements to the local environment, community and economy.

The Cornerstone Project strategy and treatments are consistent with emerging Region 5 leadership intent developed by Regional Forester Randy Moore and his leadership team, which has as its goal, “... to retain and restore ecological resilience of the National Forest lands to achieve sustainable ecosystems that provide a broad range of services to humans and other organisms.” This includes a commitment to sustainable “ecosystem services”—the ecosystem-provided goods and services that people use and value, for example, clean air, purified water, climate change mitigation and adaptation, and recreation. The project provides a special opportunity to address one significant ecosystem service: abundant, clean water. Watershed improvements resulting from the treatment program will help demonstrate the value of watershed stewardship to the East Bay Municipal Utility District, the major consumer of Mokelumne River water, potentially attracting future investment for further stewardship efforts.

Forest Service leadership also recognizes the need to increase the pace of ecological restoration activities on the ground. Forest Service scientists suggest we need to increase the pace and scale of restoration work to counter disturbance impacts caused by larger and hotter wildfires and by climate change. The CFLRA funds would be used to do that in a high-priority landscape while creating jobs, ultimately resulting in a feedback mechanism supporting ecological and economical restoration activities well beyond the 10 year requested CFLRP timeframe.

The planned treatments also incorporate the best available science, specifically, the Pacific Southwest Research Station’s General Technical Report 220 – *An Ecosystem Management*

Strategy for Sierran Mixed-Conifer Forests (North et al, 2009 with 2010 addendum). The report was written by research experts in the fields of forest ecology, silviculture, wildlife and fire ecology. This approach revises and improves silvicultural prescriptions to better forest structure in order to address existing degradation caused by past fire suppression and harvesting practices, while also creating a resilient landscape for changing climate conditions and improving sensitive wildlife habitats. The approach emphasizes improvement of old-growth wildlife characteristics through a strategy of species- and landscape-specific restoration activities. The Eldorado and Stanislaus National Forests have already begun to implement this strategy and will continue to expand the scope and scale of ecological restoration using CFLRA funds.

Cornerstone Project treatments are expected to lower Forest Service costs for fire suppression by reducing the risk and incidence of uncharacteristically large and damaging wildfires. R-CAT modeling indicates avoided cost of about \$9,725,982 (equal to 58% of the CFLRA request).

Both National Forests have demonstrated the ability to complete work of the scope and magnitude presented. As is the situation for many National Forests, funding is a constraint to completing ecological restoration actions at the pace needed to make a difference within the watershed. CFLRA funds combined with National Forest match will provide the ability to complete this work in a more-timely manner, creating hundreds of new jobs and localized future market stability, all grounded in the consensus-based ACCG collaborative.

Collaboration and Multi-Party Monitoring

The Amador-Calaveras Consensus Group (ACCG) is a community-based collaborative organization that works to create fire-safe communities, healthy forests and watersheds, and sustainable local economies. The ACCG was convened in December 2008 and has met monthly since (meetings are now every other month with workgroup meetings in the intervening months). It fosters partnerships among private, nonprofit, local, state, and federal entities and local residents, including native people, who have a common interest in the health and well-being of forested lands and communities in the Mokelumne, Calaveras, Stanislaus, and Cosumnes River watersheds. With the intent of serving as a model for other areas of the Sierra Nevada, the group is advancing a robust, community-based strategy leading to job creation, greater community economic stability, fire-safe forests and communities, and a heightened degree of environmental stewardship.

The ACCG is the broadest-based forest collaborative in the Sierra, with membership and member engagement reflecting the group's emphasis on balancing environmental, social and economic goals. In 2010, the ACCG received the Region 5 Regional Forester's Honor Award for All-Lands Ecological Restoration. Its efforts are consistent with the Sierra Nevada Conservancy (SNC) Sierra Nevada Forest Communities Initiative (SNFCI), which has been endorsed by all 22 Sierra Nevada counties, and local political officials have actively supported and assisted the group. The SNC is tasked with promoting the economic, social, and environmental well-being of Sierra Nevada communities and citizens and has been an active partner in the ACCG.

