

## DISADVANTAGED UNINCORPORATED COMMUNITIES

### Introduction

State law (SB 244, Wolk, 2011) requires Madera County to determine if there are any disadvantaged unincorporated communities (DUCs) outside City spheres of influence and within the county boundary. Once identified, the County must provide analysis of water, wastewater, storm drainage, and structural fire protection needs or deficiencies for each of the identified DUCs.

### Key Terms

**Community.** An inhabited area within a city or county that is comprised of no less than 10 dwellings adjacent or in close proximity to one another (GC Section 65302.10 (a)).

**Service Area (SA).** Service district formed for the purpose of providing one or more services to residents and property owners. The Board of Supervisors acts as the Board of Directors for, and on behalf of each property owner in a County Service Area.

**Disadvantaged Unincorporated Community (DUC).** A fringe, island, or legacy community in which the median household income is 80 percent or less than the statewide median household income (GC Section 65302.10 (a)).

**Island Community.** Any inhabited and unincorporated territory that is surrounded or substantially surrounded by one or more cities or by one or more cities and a county boundary or the Pacific Ocean (GC Section 65302.10 (a)).

**Fringe Community.** Any inhabited and unincorporated territory that is within a city's sphere of influence (GC Section 65302.10 (a)).

**Legacy Community.** A geographically isolated community that is inhabited and has existed for at least 50 years (GC Section 65302.10 (a)).

**Maintenance District (MD).** Service district formed for the purpose of providing one or more services to residents and property owners. The Board of Supervisors acts as the Board of Directors for, and on behalf of each property owner in an MD.

### Regulatory Setting

**SB 244 (Wolk, 2011).** SB 244 addresses the legal, financial, and political barriers that contribute to regional inequality and infrastructure deficits DUCs. Including these communities in the long-range planning of Madera County, as required by SB 244, is intended to result in a more efficient delivery system of services and infrastructure including, but not limited to, water, wastewater, storm drainage, and structural fire protection. In turn investment in these services and infrastructure will result in the enhancement and protection of public health and safety for these communities.

SB 244 requires that Madera County review and update the Land Use Element of its General Plan, based on available data, to identify and describe each legacy community within the boundaries of the county that is a DUC, but

not including any area within the sphere of influence of a city. (GC Section 65302.10.(a)). The County must provide analysis of water, wastewater, stormwater drainage, and structural fire protection needs or deficiencies for each of the identified DUCs.

In the context of SB 244, a (DUC) means a fringe, island, or legacy community in which the median household income is 80 percent or less than the statewide median household income. A "legacy community" is a geographically isolated community that is inhabited and has existed for at least 50 years. Counties are only required to identify and address legacy communities.

## **Existing Conditions**

Legacy DUCs, are unincorporated areas outside city spheres of influence (SOI) that have a sufficient parcel density and are low income. The County used the following methodology to identify legacy DUCs.

### **Parcel Density**

The County focused on groupings of parcels that resemble the density of suburban and urban communities, assuming that groups of parcels that were small and close together could form a legacy community. For an approximation of a legacy community, the County calculated the number of parcels per square mile. The goal of this step was to find clusters of development outside of SOIs. Parcel densities were calculated using the centroid (or middle point) of each parcel. Each point represents a parcel. Areas with a higher density of centroids indicate places with greater densities of development.

The Farmland Monitoring and Mapping Program (FMMP) data are updated every two years to track how land is currently being used. Categories of "developed," "rural residential," and "agricultural" help determine which parcels may qualify as a legacy community. The County only considered unincorporated areas outside SOIs defined by the FMMP as "developed" or "rural residential" when identifying legacy communities.

The County focused on places where the density is similar to that of cities or existing Census Designated Places (CDPs). For reference the County calculated densities of a few CDPs in the county to determine a minimum threshold value for community density. This calculation was based on the developed part(s) of each CDP. The entire area was not used because CDP boundaries are often larger than the developed part(s) of the community. The County selected unincorporated areas that were at least as dense as current CDPs (approximately 250 parcels per square mile).

### **Low Income Status**

Next, the County used U.S. Census block group data to compare the income status of local households relative to households across the state. The County used 2000 Census data because it was the most comprehensive dataset at the block group geography that is currently available. The 2010 Census did not include income data, and the more recent American Community Survey (ACS) used too small a sample size to produce reliable data for rural, unincorporated areas.

In accordance with the definition of DUCs set forth in SB 244, the County filtered areas based on whether they were 80 percent below the statewide median household income. In 2000, the statewide median household income was \$47,493 (compared to \$61,400 according to the 2008-2012 ACS). The County included any census block group with a median income of less than \$37,994.

There are several limitations to this data. First, it is old; there have been several shifts in local and national economies since 1999. Secondly, the U.S. Census Bureau has historically undercounted rural populations, people of

color, and those who are not native English speakers. Finally, the size of a census block group is often much larger than the small communities of concern. For example, a census block group may include many wealthy households as well as a cluster of low-income families. This block group would have a resulting higher median income and may be excluded from the model, even though a DUC is present.

## **Post Processing Refinements and Results**

The County used an additional combination of selections as a final check of the identified DUCs. The County removed: areas that are (by visual inspection with aerial/satellite imagery) obviously new, not residential, or obviously not low income; areas that are less than three-quarters of an acre with only one or two houses; and any obvious narrow "slivers" that were a result of layer overlap (e.g., along city limits and census tract overlaps). Figures 1 and 2 show the 17 areas the County has identified as legacy DUCs based on the above analysis. This section provides details on public services within each of these communities consistent with the requirements of SB 244.

