



State of California

National
Disaster
Resilience
Competition

Phase II
October 27, 2015

Attachment G:
Waiver Request

AttGWaiverRequest.pdf

ATTACHMENT G: WAIVER REQUEST
CALIFORNIA NDRC – PHASE TWO
OVERALL BENEFIT WAIVER

California Waiver Request – Overall Benefit

Overview

The 2013 Rim Fire burned 257,314 acres and is the third largest wildfire in California's history. The fire burned in Tuolumne County, Mariposa County, Yosemite National Park, and destroyed large portions of the Stanislaus National Forest, threatening surrounding communities and damaging the critical watershed that supplies water to the San Joaquin Valley and the City and County of San Francisco. The Rim Fire had a direct emergency response cost of \$127 million dollars and estimates of environmental damage range up to \$736 million dollars. Unfortunately, the Rim Fire is not an isolated incident. In September 2015, the Valley and Butte Fires burned over 145,000 acres, destroyed 2,728 structures and resulted in 7 deaths. As of September 26, 2015, wildfires have burned over 115,000 more acres across California than burned in all of 2014, and almost 200,000 more acres than the five-year average ([CAL FIRE](#)). California's prolonged severe drought and related epidemic of tree mortality magnifies risk, as the conditions for rapid fire expansion are all-too-ripe. Therefore, the devastating impact of forest fires is crippling to not only long-term recovery, but presents real current threats to both rural and urban communities, and must be addressed. As a rural county, Tuolumne faces additional challenges including inadequate resources, the availability of a trained work force, and adequate infrastructure to process biomass from forest fires.

As the state continues to experience more frequent and more severe fires a similar pattern is emerging:

- Fires are larger, faster, and more intense due to the current level of forest density and dryness given four years of historic drought;

- Evacuations are slow and difficult given the erratic nature of fires, the distance between population centers in remote, rural counties and the difficulty of moving people and equipment in and out of many communities;
- Accommodations are limited for evacuees to get out of harm's way. Even if a resident had sufficient resources to move to a hotel/motel room in a safe location, there are limited rooms available as rural communities must prioritize these to be used to accommodate first responders.

Characteristics of Rim Fire and Regulatory Waiver Request – Overall Benefit:

The State of California is requesting a waiver to reduce the overall benefit requirement to 38% from the current 50%. This waiver is crucial to ensure that the recovery needs of Tuolumne County and the MID URN areas are met, and subsequently creating a model program to be implemented in Tuolumne County which can be scaled and replicated not only in California but across the forested [Western United States](#).

Tuolumne County, the declared disaster area, is a rural county in the Sierra Nevada foothills, with a high population of seasonal residents and retirees which impacts the overall LMI values. Access to education, lack of jobs and an aging population are persistent issues in Tuolumne County.

- 12% of the population have not completed high school, 8% have an Associate's Degree, and 12% have a bachelor's degree.
- 14.5% of County residents live in poverty.
- 51% of Tuolumne County households are over age 60.
- 52% of students are on free or reduced meal programs.

Low- and moderate-income people (LMI) and vulnerable populations in Tuolumne County were disproportionately impacted by the Rim Fire. A large share of employment is associated with tourism and recreation. The LMI population in the County was thus impacted by severe reductions in employment opportunities, given that tourism levels declined immediately following the Rim Fire. The economic health of the county relies heavily on tourism, recreation, and associated service industries.

Specific to the NDRC competition, the table below presents the MID URN areas identified for NDRC funding, with LMI percentages indicating that the most impacted and distressed areas are not predominately LMI, but per HUD’s ACS data, is at an average of 38.8% LMI.

The service areas for projects proposed for NDRC will include the Burn Area, Evacuation Area, and Evacuation Warning Area as well as the surrounding counties. Given the nature of the forest and watershed crossing man-made borders, the service area of this work will extend beyond the MID URN area. Further, rural communities frequently retreat to the most feasible and accessible evacuation area during an emergency, often times in adjacent counties. This was evident during the recent Butte Fire, where residents from neighboring Calaveras County evacuated to Tuolumne County and sought assistance. However, as indicated below, even these expansive areas within Tuolumne County and surrounding counties have a 38.3% LMI population, per HUD’s ACS LMISD data.