In the interest of transparency and inclusivity, the ACCG welcomes participation from all interested stakeholders. This is seen as a critical aspect of a truly collaborative process, and has been highly successful, as evidenced in the broad coalition in place today. Formal membership is exhibited through the endorsement of the ACCG Memorandum of Agreement (MOA). To date, 26 partners have formalized their membership with many more anticipated as advances are made in fulfilling the ACCG mission. In addition to the MOA signers, myriad stakeholders in the

broader context of forest health issues have expressed interest, or like the Nature Conservancy provided support to this CFLRP effort. They are included on the group's distribution list at their request as a way to stay abreast of ACCG activities and initiatives. Meetings are open to all.

The group makes decisions by true consensus: all parties must be able to live with the decision. If consensus cannot immediately be reached, the concerned member is responsible for proposing an alternative that meets the same end goal. If alternatives cannot be defined immediately, the concerned member is responsible for convening a meeting with relevant other members to clearly define an alternative for consideration at a subsequent meeting.

The ACCG has been actively working with both the Eldorado and Stanislaus National Forests in developing and supporting the Cornerstone Project proposal in its broader All-Lands context. The Forest Service staff has been exceptionally supportive, as evidenced in their expansive contributions to this effort. The ACCG has played a key role in developing the Cornerstone Project, including defining the project's geographic scope; developing ecological, social and economic principles to guide the restoration work; and assisting in the actual development of the overall project concept and development along with submittal to Region 5.

To date, the ACCG has achieved success on a number of fronts, including the successful implementation of forest restoration projects with the Bureau of Land Management, the Amador and Calaveras Fire Safe Councils, and the Forest Service. This work was made possible by extensive cooperation with job-training agencies in these rural counties, as well as partnerships with USDA Rural Development, the Sierra Nevada Conservancy, and of course, federal partners. The presence of a collaborative process like the ACCG is critically important to watershed restoration in the region. The scale of proposed forest restoration activity must be grounded in a strong agreement among key stakeholders. Without the collaborative forum, projects would not be endorsed by such a broad and diverse subset of stakeholders and instead, could be stalled in disagreement and potentially in litigation.

The major industrial timberland landowner in the all-lands area, Sierra Pacific Industries, attends some of the ACCG meetings. While SPI has not yet signed the MOA, the ACCG considers it to be an all-lands partner. ACCG member Buena Vista Biomass keeps SPI informed of the group's activities and they receive all of the information distributed by the group. The East Bay Municipal Utility District and local federally recognized tribes are also aware of the ACCG effort and monitoring its progress, but have not yet signed the MOA.

The ACCG posts minutes, reports and other key information on a public website:

<http://acconsensus.wordpress.com/>

Adaptive management and monitoring

The ACCG is developing a multi-party monitoring plan for its adaptive management program. It is envisioned that this program will incorporate the latest peer-reviewed science from the University of California and USDA Pacific Southwest Research Station, as well as ongoing efforts that may be leveraged to meet the goal of the program. Learning from its experience and using that knowledge to continuously improve its quality of performance will be a hallmark of ACCG multi-party monitoring and adaptive management practices.

In developing and carrying out the adaptive management program, the collaborative group will build on its goals and principles to develop specific targets in all three dimensions of its program: environmental, social, and economic. The program will include a robust monitoring component

to measure and evaluate whether it is meeting targets. The monitoring results may lead to different or additional treatments over time, depending on whether the program is meeting defined targets.

The ACCG is also seeking an academic partner to assist in development of the monitoring and adaptive management program. A potential partner is the Sierra Nevada Adaptive Management Project (SNAMP), which involves scientists from three University of California campuses. While the bulk of the SNAMP's work has been outside the ACCG project area, their skills and experience may be a good fit for the Cornerstone Project and the larger ACCG All-Lands effort.

Through the development of its SNFCI system indicators project, ACCG member Sierra Nevada Conservancy, a California state agency, will be a party to the monitoring program, and will make available socioeconomic data and monitoring outputs as part of its larger, regionwide approach to monitoring existing and future socioeconomic conditions within the Sierra Nevada region.

Relative to the monitoring of ecological factors, ACCG members Foothill Conservancy, BLM, California Department of Fish and Game, and the Forest Service have a proven track record of successful multi-party monitoring in the watershed, including but not limited to monitoring activity associated with Pacific Gas and Electric Company's Project 137 Mokelumne River Project FERC license and related settlement agreement. Parties to that agreement design monitoring studies, review results, and make decisions to adapt the management of the hydroelectric project to desired future conditions for a number of ecological and recreational factors. ACCG partner Sierra Forest Legacy has experience in multi-party monitoring and program design on other National Forests. In addition, the Central Sierra Resource Conservation and Development Council, Upper Mokelumne River Watershed Authority, and the Upper Mokelumne River Watershed Council are anticipated to become key partners and play an active role in long-term monitoring of the results of work undertaken within the scope of this proposal.