## **Madera County Special Districts**

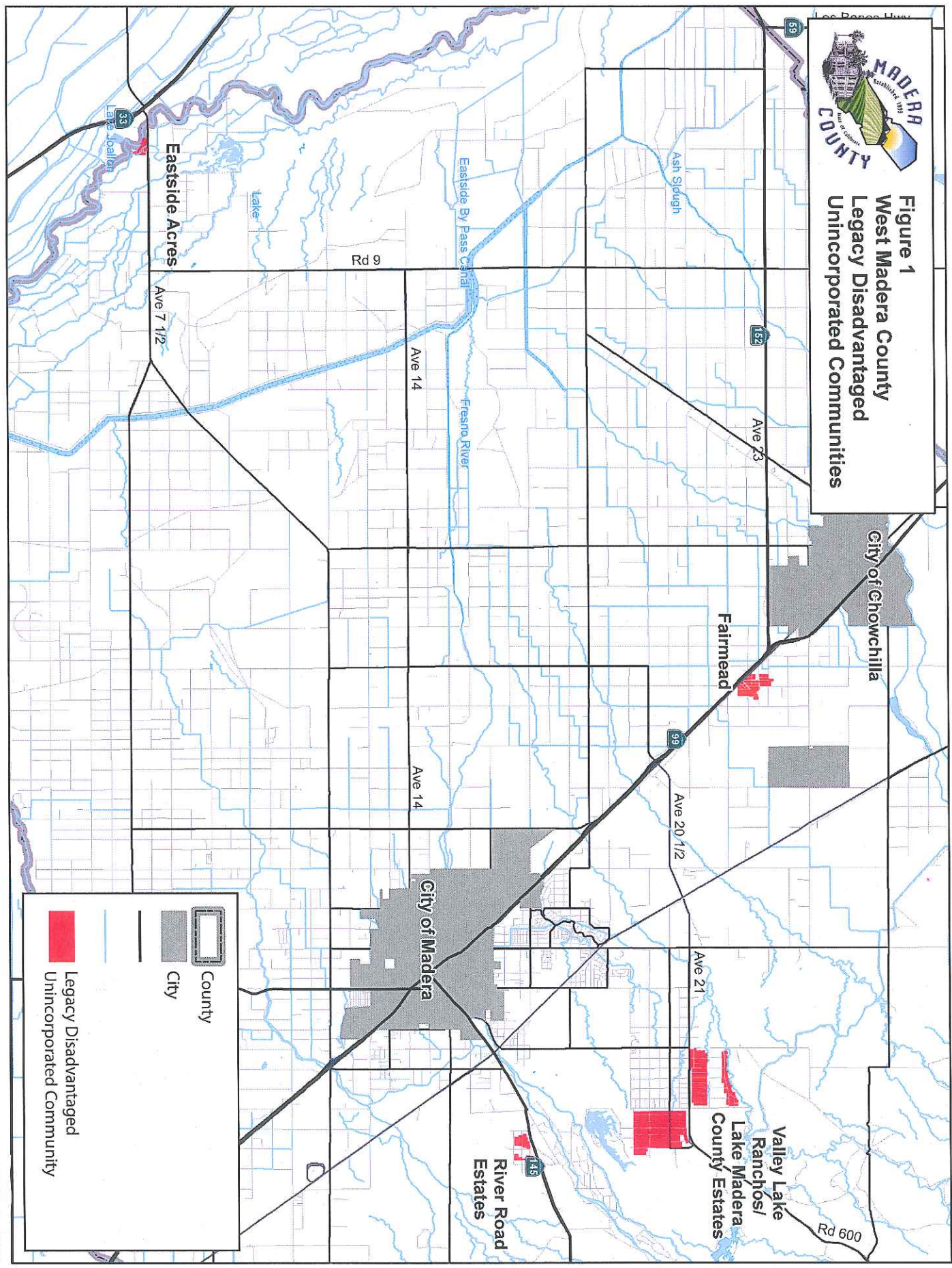
The County operates and maintains 34 individual sewer and water districts. They were formed for the purpose of providing one or more specialized service(s) to residents and property within their boundaries. Services provided may include water, sewer, lighting, drainage, landscaping, and/or irrigation. Of the 34 special districts, 25 are classified as Maintenance Districts (MD) and 9 are classified as County Service Areas (CSA). The County provides sewer and water service to approximately 6,000 customers.




The SAs and MDs in Madera County are "dependent" special districts. Unlike "independent" special districts, dependent districts are governed by the Madera County Board of Supervisors and managed by County staff. Madera County Board of Supervisors acts as the Board of Directors for all of the districts, on behalf of each property owner in the district. The Public Works Department oversees maintenance and Special Districts, or more specifically, the Special Districts section of the Municipal Services Division, oversees the daily operations of road, sewer, and water districts.

Several districts in the county have old and antiquated pipelines and facilities that need to be improved and/or replaced. Operating costs have increased due to rising utilities costs, increased repairs, and maintenance needs of the aging pipelines and facilities. Several of these special districts lack adequate funding to pay for the proper operations and maintenance of their systems, major improvements and/or replacement of the aging pipelines and facilities. On November 5, 1996, California voters passed Proposition 218 which amended the California Constitution (Articles XIII C and XIII D). Prop 218 requires that a local government have a majority vote of the affected property owners for any proposed new or increased assessment for major improvements and replacements. It also requires that a local government have a majority protest hearing for any proposed increases to the service charges for operations and maintenance and that all assessments must be supported by a detailed engineer's report prepared by a registered professional engineer certified by the State of California. As a result, improvements to facilities in many districts are reliant upon voter approved fee increases.



