



**Madera County Mosquito & Vector Control District  
and  
Chowchilla Memorial Healthcare District**

**Madera County, California**

**Municipal Service Review**



**Prepared For:**

Madera Local Agency Formation Commission  
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## **1 - Introduction**

### **1.1 - Purpose**

Madera County is in the San Joaquin Valley directly north of Fresno County. It is in one of the most productive agricultural regions in the nation. The geographic area of Madera County is 2,147 square miles. Two cities located in the County: Chowchilla and Madera. There are also several unincorporated communities including: Ahwahnee, Bass Lake, Coarsegold, Fairmead, Madera Ranchos, North Fork, O'Neals, Raymond, Oakhurst, and Rolling Hills.

This report presents Municipal Service Reviews (MSRs) for the Madera County Mosquito & Vector Control District and the Chowchilla Memorial Healthcare District (District(s)). California Government Code Section 56430 requires the Madera County Local Agency Formation Commission (LAFCO) to conduct comprehensive MSRs in conjunction with its mandatory five-year review of the spheres of influence (SOI) of local government agencies in Madera County (Section 56425).

The primary purpose in reviewing an SOI is to evaluate if this ultimate boundary is appropriate and necessary, determine if the districts can feasibly provide well planned efficient services in their territories, and if the current location of the SOI (or another location) will be a benefit to residents, those that receive services and property owners within the area.

### **1.2 - Municipal Service Review**

Madera LAFCO is an independent agency that has contracted services with the County of Madera (County). In accordance with California Government Code Section 56001, Madera LAFCO aims to coordinate changes within local and government boundaries. LAFCO prepares SOI determinations for local agencies within the County (Section 56425). An SOI is a planning boundary outside of the agency's legal service boundary which determines probable physical boundaries and the service area of a local agency.

A Municipal Service Review (MSR) is completed prior to the update of a SOI or before any reorganization of district boundaries takes place. An MSR is a comprehensive assessment of the ability of existing local government agencies to provide municipal services effectively and efficiently to residents and users. MSRs attempt to capture and analyze information about the governance structures and efficiencies of service providers, and to identify opportunities for greater coordination and cooperation between providers.

Factors considered in an SOI review focus on current and future land use, current and future need and capacity for services, and any relevant communities of interest. Adopted SOIs allow for the provision of efficient services while discouraging urban

sprawl and the premature conversion of agricultural and open space lands. SOI boundaries prevent overlapping jurisdictional boundaries and the duplication of services. LAFCO is prohibited from approving a boundary change that is inconsistent with the adopted sphere of the affected agency.

This MSR is prepared in accordance with the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (CKH Act) and the State of California's LAFCO MSR guidelines, published in 2002. The CKH Act requires all LAFCOs to prepare an MSR for each of its incorporated cities and special districts (Section 56000). MSRs are to be completed every five years and must be completed prior to, or in conjunction with, an update of a city or special district's SOI or before LAFCO initiates any reorganization of the boundaries of a special district.

This MSR intends to provide all relevant information relating to the operation of MMVCD and the Chowchilla Memorial Healthcare District (CMHD) to review and evaluate their services and operations. It will also provide a review of the Districts' SOI and the possible need for a boundary amendment. LAFCO is not required to initiate any changes to a district's boundaries, SOI, or services based on the findings of an MSR. MSRs function as informational documents. MSRs are not a substitute for discretionary decisions that are under the authority of LAFCO.

The information, determinations, and recommendations presented in this study are primarily based on the following resources:

- Answers by the districts to a questionnaire prepared by Precision Civil Engineering, Inc. (PCE);
- Personal communications with district staff, officers and board members;
- A review of district annual Reports, district public records and boundary maps;
- A records search at the district offices, Madera County LAFCO, and the Madera County Assessors and Records offices; and
- Review of pertinent literature and Internet research.

### **1.3 - LAFCO**

California Government Code Sections 56300 et seq. set forth LAFCO's powers, procedures, and functions. LAFCOs have the power to "approve or disapprove with or without amendment, wholly, partially, or conditionally" proposals concerning the formation of cities and special districts, annexation, or detachment of territory to cities and special districts, and other changes in organization of local government agencies.

All counties of the state have a LAFCO. Madera LAFCO comprises five members: two members are from the County Board of Supervisors, two represent the cities within the county, and one member represents the public at large. The members from the

County Board of Supervisors are selected by that board (Section 56325). The members from the Cities Council are designated by the City Selection Committee (Section 56325). The other four commissioners (Section 56325) appoint the public member. There are also three alternate commissioners, one for each of the categories of members.

LAFCO has the power to determine the SOI for each of its districts. The SOI is the territory that will eventually be within each district's boundary. If LAFCO chooses to adopt a "zero" sphere (i.e., not adopt a SOI for a district), its plan for that district is that it be consolidated into another district. In order for a district's SOI to be amended, an MSR is required. The results of the MSR could determine whether or not districts should be combined or possibly dissolved. They can be combined by consolidation or by dissolution and annexation. Madera LAFCO has the power to initiate proposals for special district consolidation or dissolution. However, it cannot initiate an annexation on its own (CKH Section 56375).

Consolidation is defined as the uniting or joining of two or more special districts into a single district (CKH Section 56030). This result means that all the powers, rights, duties, obligations, functions, and properties of the previous districts that have been joined shall be transferred to a new consolidated district. The newly formulated district takes over duties and responsibilities; the former districts no longer exist.

Districts may also be combined by the dissolution of one district and the annexation of the dissolved district's territory into another district. Annexation is the adding of territory into the domain of a city, county, or special district. In a reorganization involving dissolution and annexation, one district no longer exists, and the other is expanded. LAFCO must find that the reorganization is consistent with the determinations of an approved MSR, as well as local policies and the CKH.

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (CKH Act or Act) is the statutory authority for the preparation of MSRs and the periodic review (and update, if deemed necessary) of the spheres of influence of each local government entity in each county. The major goals of LAFCO as established by the Act include:

- Promote orderly development by encouraging the logical formation and determination of boundaries and working to provide housing for families of all incomes.
- Discourage urban sprawl and preserve open-space and prime agricultural lands by guiding development in a manner that minimizes resource loss.
- Promote logical formation and boundary modifications that direct the burdens and benefits of additional growth to those local agencies best suited to provide necessary services and housing.

- Make studies and obtain and furnish information which will contribute to the logical and reasonable development of local agencies and to shape their development to advantageously provide for the present and future needs of each county and its communities.
- Establish priorities by assessing community services needs with available financial resources and to encourage government structures that reflect local circumstances, conditions, and financial resources.
- Determine whether new or existing agencies can feasibly provide needed services in a more efficient or accountable where necessary, reorganization with other single purpose agencies that provide related services.

#### **1.4 - Required Topic Areas of Analysis**

This MSR contains analysis and conclusions, referred to in this document as determinations, regarding the topic areas set forth in the CKH Act. The written determinations and recommendations for each district are presented at the end of their respective sections. These determinations focus on the essential operational and management aspects of the service provider and review the provider's ability to meet the demands of the residents within the analyzed area. The topic areas as required by Section 56430 are:

1. Present and planned capacity of public facilities, adequacy of public services, and infrastructure needs or deficiencies including needs or deficiencies related to sewers, municipal water, and structural fire protection in any disadvantaged, unincorporated communities within or contiguous to the sphere of influence.
2. Growth and Population Projections for the affected areas.
3. Financial ability of agencies to provide services.
4. Status of, and opportunities for, shared facilities.
5. Accountability for community service needs, including governmental structure and operational efficiencies.
6. Location and characteristics of any disadvantaged unincorporated communities within or contiguous to the sphere of influence.
7. Any other matter related to effective or efficient service delivery, as required by commission policy.

Definitions and explanations for these topic areas are provided below, as defined by LAFCO.

#### *Present and Planned Capacity of Public Facilities and Adequacy of Public Services, Including Infrastructure Needs or Deficiencies*

Infrastructure can be evaluated in terms of condition, capacity, availability, quality, and relationship to operational, capital improvement and finance planning. This section assesses the adequacy and quality of the service providers' physical

infrastructure and analyzes whether sufficient infrastructure and capital are in place (or planned for) to accommodate planned future growth and expansions.

*Growth and Population Projections for the Affected Areas*

Service efficiency is linked to a service provider's ability to plan for future needs while meeting existing service demands. A service provider must meet current customer needs and be able to determine where future demand may occur. This section reviews demand projections and service needs based upon existing and anticipated growth patterns and population projections.

*Financial Ability to Provide Services, Including Financing Constraints, Cost Avoidance Opportunities, and Opportunities for Rate Restructuring*

This section analyzes the financial structure and health of the districts with respect to the provision of services. Included in this analysis is the consideration of rates, service operations, and the like, as well as other factors affecting the districts' financial health and stability, including factors affecting the financing of needed infrastructure improvements and services. Actions to eliminate unnecessary costs derived from, but not limited to duplication of service efforts, higher than necessary administration/operation cost ratios, use of outdated or deteriorating infrastructure and equipment, underutilized equipment or buildings or facilities, overlapping/inefficient service boundaries, inefficient purchasing or budgeting practices, and lack of economies of scale. Compliance with existing State requirements relative to financial reporting and management is also discussed.