While the multi-party monitoring component of this proposal is still in development, strong commitments from numerous partners, resources already leveraged and built upon, as well as the potential cooperation with existing state and federal resources focused on forest restoration will ensure the overall effectiveness of the monitoring effort.

Utilization

Like many rural counties, the Central Sierra economic and social environment is rooted in natural resources. For over a century, local forest material was processed into diversified products totally within these rural counties. Incense cedar was processed into pencil stock, Pine and fir into lumber, molding and plywood. Smaller material and mill by-products were pressed into particle board. A biomass cogeneration facility added in the 1980s processed forest, mill and orchard waste. Except for the particle board plant, these plants are now gone, and the ACCG, is striving to establish diversified, stewardship utilization businesses to complement neighboring-county processing facilities and ecologically sustainable forest restoration management.

In the past, outputs of forest management activities supported manufacturing facilities to help supply America's need for forest products. Over time, as knowledge of our dynamic forest ecosystems expanded and social values evolved ecosystem management has been given added emphasis. The combination of changing management emphasis and the cumulative results of past practices has led to, as former Forest Service Chief Jack Ward Thomas expressed, forests

with too many trees and most of them the wrong species. Diversified utilization is key to the long-term sustainability of local environment, community, and economy.

Utilization Strategy

The community-based utilization strategy of the ACCG and for the Cornerstone Project recognizes both ecological and manufactured product value. The utilization strategy provides consideration first to ecological value then balances ecological value with social acceptance and economic recovery and benefits to provide long-term self-sustainability in all three dimensions of the triple bottom line. The strategy includes multi-party monitoring coupled with adaptive management. Therefore, the ACCG expects adjustments to its utilization strategy based on how well the treatments and utilization succeed in meeting ecological, social and economic targets.

The utilization strategy includes work crews specially trained in ecosystem restoration. Last year, economic development agencies invested in training specialized local Miwok crews to thin and treat archeological sites that formerly were “flagged and avoided,” inviting vandalism and looting in a treated landscape. Crews will soon be trained to treat sensitive wildlife areas, such as spotted owl habitat, building on their training in fire management. These specialized crews complement industry crews to provide seamless ecological treatments across the landscape, all grounded in the best available science. Predominant restoration treatment by-products are expected to be biomass and small-to-medium diameter trees. Treatments in the Cornerstone Project are anticipated to occur in the context of forest stewardship agreements and/or contracts to balance revenues with expenses.

Ecological Utilization

The ACCG’s ecological principles recognize that utilization includes retention of green and dead material, assessed at the landscape and site level. Retention will consider tree size and species appropriate for the forest landscape and wildlife habitat. As the Amador and Calaveras Ranger Districts implement the GTR-220 guidance (see earlier reference), projects will retain key forest structure, retain and create habitat, protect the soil, and deposit nutrients. Small woody material will be left at levels that support fire restoration or natural decomposition.

Many factors currently prevent total return to fire-managed landscapes, including social concerns and overly dense forests. Tree and brush removal will remain an essential complement in many areas due to air quality issues or proximity to residences, adding social and economic support to sustained ecological treatments. A Request for Proposals for a Feasibility study is being released soon by ACCG partner CHIPS to estimate the volume, type and size of material to be removed on a long-term sustainable basis, which will guide the design and scale of local businesses in combination with existing facilities to avoid the boom-bust economics of the past. The emphasis will be on ensuring that the social and economic benefits of the forest activities accrue to the residents of the local communities who have been linked to these forests for generations.

Vegetation treatments will be implemented to remove small diameter biomass (3” to 10” DBH (diameter at breast height)) trees, and when required for restoration larger sized trees. Volumes per acre will vary by treatment, but it is anticipated that the proposed project will produce approximately 143,000 CCF of saw timber and 66,000 green tons of biomass to supply the local mills, co-gen plants, and local wood related industries. By implementing the projects through the use of Stewardship agreements and/or contracts, receipts will be retained on the Eldorado and Stanislaus National Forests, making funds available to reinvest within the project area. Predicted

volumes for the proposed 10 year CFLRP can also be found within Attachment A. Various vegetation treatments are proposed, and include such prescriptions as pre-commercial thinning of plantations, commercial thinning of natural stands and plantations, cultural site restoration, meadow reclamation / enhancement, and aspen stand re-establishment /enhancement.