Census Tract	Low Mod	Low Mod Universe	Low Mod Percentage
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06109002200 (MID URN)	2,755	7,635	36.1%
06109004100 (MID URN)	2,370	5,595	42.4%
06109003100 (MID URN)	2,145	6,155	34.8%
06109003200 (MID URN)	2,795	5,840	47.9%
06109004200 (MID URN)	1,020	3,370	30.3%
Burn Area + Evacuation Area	5,960	15,365	38.8%
Burn Area + Evacuation Area + Evacuation Warning Area	11,085	28,595	38.8%

County	Low Mo	Low Mod Universe	Low Mod Percentage
Calaveras County	17,035	45,765	37.2%
Mariposa County	5,960	17,595	33.9%
Tuolumne County	20,705	50,595	40.9%
Total	43,700	113,955	38.3%

As noted through this document, fire doesn't discriminate based on income. The proposed Community and Watershed Resilience Program benefits all local and downstream residents with healthier forests to reduce wildfire risk and increase the health of the watershed and air quality with robust forest and watershed management practices. The Program contributes to a strengthened economy with job development in green infrastructure and green energy industry

work opportunities, providing safe shelter in an area where there are limited options in a disaster. Further, the Program fosters community connectivity and social cohesion – hallmarks of instituting resilience in rural communities.

Moreover, both LMI and Non-LMI homeowners have experienced drastic increases in insurance premiums or inability to access insurance altogether. In some cases, insurers simply dropped Tuolumne residents' properties from coverage. If, however, coverage is still available, premiums have nearly quadrupled in some cases, and since a significant portion of the population in Tuolumne is comprised of retirees, even those with assets, but who live on fixed incomes are unable to afford the insurance. This represents a vulnerable population who is similarly subject to some of the same risks and vulnerabilities as LMI residents.

Low to Moderate Income needs after the disaster

Immediately after the RIM Fire, the State of California and the local community worked with the LMI population that faced increased costs during the and provided immediate financial assistance, including gas & food vouchers, rental assistance, energy assistance, heaters and air purifiers. In total:

- 86 families received food vouchers
- 84 families received gas vouchers
- 35 families received rental assistance
- 40 families received energy assistance
- 11 families received heaters
- 20 families received air purifiers

Proposed Activities and Programs that will be affected by the alternative requirement:

The Community and Watershed Resilience Program provides a model for forward thinking mitigation and resiliency for rural, forested areas. The State has carefully assessed the unmet needs as a result of the Rim Fire and determined that the approach in the NDRC application will address not only the impacts from the Rim Fire, but will create a forward-looking approach that the State can use as the model for other counties and communities. However, achieving resilience requires implementation across the entire community which includes LMI and non LMI populations. Reducing the risk of wildfire requires taking a larger ecosystem-based approach to resilience, and community investments must reflect the nature of the risk. As noted above, the threat of fires throughout California is serious and the State must take an approach that is scalable, and can be implemented in current impacted areas as well as in [additional fire prone areas](#) throughout the State; and can be replicated throughout the Western United States. While this approach benefits the entire community, it does not meet the overall benefit requirement by HUD, but was designed to strategically impact those vulnerable and LMI communities within the declared County and surrounding jurisdictions.

Community Resilience Centers

One of the largest issues during rural mountain disasters is ingress/egress. For example, in the recent Butte Fire in Calaveras County, CAL FIRE had to plan for 2 full days to evacuate 10,000 people down the Highway 4 corridor because of the two-lane mountain road. This “choke point” constitutes a significant logistical challenge, as the congestion of people getting off the mountain pushes against the flow of first responders trying to get up the mountain. With a coordinated evacuation plan, including access to the Community Resilience Centers (CRCs) in Groveland and Tuolumne City, direct assistance can be provided to residents with little to no means of transport to safe, secure centers.