**Figure 1**  
**West Madera County**  
**Legacy Disadvantaged**  
**Unincorporated Communities**

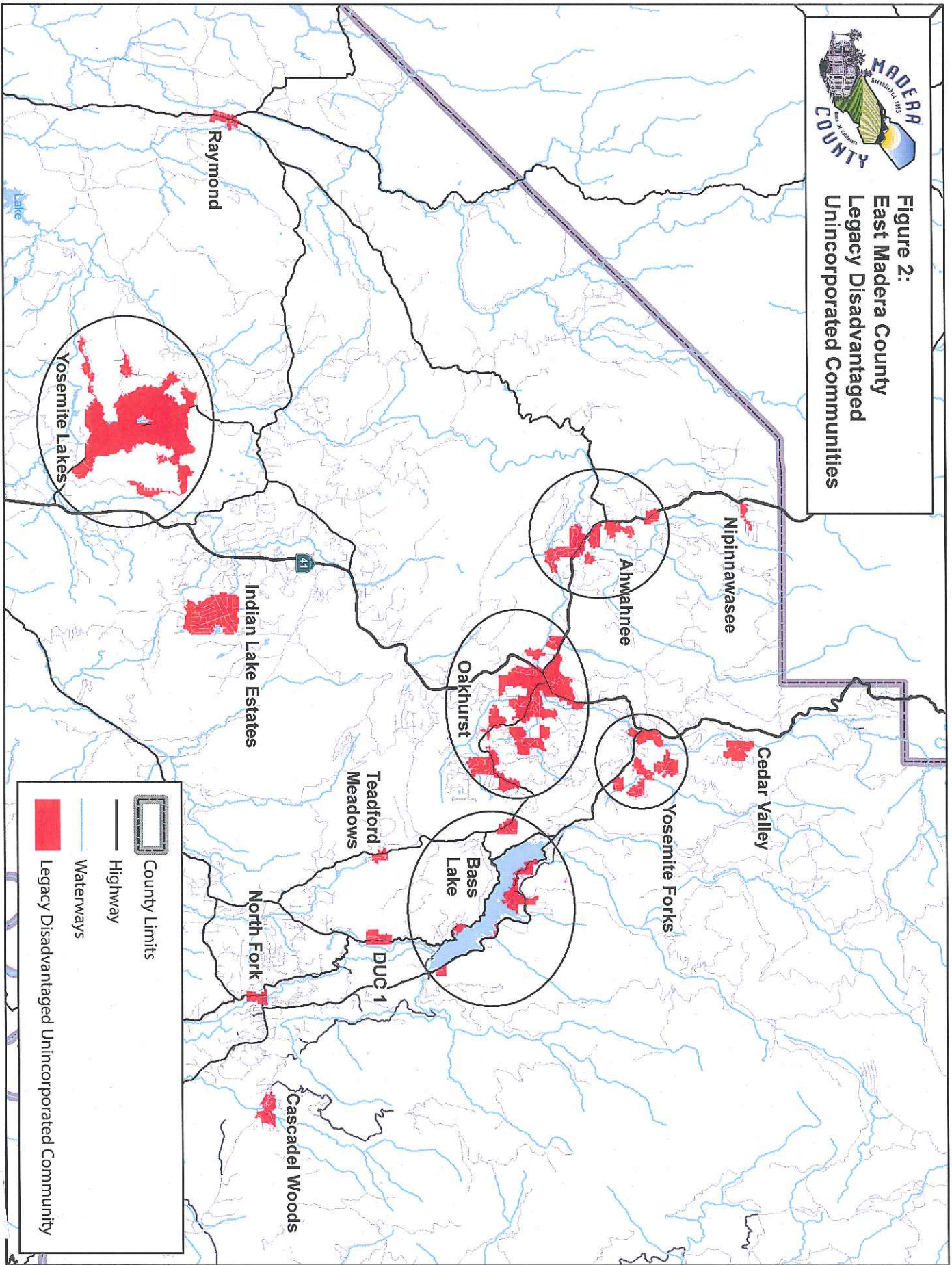


	Legacy Disadvantaged Unincorporated Community
	City
	County

Source: County of Madera (2015)



**Figure 2:  
East Madera County  
Legacy Disadvantaged  
Unincorporated Communities**



## ***Fairmead***

**Location and Service Providers.** Fairmead is located southeast of the city of Chowchilla near State Highways 99 and 152. Its boundaries roughly follow the boundaries of the Fairmead Census Designated Place. Water service is provided by MD 33. Wastewater is provided through residential private septic systems and storm drainage capture and transport is provided through roadside ditches and on-site private drainage ponds. Fire protection is provided by the Madera County Fire Department, through a contract with CAL FIRE.

**Service System Status.** The Fairmead community water system, MD 33, serves 166 homes, Fairmead Elementary School, and 71 vacant parcels. Two wells provide supply, producing approximately 200 gpm combined. One well is located on the grounds of Fairmead Elementary, and the other is located near the junction of Maple Street and Yates Street. Madera County has recently completed (2010) an upgrade to the water system, including a 212,000 gallon water storage tank. The storage tank provides supply during high demand (summer) and the boost pump provides needed pressure for the community's fire hydrants. This system is chlorinated. The distribution system is asbestos cement pipe. There have been no water shortages.

The Madera County Fire Department provides fire emergency services to all of unincorporated Madera County. Fire Station #2, located approximately five miles to the northwest in Chowchilla, is the nearest County fire station to Fairmead. Cal Fire designates the Fairmead area as a moderate fire hazard severity zone.

**Service Deficiencies.** Water, wastewater, storm drainage, and fire emergency services in Fairmead are sufficient. Water supply demands are currently (2015) being met and there are no known water quality issues. There are no known localized flooding issues.

## ***Eastside Acres***

**Location and Service Providers.** Eastside Acres is located along the western edge of the county along the San Joaquin River. The area was subdivided in 1946 and now contains approximately 75 residences. The city of Firebaugh in Fresno County lies directly across the river and Eastside Acres is within the City's SOI. While, by definition, legacy DUCs must be outside of City SOIs, Madera County has conservatively included Eastside Acres in this analysis because Firebaugh has no land use authority in Madera County.

Water supply and distribution is provided by a private water company. Wastewater service is provided by a CSA 5 and the City of Firebaugh. Storm drainage capture and transport is provided through roadside ditches and on-site private drainage ponds. Fire protection is provided by the Madera County Fire Department, through a contract with CAL FIRE and the City of Firebaugh.

**Service System Status.** Madera County Service Area 5 can provide sewer collection service to about 85 homes. The sewer system consists of a collection system that transports the wastewater across the San Joaquin River to the city of Firebaugh, where it is processed by the City. The City of Firebaugh is responsible for both the maintenance and billing for this system.

The nearest fire station in Madera County is located over 25 miles to the east in the city of Madera. However, the City of Firebaugh Fire Department provides initial instant response to Eastside Acres. The Firebaugh Fire Department station is located on 11th Street in central Firebaugh. The station is equipped with three engines, one reserve engine, a mini-pumper, and a light rescue vehicle that carries full emergency equipment and supplies.

**Service Deficiencies.** Water, wastewater, storm drainage, and fire emergency services in Eastside Acres are sufficient; however, future development across Avenue 7½ may exceed current (2015) service contracts with the City

of Firebaugh. Water supply demands are currently (2015) being met and there are no known water quality issues. There are no known localized flooding issues.

### ***Valley Lake Ranchos/Lake Madera County Estates***

**Location and Service Providers.** Valley Lake Ranchos/Lake Madera County Estates are located on the northwest (Valley Lake Ranchos) and southeast (Lake Madera County Estates) corners of Avenue 21 and Road 30, respectively. The communities are located approximately five miles northeast of the city of Madera. Water supply is provided by residential private wells and wastewater service is provided through residential private septic systems. Storm drainage capture and transport is provided through roadside ditches and on-site private drainage ponds. Fire protection is provided by the Madera County Fire Department, through a contract with CAL FIRE, and the City of Firebaugh.

**Service System Status.** Fire Station #3, located approximately six miles to the southwest in Madera Acres, is the nearest County fire station to Valley Lake Ranchos/Lake Madera County Estates. Cal Fire designates the Valley Lake Ranchos area as a moderate fire hazard severity zone and the Lake Madera County Estates area as urban unzoned.

**Service Deficiencies.** Water, wastewater, storm drainage, and fire emergency services in Valley Lake Ranchos/Lake Madera County Estates are sufficient. Water supply demands are currently (2015) being met and there are no known water quality issues. There are no known localized flooding issues.

### ***River Road Estates***

**Location and Service Providers.** River Road Estates is located approximately five miles east of the city of Madera along SR 145. Water supply and distribution in the area is provided by residential private wells and wastewater is provided through residential private septic systems. Storm drainage capture and transport is provided through roadside ditches and on-site private drainage ponds. The Madera County Fire Department provides fire emergency services to all of unincorporated Madera County, through a contract with CAL FIRE.

**Service System Status.** Fire Station #1, located approximately 5 miles to the west in the City of Madera, is the nearest County fire station to River Road Estates. River Road Estates could also be served by Fire Station #19, located approximately nine miles to the southeast in Bonadelle Ranchos. Cal Fire designates the River Road Estates area as urban unzoned.