Current wood-based infrastructure in the area

Biomass Utilization

The Cornerstone Project is expected to generate 3,500 dry tons annually. In the past, much of this under 6 inches material would have been piled and burned, due to the below revenue processing costs. Through the use of stewardship contracts and/or agreements, and increased processing capacity, we expect to significantly close the gap between the costs of biomass processing with the revenue generated from joint utilization of small to medium sized logs.

- *Pacific-Ultrapower*, an existing 20-megawatt biomass energy plant in Chinese Camp, Tuolumne County has been in continuous operation since 1986. Sources for the plant include mill, orchard and forest chips from within the Cornerstone Project area.
- *Buena Vista Biomass Power*, an 18-megawatt former lignite power plant in Amador County, is being reconfigured to exclusively use biomass and is scheduled for completion later this year. The plant will consume 110,000 bone-dry-tons of woody biomass, about 30% (33,000 bone-dry-tons) of which will be forest-related biomass. Approximately 90 full-time jobs will be created. Operating radius will be 50 miles, which will include most of the Cornerstone Project area.
- *Sierra Pacific Industries* operates two cogeneration plants in the area, one in Lincoln, Placer County, and one under construction in Sonora, Tuolumne County (due to open later this summer). Both operate in conjunction with a sawmill.
- *Cedar Mills Eco Farm*, also located in Amador County, presently consumes 4,000 tons of clean chips annually to provide heat for vegetable and native plant greenhouses. The owner would like to expand into pellet manufacturing.
- *Calaveras Healthy Impact Products Solutions (CHIPS)*, an ACCG partner, provides bulk delivery of chips for landscaping, firewood, biomass salvaging work, and WUI Fire Safe Council fuel reduction work. Their future plans include prescribed burns in traditional areas, and administration of the local community-based cooperative product yard for incubating innovative new woody biomass and small diameter tree value-added activities.
- *Ampine Particle Plant* in Amador County is adequately sourced for the present through chips generated from the sawmills and recycled urban wood waste diverted directly from landfills. However, that could change over the life of this project.

Small - Medium Log Utilization

The Cornerstone Project is expected to generate 7.6 MMBF and 1,488 cords annually, from small trees; restoration may also require removal of some larger sized trees. Stewardship agreements and/or contracts will include by-product feedstock values to help offset ecological and biomass utilization costs.

- *California Wood Shavings* in neighboring Tuolumne County utilizes green and dead logs of all local species, 4-inches in diameter and larger for animal bedding. The plant

currently consumes about 12,000 green tons per year and hopes to expand production by 5 to 10,000 tons per year. Plant operating capacity is 30,000 green tons.

- *Sierra Pacific Industries* presently operates two log mills to the north and south of the project area. These mills are operating at far below their capacity. A third new sawmill in Sonora is scheduled to open in May. An additional mill in Camino, El Dorado County, is closed due to a lack of log supply. Revenues, sometimes significant, would be expected from sawmill delivery.
- *Firewood* is still a major source of heat in many homes in these rural counties. As the population ages, social programs are pressed to assist the elderly with home heating. The Amador Fire Safe Council administers an annual program to provide firewood to senior citizens in Amador County. Last year, it processed over 200 cords from forest logs. CHIPS is assisting with a similar project in Calaveras County. Firewood permits are also on an upward trend. Last year, the two ranger districts together sold 1,743 cords for personal and commercial use.

Future utilization in process or under development

ACCG partners are working to improve the economic scale of the existing facilities and provide an economic pathway for future sustainable utilization of forest material. Through a strategic diversity of utilization options, partners plan to position local communities for future ecological, social and economic uncertainties, and provide stability in adaptive management. The following projects are in development or the planning stages:

