

### **Background**

The South Subregion includes 58 percent of the land area of Madera, 44 percent of Fresno, 66 percent of Tulare and 26 percent of Kern Counties. This rural Subregion does not include any incorporated cities and includes a total of 82,500 residents. For the counties of Fresno, Tulare and Kern, only about 3 percent of the population lives within the SNC boundary. In Madera County that number rises to 20 percent.

County seats, media outlets and many local organizations offices are in the valley portion of this Subregion, as are most of the main transportation corridors. The highways in the Sierra trend east-west, from the major Valley arteries, with only Highway 120 in Yosemite National Park and Highway 178 in Kern County crossing the Sierra in or near this Subregion. These facts create some additional challenges to servicing the South Subregion.

The Subregion includes the watersheds of the San Joaquin, Kings, Kaweah, Tule, and Kern rivers. Elevation changes in this, the steepest portion of the Sierra, range from 600 feet in the west to over 14,000 feet on Mount Whitney's summit. All rivers south of the San Joaquin once flowed into an internal basin called Tulare Basin, historically housing five freshwater lakes, including Tulare Lake, which was the largest freshwater body of water west of the Mississippi River.

Public land dominates the South Subregion, with a low of about 50 percent in Kern County to a high of over 80 percent in Fresno County. These lands allow public access and are available for recreation thereby supporting small businesses throughout the area in close proximity to the public lands. The largest Native American tribal land holding in California is in this sub-region, the Tule River Tribe, an existing SNC partner.

In all four counties, most of the economic activity is on the valley floor, outside of the SNC area. The major economic drivers in the Subregion are cattle grazing and tourism occurring on private lands and public lands within the SNC area. Historically, significant economic activity in the South Subregion was related to natural resource extraction industries such as timber and mining but that activity has dropped dramatically in recent decades.

The SNC serves the South Subregion out of the office in Mariposa (one staff member is located in Auburn) and with a consultant located in Three Rivers.

### **Current Status**

The SNC has awarded a total of 25 grants in the South Subregion, totaling \$3,225,992. The SNC's most frequent partners in the South Subregion include Fire Safe Councils and RC&Ds, as well as the Sequoia Riverlands Trust and the Sierra Foothill Conservancy.

SNC has funded or has been a key participant in a number of other efforts throughout the South Subregion. Two of these are:

### Southern Sierra Integrated Regional Water Management Plan (IRWMP)

Prior to the SNC funding IRWMP launch grants, the Mt. Whitney portion of the Region had very few counties involved in IRWMPs and therefore no opportunity to compete for Department of Water Resources (DWR) funding. In the South, the SNC funded pre-planning work to conduct outreach to stakeholders, convene a planning committee, compile watershed data and prioritize needs. Furthermore, the SNC assisted with facilitation and coordination of the DWR Acceptance Process and convened stakeholders to negotiate shared boundaries.

### Sustainable Forests and Communities Collaborative (SFCC)

Following the Connecting the Dots Webposium in Oakhurst in October 2009, SNC realized that there was a significant interest in the area to address the issues of forest health, reduced fire risk and community economic opportunities. As a result, the following month the North Fork stakeholders were joined by others from Yosemite National Park, Mariposa and Madera Counties and parts of Fresno County to form the Sustainable Forests and Communities Collaborative. The group now includes federal, state and local government representatives, private industry, Fire Safe Councils, RC&D, and the local land trust. This group meets bi-monthly and is moving forward with several project ideas in both Madera and Mariposa Counties. The Willow Creek Planning Collaborative formed as an outgrowth of the SFCC to focus on this specific watershed in the Sierra National Forest in Madera County. This group is being facilitated by SNC staff with technical assistance from the Center for Collaborative Planning. A small, but diverse group in Tulare County is also looking towards the formation of a similar group in that area.

The SNC has also been active on a number of other projects and efforts on a Region-wide level throughout the Sierra and in this Subregion, including the Great Sierra River Cleanup and the Geotourism MapGuide Project. The SNC is participating in the Southern Sierra Partnership, a group of local and state-wide nonprofit groups and coordinating with the federal partnership to secure funds and to integrate climate change into Park and Forest management planning efforts

### Key Issues in the South Subregion

Following are a few key issues that the SNC has identified in this Subregion based on interaction with SNC partners, public input and staff observations, as well as reviewing the demographic data, reports and working directly with federal and state agencies.

