



Drought Impacts

The County of Mariposa has been uniquely impacted by the 2014 drought crisis. The County lies in the Western Foothills of the Sierra Nevada Mountains, just slightly north of the midpoint of the Central Valley. Mariposa, “Home of Yosemite,” is marked by its varied terrain from grasslands, oak woodlands and savannas, and rolling foothills, to the lush greenery in the higher elevations, breathtaking sceneries and outdoor attractions. The County is known for its landscapes and is the dwelling place for an array of wildlife, livestock, and a growing population of residents. The drought has threatened Mariposa’s way of life. Due to the continuance of the drought in California, the County of Mariposa is at risk for:

- Not meeting drinking water demands;
- Failure to meet existing agricultural water demands;
- Not meeting ecosystem water demands;
- And other drought-related impacts, such as wildfires.

Thankfully, Mariposa is not at risk for these non-applicable items:

- Drinking water MCL violations;
- Groundwater basin overdraft;
- Discharge water TMDL violations

However, the drought is so severe that Mariposa has adopted a County Drought Preparedness Plan that will become part of its Local Hazard Mitigation Plan.

Drinking Water Demands

Drinking water has become a major concern for the residents of Mariposa County. California is in its driest year on record, and the County of Mariposa has acutely experienced its effects. So much so that the California Department of Public Health (CDPH) announced that it would offer support to 17 rural communities in 2014 that were vulnerable to drinking water systems due to drought conditions. These communities ranged in size from 39 to 11,000 residents.

The CDPH’s Drinking Water Program identified Mariposa’s drinking water systems at risk, including the Whispering Pines Apartments in Mariposa County. Because of this risk, the CDPH offered assistance to the impacted areas. The CDPH will ensure that Mariposa has implemented the required conservation measures (including rationing), identify any possible additional resources such as nearby water systems or hauled water, and will provide technical assistance as needed on the construction of additional wells.

Per the County’s Drought Preparedness Plan, the majority of its rural residents rely on private on-site wells for their domestic water source. Therefore, the maintenance of the private wells relies solely on the property owners. This becomes problematic as “the costs associated with



drilling and developing a private well are highly variable". With this issue, it is unknown whether there will be any potable water available for the residents and farmers that use these wells. Also, numerous public drinking water systems that serve tourists, residents, and businesses are managed by "water purveyors." The 63 water purveyors are maintained by Federal Government Agencies, State Government Agencies, Mariposa County, water companies, and individuals. Because of this, these purveyors are just as susceptible to severe droughts, thus threatening major public drinking systems.

Agricultural Water Demands

The United States Department of Agriculture (USDA) deemed Mariposa as one of their disaster areas due to the damages and significant losses experienced by the recent drought, which persists today. In turn, the USDA offered natural disaster assistance so that Mariposa could remain viable. The current drought threatens farmlands and ranchers because without rain, there is no grass for forage; this means that animals, both wild and farm fed, will be unable to graze in their natural habitat. This also threatens irrigated crops and orchards. To counter this, farmers are forced to purchase feed from alternative sources, fund more pumping, and depend more heavily on groundwater. Per the Mariposa County Agricultural Crop and Livestock Report, there are roughly 500 acres of irrigated pastures, 535 acres of irrigated field crops, and 282 irrigated acres of wine, grapes, fruits and nuts under cultivation. This does not include the additional 400,000 acres that are non-irrigated rangelands. While grant funds are not being sought in this application specifically for agricultural needs, the region's agriculture and economic survival are being impacted by the on-going drought conditions.

Ecosystem Water Demands

Due to the wilderness and high level of wildlife in Mariposa County, the drought has negatively affected this region. Indigenous wildlife animals and livestock alike depend on the water in order to survive. With the drought, it has become more difficult for farm animals to be kept hydrated; also, wild animals are left to fend for themselves. Per the Mariposa County's "Conservation and Open Space General Plan," water is a huge resource for growth in the area. Mariposa is known for its "wildlife and its diversity of plant communities and wildlife habitats" (page 11-3). Without water, Mariposa cannot maintain its natural ecosystem and wildlife population.

With that, problems arise for the residents of the County. The County Plan also states that ecosystems "support living systems and geochemical processes, which provide a variety of essential services and important opportunities to County residents." Some of these ecosystem services include: the maintenance and enhancement of air, water, and soil qualities; the recycling of wastes and pollutants; the cycling of essential nutrients; the control of pests and diseases; and the pollination of plants. Without the continuation of Mariposa's natural ecosystems, both wildlife and residents will be threatened. As referenced above, just last year the USDA designated Mariposa County as a "disaster area" due to the drought crisis.

“Addressing Drought through IRWM Projects in the Yosemite-Mariposa Region”

Yosemite-Mariposa Integrated Regional Water Management Group



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Many residents and ranchers in Mariposa rely heavily on private on-site wells and surface water. Because the upkeep of these private wells rest solely on the property owners, this can leave many wells without the proper maintenance. The costs associated with repairs are expensive and vary. When the wells do fracture, it may severely diminish the accessibility to water for ecological purposes, or in some cases completely eliminate it.

Per Mariposa County’s Drought Preparedness Plan: “It is unknown how much, if any water can be found within the fractures underlying any parcel.” This means natural ecosystems, and the wildlife they sustain, may cease to exist without the water necessary to support them. Without quality and abundant water sources, the Mariposa County’s entire ecosystem could fail.

Other drought-related impacts—Increase in Wildfires:

As the drought continues, more wildfires have occurred throughout California, and particularly in Mariposa County. According to the California State Weekly Drought Brief, posted on June 16, 2014, CAL FIRE has responded to nearly 2,300 fires across the State since January 1. This has caused the burning of 17,440 acres, which is well above the average fire activity of last year. At the time of publication, CAL FIRE had responded to over 200 new wildfires in the month of June, including four fires in the Mariposa County. The Hunters Fire, Valley Fire, Smithers Fire, and the Haigh Fire burned upward of 900 acres. This is costly and time-consuming, as just one fire required over 350 fire personnel, 15 fire engines, 12 fire crews, 4 helicopters, and 5 dozers.

To remedy the outbreak of wildfires and to monitor the drought problem, the Governor has executed Local Emergency Proclamations. A total of 46 Local Emergency Proclamations have been received this year, including from Mariposa. County Drought Taskforces have also been dispersed and a total of 26 California Counties have been given established Drought Task Forces to coordinate local drought response including major regions by Mariposa County such as Madera, San Joaquin, Stanislaus, and Tuolumne Counties.

The issues related to the drought are a major source of concern to Mariposa as they are not only costly but also dangerous to its prized ecosystem. When these wildfires occur, ground water supplies diminish and erosion mars the area. Areas such as Fish Camp are then forced to find deeper fractures for a better supply of quality water; additional water storages must also be sourced for sustainability during the length of the drought. Also, because of the heavily forested areas in the County, these project areas are in desperate need of better fire suppression tools (such as the water storage unit provided in the Fish Camp Project); otherwise, any structure fire within the community could spread rapidly.

The County of Mariposa is still deeply entrenched in the drought problem. The County is in need of these funds to fight against the risks of vulnerable drinking water, unavailable water for ecological needs, and the increase of wildfires.