*Status of, and Opportunities for, Shared Facilities*

This section examines opportunities and practices that may help reduce or eliminate unnecessary costs. Any opportunities for sharing facilities are assessed and evaluated for efficiency and potential to better deliver services.

*Accountability for Community Service Needs, Including Governmental Structure and Operational Efficiencies*

This section addresses the adequacy and appropriateness of the district's existing boundaries and spheres of influence and evaluates the ability of the district to meet its service demands under its existing government structure. Also included in this section is an evaluation of compliance by the district with public meeting and records laws.

*Disadvantaged Unincorporated Communities – DUCs*

The CKH requires LAFCO to make determinations regarding DUCs when considering a change of organization, reorganization, SOI expansion, and when conducting



municipal service reviews. DUCs are defined as inhabited territory that constitutes all or a portion of a community with an annual median household income (MHI) that is less than 80 percent of the statewide annual median household income (pursuant to Government Code Section 56033.5).

State law requires identification and analysis of service issues within DUCs as part of municipal service reviews and sphere of influence reviews. State law also places restrictions on annexations to cities if the proposed annexations are adjacent to a DUC.

For any updates to a SOI of a local agency (city or special district) that provides public facilities or services related to sewer, municipal and industrial water, or structural fire protection, LAFCO shall consider and prepare written determinations regarding the present and planned capacity of public facilities and adequacy of public services, and infrastructure needs or deficiencies for any disadvantaged unincorporated community within or contiguous to the SOI of a city or special district.

### **1.5 - Citizen Participation**

Citizens are encouraged to attend regular LAFCO meetings and state their views during public hearings on proposals before the Commission. In addition, the meetings provide an opportunity for citizens to familiarize themselves with growth, development, and inter-jurisdictional issues concerning their county.

Municipal Service Reviews are subject to public and agency consideration and comment during public hearings prior to final consideration by Madera LAFCO. Copies of the minutes, meeting agenda, and staff reports are available by contacting the Madera County Local Agency Formation Commission office at 200 West 4<sup>th</sup> Street, Suite 3100 Madera, CA 93637 – phone (559) 675-7821.

### **1.6 - MSR Written Determinations**

As part of any service review Government Code Section 56430 requires LAFCO to prepare written statements or determinations for seven categories. Determinations are not findings of fact, rather, they are “...declaratory statements that make a conclusion, based on all the information and evidence presented to the LAFCO Commission.”

The determinations are based on a comprehensive analysis of local agency service information. The Commission, other agencies, or the public may use these determinations to provide guidance for future decisions; however, the determinations themselves do not represent recommendations for action.

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## 2 - Special Districts in California

### 2.1 - Background on Special Districts

California local government consists of counties, cities, school districts, and special districts. California Special Districts all perform a separate function, and they are limited purpose local governments separate from cities and counties. Within their boundaries, special districts provide focused public services such as fire protection, wastewater disposal, water supply, electricity, parks and recreation, cemetery services, and libraries.

Special districts' service areas range from a few acres to thousands of square miles crossing city and county lines. Special districts have substantially the same general powers as cities and counties (except land use control). Most districts also have the statutory power to issue bonds, and some have the power to adopt ordinances.

All districts operate under either a *principal act* or a *special act*. A principal act is a generic state law that applies statewide to all special districts of that type. A special act is a law that the Legislature tailored to the unique needs of a specific area. Examples are Kern County Water Agency, Fairfield-Suisun Sewer District, and Humboldt Bay Harbor Recreation and Conservation District.

Nearly 85% of California's special districts are single function districts, which provide only one service such as fire protection, mosquito abatement, or waste disposal. The remaining districts are multi-function districts providing two or more services. For example, several municipal utility districts provide fire protection and park services in addition to utility services. Fire protection districts often provide ambulance services too. A district's title does not always indicate which services it provides or is authorized to provide.

Special districts generate revenue from several sources including property taxes, special assessments, and fees. Enterprise districts run much like business enterprises and provide specific benefits to their customers. These districts are primarily funded through fees that customers pay for services and include airport, harbor, hospital, transit, waste disposal, and utility districts.

Non-enterprise districts deliver services that provide a general benefit to entire communities. These services, such as fire protection, flood control, cemeteries, and road maintenance, do not lend themselves to fees. Non-enterprise districts rely primarily on property taxes for their revenues.

Special districts are required to comply with the Brown Act, the Public Records Act, the Political Reform Act, and the Initiative, Referendum /Recall Procedures. Additionally, the state provides critical oversight to special district operations. Special districts are required to submit annual financial reports, including annual

financial audits and adopted budgets, to the State Controller. Most special districts are also subject to the authority of LAFCO.

Special districts can be classified as dependent or independent. Dependent districts are legal subdivisions of counties or cities and are governed by the county board of supervisors or the city council. Most dependent districts have been established to enable a county or city to apply a special tax to a specific area of benefit.

Independent districts are legal subdivisions of the state and derive their powers from the state. Typically, they are governed by independently elected local boards and have authority under state law to tax, spend, issue bonds to finance capital improvements, and establish their own administrative structures. Independent districts have been created primarily to perform public services either not feasible or not cost-effective for cities and counties to perform. Special districts are primarily accountable to the voters who elect their boards of directors and the customers who use their services.

## **3 - Madera County Mosquito & Vector Control District**

### **3.1 - Location**

Madera County Mosquito & Vector Control District's (MMVCD or District) is located in the Central Valley within Madera County. The District's service area covers the western third of Madera County. The foothill towns of North Fork, Bass Lake, Coarsegold, Oakhurst, Ahwahnee, and Raymond are not in the District and there is an unmet demand for service in this area. In 2007, the District expanded its SOI to include all of Madera County. The District's boundary can be seen in Figure 3-1.

### **3.2 - Property Swap**

Recently the Fresno Mosquito and Vector Control District (FMVCD) and the MMVCD agreed on a plan to adjust their service boundaries to accomplish their public health goals more efficiently.

The FMVCD informed Fresno LAFCO that the north side of the river annually produces an enormous number of mosquitoes that migrate in and out of its service area. According to the FMVCD's District Manager, treatment and vector control records show that the two Madera County parcels, APN 049-101-018 and -102 -003, are known vector breeding places that produce a substantial number of mosquitoes and vectors that enter Fresno County.

In analyzing the affected territory, Fresno LAFCO staff observed that nearly all land abutting the north side of the District's service area is in the MMVCD service area, see Figure 3-3. Health and Safety Code prohibits any territory from being within two of the same type of mosquito abatement and vector control districts. The FMVCD District Manager informed LAFCO that a Joint Powers Agreement pursuant the Joint Exercise of Powers Act (Government Code Section 6500) has been considered by both districts as an alternative to reorganization; however, it has not been determined to be a feasible option to either agency.

Both districts recognize that the two parcels' proximity to the river creates a public nuisance, and a significant health risk to the residents of the San Joaquin River bluffs, Madera County, and Fresno County. Although the Districts' principal act authorizes mosquito districts to treat areas in or outside the District, the objective of an annexation (reorganization) is to accurately depict where District revenue is being spent to fund abatement and vector control services.

The proposal involved a property swap wherein two parcels totaling 322 acres on the north side of the San Joaquin River between the Road 39 and Road 40 alignments, which were in the MMVCD, would be detached from the MMVCD and annexed to the FMVCD (see Figure 3-3). In exchange, three parcels totaling 93 acres on the south side of the San Joaquin River between Howard and Goldenrod Avenues,

which are currently in the FMVCD, would be detached from the FMVCD and annexed to the MMVCD (see Figure 3-4).<sup>1</sup>

On December 9, 2020, Madera LAFCO authorized Fresno LAFCO to process the SOI amendment and annexation/detachment request submitted to Fresno LAFCO by the FMVCD. On April 14, 2021, Fresno LAFCO approved the SOI amendment and annexation/detachment proposal; the proposal was subsequently recorded on May 21, 2021. As a result, the three properties (322 acres) on the north side of the San Joaquin River have been removed from within the sphere of influence (SOI) of the MMVCD.

The MMVCD has not yet submitted an application to Madera LAFCO for an SOI amendment and annexation/detachment of the three properties on the south side of the San Joaquin River into the MMVCD. This MSR will include the consideration of a proposed amendment to the SOI of the MMVCD to include these three properties (93 acres) on the south side of the San Joaquin River within the SOI of the MMVCD (APN 016-060-09 and -88T -89), refer to Figure 3-4. Consistent with GC section 56430, this MSR may be used to request the SOI update.

### **3.3 - Background**

Counties and local municipalities are allowed to form Mosquito abatement districts pursuant to laws found in the California Health and Safety Code-Division 3, Chapter 1, section 2000 et seq, also known as the Mosquito Abatement Act of 1915. Pursuant to this code the Madera County Mosquito Abatement District was formed in 1947. In 1992 the name was changed to MMVCD.