There are two proposed Community Resilience Centers – one in Groveland and one in Tuolumne City. These centers would serve multiple purposes, including during an emergency as evacuation centers that include food supplies, animal boarding, Wi-Fi, and other needed services. Additionally, these CRCs would also provide year-round needed services such as a business incubator through the Tuolumne County Economic Development Authority, education and training facilities for Columbia College, commercial kitchens, and Head Start Programs. The Groveland facility is proposed on a larger site and will include housing for California Conservation Corps (CCC) workers. The daily activities occurring in the CRCs all focus on providing services for the LMI community in the area. Head Start will provide services to the 15% of Tuolumne below the federal poverty rate. The CCC will bring in a crew of 45 workers for eight months of the year, and has committed to recruiting at least 15 of these workers from the County. Between Head Start and the CCC, this constitutes a total of 21 new LMI jobs in the area. The State is committed to ensuring that these centers benefit the LMI community of Tuolumne and surrounding counties.

Additionally, the locations of the two CRCs are strategically placed to assist local residents in both the North and South county areas, as well as neighboring Mariposa County to the west and Calaveras County to the north. Mariposa and Calaveras have an overall percentage of LMI of 36%, with similar demographic make-up including seasonal residents and retirees.

Biomass Facility and Wood Products Campus

This facility will include operations of a sustainable wood products business generating products campus producing materials such as biochar, animal bedding, fence posts, pellets, or timber. Residue from the operation and other non-merchantable wood will then be used in a modern biomass facility with best available emissions control technology to generate heat, electricity and

cooling. Through the first phase of pre-construction and design, the best site will be selected for this facility. At its optimized capacity, the Biomass Facility will positively impact the whole county as well as parts of neighboring counties stretching over to Nevada. With most of this service area being rural mountainous communities, the service area is 40% LMA. However, it is important to understand that additional benefits will be felt within a 35 to 70 mile radius of the facility. Additionally, the Biomass Facility and Wood Products Campus is also a replicable facility which can easily be implemented throughout the region to reduce risk and vulnerabilities in other threatened areas. This facility will create approximately fourteen jobs and will contribute to monetizing the work within forest stewardship economy.

Forest and Watershed Health Program:

The Forest and Watershed Health Program will include restoration and reforestation efforts, noxious weed treatment, rangeland improvements, strategic fuel breaks, and biomass removal and thinning. The reforestation/restoration and biomass removal/thinning will comprise the biggest components of this pillar, given the interconnectedness of the two and the focus on forest and watershed health. The strategic fuel breaks component encompasses seven fuel breaks that have been identified by CAL FIRE and USFS as critical not only for regional protection, but for enhanced ecosystem and community recovery, and to enable and ensure ongoing restoration work. It is estimated that this program will benefit the entire service area of the Tuolumne Watershed, which has a 41% LMA. The service area of this watershed not only includes the MID URN areas from the Rim Fire but also stretches to a larger county and regional downstream benefit. Additionally, piloting this program here not only address the unmet needs of the recovering community, but also is a program that can be replicated in response to other disasters as well as in LMI areas throughout the State.

Long Term – Disaster Recovery Plan

California is increasingly integrating adaptation and resilience across planning in all sectors and regions. In October of 2015, Gov. Brown signed into law legislation that created the Integrated Climate Adaptation and Resilience Program under the Office of Planning and Research, which coordinates with the State’s Climate Action Team. These groups will work to integrate and to align state, regional, and local adaptation efforts. Further, California developed [Safeguarding California](#), a comprehensive climate adaptation strategy, to identify program and policy needs to assist the State in preparing for changing climate conditions. The principles of Safeguarding California guide State planning and investment, including hazard mitigation and recovery. The Community and Watershed Resilience Program reflects activities in line with this implementation. Safeguarding California is based around a scientific understanding of climate risks and informs actions to prepare for climate change at the state, regional, and local level.

More specifically, the Community and Watershed Resilience Program reflects the principles and priorities of the State’s strategy to ensure a sustainable water system. The State’s [Water Action Plan](#) lays out ten action areas. The protection and restoration of key ecosystems is one of these action areas. This includes restoration of upper watersheds that serve as a critical backbone of the State’s water system. One element of meeting these goals is the establishment of the Sierra Nevada Conservancy’s Watershed Improvement Program (WIP). The Forest and Watershed Health and Biomass Facility and Wood Products Campus will be implemented by the SNC in coordination with the WIP.