**Service Deficiencies.** Water, wastewater, storm drainage, and fire emergency services in River Road Estates are sufficient. Water supply demands are currently (2015) being met and there are no known water quality issues. There are no known localized flooding issues.

### ***Raymond***

**Location and Service Providers.** Raymond lies in the foothills of the Sierra Nevada Mountains on the east side of the San Joaquin Valley along Road 600. Its boundaries roughly follow the boundaries of the Raymond CDP. Water service is provided by the Hillview Water District through the Raymond Water System. Wastewater service is provided through residential private septic systems. Storm drainage capture and transport is provided through roadside ditches and on-site private drainage ponds. Fire protection is provided by the Madera County Fire Department through a contract with CAL FIRE.

**Service System Status.** The Raymond Water System draws from wells located within or adjacent to the town of Raymond. This water system serves a small area including 79 connections and a population of 237 as of 2006. The

Raymond water system has five active hardrock wells that combined produce 50 to 60 gpm. The water storage system has five 25,000-gallon storage tanks.

Fire Station #15, located at the intersection of Road 600 and 606 within the community of Raymond, provides fire service to Raymond. This station is staffed with multiple personnel and fire protection apparatus during the peak fire season which extends generally from the end of June through September. During the off-season just one person and one truck are housed at the facility. Cal Fire designates the Raymond area as a moderate fire hazard severity zone.

**Service Deficiencies.** Storm drainage and fire emergency services in Raymond are sufficient. Water service is challenged due to low well yields and peak summer demands that can equal or exceed well production capacity. Groundwater recharge throughout the Raymond area is very limited due to relatively low precipitation, ranging from about 14 inches in the Daulton Ranch area (south) to about 16 inches near the town center. The majority of the precipitation is consumed by evaporation, which includes rainfall absorbed by vegetation and evaporation. Water quality concerns include elevated nitrate levels at active Wells 5 and 8. Water supply has recently (2015) become very limited and the well that is most used has become polluted with high concentrations of nitrates.

Raymond needs a more a dependable and clean water supply. Solutions to the groundwater supply could involve water conservation and planning efforts that are designed to more efficiently distribute and store the groundwater supply. Surface water supply options could also be explored for the long-term well being of the area.

Any future development that would increase the already high density of septic systems within Raymond may lead to environmental degradation and groundwater contamination. None of these private systems are subject to mandatory requirements for regular monitoring or maintenance. Lack of adequate sewer and septic facilities may be contributing to apparent surface and groundwater pollution and contamination in Raymond. Inadequate and failing septic facilities are known to generate public health risks, as well as environmental degradation problems and may be attributed to the rise of nitrate levels in Raymond. In addition, very shallow soils exist throughout the area, which decreases the ability of leech lines to operate effectively given the limited medium for effluent to "leech."

### ***Yosemite Lakes***

**Location and Service Providers.** Yosemite Lakes is located southwest of Coarsegold on the west side of SR 41. Yosemite Spring Park Utility Company, a private water company, provides water service to the Yosemite Lakes area. Wastewater serviced is provided through residential private septic systems. Storm drainage capture and transport is provided through roadside ditches and on-site private drainage ponds. Fire protection is provided by the Madera County Fire Department, through a contract with CAL FIRE.

**Service System Status.** The Yosemite Spring Park Utility Company water system serving Yosemite Lakes has an estimated 1,450 connections. The current water supply is derived from 14 active wells and stored in nine tanks. There are also several inactive and abandoned wells. The water production capacity of the 14 wells is estimated at 1,215 gpm. This well-pumping capacity is sufficient to meet maximum daily demands (1,042 gpm), but not peak hour (1,563 gpm) demands. The available storage tanks ensure the system can meet peak hour demands.

Fire Station #10, located at the intersection of Long Hollow Drive and Glacier Drive within the Yosemite Lakes community, provides fire service to the area. Cal Fire designates the Yosemite Lakes area as a moderate fire hazard severity zone.

**Service Deficiencies.** Water, wastewater, storm drainage, and fire emergency services in Yosemite Lakes are sufficient. Water supply demands are currently (2015) being met and there are no known water quality issues. There are no known localized flooding issues.



## ***Indian Lakes***

**Location and Service Providers.** Indian Lakes is located southeast of Coarsegold near State Highway 41 and Road 417. County Service Area 1 provides water service to Indian Lakes. Wastewater in the area is provided through residential private septic systems and storm drainage capture and transport is provided through roadside ditches and on-site private drainage ponds. Fire protection is provided by the Madera County Fire Department through a contract with CAL FIRE.

**Service System Status.** County Service Area 1 provides water service to about 457 homes and an iron and manganese removal plant. The water system consists of four wells, three of which are in use. The wells draw water from rock fractures approximately 300 to 1,100 feet below the earth's surface. The wells produce about 900 gpm. Treated water is stored in a 750,000 gallon tank prior to distribution. Water is distributed through cement-lined, steel pipes using boost pumps to pressurize the system. There is a generator backup to operate the pressure system and three wells during emergencies. An auto dialer and Supervisory Control and Data Acquisition (SCADA) is used to automatically report alarm conditions to County staff. This water system is both metered and chlorinated.

**Service Deficiencies.** Water, wastewater, storm drainage, and fire emergency services in Indian Lakes are sufficient. Water supply demands are currently (2015) being met and there are no known water quality issues. There are no known localized flooding issues.

## ***Ahwahnee***

**Location and Service Providers.** Ahwahnee is located in eastern Madera County along State Route 49. Its boundaries roughly follow the boundaries of the Ahwahnee CDP. Water supply in Ahwahnee is provided by Hillview Water Company and Maintenance Districts 43, 46, and 60. The Hillview Water Company also serves the central part of Oakhurst. Maintenance District 27, Goldside, provides wastewater service to Ahwahnee. The County operates a storm drainage system in the Goldside subdivision. This is the only County-operated flood control system in the county. Fire protection is provided by the Madera County Fire Department, through a contract with CAL FIRE.

**Service System Status.** The Hillview Water Company serves approximately 1,200 connections with 12 hard rock wells producing about 780 gpm. Maintenance District 43, Miami Creek Knolls, is located northwest of Oakhurst in the area of State Highway 49 and Lauri Lane. This district currently provides water service to 27 homes. Water is supplied from four wells that draw water from rock fractures approximately 200 to 400 feet deep. The wells have a production of approximately 15 gpm. Water is stored in a 13,000 gallon storage tank. Boost pumps and pressure tanks are used to deliver water to customers through one- and two- inch ABS, poly and steel pipe. The Maintenance District 43 water system is currently being improved to provide new distribution system, well site improvements, and connection to a new production well.