The District has a seven-member Board of Trustees (Board). Five members are appointed by the Madera County Board of Supervisors, one is appointed by the Chowchilla City Council, and one is appointed by the Madera City Council. The term length for each member is two years. At the time of the publication of this document, the current board members are:

1. Jennifer Peters – President
2. Nicholas Salinas – Vice President
3. Jay Mahil – Trustee
4. Peter Fry – Trustee
5. David Bump – Trustee
6. Donald Horal – Trustee
7. Jeff Coulthard - Trustee

District Manager – Teresa Hamilton

Phone: 559-662-8880

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<sup>1</sup> Fresno LAFCO File No RO-20-12.

The mission statement of the District is to “Provide for the health, safety and comfort of the residents within district boundaries by the abatement of mosquito and other vector populations in order to minimize vector-borne diseases.” The District accomplishes this task through constant surveillance and employing numerous abatement techniques.

### ***Mosquito Species Located in Madera County***

Since the establishment of the District, sixteen mosquito species have been trapped and identified within the District’s boundaries. Only eleven regularly feed on human blood.

The lifecycle of all mosquito species is similar. Generally, females lay eggs in all types of freshwater and certain species prefer somewhat polluted water such as sewage, street drainage, septic tanks, cesspools, and industrial waste. Some species do not lay their eggs in water however, all mosquito larvae require water to develop. When eggs are laid directly in water, they float in clusters called rafts and hatch into larvae in one to four days. Larvae, or “wigglers”, feed on small organic particles and microorganisms in the water, however they must always return to the surface to breathe.

At the end of the larval stage in approximately four to six days the wigglers will molt into the aquatic pupa called “tumbler”. At this stage the pupa will not feed and will only move if disturbed. The tumbler will transform into an adult in about two days at which time the new adult splits the pupal skin and emerges at the surface. Transformation from egg to adult, under optimum conditions, generally takes a week. However, mosquito development times will vary depending on temperatures and nutrients of the water in which they develop.

Mosquito species in Madera County generally live for two to three weeks in the summer, however in cooler conditions females may live for several months. In Madera County adult female mosquitoes will hibernate during the cold months in the Sierra Nevada’s. Hibernation occurs in sheltered areas such as woodpiles, caves, culverts, or protected natural or artificial shelters. The key mosquito species found in Madera County are described below.

#### **Southern House Mosquito (*Culex Quinquefasciatus*)**

This light brown, medium sized mosquito species received its name due to its close relationship to human environment and its habit of entering homes. It is the most widely distributed mosquito species in the world. Eggs may be laid in any type of standing water and will even lay eggs within homes indoor containers. The Southern House Mosquito is mainly a nuisance mosquito, although it may have a role in transmitting St. Luis Encephalitis.

### **Foul Water Mosquito (*Culex Stigmatosoma*)**

The dark bodied, medium sized mosquito is generally associated with polluted water. This species prefers to feed primarily at night with peak activity near dusk and dawn. Hosts include birds, livestock, plants and rarely humans. The foul water mosquito is known to travel up to one to two miles in search of a host. Biological control of the foul water mosquito is difficult in water sources that produce great numbers of this species since those waters are generally too polluted to allow fish to survive.

### **Encephalitis Mosquito (*Culex Tarsalis*)**

This species is the primary vector of Western Equine Encephalitis and St. Louis Encephalitis virus in the western United States. From a disease standpoint it is the most significant mosquito species in the state and is the most widespread species in California. It is a dark bodied, medium sized mosquito and maximum populations typically occur during late summer. Common hosts are birds; however, they are still known to feed on humans.

### **Western Tree Hole Mosquito (*Aedes Sierrensis*)**

The immature stages of life for this small, black mosquito frequently occurs in water collected inside the holes of over twenty different tree species. Individual eggs are deposited along the moist sides of a tree hole in late spring and summer. The eggs will hatch when enough rain supplies the tree hole with water to flood the eggs providing small organic particles and microorganisms for nutrition. This species is not known to transmit any diseases to humans; however, they may transmit canine heartworms to dogs.

### **Western Malaria Mosquito (*Anopheles Freeborni*)**

The Anopheles family is the only group of mosquitoes capable of transmitting malaria. This medium sized dull brown to black species seeks out clear pools of water, in full sunlight with aquatic vegetation to lay its eggs. This species is known to migrate up to five miles from the point of origin. Through intensive mosquito control activities, the transmission of malaria has been virtually nonexistent for the last three decades.

## ***Laboratory Services***

The District participates in a statewide vector borne disease surveillance program sponsored by the California Department of Health Services (CDHS). Laboratory services are provided by state designated labs for the testing of sentinel chicken

blood samples, dead wild birds, and for identification of trap collected mosquito samples. District personnel use minimal laboratory equipment for species identification in both the larval and adult stages of life. A regional biologist who is a specialist in entomology and vector-borne disease with the CDHS assists the District when necessary.

### ***Mosquito Abatement Techniques***

The District utilizes several techniques for controlling mosquito populations including biological control, chemical control, and community education. Depending on the situation, staff chooses the most feasible option for control. Before a biological or chemical control measure is implemented the District makes every attempt to eliminate the breeding site by the removal of standing water. If the water cannot be removed District personnel will then attempt biological or chemical controls.

Biological control can provide either short or long-term control depending on the agent used. A long-term biological abatement technique in Madera County is the introduction of *Gambusia affinis*, the mosquito fish. This tactic is indispensable to the mosquito control program. The mosquito fish is remarkably hardy and able to survive in waters of very low dissolved oxygen levels, high salinity levels, and a wide range of water temperatures. These adaptable traits, in conjunction with their ability to produce large numbers of young in a short time, has made them valuable biological control agents for mosquitoes and is now one of the most widespread freshwater fish species in the world.

The mosquito fish is native to the eastern portions of North America. They ranged from Southern Illinois to Texas and along the Gulf of Mexico to the Rio Panuco Basin in Mexico. The species was originally introduced to California in 1922 as a long-term biological mosquito control agent. It has a voracious appetite for mosquitoes; a single fish can eat up to one hundred mosquito larvae per day.

The mosquito fish produces live young. Females can reach sexual maturity in six to eight weeks; they can begin bearing up to fifty live young per brood, several times throughout the season. Under favorable conditions the mosquito fish may live two to three years. Their breeding potential has demonstrated an ability for this species to multiply and dominate new habitats.

MMVCD aggressively attempts to combat all mosquitoes throughout the main breeding season. Staff locates every pond possible and stocks it with mosquito fish. Public participation is welcomed; the District places advertisements in the newspaper during March and April, informing the public they can pick up free mosquito fish for use in their personal ponds. MMVCD prefers patrons call a day ahead so staff can schedule the appointment. Mosquito fish may be picked up



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between 7:00 a.m. - 3:30 p.m. Patrons are asked to bring their own five-gallon bucket to transport two to three dozen fish to the subject location.

A biological larvicide used by the District is the spores from the bacterium *Bacillus thuringiensis* (Bti), which is a powerful insecticide against species of the orders Lepidoptera (Moths and Butterflies), Diptera (Flies and Mosquitoes) and Coleoptera (Beetles). The effectiveness of the Bti spores comes from their ability to form crystals of proteinaceous endotoxins that is harmful to the immature stages of a mosquito.

The Bti spores are purchased in either a liquid or a granular form. The District devotes one vehicle from its fleet for the application of the Bti liquid, which is sprayed from the vehicle in 50–60-foot swaths directly into ponds. The granular form of Bti is carried in buckets in each fleet vehicle and applied by hand for localized application in ponds.

Bti is considered a short-term control agent since it only lives in the environment for about 36-48 hours and is only effective during the early stages of development because its effectiveness is dependent on consumption. Late stage, non-feeding mosquitoes, pupae, and adults are unaffected by Bti application.

Vectolex is the second biological larvicide used by the District and is also composed of protein spores produced by a bacterium called *Bacillus sphaericus* (Bs). The effectiveness of this product is based on its ability to produce a toxin in the mosquitoes' gut causing mosquito larvae to stop feeding.

Golden Bear 1111 (GB1111) is a chemical control product applied by the District. It is a mosquito larvicide, which is a petroleum hydrocarbon effectively used when larvae pupate. GB 1111 forms a barrier on the surface of pond water preventing developing pupae from reaching the atmosphere to breathe. This larvicide may be applied from field vehicles using a mist blower or hand wand, or it may be applied by foot using a five-gallon backpack pump. The oil works by forming a barrier at the air-water interface that suffocates air-breathing insects such as mosquito pupae.

Methoprene based insect growth regulators are also used by the District as a larvicide. Methoprene based larvicides may be applied in liquid or briquette form with products that subsist in the aquatic environment for up to thirty days, resulting in long-lasting control. Methoprene inhibits the growth of larval mosquitoes preventing them from developing into the adult stage. The compound will not affect mammals, fish, birds, or other predatory aquatic insects.