Impacts of Proposed Program on Adjacent Counties – Expanded Service Area

As mentioned above, the Sierra Nevada foothills counties are rural, and as is characteristic of rural communities, there is a tendency to seek available services in the nearest or most feasible

location. Tuolumne County is frequently the destination for residents of adjacent counties for services and especially during emergencies, namely Calaveras and Mariposa. This was most recently evident during the Butte Fire in Calaveras County in September 2015, where Calaveras residents sought shelter and services in Tuolumne County. Calaveras and Mariposa Counties are similar to Tuolumne, in terms of demographic make-up and LMI percentages, and both have a high number of retirees and seasonal residents. The residents of both of these neighboring counties would benefit tremendously from the proposed programs and services in the Community and Watershed Resilience Program. Some key demographic data which illustrates the vulnerable population and LMI elements of Calaveras and Mariposa Counties is presented below:

- 16.1% of Mariposa residents are below poverty status
- 10.9% of Calaveras residents are below poverty status
- 51% of households in Mariposa County are above age 60
- 50% of households in Calaveras County are above age 60
- 18% of the population in both Calaveras and Mariposa Counties have a disability
- 27.6% of the population in Mariposa County have less than a high school diploma
- 24.9% of the population in Calaveras County have less than a high school diploma
- 5.9% of residents in Mariposa County have a bachelor's degree or higher
- 4.9% of residents in Calaveras County have a bachelor's degree or higher

ATTACHMENT G: WAIVER REQUEST
CALIFORNIA NDRC – PHASE TWO
NATIONAL OBJECTIVE WAIVER

California Waiver Request – National Objective

Overview

The 2013 Rim Fire burned 257,314 acres and is the third largest wildfire in California's history. The fire burned in Tuolumne County, Mariposa County, Yosemite National Park, and destroyed large portions of the Stanislaus National Forest, threatening surrounding communities and damaging the critical watershed that supplies water to the San Joaquin Valley and the City and County of San Francisco. The Rim Fire had a direct emergency response cost of \$127 million dollars and estimates of environmental damage range up to \$736 million dollars. Unfortunately, the Rim Fire is not an isolated incident. In September 2015, the Valley and Butte Fires burned over 145,000 acres, destroyed 2,728 structures and resulted in 7 deaths. As of September 26, 2015, wildfires have burned over 115,000 more acres across California than burned in all of 2014, and almost 200,000 more acres than the five-year average ([CAL FIRE](#)). California's prolonged severe drought and related epidemic of tree mortality magnifies risk, as the conditions for rapid fire expansion are all-too-ripe. Therefore, the devastating impact of forest fires is crippling to not only long-term recovery, but presents real current threats to both rural and urban communities, and must be addressed. As a rural county, Tuolumne faces additional challenges including inadequate resources, the availability of a trained work force, and adequate infrastructure to process biomass from forest fires.

As the state continues to be devastated by more fires, a similar pattern is emerging:

- Fires are larger, faster, and more intense due to the current level of forest density and dryness given four years of historic drought;

- Evacuations are slow and difficult given the erratic nature of fires, the distance between population centers in remote, rural counties and the difficulty of moving people and equipment in and out of many communities;
- Accommodations are limited for evacuees to get out of harm's way. Even if a resident had sufficient resources to move to a hotel/motel room in a safe location, there are limited rooms available as rural communities must prioritize these to be used to accommodate first responders.

Characteristics of Rim Fire and Regulatory Waiver Request – National Objective:

The State of California is requesting a waiver to reduce the LMI National Objective requirement to 38% from the current 51%. This waiver is crucial to ensure that the recovery needs of Tuolumne County and the MID URN areas are met, and subsequently creating a model program to be implemented in Tuolumne County which can be scaled and replicated not only in California but across the forested [Western United States](#).