Maintenance District 46, Ahwahnee, is located northwest of Oakhurst near State Highway 49 and Harmony Lane. The district has capacity to serve a planned residential development of 105 homes. There are currently (2015) about 94 homes and commercial units currently in use. The water system consists of three deep drawing wells from rock fractures approximately 900 to 1160 feet deep. The wells produce about 184 gpm. The system consists of two boost pump stations used to supply two storage tanks. The storage tanks have a combined capacity of 185,000 gallons. From there water is distributed via gravity flow through plastic pipe. A telephone system is used to communicate between tanks and wells, and an auto dialer notifies County staff of alarm conditions. This water system is chlorinated.

Maintenance District 60, Dillon Estates, is located south of Ahwahnee on State Highway 49 and Sunrise. The District has capacity to provide water service to about 38 homes. It currently (2015) serves 37 homes. The water system consists of two wells drawing from rock fractures approximately 140 to 900 feet deep. The wells produce about 105

gpm to supply a 64,000 gallon storage tank and a plastic pipe distribution system. A SCADA system is used to communicate between tanks and wells, and notify County staff of alarm conditions. This water system is not chlorinated.

Maintenance District 27, Goldside sewer system, consists of an asbestos cement pipe collection system, one raw sewage pumping station, an extended aeration treatment process, filtration, turbidity monitoring, chlorine disinfection, treated water pumping, a pond, and an irrigation pump station that uses Goldside Golf Course as a sprayfield. The irrigation pump station is maintained by the County, but operated by employees of the golf course. The system has generator backup at the treatment plant and at the raw sewage pumping station. The treatment plant is equipped with an autodialer to alert County and golf course staff of emergencies.

Fire Station #16, located at the intersection of State Route 49 and Road 619 within Ahwahnee, provides fire service to Ahwahnee. Cal Fire designates parts of the Ahwahnee area as a very high, high, and moderate fire hazard severity zone. The very high zone is located in the southern portion of the community.

**Service Deficiencies.** The Hillview Water Company currently (2015) lacks adequate source and treatment capacity to service its customer base. The MD-60 system exceeds the maximum contaminant level for nitrate. By blending this water with water from Dillon Estates, the nitrate level is reduced and maintained at a safe level; however, it is uncertain how long MD-60 can continue to supplement the water supply and this may not be a long-term solution. Other water, wastewater, storm drainage, and fire emergency services in Ahwahnee are sufficient. There are no other known water quality issues. There are no known localized flooding issues.

### ***Nipinnawasee***

**Location and Service Providers.** Nipinnawasee is located in eastern Madera County north of Ahwahnee along State Route 49. Its boundaries roughly follow the boundaries of the Nipinnawasee CDP. Water supply and distribution in the area is provided through residential private wells and wastewater is provided through residential private septic systems. Storm drainage capture and transport is provided through roadside ditches and on-site private drainage ponds. Fire protection is provided by the Madera County Fire Department, through a contract with CAL FIRE.

**Service System Status.** Fire Station #16, located three miles to the south at the intersection of State Route 49 and Road 619 within Ahwahnee, provides fire service to the area. Cal Fire designates the Nipinnawasee area as a moderate fire hazard severity zone.

**Service Deficiencies.** Water, wastewater, storm drainage, and fire emergency services in Nipinnawasee are sufficient. Water supply demands are currently (2015) being met and there are no known water quality issues. There are no known localized flooding issues.

## **Oakhurst**

**Location and Service Providers.** Oakhurst is one of Madera County's largest unincorporated communities. It is located around the intersection of State Route 49 and 41. Its boundaries roughly follow the boundaries of the Oakhurst CDP. Water supply in Oakhurst is provided by the Hillview Water Company, Broadview Terrace Mutual Water Company, and Maintenance District 42. Maintenance District 22A provides sewer service to both commercial and residential developments. Storm drainage capture and transport is provided through roadside ditches and on-site private drainage ponds. Fire protection is provided by the Madera County Fire Department, through a contract with CAL FIRE.

**Service System Status.** The Hillview Water Company is the largest water supply entity serving Oakhurst. The District serves the central part of Oakhurst and the southern portions of Ahwahnee. The Hillview Water Company serves approximately 1,200 connections with 12 hard rock wells producing about 780 gpm.

Broadview Terrace Mutual Water Company serves 163 residential connections, two small apartment buildings, and the Fresno Flats Historical Museum. Water is supplied from seven hardrock wells and a connection to the Hillview Water Company. The seven wells produce approximately 182 gpm and are generally 200 to 300 feet deep. The water system has two storage tanks with 45,000- and 50,000-gallon capacities.

Maintenance District 42, Still Meadow, is located in the area of Still Meadow Drive and Road 426. This district currently provides water service to 34 homes, and will serve 37 at full build out. Water is supplied from two deep wells drawing from rock fractures approximately 400 to 430 feet below the earth's surface. The wells, with a combined production of approximately 55 gpm, supply two storage tanks with a combined capacity of 50,000 gallons. Although there is a small pump and pressure tank to supply one home near the tanks, the rest of the distribution system is gravity-fed through plastic pipe. This water system is chlorinated.

Maintenance District 22A is located at the intersection of State Highways 41 and 49. The sewer system consists of gravity and force main collection systems, nine pumping stations, an oxidation ditch, three clarifiers, chlorine disinfection, two treated effluent storage ponds, irrigation pumping stations, approximately 85 acres of treated effluent disposal sprayfields, and sprayfield irrigation runoff return pumping stations. In 2000 the collection system recently underwent major rehabilitation including pipe repairs, new force main to the treatment plant, new gravity main river crossing, new main lift station, and replacement or repair to several manholes.

Two original sewage pumping stations near the Fresno River at Road 426 and Chapel Hill are in fair condition now, but will eventually need to be rehabilitated. The old main lift station at State Highway 41 has been abandoned as part of the collection system upgrade project. The new main pumping station, which pumps approximately 90 percent of the daily plant flow, has the capacity to pump approximately 1,000,000 gallons of wastewater per day.

Of the three small pumping stations that serve apartment complexes along Victoria Lane, one is in need of rehabilitation due to the corrosive effects of sewer gasses. The pumping station serving Enterprise Center is in fair condition. Also in fair condition is the pumping station on Redbud Drive at the river. Requirements to modify the force main and lift station along the Redbud collection line will be placed on developers to accommodate the anticipated increase in flows as growth occurs. A back-up generator was added.

The District recently completed expansion of the wastewater treatment plant, although it has not yet been certified by the State. The new facility will provide for more advanced treatment. Once certified, it will also have a septage receiving station to treat septic tank pumpings from Eastern Madera County. Part of the overall plan for this facility includes the ability to return treated and reclaimed wastewater to the community for reuse in the irrigation of large, open space parcels. The system has generator backup at the main pumping station, treatment plant, and sprayfield runoff return pumping stations. The district also has trailer-mounted generators available to run the remote pumping

stations, but not the irrigation pumping stations. The collection system is equipped with alarms and SCADA to notify district personnel in the event of an emergency.