The adulticide Pyrethrum is a synthetic insecticide based on natural pyrethrum, which is made from the dried flower heads of Old World plants from the genus *Chrysanthemum*. The District generally applies adulticides using Ultra Low Volume

(ULV) cold fogging units in the late evening or early morning hours. ULV units perform using electronically controlled output rates and are calibrated to ensure the lowest possible concentrations are applied resulting in adequate control. ULV units are currently used in rural areas; use in urban neighborhoods is avoided to reduce human exposure to adulticides.

Each pesticide application is logged in a detailed daily report including the location of application, date, time, type, amount, how the application was performed, and why the application was made. The Madera County Department of Agriculture has oversight authority on the District's transport and use of pesticides. A monthly pesticide use report is provided to the Agricultural Department and a yearly pesticide use report is sent to the CDHS.

All pesticides used by the District are registered with the federal and state Environmental Protection Agency (U.S. EPA and CalEPA) as mosquito control pesticides. As with any pesticide, there are restrictions and cautions of their use. District operators receive training, reinforced training, and are supervised to ensure directions are strictly followed. All full-time employees are vector control technicians certified by, or in the process of becoming certified by, the CDHS. Given these conditions, and the category of pesticides used by the District, there are no resulting long-term adverse effects to air, water, biological species, or recreation.

### ***Public Health Concerns***

Uncontrolled mosquito populations are a serious health concern for Madera County residents. When a public nuisance exists on any property within the district boundary, it is the responsibility of the District to either abate the nuisance or require the property owner to abate the nuisance. If a property owner neglects their duty, Section 2061 of the California Health and Safety Code authorizes the Mosquito District Board of Trustees, after notification and hearing, to initiate legal abatement proceedings. If the public nuisance is not abated the imposition of civil penalties of up to one thousand dollars (\$1,000) per day may be imposed. The control of vector populations is essential in preventing outbreaks of vector borne diseases, several of which are found in Madera County.

West Nile Virus (WNV) is a potentially serious illness throughout most of the world and is now an important public health concern in North America. Following WNV introduction to North America, two hundred and eighty-five species of birds have been identified as carriers of the virus. Enough information has been collected through the testing of dead birds, sentinel chicken flocks, and mosquito pools to reveal that the virus has established itself in the San Joaquin Valley.

The California Center for Disease Control (CDC) operates a web-link for individuals who want to report dead birds. The site asks for information concerning the species

of bird, its condition, and a location where it can be picked up. If health officials or Mosquito District personnel have not picked up the bird within twenty-four hours, the bird may safely be disposed of in the trash. Dead birds may also be reported to the WNV and Dead Bird Hotline: (877) 986-BIRD.

Sentinel chicken flocks have also been strategically placed in over two hundred sites throughout the state and used to obtain information concerning the spread of WNV. Chickens from the flocks are tested routinely during the mosquito season to detect the virus's presence. The District participates in sentinel chicken flock surveillance.

Infected mosquitoes from the Culex family are the primary mosquitoes that transmit the St. Louis and Western Equine encephalitis virus. Birds are the primary hosts from which mosquitoes obtain the virus. Neither birds nor mosquitoes develop symptoms from the disease, both are immune to the effects; however infected humans may develop mild to more severe infections consisting of flu like symptoms. Serious symptoms may be composed of stupor, disorientation, coma, tremors, occasional convulsions, and spastic paralysis.

Malaria is a serious and sometimes fatal disease caused by one of four parasite species from the Plasmodium family. The disease is usually transmitted through the bite of an infected female Anopheles sp. mosquito after previous blood meal has been taken from an infected person. Since the malaria parasite is found in red blood cells of the host, the disease may also be transmitted through blood transfusion, organ transplant, or the shared use of needles or syringes contaminated with blood.

Symptoms include fever and flu-like symptoms. In some cases, anemia and jaundice may occur due to the loss of red blood cells. Incubation times can vary with symptoms manifesting from seven days after infection up to a year; however, generally symptoms begin ten days to four weeks after infection.

Worldwide malaria is a very common disease and is currently the fourth leading cause of death and disease in developing countries. The disease was considered eradicated from the United States in 1951 due to an eradication campaign that began on July 1, 1947. Still, about 800 U.S. citizens are diagnosed with malaria each year after traveling to countries with malaria risk.

### ***Vectors***

MMVCD does not provide vector control services for any pests other than mosquitoes. Funding is not currently budgeted for non-mosquito vector control, other than providing information to county residents to minimize or eliminate the production of pests from their property. Since abatement for other pests is not provided, the District recommends the public obtain services from a licensed pest control company.

The District provides literature containing abatement techniques to interested residents that have elevated vector populations on their property. Representatives from the District will also provide presentations to groups or organizations interested in learning more about vector abatement techniques.

### **3.4 - Topic Areas of Analysis**

#### **Infrastructure Needs or Deficiencies**

**Purpose:** *To evaluate infrastructure needs and deficiencies in terms of supply, capacity, condition of facilities, and service quality.*

The District boundary is approximately 725 square miles and is divided among eleven zones, averaging approximately sixty-five square miles each.

The District has adequate shop and office space for their operations. Vehicles owned by the District include: eighteen with mist blowers, three City trucks, three with foggers, and four vehicles with no equipment. Vehicles used to apply pesticides should not be parked outside overnight; adequate garage space is available to park these vehicles. The pesticide storage cage is kept locked within the shop. Three pesticide con-vaults are located behind the shop building.

Given present District boundaries and the expectations for mosquito control, the current infrastructure is adequate. The grounds and facilities are in good condition with room for expansion. The District does not have plans at this time for replacement, expansion or upgrades to the grounds and facilities used.

#### **Determination:**

- 3.1 Overall, the District's infrastructure and facilities appear to be adequate to provide efficient services.
- 3.2 The District does not have plans at this time for replacement, expansion or upgrades to the grounds and facilities used.

#### **Growth and Population Projections for the Affected Areas**

**Purpose:** *To evaluate service needs based on existing and anticipated growth patterns and population projections.*

The District does not have land use authority nor provide services that would directly affect the rate of population growth or induce population growth. Rather, the District's service provisions consist of meeting existing and future demand for adequate treatment and abatement of mosquitoes, vectors, and reduce the spread of vector borne diseases within the District and surrounding locations.

According to the 2020 Decennial Census data, Madera County has a population of approximately 156,255. Madera County has had a 4.79% population growth since 2010. The Census has a projected population growth of 0.28% by 2021, for an estimated population of 158,200 (refer to Figure 3-2). Since the Madera Mosquito and Vector Control District service area encompasses a portion of Madera County, the County population growth rate will be used for purposes of this report.

The District serves an area consisting of approximately 455,199 acres, which includes the city of Madera, city of Chowchilla, and many of the unincorporated communities of Madera County. According to 2020 Decennial Census, the service area has a population of approximately 121,684<sup>2</sup>. Population growth rate for the District's service area is expected to be close to the County average of 0.28%, for an estimated population of 125,134 by 2030.

The District does not service the eastern part of Madera County (Refer to Figure 3-1). Currently, the Rio Mesa Plan Area (not including the Tesoro Viejo development which annexed into the District in 2015) and the Coarsegold Plan Area are not part of the District's service area. These plan areas are projected to greatly increase the County's population.

Development of agricultural land or open space causes the construction of storm drainage piping and storm water retention basins, which will significantly increase standing water.

The District will provide Mosquito Fish to areas outside its boundaries for use in ponds, water troughs, fountains, etc. they will also provide educational materials upon request.

**Determination:**

- 3.3 Population in this District's service area is expected to be approximately 125,134 by 2030. The population estimate assumes a constant growth rate which may not continue to be accurate due to the current uncertainties surrounding the COVID-19 pandemic and other unforeseen factors.
- 3.4 New development areas planned for the eastern County area will increase standing water in stormwater basins and will create a higher demand for mosquito abatement services.

**Financial Ability to Provide Services**

**Purpose:** *To evaluate factors that affect the financing of needed improvements, identify practice or opportunities that may help eliminate unnecessary*

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<sup>2</sup> Calculated assuming uniform population density in each block group.

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*costs, and identify opportunities to positively impact rates without decreasing service levels.*

The Office of Planning and Research defines cost avoidance opportunities as “Actions to eliminate unnecessary costs derived from, but not limited to, duplication of service efforts, higher than necessary administration/operation cost ratios, use of outdated or deteriorating infrastructure and equipment, underutilized equipment or buildings or facilities, overlapping/inefficient service boundaries, inefficient purchasing or budgeting practices, and lack of economies of scale.”

The District is the only mosquito abatement service provider within the District’s boundaries and outsourcing staff duties would be cost prohibitive. The administration/operator cost ratios can be helped with a more aggressive advertising campaign that would provide the public with greater understanding of the importance of mosquito control. As the public gains a greater understanding of the importance of not allowing standing water, buckets of water, green pools, or any other water source on their property, the mosquito populations will continue to decline.