- *A woody bio-mass product-yard network*, centralized at an old sawmill yard in Calaveras County at Wilseyville, seeks to maximize economic values through the collection and dissemination of forest products at a cooperative network of small value-added sites in the project-area counties. CHIPS will shortly release a USDA Rural Business Enterprise Grant (RBEG)-funded feasibility study request for proposals to assess product and supply potential. The network will be directed by a steering committee of diversified community interests capable of guiding development of the product yard toward ecological, social and economic balance in operations and marketing. To improve the economic scale for biomass utilization and promote diversity of businesses in value-added products.
- *A pellet plant* has attracted local business interests. As noted above, Cedar Mills Eco Farm, located on a former cedar mill site in Amador County, explored the permitting process two years ago and continues interest in establishing a pellet plant. A Calaveras entrepreneur has ordered a pellet plant with the intent to establish a plant here. Local brush species, such as manzanita, produce high BTU outputs, ideal for pellet production.
- *Packaged firewood* for campfires is a potential industry in the project area. Two major highways transport campers and hunters from the San Francisco Bay Area to recreation sites within and beyond the project area. The Forest Service, State of California, and private entities operate numerous primitive and developed campgrounds in the region.
- *Nontimber forest products* are an often overlooked potential source of economic utilization. Products such as seasonal mistletoe ornaments, sugar pine cones, mushrooms, and manzanita for bird perches or ornamental wood have the potential to be incorporated into the ACCG all-lands strategy utilization strategy.

Benefits to Local Economies

The Cornerstone Project's benefits to the local economy will be measured by a variety of inter-related health indicators for the environment, community, and economy. Key environmental indicators include percentage of the landscape's forests and watersheds restored, percentage of WUI communities protected from wildland fire, percentage of cultural sites and sensitive species areas protected, number of meadows restored to proper functioning condition, and number of measures completed to protect the drinking water supply for 1.4 million Californians. Key indicators for healthy local communities and economies include rates of poverty and unemployment, level of local diversity in jobs and businesses, rates of participation in federally subsidized school lunch programs, rates of crime and incarceration, levels of education, and demand on nonprofit and public services such as food assistance. The multi-party monitoring program will reflect broad social return-on-investment indicators.

Numerous residents have been connected to the forests for generations, and in the case of the Miwok and Washoe communities, for many thousands of years. They are well aware of the state of the forest, and ready, anxious and able to return to productive forest employment. According to the TREAT analysis, the Cornerstone Project is expected to directly generate at least 120 direct jobs, with an additional 84 indirect / induced jobs. The total of 204 jobs to be created, retained and induced with CFLRA funding will benefit hard-hit local forest communities whose social fabric has been frayed by unemployment and poverty.

The long-term support provided by \$16,653,850 of CFLRA funding over 10 years will lay a USFS cornerstone upon which to build a re-tooled local forest restoration stewardship economy. If funded, this project will facilitate local "green" job creation and retention through both the work of local stewardship partners in landscape restoration treatments and in the utilization of woody biomass and small-diameter tree by-products in local, value-added activities. It will help restore hope and a measure of prosperity to local poverty-stricken communities that have yet to recover from the near-collapse of local timber industry employment.

The community will benefit from full-time, part-time and seasonal jobs generated by the CFLRA investment. Jobs in restoration include hand crews for thinning and prescribed burns, operators for mechanical treatments (e.g. masticators, feller bunchers, forwarders, etc.), drivers for chip and log trucks, professionals doing NEPA analysis and multi-party monitoring, and a variety of associated logistical support and service jobs (i.e. mechanics, general laborers, etc.). Jobs in treatment by-product utilization includes work in the cooperative product yard, processing chips for power generation and facility heating, operating small saw-mill and dry kilns for high quality lumber, processing lawn and soil amendments and composts, producing agricultural and architectural posts and poles from small logs, and greenhouse nursery work.

The approach to the community-based enterprise is to systematically focus on helping to develop innovative local employment and business opportunities. To this end, the USFS Calaveras Biomass Utilization partnership with CHIPS has helped to organize a local cooperative association for biomass utilization. The cooperative association includes a pool of local contractors available for local stewardship restoration work on the Cornerstone Project and other ACCG All-Lands restoration projects to be developed in the larger ACCG planning area. Landscape restoration work in other parts of the larger 840,316-acre ACCG All-Lands planning area is expected to equal or exceed the number of jobs expected from CFLRA funding.