The Madera County Fire Department provides fire emergency services to all of unincorporated Madera County. Fire Station #12, located east of Highway 41 on Civic Circle in central Oakhurst, provides fire service to the area. Through the cooperative CDF/Madera County fire protection system currently in place, this station is augmented by resources from Ahwahnee, Coarsegold, and Bass Lake. Additionally, by mutual aid agreement, the U.S. Forest Service Batterson Station, located west of Highway 41 and north of Road 222, provides service to Oakhurst when staffed during the summer and fall. Cal Fire designates the Yosemite Lakes area as a moderate fire hazard severity zone.

**Service Deficiencies.** The Hillview Water Company system lacks adequate source and treatment capacity to services its Oakhurst customers. The Broadview Terrace Mutual Water Well 5 is 900 feet deep, but is not used due to high uranium levels. The highest producing well is Well 7, which is 525 feet deep and produces 125 gpm. Uranium concentrations are a concern with Well 7 having a level of 329 pC/L, which is well above the Maximum Contaminant Level of 20 pC/L. Wastewater service will be sufficient when the State certifies the reconstructed wastewater treatment plant. Other water, wastewater, storm drainage, and fire emergency services in Oakhurst are sufficient. There are no known localized flooding issues.

### ***Yosemite Forks***

**Location and Service Providers.** Yosemite Forks is located approximately five miles north of Oakhurst around the intersection of State Route 41 and Road 222. Due to its proximity to the community of Oakhurst, some of the services provided to Oakhurst are accessible to residents of Yosemite Forks. The Yosemite Forks Mutual Water Company provides water to the Yosemite Forks area. Wastewater is provided through residential private septic systems and storm drainage capture and transport is provided through roadside ditches and on-site private drainage ponds. Fire protection is provided by the Madera County Fire Department, through a contract with CAL FIRE.

**Service System Status.** The Yosemite Forks Mutual Water Company serves 114 homes from three sources of water, including Hackney springs in Cedar Valley and two hardrock wells. The springs are estimated to produce 45 gpm. Well 1 was drilled in 1985 to 286 feet and produces 45 gpm. Well 2 was drilled in 1996 to a depth of 500 feet and produced 55 gpm from a drillers lift test. Water storage includes a 44,000-gallon below ground tank. The wells are not within 150 feet of any septic system.

Fire Station #12, located east of Highway 41 on Civic Circle in central Oakhurst, provides fire service to the area. This station is augmented by resources from Fire Station #18, Ahwahnee, Coarsegold, and Bass Lake. Additionally, by mutual aid agreement, the U.S. Forest Service Batterson Station, located west of Highway 41 and north of Road 222, provides service to Yosemite Forks during the summer and fall. Cal Fire designates the Yosemite Forks area as a moderate fire hazard severity zone.

**Service Deficiencies.** Water, wastewater, storm drainage, and fire emergency services in Yosemite Forks are sufficient. Water supply demands are currently (2015) being met and there are no known water quality issues. There are no known localized flooding issues.

### ***Cedar Valley***

**Location and Service Providers.** Cedar Valley is located approximately six miles north of Oakhurst east of State Route 41. Due to its proximity to the community of Oakhurst, some of the services provided to Oakhurst are accessible to residents of Cedar Valley. The Cedar Valley Water Company provides water privately to Cedar Valley. Wastewater in the area is provided through residential private septic systems and storm drainage capture and

transport is provided through roadside ditches and on-site private drainage ponds. Fire protection is provided by the Madera County Fire Department, through a contract with CAL FIRE.

**Service System Status.** Cedar Valley Water Company is a private water provider that uses water from Hackney springs. Hackney springs are located in a meadow northeast of the subdivision. Spring water flows to a 4,000 gallon below ground storage tank and water is pumped up to a 1,500 gallon storage tank for gravity feed to Cedar Valley customers. Overflow water goes to the Yosemite Forks 120,000-gallon storage tank. No septic system is within 300 feet of the springs, but a horse pasture is 200 feet from the springs.

The Madera County Fire Department provides fire emergency services to all of unincorporated Madera County. Fire Station #18, located on Lake Side Drive in Cedar Valley, provides fire service to the area. Through the cooperative CDF/Madera County fire protection system currently in place, this station is augmented by resources from Oakhurst, Ahwahnee, Coarsegold, and Bass Lake. Additionally, by mutual aid agreement, the U.S. Forest Service Batterson Station, located west of Highway 41 and north of Road 222, provides service to Cedar Valley when staffed during the summer and fall. Cal Fire designates the Cedar Valley area as a high fire hazard severity zone.

**Service Deficiencies.** Wastewater and storm drainage services in Cedar Valley are sufficient. There are no known localized flooding issues. Water supply demands are currently (2015) being met, but the system has known water quality issues. There have been recent problems with positive bacteria tests and failure to sample for bacteria.

Cedar Valley is ranked as a community with the second highest fire risk. Specific problems include a large amount of timber fuels interspersed with heavy volumes of brush within and surrounding the community; a 1-1/2 mile narrow, windy two-lane road (Cedar Valley Drive) with contiguous forest fuel on both sides that serves as the only road in and out of the community; narrow roads within the community; older homes and cabins in close proximity to one another, some with wood shake roofs and combustible exterior construction; and a large percentage of retired and absentee homeowners.

### ***Bass Lake***

**Location and Service Providers.** The Bass Lake DUC is made up of several communities surrounding the lake, including Wishon Cove, Marina View, the Pines, and the Bass Lake community. Its boundaries roughly follow the boundaries of the Bass Lake CDP. The Bass Lake Water Company (BLWC) provides water to the Bass Lake community. Maintenance District 6, Maintenance District 7, and Service Area 2B provide water and sewer service. Service Area 2A and 2C provide sewer service. Storm drainage capture and transport is provided through roadside ditches and on-site private drainage ponds. Fire protection is provided by the Madera County Fire Department, through a contract with CAL FIRE.

**Service System Status.** The Bass Lake Water Company's (BLWC) private water system consists of about 960 residential connections and 22 commercial connections serving a permanent population of approximately 1,100 and a seasonal population of 3,000. Water supply sources include surface water and groundwater. Surface water is pumped from Willow Creek and treated at a water treatment plant with a capacity to treat 400 gpm (0.6 MGD). During peak summer months the treatment plant operates at or above its design capacity. Groundwater is supplied by three active wells producing a combined 103 gpm.