The District maintains eighteen pickup trucks that are mounted with spray equipment and are used as the main abatement tool. Each truck is equipped with two or three pesticide tanks, a hand wand with twenty to thirty feet of hose, a thirteen-horsepower mist blower that provides a fifty-foot swath of either larvicide or adulticide, and a five-gallon back pump. Maintenance of facilities and equipment is performed by District Staff. Costs for deferred maintenance can be avoided through regular maintenance and upkeep of facilities. The District is adequately maintaining the facility grounds and equipment.

Small districts lack economies of scale, which is the case for MMVCD. Increased production will not be the result of reducing costs. Weather is a large factor in determining costs accrued by the District. The more rain received results in more standing water that must be patrolled by personnel and the more larvicide’s that must be used.

The District receives its funding through the California Property Tax Apportionments System known as Assembly Bill 8 (AB8) or Proposition 13. The District collects a portion of the one percent property tax allotment collected by the County of Madera at a rate of approximately 0.013025%. However, as new lands are annexed to the District, this allotment will no longer be received from property taxes paid by the annexed areas absent a tax sharing agreement with Madera County.

The District commissioned the *Engineer’s Report, Proposed Benefit Assessment for Newly Annexed Property* (January 2015) to establish a special benefit assessment. In

order to fund the cost of providing services to the newly annexed areas of the County, the District established this assessment for providing services to all newly annexed properties. The assessment establishes a new, stable, funding source that would allow for the provision of essential services by the District.

To apportion the cost of the specialized service, each property in the District will pay an equal amount, regardless of size or use. The maximum assessment to be levied annually by the District would be \$64.32 (adjusted for inflation annually in accordance with *Engineer's Report, Proposed Benefit Assessment for Newly Annexed Property*). Additionally, if any revenues become available for that year, the District may reduce the assessment for that fiscal year. But, following the reduced assessment fiscal year, the assessment must be reviewed and evaluated by the District Board of Directors to determine if the maximum assessment must be reinstated or remain reduced.

A Designated General Reserve Fund consisting of twenty-five percent of the operating budget, as determined by the California Health and Safety Code, is set aside for use during fiscal years when the proposed budget is exceeded. The Manager of the District requests permission to access the funds reserve from the District's Board when expenses exceed the District's income. For permission to be granted a four-fifths (4/5) vote must be achieved. No other operating budget reserves are controlled by the District.

Additional funding sources have been identified by the District: due to the West Nile Virus outbreak in California supplemental grant sources may be found through organizations such as the Mosquito and Vector Control Association of California who obtains funding from the State of California.

Sources of Revenue are from local property tax, assessments, rent from the shared imaging trailers, and interest earned. Expenditures consist of employee salaries and benefits, equipment maintenance, and supplies. The District employs three full-time administrative staff, nine full-time maintenance and operational personnel, and thirteen part-time seasonal employees.

The full-time District staff is comprised of a manager, an administrative assistant, a computer engineer, a biologist, a maintenance supervisor, a field supervisor, and city control technicians. The District hires and trains thirteen part-time seasonal employees per year that work between March and October.

Staffing is adequate to service the needs of the District's service area. All the District's equipment is replaced on an as-needed basis. Regular equipment maintenance is performed in order to avoid unnecessary repair costs. Personnel are trained to use and maintain equipment.

The District's revenues have exceeded expenditures over the last four years (Refer to Table 3-1). Excess revenues are reserved for future capital outlay. Per Policy 3105, the District shall maintain reserve funds pursuant to Health and Safety Code Section 207. The total operating reserves will equal sixty percent of the next fiscal year's operating budget.

A District fiscal year begins on July 1<sup>st</sup> and ends June 30<sup>th</sup> of the following year. The District's budget performance over fiscal years ending in 2018, 2019, 2020, and 2021 is summarized in Table 3-1 through Table 3-3.

**Table 3-1 MMVCD Four-Year Budget Summary**

	2017-18	2018-19	2019-20	2020-21
<b>Revenues</b>	\$2,205,768	\$2,297,232	\$2,240,963	\$ 2,441,549
<b>Expenditures</b>	\$1,815,663	\$2,190,139	\$2,038,085	\$ 1,843,036
<b>Net (loss) Income</b>	\$390,105	\$107,093	\$202,878	\$ 598,513

**Table 3-2 MMVCD Statement of Income**

	Item	2017-18	2018-19	2019-20	2020-21
<b>Revenue</b>	<b>Taxes &amp; Assessments</b>	\$1,922,629	\$2,103,157	\$2,139,119	\$ 2,231,194
	<b>Other Govt. Revenues</b>	\$21,303	\$1,827	\$1,800	\$ 60,809
	<b>Interest Earned</b>	\$7,746	\$10,784	\$11,485	\$ 7,480
	<b>Other Sales or Income</b>	\$254,090	\$181,464	\$88,559	\$ 142,066
	<b>Total Revenue</b>	\$2,205,768	\$2,297,232	\$2,240,963	\$ 2,441,549
<b>Expenditures</b>	<b>Salaries &amp; Employee Benefits</b>	\$1,013,177	\$969,664	\$946,871	\$ 1,028,844
	<b>Service and Supplies</b>	\$574,299	\$699,800	\$1,080,998	\$ 800,504
	<b>Capital Expenditure</b>	\$228,187	\$520,675	\$10,216	\$ 13,688
	<b>Total Expenditure</b>	\$1,815,663	\$2,190,139	\$2,038,085	\$ 1,843,036
<b>Net Income (Loss)</b>		\$390,105	\$107,093	\$202,878	\$ 598,513

**Table 3-3 MMVCD Changes in Fund Equity**

	2017-18	2018-19	2019-20	2020-21
<b>Funds (Beg of Yr)</b>	\$2,081,254	\$2,471,359	\$2,578,452	\$ 2,781,330
<b>Net (loss) Income</b>	\$390,105	\$107,093	\$202,878	\$ 598,513
<b>Prior Period Adjustment</b>	\$ -	\$ -	\$ -	\$ -
<b>Fund Balance (End of Yr)</b>	\$2,471,359	\$2,578,452	\$2,781,330	\$ 3,379,843

**Determination:**

- 3.5 The MMVCD appears to be well managed.
- 3.6 The District uses appropriate cost avoidance methods, but opportunities for cost avoidance are limited.



- 3.7 Outsourcing management duties would be cost prohibitive and is not a feasible cost saving measure.
- 3.8 The District established an assessment to fund services to newly and future annexed areas.
- 3.9 The District would benefit from an aggressive advertising campaign, which could result in significant cost saving as the public becomes aware of mosquito abatement techniques that they could help implement.

### **Opportunities for Shared Facilities**

**Purpose:** *To identify the opportunities for jurisdictions to share facilities and resources creating a more efficient service delivery system.*

Facilities for the District are centrally located in the heart of Madera with easy access to main circulation arterials. The District does not currently coordinate, contract with any other agency, and/or receive assistance from other agency to provide services. The District does not jointly own or share any facilities with other agencies, nor does it believe there are realistic opportunities for shared facilities with other neighboring districts.

The Madera County Department of Environmental Health (Environmental Health) responds to many of the same types of service request calls that the District responds to. By informal cooperative agreement with Environmental Health, all mosquito control or surveillance related calls and calls involving house flies generated by agriculturally based sources are referred to the District.

Opportunities for shared resources would be limited to sharing equipment and staff. However, due to the sensitivity and unexpected nature of staff schedules sharing equipment, staff or facilities would likely result in a disruption of efficient services.

### **Determination:**

- 3.10 Traditionally, the District has not shared resources with other districts, nor has it identified a need to do so.
- 3.11 The resources of the District are well managed.
- 3.12 Sharing staff, facilities, and/or equipment may result in a disruption of efficient services rendered to the areas within the District.

### **Governmental Structure Operational Efficiencies**

**Purpose:** *To consider the advantages and disadvantages of various government structures that could provide public services. To evaluate the quality of*

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*public services and the agency's ability to provide services. To evaluate the accessibility and levels of public participation associated with the agency's decision-making and management processes.*

The District is involved with the following associations or alliances:

- California Department of Public Health
- Madera County Department of Public Health
- Mosquito and Vector Control Association of California

The District holds open Board of Trustees meetings, during which they encourage public participation. The public can also write-in to the District or submit input through their website. The District's Board of Trustees meets monthly on the third Tuesday at 3105 Airport Drive, Madera, CA 93637. In compliance with the Brown Act, all meeting notices are posted 72 hours before at all office locations throughout the District. The meeting's agenda and minutes are distributed by mail or email.

Governmental structure of the District is like all Mosquito Abatement Districts throughout the state. Representation of Board Members is spread throughout the District's cities and is anticipated to increase as new cities incorporate within the district's boundaries. Board members are appointed by the County Board of Supervisors and are not elected.