Necessary to Address Unmet Recovery Needs and Demographics

Tuolumne County, the declared disaster area, is a rural county in the Sierra Nevada foothills, with a high population of seasonal residents and retirees which impacts the overall LMI values. Access to education, lack of jobs and an aging population are persistent issues in Tuolumne County.

- 12% of the population have not completed high school, 8% have an Associate's Degree, and 12% have a bachelor's degree.
- 14.5% of County residents live in poverty.
- 51% of Tuolumne County households are over age 60.
- 52% of students are on free or reduced meal programs.

The economic health of the county relies heavily on tourism, recreation, and associated service industries. These economic activities are significantly and adversely impacted every time a wildfire occurs in the area.

Specific to the NDRC competition, the table below presents the MID URN areas identified for NDRC funding, with Low-Mod percentages indicating that the most impacted and distressed areas are not predominately LMI, but per HUD’s ACS data, are at an average of 38.8 LMI. The service areas for projects proposed for NDRC will include the Burn Area, Evacuation Area, and Evacuation Warning Area as well as the surrounding counties. Given the nature of the forest and watershed crossing man-made borders, the service area of this work extends beyond the areas identified below. Further, rural communities frequently retreat to the most feasible and accessible evacuation area during an emergency, often times in adjacent counties. This was evident during the recent Butte Fire, where residents from neighboring Calaveras County evacuated to Tuolumne County and sought assistance. However, as indicated below, even these expansive areas within Tuolumne County and surrounding counties have a 38.3% LMI population, per HUD’s ACS LMISD data.

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Mariposa County	5,960	17,595	33.9%
Tuolumne County	20,705	50,595	40.9%
Total	43,700	113,955	38.3%

Fire doesn't discriminate based on income. The proposed Community and Watershed Resilience Program will benefit all local and downstream residents with healthier forests, watersheds and air quality, and decreased wildfire risk. The Program will strengthen the economy with career development in the green infrastructure and green energy sectors; industries that will support continued recovery from the Rim Fire and create ongoing job training and educational opportunities for current Tuolumne County residents and can attract new residents to the area. Further, the Program fosters community connectivity and social cohesion – hallmarks of instituting resilience in rural communities.

Moreover, both LMI and Non-LMI homeowners have experienced drastic increases in insurance premiums or inability to access insurance altogether. In some cases, insurers simply dropped Tuolumne residents' properties from coverage. When coverage is still available, premiums have nearly quadrupled in some cases, and since a significant portion of the population in Tuolumne is comprised of retirees, even those with assets, but who live on fixed incomes are unable to afford increasing insurance premiums. This represents a vulnerable population who is similarly subject to some of the same risks and vulnerabilities as LMI residents.

Low to Moderate Income needs after the disaster

Low- and moderate-income people (LMI) and vulnerable populations in Tuolumne County were disproportionately impacted by the Rim Fire. A large share of employment is associated with tourism and recreation. The LMI population in the County was thus impacted by severe reductions in employment opportunities, given that tourism levels declined immediately following the Rim Fire. The economic health of the county relies heavily on tourism, recreation, and associated service industries.

Immediately after the Rim Fire, the State of California and the local community worked with the LMI populations facing increased costs due to impacts from the Rim Fire and provided immediate financial assistance, including gas & food vouchers, rental assistance, energy assistance, heaters and air purifiers. In total:

- 86 families received food vouchers
- 84 families received gas vouchers
- 35 families received rental assistance
- 40 families received energy assistance
- 11 families received heaters

- 20 families received air purifiers

Proposed Activities and Programs that will be affected by the alternative requirement:

The Community and Watershed Resilience Program outlines a path forward for mitigation and resiliency in rural, forested areas. The State has carefully assessed the unmet needs as a result of the Rim Fire and determined that the approach in the NDRC application will address not only the impacts from the Rim Fire, but will create a forward-looking approach that can be used as a model for other communities in the state and across the Western United States to promote a safe, secure and resilient recovery from wildfire events. Reducing the risk of wildfire requires taking a larger ecosystem-based approach to resilience, and community investments must reflect the nature of the risk. As noted above, the threat of fires throughout California is serious and the State must take an approach that is scalable, and can be implemented in current impacted areas as well as in [additional fire prone areas](#) throughout the State, and can be replicated throughout the Western United States. This approach benefits the entire community and was designed to strategically impact those vulnerable and LMI communities within the declared County and surrounding jurisdictions.