Maintenance District 6, Lake Shore, located on the north shore of Bass Lake on Road 274, provides water and sewer service to 45 homes. The system is sized to serve 50 homes. The sewer system consists of an asbestos cement pipe collection system, one raw sewage pumping station, an extended aeration treatment process, chlorine disinfection, treated water pumping, pond, and sprayfield. The treatment plant has capacity to operate well except for major holidays when the high flows overcome the ability to aerate. Water is supplied from two deep wells drawing from rock fractures 450 feet deep and three storage tanks. The wells have combined production of about 46 gpm and the

storage tanks have a combined capacity of 105,000 gallons. The water system uses a gravity fed distribution system to supply water to customers.

Maintenance District 7, Marina View, is located on the north shore of Bass Lake on Road 274. The District provides water and sewer service to 76 homes and has capacity to serve approximately 92 homes. The sewer system consists of an asbestos cement pipe collection system, one raw sewage pumping station, an extended aeration treatment process, chlorine disinfection, treated water pumping, pond, and sprayfield. Water for the District is supplied from two deep wells drawing from rock fractures approximately 200 to 550 feet deep. The wells, with a combined production of about 57 gpm, supply two storage tanks with a combined capacity of 95,000 gallons. The system uses a gravity-fed distribution system to deliver water to customers.

Service Area 2A, Bass Lake, is located on the north shore of Bass Lake near Roads 274 and 434. The District provides sewer service to about 978 residential and commercial from 1,440 equivalent dwelling unit (EDU) connections. There is about 300 EDUs of remaining capacity available at the system. The collection system was built in 1974 and consists of asbestos cement and plastic pipe, 17 raw sewage pumping stations, grit removal, an activated sludge treatment process, a chlorine contact tank, a treated water pumping station, a treated water boost pumping station, and a sprayfield. Some of the collection system is buried in the lakebed and submersed when the lake level is up. The system operates well, with the exception of some major holidays when an influx of visitors causes a tremendous increase in the sewer flows. The treatment plant and high use raw sewage pumping stations have generator backup. The four raw sewage pumping stations serving the campgrounds do not; however, during the winter, the campgrounds are empty and the flow is minimal. There are approximately 100 alarm settings being monitored at all times. SCADA is used to call District staff when alarm conditions occur.

Service Area 2B, Wishon Cove, is located in Madera County on the south shore of Bass Lake on Road 222. The District provides sewer and water service to about 26 homes and the Public Service Employees Association (PSEA) Campground. The sewer collection system consists of asbestos cement pipe and one raw sewage pumping station. Sewage is pumped into the Service Area 2A, Bass Lake, sewer treatment system. Water is supplied to a water treatment plant by two submersible pumps drawing water from Bass Lake. The treatment plant produces 100 gpm. The filtered and treated water is moved to a 40,000 gallon storage tank before being distributed to customers via a plastic and steel pipe distribution system. The water system is chlorinated.

Service Area 2C, Bass Lake, is located in Madera County on the south shore of Bass Lake on Road 222 near the Bass Lake dam. The District provides water service to about six cabins. The water system is served from Service Area-2B, Wishon Cove. The gravity fed distribution system for SA-2C consists of a two-inch steel pipe from Service Area-2B through USFS campgrounds to the property where the six cabins are located.

The Madera County Fire Department provides fire emergency services to all of unincorporated Madera County. Fire Station #14, located immediately north of Bass Lake, provides fire service to the area. Cal Fire designates the Bass Lake area as a moderate fire hazard severity zone.

**Service Deficiencies.** An elevated iron concentration exceeding the secondary MCL was reported for one of BLCW's active wells. A fourth well (School Road well) was previously designated a "standby" well and was limited in the number of days it could operate due to elevated levels of uranium. BLWC has completed the installation of a uranium removal treatment system on its School Road well, enabling BLWC to operate the 100-gpm well to meet peak summer demands.

Maintenance Districts 6 and 7 water systems are not chlorinated and is not recommended for drinking. MD-6 exceeds maximum contamination levels for Gross Alpha, Uranium, Arsenic, and Manganese. MD-7 exceeds the established maximum contaminant levels for Gross Alpha and Uranium. The water system does not meet acceptable

standards and there is a potential health risk in the long-term consumption of this water. The County sends out quarterly notices advising property owners that the water supply exceeds the established maximum contaminant levels. Customers purchase bottled water for drinking and cooking. The water may be used for bathing, washing dishes, washing clothes, and watering the yard at no risk.

County staff proposed a rate increase for the funding of Capital Improvements within Service Area 2A and 2B in 2013. Prop 218 requires that a local government hold an election and have the support of a majority of the affected property owners for any proposed new or increase in service charges for operations and maintenance. Ballots were sent out in July 2013 to all property owners and the measure was passed. The County's Engineering Department prepared an Engineer's Assessment Report, which will be used to fund the design and construction of the proposed sewer improvement projects for the sewer collection, wastewater treatment, and effluent disposal systems. As part of the sewer projects, the County plans to contract with consultants to provide engineering design and construction support services for the improvements. The collection system project consists of upgrades and rehabilitation of 11 lift stations. Schaaf & Wheeler has been awarded the contract for this work and the project is appropriated in the 2014/2015 Fiscal Year Budget.

Other water, wastewater, storm drainage, and fire emergency services in Bass Lake are sufficient. There are no known localized flooding issues.

### ***Teaford Meadows***

**Location and Service Providers.** Teaford Meadows is located along Teaford Saddle Road between North Fork and Oakhurst. Maintenance District 24, Teaford Meadows, provides sewer and water service for the area. Storm drainage capture and transport is provided through roadside ditches and on-site private drainage ponds. Fire protection is provided by the Madera County Fire Department, through a contract with CAL FIRE.

**Service System Status.** Maintenance District 24 serves water to 51 homes and 13 vacant parcels within the district and five homes and three vacant parcels by contract. The water system consists of three wells supplying a 125,000-gallon storage tank. Water is delivered through a gravity system. The distribution system is asbestos cement pipe. The system does not have generator backup. The County has a trailer-mounted generator that will run the wells. The system does not have an auto dialer, and the County, therefore, relies upon the residents to report any issues.

The Madera County Fire Department provides fire emergency services to all of unincorporated Madera County. Fire Station #11, located in North Fork, and Fire Station #14, located in Bass Lake provide fire service to the area. Cal Fire designates the Teaford Meadows area as a very high fire hazard severity zone.

**Service Deficiencies.** Water, wastewater, storm drainage, and fire emergency services in Teaford Meadows are sufficient. During the summer wells are unable to produce enough water for reserve capacity. Water supply demands are currently (2015) being met and there are no known water quality issues. There are no known localized flooding issues.

### ***DUC 1***

**Location and Service Providers.** DUC 1 is located on Highland Drive north of North Fork and South of Bass Lake. Water supply and distribution in the area is provided by residential private wells and wastewater is provided by residential private septic systems. Storm drainage capture and transport is provided through roadside ditches and on-site private drainage ponds. Fire protection is provided by the Madera County Fire Department, through a contract with CAL FIRE.