The ACCG intends to “build the road it travels” toward restoring and maintaining all of the lands in the larger All-Lands stewardship planning area. In plain terms, it will design and construct the systems, infrastructure and processes necessary for environmental, social and economic success. The CFLRA-funded Cornerstone Project is a significant opportunity to begin to implement the larger strategy to promote healthy forest and watershed conditions through collaboration and adaptive management. Available community partner assets for this effort include existing contractors’ skills, enterprise and equipment in the recently formed Amador-Calaveras Cooperative Association for Biomass Utilization, Mother Lode Job Training Agency and California Indian Manpower for job and work experience training, and CHIPS, Central Sierra Resource Conservation and Development, community action agencies, and small, local private businesses for employing trained workers in ecosystem restoration and value-added activities.

ACCG partners are developing the capacity for value-added activities that can be scaled to sustainable flows of restoration treatment by-product materials. The community-based effort is to be consistent with ACCG principles and sustainable jobs and value-added activities. ACCG partners anticipate working cooperatively within long-term stewardship agreements for landscape restoration. Specific treatment planning will use multiple best-values criteria consistent with a broader triple-bottom-line cost-benefit analysis to assure that the highest benefits accrue locally. This approach will assure that lowest cost and external markets are no longer the main drivers of restoration budgets or types of treatments.

Sustainable sources of woody biomass harvest are a key determiner (limiter) for the scale and range of diversity in value-added activities. “Sustainable” in this context is consistent with a healthy local triple bottom line achieved through stewardship activities. Source materials include what is reasonably available, the flow-through rate by type of material and seasonal availability, and the capacity available to add value by material type. Uses include various private, nonprofit and public activities for woody biomass value-added products (see Utilization section).

Though extremely important, jobs are not the only benefits expected for local communities. Some indirect but related benefits anticipated include:

- Improved recreational opportunities—for example, the Mokelumne Coast to Crest Trail, an ADA trail around White Pines Lake on SNF lands, other maintained trails, river access for fishing and whitewater boating, camping, birding, and other activities—and the tourist dollars they bring to the area, also providing more local jobs.
- Improved fire safety of communities in the wild-land urban interface, reducing risks and potentially reducing insurance costs.
- Reduced social-stress indicators that often accompany improved local employment opportunities and available discretionary income—for example, reduced family abuse, alcohol-related incidents, youth delinquency, etc.
- Increased opportunities to include youth in summer jobs and work experience

The collaborative ACCG partnership and its environmental, community and economic stakeholders connect these critical parts for the Cornerstone Project and the larger all-lands effort. The multiple benefits to be derived from retooling the local forest economy emerges from synergy of the partner relations: No one partner can accomplish the expected triple bottom line benefits alone. It will take a whole community approach to replace an extractive forest economy with a restoration forest economy based on stewardship for forest and watershed health.

Funding Plan

Resources for the ACCG partner-sponsored All-Lands program is expected to come from a variety of federal, state and local sources— public and private. The CFLRA-funded Cornerstone Project restoration treatments on Forest Service lands will be carried out with CFLRA grant funds of \$16,653,850 (44%) and Forest Service match of \$21,564,345 (56%) over 10 years. Leveraged partner funds for restoration on lands outside the Cornerstone area will be used for treatments on other lands, including BLM lands, privately owned WUI sites, working agricultural landscapes, private forest lands, and a potential state demonstration forest.

ACCG is developing a transparent and accountable system for documenting its collaborative partners' All-Lands stewardship program investments and results. Tracking resource use by project and treatment activity will be important for accountability to grant sources and to present the total value leveraged for local forests and communities through collaboration. The CFLRP requirements will help demonstrate the type of value tracking needed to evaluate the long-term costs and benefits for federal, state, and local public and private funding.

ACCG partners intend that the system for accounting for resource value invested and social return on investment (SROI) realized complies with requirements of federal Office of Management and Budget circulars and state requirements for California public, nonprofit and private for-profit entities. The system will track the All-Lands collaborative stewardship program value (cash and non-cash) from sources (such as federal, state, local – public and private) through uses (by cost, by specific expense type, and by project) to the results in terms of SROI (e.g. acres of land restored or maintained, number of jobs created, improved community social health indicators, restoration forest economy local small businesses retained or developed, etc.).

Cornerstone Project CFLRA grant and matching funds projected over 10 years is \$38,218,195 (see Attachment F). This total includes CFLRA funds and matching value from the Forest Service. Our 10-year Cornerstone Project request is for 44 percent of the total amount estimated for the project. An estimated average of 93 percent of CFLRA funds are to be used to pay for work done on the Cornerstone Project under contract and agreements framed within the long-term ACCG collaborative All-Lands stewardship approach and principles, previously described.