Community Resilience Centers

One of the largest issues during rural mountain disasters is ingress/egress. For example, in the recent Butte Fire in Calaveras County, CAL FIRE had to plan for 2 full days to evacuate 10,000 people down the Highway 4 corridor because of a two-lane mountain road. This “choke point”

constitutes a significant logistical challenge, as the congestion of people evacuating out of the fire zones pushes against the flow of first responders trying to get up to the fire zones. With a coordinated evacuation plan, including access to the Community Resilience Centers (CRCs), direct assistance can be provided to residents with little to no means of transport to safe, secure centers.

There are two proposed Community Resilience Centers – one in Groveland and one in Tuolumne City. These centers would serve multiple purposes, including during an emergency as evacuation centers that include food supplies, animal boarding, internet connection, and other needed services. Additionally, these CRCs would also provide year-round needed services such as a business incubator through the Tuolumne County Economic Development Authority, education and training facilities for Columbia College, commercial kitchens, and Head Start Programs. The Groveland facility is proposed on a larger site and will include housing for California Conservation Corps (CCC) workers. The daily activities occurring in the CRCs focus on providing services for the LMI community in the area. Head Start will provide services to the 15% of Tuolumne residents who live below the federal poverty rate. The CCC will bring in a crew of 45 workers for eight months of the year, and has committed to recruiting at least 15 of these workers from the County. Between Head Start and the CCC, this constitutes a total of 21 new LMI jobs in the area. The State is committed to ensuring that these centers benefit the LMI community of Tuolumne and surrounding counties.

Additionally, the locations of the two CRCs are strategically placed to assist local residents in both the North and South County areas, as well as neighboring Mariposa County to the west and Calaveras County to the north. Mariposa and Calaveras have an overall percentage of LMI of 36%, with similar demographic make-up including seasonal residents and retirees.

Biomass Facility and Wood Products Campus

This facility will include operations of a sustainable wood products campus producing materials such as biochar, animal bedding, fence posts, pellets, or lumber. Residue from the operation and other non-merchantable wood will then be used in a modern biomass facility with best available emissions control technology to generate heat, electricity and cooling. The first phase of this activity will include site selection, pre-construction and design. At its optimized capacity, the Biomass Facility will positively impact the whole county as well as parts of neighboring counties stretching over to Nevada. With most of this service area being rural mountainous communities, the service area is 40% LMA. However, it is important to understand that additional benefits will be felt within a 35 to 70 mile radius of the facility. Additionally, the Biomass Facility and Wood Products Campus is also a replicable facility which can easily be implemented throughout the region to reduce risk and vulnerabilities in other threatened areas. This facility will create approximately fourteen jobs and will contribute to monetizing the work within forest stewardship economy.

Forest and Watershed Health Program:

The Forest and Watershed Health Program will include restoration and reforestation efforts, noxious weed treatment, rangeland improvements, strategic fuel breaks, and biomass removal and thinning. The reforestation/restoration and biomass removal/thinning will comprise the biggest components of this pillar, given the interconnectedness of the two and the focus on forest and watershed health. Seven strategic fuel breaks have been identified by CAL FIRE and USFS as critical for regional protection and for furthering ecosystem restoration and community recovery work. It is estimated that this program will benefit the entire service area of the Tuolumne Watershed, which has a 41% LMA. The service area of this watershed not only

includes the MID URN areas from the Rim Fire but also stretches to a larger county and regional downstream benefit. Additionally, piloting this program here not only addresses the unmet needs of the recovering community, it can also be replicated in response to other disasters with LMI populations throughout the State.