The Governor's Office of Planning and Research LAFCO MSR Guidelines provides a definition of Management Efficiency which states The term "management efficiency," refers to the organized provision of the highest quality public services with the lowest necessary expenditure of public funds. An efficiently managed entity (1) promotes and demonstrates implementation of continuous improvement plans and strategies for budgeting, managing costs, training and utilizing personnel, and customer service and involvement, (2) has the ability to provide service over the short and long-term, (3) has the resources (fiscal, manpower, equipment, adopted service or work plans) to provide adequate service, (4) meets or exceeds environmental and industry service standards, as feasible considering local conditions or circumstances, (5) and maintains adequate contingency reserves.

The organizational structure of the District is established in a fashion that eliminates inefficiencies to personnel or equipment use. The District is managed in a cost effective, professional, and efficient manner. Due to the small personnel size of the district, management efficiencies are controlled and maintained by a single manager and the Board of Trustees. Overall management efficiency is adequate for services currently provided.

The District, in conjunction with Environmental Health, provides vector control for the County of Madera. Environmental Health receives calls from members of the public reporting vector infestations. Inspectors from Environmental Health will

investigate these complaints and forward the information associated with mosquito or fly infestations to the Mosquito District for abatement services.

The mission of MMVCD is to provide mosquito and vector abatement services as efficiently as possible and at the lowest practical cost. Consolidation with adjacent districts is not supported or recommended by the District since neither cost savings nor an increased efficiency of services would be realized. Currently, there are no boundary disputes.

The District supplies ample sources of information and education to the public through literature, press releases, and public presentations. Through this public interaction the District can inform the public about the services they provide. To provide services, the District relies heavily on the public in order to identify locations with heavy mosquito infestations. The public's involvement also provides local accountability to the District and ensures mosquito populations are not allowed to proliferate to considerable population levels. Unfortunately, that is the only way the public may participate since trained technicians must carry out abatement techniques.

The internet is also a low cost yet highly effective tool for providing information and involving residents with District affairs. It is recommended that the District contract with a local government agency such as Madera County Environmental Health Department in order to provide a link to vital District information such as the time and location of aerial pesticide application or offer residents the opportunity to request service. Use of the internet will also allow individuals who cannot physically attend Board meetings to review District meeting minutes and obtain other District information.

**Determination:**

- 3.13 District boundaries and adopted SOI are adequate and appropriately sized.
- 3.14 At this time, there are no boundary disputes.
- 3.15 The District contains an appropriate and adequate administrative structure to govern the District and to accommodate an increased SOI.
- 3.16 Consolidation with adjacent districts is not supported or recommended since neither cost savings nor an increased efficiency of services would be realized.
- 3.17 No additional governmental structure options would be beneficial for the District at this time.

3.18 The District notifies and allows the public to attend regularly scheduled District Board meetings. In addition, the public is notified and invited to attend meetings where important decisions are discussed and voted on.

### **Disadvantaged Unincorporated Communities - DUCs**

**Purpose:** *To identify DUCs adjacent to District and analyze any service issues and deficiencies within those DUCs.*

LAFCO is required to evaluate services available within disadvantaged unincorporated communities as part of municipal services reviews, including the location and characteristics of any such communities (Government Code Section 56430). Typically, these areas are evaluated for their basic services: water, sewer, and fire protection. However, mosquito and vector control districts do not provide these services and therefore an in-depth review of these service types as they relate to disadvantaged communities does not apply. DUCs identified within the Madera County can be seen in Figure 4-3 and Figure 4-4.

### **Review of Agency SOI**

Policy of the State of California found in government code 56001, et seq. encourages orderly growth and development, which are essential to the social, fiscal, and economic well-being of the state. This code further explains that “this policy should be affected by the logical formation and modification of the boundaries of local agencies, with a preference granted to accommodating additional growth within, or through the expansion of, the boundaries of those local agencies which can best accommodate and provide necessary governmental services.” This responsibility of setting logical service boundaries for communities and special districts based on their ability to provide adequate services is a vital role of LAFCO.

At present, the District’s SOI covers most of Madera County. Pursuant to state law, the MMVCD SOI was reviewed in conjunction with the service review presented in this report. The primary purpose in reviewing the District’s SOI was to evaluate if this ultimate boundary is appropriate and necessary, determine if the District can feasibly provide well planned efficient services in this territory, and if the current location of the SOI (or another location) will be a benefit to residents, those that receive services and property owners within the area.

The District is considering expanding its boundaries within the established SOI due to upcoming development, particularly in the Rio Mesa Area. Rio Mesa Plan area lies in southeast Madera County just north of the City of Fresno. The District commissioned the *Engineer’s Report, Proposed Benefit Assessment for Newly Annexed Property* (January 2015) to establish a special benefit assessment. The assessment may be levied annually by the District for newly annexed territory to fund appropriate mosquito abatement and vector control services to these areas.

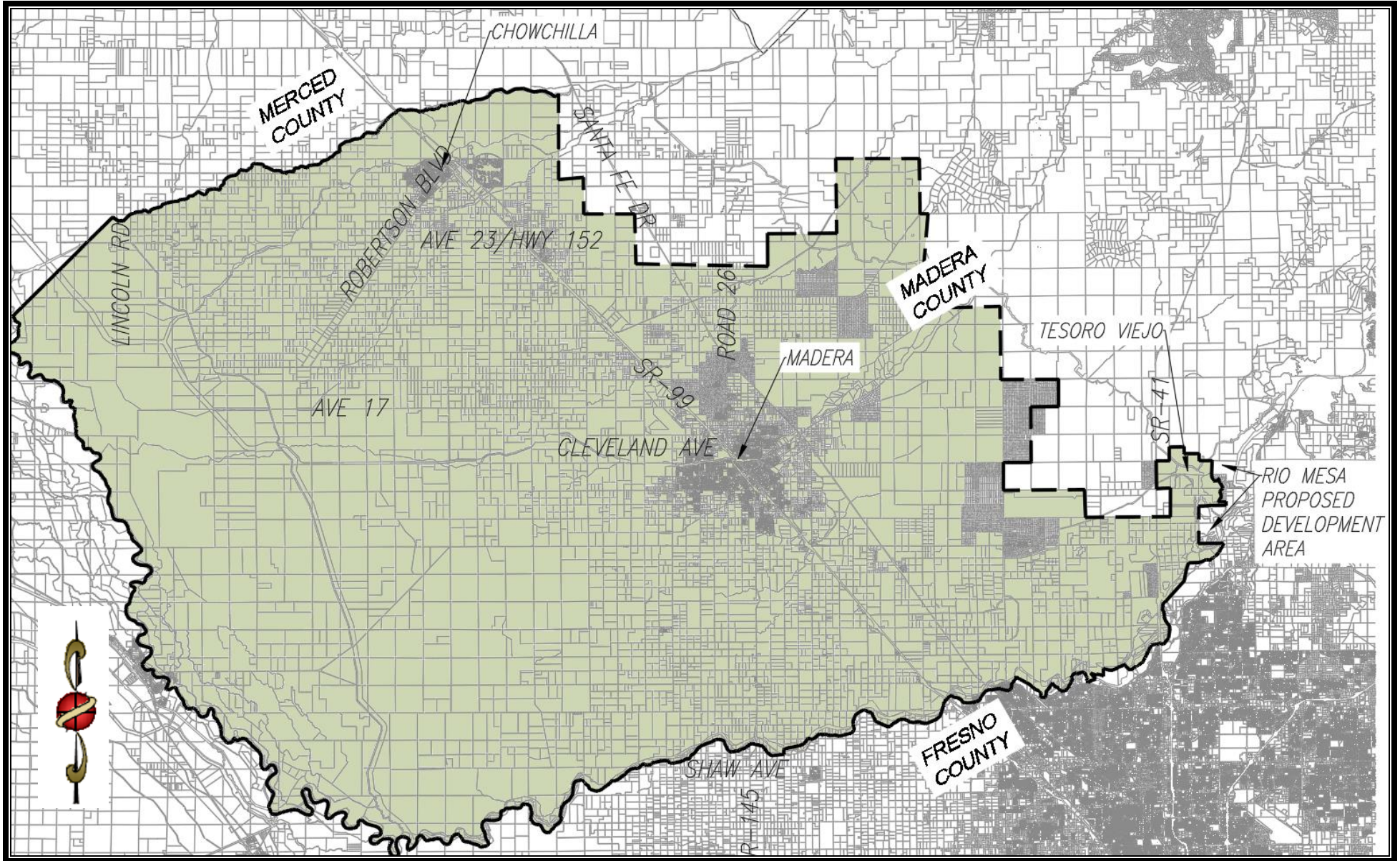
MMVCD also plans to propose an SOI update application to request a District SOI expansion into Fresno County by approximately 93 acres along the San Joaquin River. This is following the approved FMVCD SOI expansion and simultaneous reduction of the MMVCD SOI by 323 acres.