At least 7 percent of CFLRA funds is to be used to pay for ACCG partners adaptive management implementation and multi-party monitoring for the CFLRA-funded Cornerstone Project landscape restoration treatments. Funding levels for the multi-party monitoring described above is appropriate for the scale of operations and role of the Cornerstone Project in anchoring the All-Lands program. It permits completing and applying the multi-party monitoring system with multiple values and indicators for a healthy local environment, community and economy.

An estimated \$13,194,116 (13.5 percent) of the total is used to create or retain 204 jobs to carry out the Cornerstone Project. The 2011 fiscal year CFLRA grant request amount is \$730,000, and the USFS match amount is \$2,196,697 for year-one restoration treatment. Cornerstone funding is expected to start out at a lower figure. The 10-year project will ramp up during the first few years while implementation is worked through to stable operations. From about year four through year 10, ACCG adaptive management and multi-party monitoring will guide Cornerstone Project restoration treatments to become a successful, stable and sustainable ongoing project within the collaborative All-Lands stewardship program. Proposed Cornerstone Project resources include the annual federal CFLRA grant and local and regional Forest Service matching funds.

The All-Lands ACCG-leveraged resources not specifically a part of the Cornerstone Project, but built upon it and related, will come from non-CFLRA grant and matching sources. For example, as part of its ACCG participation CalFire will provide funds for climate change research on its planned 1,072 acre demonstration state forest in the watershed. Funds are expected from USDA (especially NRCS and Rural Development) for restoration treatments on working farm and ranch lands, and capacity development for the local restoration economy (i.e. existing USDA/USFS funding for partnership with CHIPS to help develop community capacity for biomass utilization, USDA/RBEG funding for woody biomass feasibility study). At least \$2,509,876 of partner funds directly related to the Cornerstone Project is estimated for the proposal. Significantly more leveraged funding is anticipated as the ACCG All-Lands stewardship effort expands.

Also, in coordination with local Fire Safe Councils, the BLM-Mother Lode Field Office has identified 10 years of restoration projects to pursue. The BLM and Fire Safe Council plans were coordinated to prioritize inter-jurisdictional impact and connectivity. They were based on local Community Wildfire Protection Plans (CWPP) for the WUI. While the BLM and Fire Safe Council funding is not assured in out years, ACCG partners are coordinating the planning and prioritizing of restoration projects to be funded over the next 10 years with inter-jurisdictional mutual benefit. The Cornerstone Project will directly benefit from this larger collaborative all-lands funding coordination. Benefits will include, but not be limited to:

- Adjacent lands outside the CFLRP planning area restored to a more ecologically sound and fire-safe condition.
- Shared benefit of a stable infrastructure for a retooled restoration economy that includes a skilled available workforce, diversified value-added activities, etc.
- Lower risk of fire traveling into the Cornerstone area, and avoided fire suppression costs.

Other potential state funding sources include the Sierra Nevada Conservancy, grant programs, state watershed programs, Integrated Regional Watershed Management Plans, and California's new cap-and-trade system. As part of its Sierra Nevada Forests and Communities Initiative, the SNC is providing essential technical assistance to ACCG and other collaborative efforts in identifying and acquiring grant funding for local capacity building. The desired restoration economy revenue-stream basic components are environmental services and treatment by-product that provides raw feedstock for various value-added activities. Environmental services funding potential exists in federal and other grant funds and fees for services.

Because of its importance as a source of municipal water supply and the potential for restoration work, the Mokelumne watershed is the focus of a number of different restoration and innovative funding efforts. For example, the National Fish and Wildlife Foundation is developing a proposal for the watershed that could lead to direct funds for activities in the watershed while attracting additional investment from other foundations and agencies. A National Resource Conservation Service-funded effort is underway to establish watershed ecosystem markets, which could lead to reinvestment by downstream water users (East Bay Municipal Utility District, PG&E, etc.). PG&E has committed restoration funds as part of its FERC license and related settlement. These diverse funding opportunities support the ACCG All-Lands inter-jurisdictional approach.

All-Lands funding in jurisdictions adjacent to the Cornerstone Project planning area is expected to equal or exceed the amount estimated for the CFLRP project 10-year period. Leveraged funds actually realized over the 10-years will be accounted for and documented as described above.