Long Term – Disaster Recovery Plan

California a national leader in adaptation and resilience planning. In October of 2015, Gov. Brown created the Integrated Climate Adaptation and Resilience Program under the Office of Planning and Research, which coordinates with the State’s Climate Action Team. This will further integrate and align state, regional, and local adaptation efforts. Further, California developed [Safeguarding California](#), a comprehensive climate adaptation strategy, to identify program and policy needs to assist the State in preparing for changing climate conditions. The principles of Safeguarding California guide State planning and investment, including hazard mitigation and recovery. The Community and Watershed Resilience Program reflects activities in line with this implementation. Safeguarding California is based around a scientific understanding of climate risks and informs actions to prepare for climate change at the state, regional, and local level.

More specifically, the Community and Watershed Resilience Program reflects the principles and priorities of the State’s strategy to ensure a sustainable water system. The State’s [Water Action Plan](#) lays out ten action areas, including the protection and restoration of key ecosystems. This includes restoration of upper watersheds that serve as a critical backbone of the State’s water system through the establishment of the Sierra Nevada Conservancy’s Watershed Improvement Program (WIP). The proposed NDRC activities, specifically the Forest and Watershed Health

and Biomass Facility and Wood Products Campus, will be implemented by the SNC in coordination with the WIP.

Impacts of Proposed Program on Adjacent Counties – Expanded Service Area

As a rural region with limited resources and limited access to services, the Sierra Nevada foothill counties depend on inter-county support, and this support is even more critical during disaster events. Tuolumne County is frequently the destination for residents of adjacent counties for services and especially during emergencies, namely Calaveras and Mariposa. This was most recently evident during the Butte Fire in Calaveras County in September 2015, where Calaveras residents sought shelter and services in Tuolumne County. Calaveras and Mariposa Counties are similar to Tuolumne, in terms of demographic make-up and LMI percentages, and both have a high number of retirees and seasonal residents. The residents of both of these neighboring counties would benefit tremendously from the proposed programs and services in the Community and Watershed Resilience Program. Some key demographic data which illustrates the vulnerable population and LMI elements of Calaveras and Mariposa Counties is presented below:

- 16.1% of Mariposa residents are below poverty status
- 10.9% of Calaveras residents are below poverty status
- 51% of households in Mariposa County are above age 60
- 50% of households in Calaveras County are above age 60
- 18% of the population in both Calaveras and Mariposa Counties have a disability
- 27.6% of the population in Mariposa County have less than a high school diploma

- 24.9% of the population in Calaveras County have less than a high school diploma
- 5.9% of residents in Mariposa County have a bachelor's degree or higher
- 4.9% of residents in Calaveras County have a bachelor's degree or higher

Statement of Alternative Approaches Considered to Eliminate the Need for a Waiver

As noted above, the demographic make-up of Tuolumne County is indicative of the surrounding mountain counties. Also as noted above, the State sees patterns emerging from the fire disasters California continues to experience. The three pillars of the Community and Watershed Resilience Program are the culmination of the best science, research and community engagement. Given that Tuolumne County, per ACS data, is not a low-mod county, and the community needs at the local and downstream levels are where the strongest resilience opportunities are, the only alternative that would not involve the need for a waiver would be to simply do nothing.

With no restoration work, and without a rural populace who can and will do this work, the forests will remain in a degraded condition for the foreseeable future. Doing nothing will keep the risk of dangerous mega fires at an all-time high and carbon storage and sequestration will be a mere fraction of the potential that can be realized in a healthy, growing mixed conifer forest in this area. In addition to the concerns noted above, a lack of concerted action will also pose risks to biodiversity and broader ecosystem health, which will also threaten water supply for the local community and millions of downstream users. [Sixty percent of California's developed water supply originates](#) in the Sierra Nevada region, and on its own, the [Tuolumne watershed is extensive](#).

The Tuolumne Watershed supplies the needs of 2.4 million people in the Bay Area and 550,000 people within the watershed, irrigates more than 300,000 acres of prime agricultural

land, and powers two hydropower systems ([Mount, 2010](#)). Given that California is currently in a prolonged severe drought, [with 5,433 residents without water in the Central Valley](#), the potential for catastrophe across the Tuolumne watershed is increasingly heightened. Further, given that the San Francisco Bay Area's water comes from Tuolumne County, any threat to this water source threatens the economic and natural resources of one of the Country's economic drivers.