**Recommendations:**

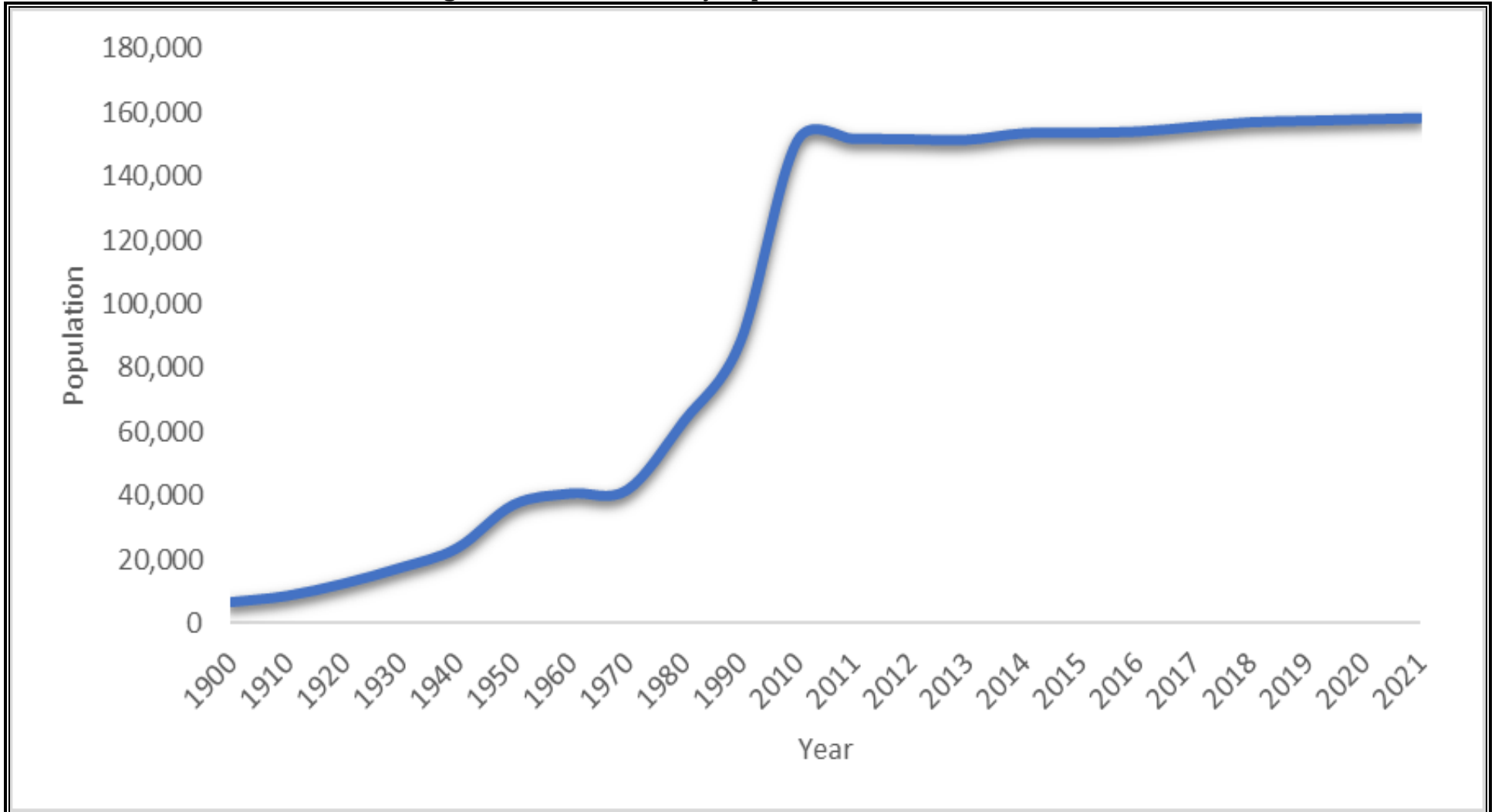
The following is recommended:

1. Adopt the written determinations for the Madera County Mosquito and Vector Control District and accept the analysis and conclusion presented in this service review (Section 56430).
2. Find that the District's current SOI is appropriate and necessary, the District can provide well planned efficient services in this territory.
3. Consideration should be given to the removal of the property shown on Figure 3-4 from the FMVCD sphere of influence and inclusion of this property into the MMVCD sphere of influence.
4. Re-evaluate in five years.