#### **Air Quality**

Particulate Matter (PM) levels and ozone in the southern Sierra rank among the highest in the nation due to local and regional weather patterns such as the Fresno Eddy and heavy emissions along travel corridors (Highway 99 and Interstate 5). Summer and fall high pressure systems trap polluted air and cause a worsening air gradient upslope in

the Sierra. Ozone doesn't decline in Sierra at nights and thus, the Sierra is disproportionately affected relative to the adjacent valley.

### **Water**

Water supply is a critical issue in the South Subregion, as most of the southern Sierra consists of a fractured bedrock aquifer that is seasonally replenished. Very little information exists on the storage capacity and water quantity of this aquifer. At present, Fresno County is a leader in this subregion in connecting development decisions to water quantity, as under a new law, developers must show water supply in dry and wet years in order to gain approval for a development project.

### **Climate Change**

Climate Change is predicted to have impacts on water, ecological communities, fire, human health and various economic aspects of communities. Vegetation bands in the South Subregion are narrow and easily fragmented by various human and natural causes because of the steep gradient. For a variety of reasons, these bands are currently contracting, and scientists are predicting further contraction, causing further habitat fragmentation, under future climate change scenarios. Water yields and precipitation are higher in the northern Sierra, but the South has greater snowpack that lasts later in the season, and would be the only summer-remaining snowpack in the Sierra under numerous snowpack models. Despite the resilience of the southern Sierra to climate-induced snowpack impacts, snowmelt may still be reduced 20-50 percent. The public agencies are compiling research and developing management plans to incorporate climate change effects.

Climate change may have significant and tangible economic impacts. Sierra Summit is the only major ski area in the South, (Shirley Meadows, located in Kern County now opens very seldom, as appropriate conditions are now infrequent) and provides much needed winter economic activity in an area dominated by summer tourism. If snow pack decreases as predicted at mid elevations, this economic activity will be diminished or disappear altogether.

### **Marijuana Gardens on Public Lands**

Illegal marijuana gardens pose a tremendous threat to the health of the Sierra Nevada and its watersheds. For example, in the summer of 2009, a ten-day intensive sweep for illegal marijuana gardens in Fresno County public lands resulted in the seizure of \$1.26 billion dollars worth of marijuana plants and the arrest of 83 people. By comparison, Tulare County's leading commodity, milk, was valued at about \$1.8 billion for the entire year of 2008.

The growers on these sites utilize a large quantity of fertilizers and pesticides, some of which are illegal in the United States because of their toxicity levels. These pollutants often contaminate watersheds after the winter rains, destroying surrounding fish and harming wildlife that relies on the creek for drinking water. These gardens also significantly impact water supplies in their watersheds due to the high irrigation

demands of the marijuana crops. Furthermore, this illegal activity has begun to change the relationship between the residents and visitors to the area and the forest. The fear of coming across an illegal garden has caused both recreationalists and even public lands staff to stay closer to marked trails and wander less into the unmarked areas. In some cases, this has caused biologists and other researchers to have to abandon forest areas that they would typically be monitoring for habitat and species, therefore limiting their monitoring efforts.

According to the California Department of Justice, for every one acre of marijuana grown, ten acres are damaged. The average cost for cleaning up one of these garden sites is \$15,000 per acre, which means that many garden busts do not necessarily result in a cleanup effort. The only SNC grant to a tribal organization to date is funding a marijuana garden cleanup in the Tule River watershed, conducted by the Tule River Tribe in Tulare County.

### **Next Steps**

It is important to note that the Southern Subregional Assessment Report was the first attempt to identify the unique characteristics and trends in this area by using county data that is clipped at the SNC boundary. As a result of this, and the fact that such a small percentage of the population of most of these counties live within the boundary, SNC meets with unique challenges in serving this Subregion. Staff has developed and is further refining an outreach plan for the South Subregion that they have begun implementing which will tie collaborative processes that are focused on the valley to build interest and investment in the Sierra.

The SNC has established partnerships and working relationships in the South Subregion and outreach has been ongoing since the SNC's creation and will continue. SNC staff are interacting closely with partners in the South Subregion to help develop projects supportive of the SNC's current Healthy Forests grant program and gearing up to work in this Subregion on the 2012-13 grant cycle which will focus on the preservation of Ranching and Agricultural Lands.

### **Recommendation**

**This is an informational item only; no formal action is needed by the Board at this time, although Boardmembers are encouraged to share their thoughts and comments.**