**Service System Status.** The Madera County Fire Department provides fire emergency services to all of unincorporated Madera County. Fire Station #11, located in North Fork, and Fire Station #14, located in Bass Lake, provides fire service to the area. Cal Fire designates the area as a very high fire hazard severity zone.

**Service Deficiencies.** Water, wastewater, storm drainage, and fire emergency services in DUC 1 are sufficient. Water supply demands are currently (2015) being met and there are no known water quality issues. There are no known localized flooding issues.

### ***North Fork***

**Location and Service Providers.** North Fork is located south of Bass Lake in eastern Madera County. Maintenance District 8A provides sewer and water service to the area. Storm drainage capture and transport is provided through roadside ditches and on-site private drainage ponds. Fire protection is provided by the Madera County Fire Department, through a contract with CAL FIRE.

**Service System Status.** Maintenance District 8A, North Fork, is located in the town of North Fork in Madera County. The district has capacity to provide sewer and water service to approximately 200 homes, apartments, and businesses. It currently provides water and sewer service to 155 customers.

Water for the district is supplied from one deep well drawing from rock fractures approximately 520 feet deep. The well produces about 240 gpm and supplies a 200,000 gallon storage tank. Water is delivered through a gravity-fed distribution system. The system is fairly new, with PVC distribution system piping. This water system is not chlorinated.

The sewer system consists of an asbestos cement pipe collection system, one raw sewage pumping station, an extended aeration treatment process, chlorine disinfection, treated water pumping, pond, irrigation pump station and sprayfield. The pond, irrigation pump station and sprayfield are located on Auberry Road. The treatment plant has the capacity meet current flows; however, future growth will require plant upgrades.

The Madera County Fire Department provides fire emergency services to all of unincorporated Madera County. Fire Station #11, located in North Fork, provides fire service to the area. Cal Fire designates the area as a moderate fire hazard severity zone.

**Service Deficiencies.** Water, wastewater, storm drainage, and fire emergency services in North Fork are sufficient. Water supply demands are currently (2015) being met and there are no known water quality issues.

### ***Cascadel Woods***

**Location and Service Providers.** Cascadel Woods is located directly east of the North Fork Community in east Madera County. Cascadel Water Company provides water service to the community. Storm drainage capture and transport is provided through roadside ditches and on-site private drainage ponds. Fire protection is provided by the Madera County Fire Department, through a contract with CAL FIRE.

**Service System Status.** Cascadel Water Company is a private water provider with over 130 connections located at an elevation of 3,500 feet MSL along Cascadel Drive. The Company has four sources of water, including three wells and one spring. Historical spring flows range from a low of five gpm during drought conditions to over 100 gpm. The spring was originally the main source of water, but was not able to meet Title 22 requirements for bacteriological quality and had high turbidity after rain events. Recent renovations to the spring have solved the problems and it is considered a potable source. It is still closely monitored. The spring may be under the influence of surface water as turbidity spikes occur after rain events; however, the turbidity also may be related to decomposed granite. Wells 1



(500 feet deep) and 1A produce about 57 gpm, and Well 2 produces about 25 gpm. Assuming an average spring flow of 50 gpm and well capacity of 82 gpm, the system has about 132 gpm capacity, or about one gpm per connection. Reservoir 1 was installed in 1995. It consists of two tanks of 45,500-gallon capacity each, and collects water from the spring and Well 1. Reservoir 2 consists of three 15,000-gallon capacity tanks, and collects water from Well 2. Homes use septic systems, but none within 300 feet of any well and none within 1,000 feet of the spring.

The Madera County Fire Department provides fire emergency services to all of unincorporated Madera County. Fire Station #11, located immediately west of Cascadel Woods in North Fork, provides fire service to the area. Cal Fire designates the area as a very high fire hazard severity zone.

**Service Deficiencies.** Water, wastewater, and storm drainage services in Cascadel Woods are sufficient. Water supply demands are currently (2015) being met and there are no known water quality issues after recent renovations. Cascadel woods is ranked as the community with the highest fire risk. Specific problems include a large amount of timber fuels interspersed with heavy volumes of brush within and surrounding the community; an approximately three-mile narrow, windy two-lane road (Cascadel Road / Road 233) with contiguous trees and brush serves as the only reliable road in and out of the community; steep brush covered slopes south and east of the community; narrow roads with a bridge incapable of handling heavy equipment within the community; many older homes and cabins in close proximity to one another; and a larger percentage of retired and absentee homeowners.

### **Potential Funding Sources**

One of the requirements of SB 244 is to analyze potential funding mechanisms to help remedy identified infrastructure deficiencies. As identified by the California Office of Planning and Research (OPR), some of these financing mechanisms could include bonds, development impact fees, taxes, and the formation of assessment districts which levy an assessment on affected properties to pay for infrastructure service improvements. OPR also suggests the following potential funding sources:

- California Department of Public Health Safe Drinking Water State Revolving Fund
- State Water Resources Control Board Revolving Fund Program
- State Water Resources Control Board Small Community Wastewater Grant Program
- Department of Water Resource Integrated Regional Water Management Grant Program
- Sustainable Communities Planning Grant and Incentive Program
- United States Department of Agriculture Rural Development Grants and Loans
- Community Development Block Grant Funds

Given the scope of the infrastructure deficiencies within Madera County's disadvantaged unincorporated communities, service charge increases may be needed within communities that already have special districts to keep up with the cost of construction, labor, power, repairs, operations, and maintenance. In 1996 the California voters passed Proposition 218, requiring local governments to have a majority vote of the affected property owners for any proposed new or increased assessment for major improvements and replacements. It also requires that local governments have a majority vote of the affected property owners for any proposed increases to the service charges for operations and maintenance. While this makes increases to service charges difficult, the County may need to pursue them to ensure adequate funding for its infrastructure.

Another option the County is exploring is outsourcing portions or all of operations and maintenance services within its special districts. On April 3, 2012, American Water Company made a presentation to the Board regarding exploring, evaluating, and issuing a Request for Qualifications (RFQ) for the potential privatization of all the County's water and wastewater districts. The Board directed staff to evaluate "If this matter should move forward with a request for qualifications, and how the costs related to the request for qualifications would be funded. Include in the request for qualifications what the County must or must not do under the CEQA and General Plan and bring the findings back to the board of supervisors."

On August 20, 2012, the Board approved the County Budget, removing the \$40,000 budget allocation for consultant costs from RMA-Special Districts and directed staff to "draft the Letter of Intent requiring a (\$40,000) deposit from prospective bidders to fund the study, refundable to unsuccessful bidders, said money to fund independent consultant to study privatization of special districts."

The Board of Supervisors held a special meeting on September 24, 2012, to discuss Utility Privatization business models. The Board established a special committee to work with staff to define the business models and address any other issues that may arise.