Figure 3-1 MMVCD Abatement Boundary, 2021



**Figure 3-2 Madera County Population Growth, 1900 - 2020**



Source: Data from U.S. Census Bureau

Figure 3-3 Area detached from MMVCD and annexed to FMVCD, 2021

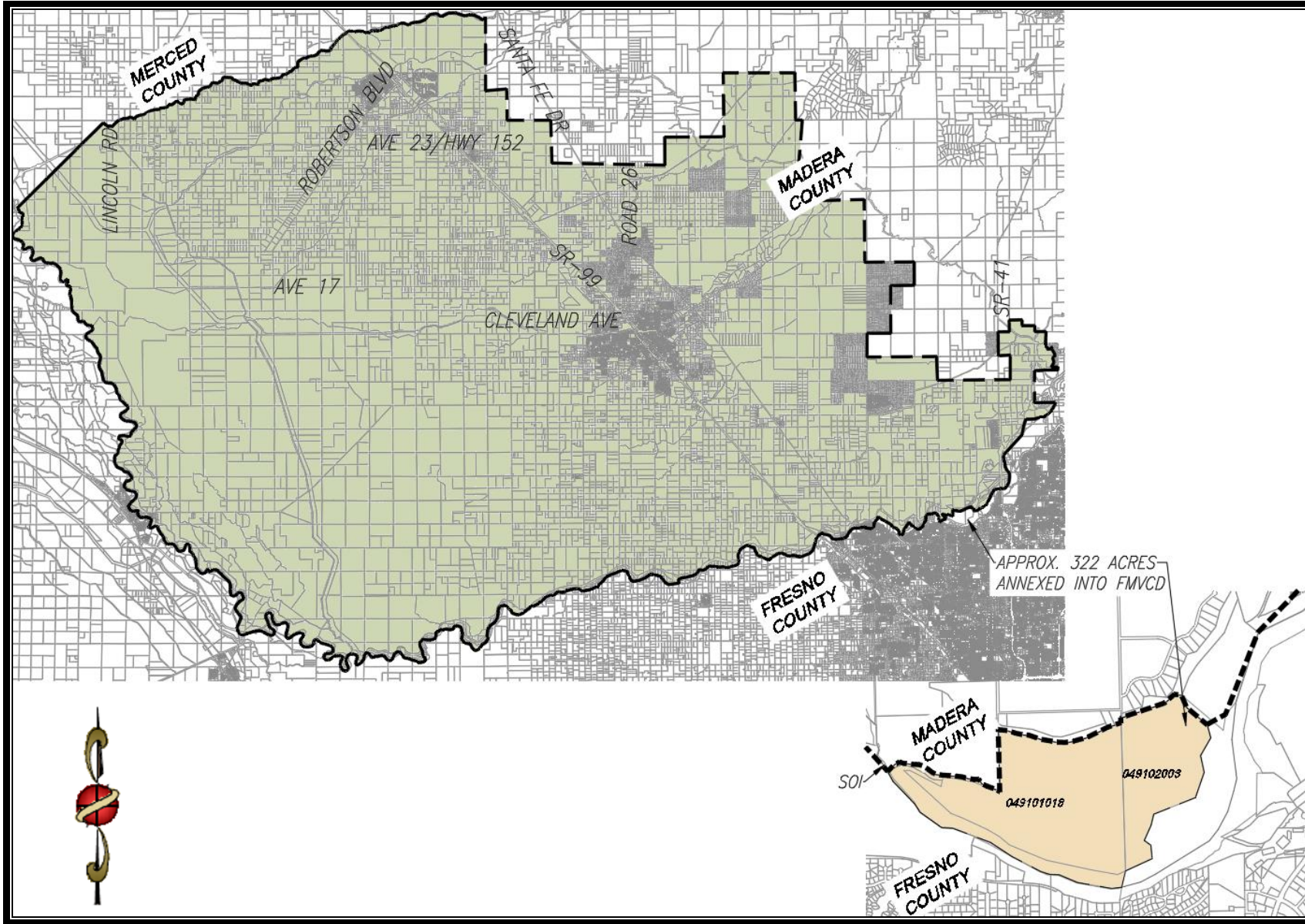




Figure 3-4 Proposed area to be detached from FMVCD and annexed to MMVCD, 2021

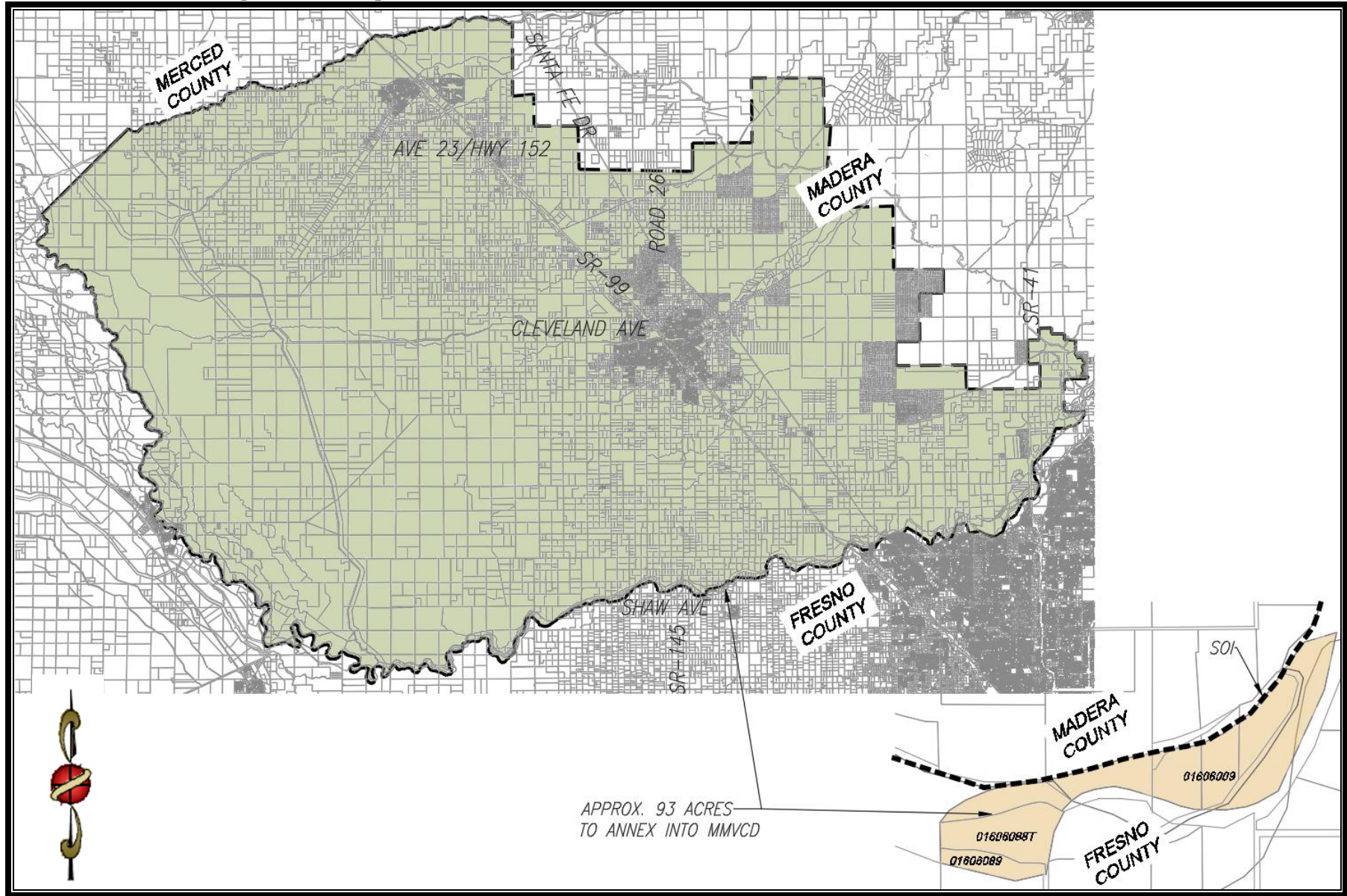
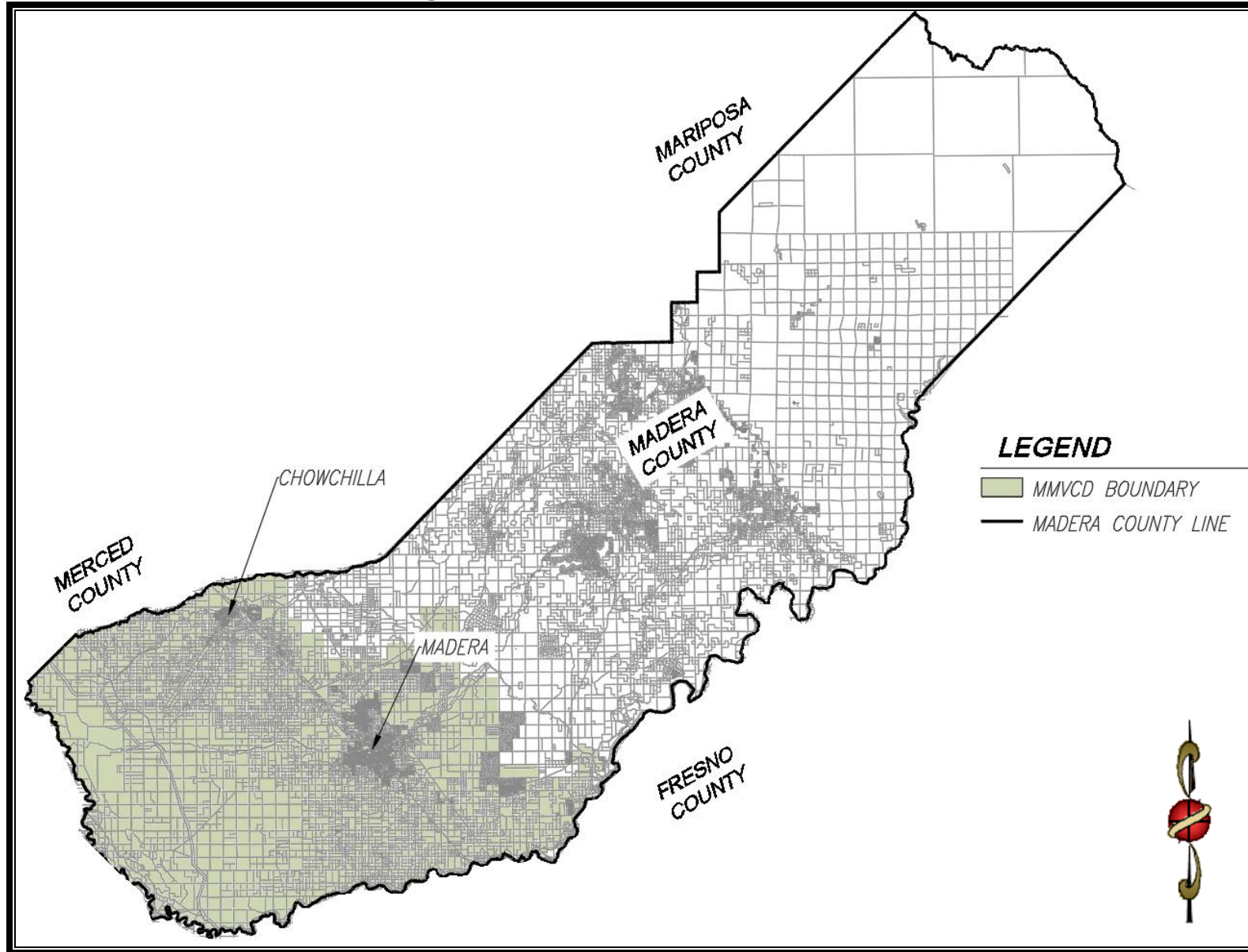


Figure 3-5 MMVCD and District MSR, 2021



## **4 - Chowchilla Memorial Healthcare District**

### **4.1 - Location**

Chowchilla Memorial Healthcare District (CMHD or District) is located on 1104 Ventura Avenue in the City of Chowchilla, in Madera County. The District's boundary can be seen in Figure 4-1.

### **4.2 - Background**

Interest in a local community hospital began in the 1930's, but plans were discarded due to high costs. In January of 1948, a ten-acre parcel was deeded to the Healthcare District. CMHD officially opened its doors on March 25, 1957. Their mission statement is "To provide the highest quality health and medical services to our community". This mission statement was adopted by the District's Board on June 21, 2005.

The District is a public entity organized under Local Hospital District Law as set forth in the Health and Safety Code of the State of California. The Healthcare District is a political subdivision of the State of California and is generally not subject to federal or state income taxes.

The District has a five-member Board of Trustees appointed or elected. The term length for each member is four years. At the time of the publication of this document, the current board members are:

1. Kelby Hooper – President
2. Leland Decker – Vice-President
3. Lisa Baker – Secretary
4. Mary Gaumnitz – Treasurer
5. Nicholas Nomicos, M.D. – Director

District Manager Phone: 559-665-3781

### ***Provided Services***

The District operates a long-term care facility, and other patient services. The Healthcare District is licensed by the California Department of Public Health (CDPH) as a skilled nursing facility. The District specializes in providing nursing for patients of all ages requiring long-term care. The facility does not contain an emergency room.

The following services are provided by CMHD:

- Skilled Nursing Facility (SNF): provides thirty-bed long-term care and rehab services, including speech, occupational and physical therapies

- X-Ray: Outpatient x-ray department (cash only, \$20/x-ray)
- Chowchilla Total Fitness at 1505 Robertson Boulevard, Chowchilla, CA 93610 (average rate of \$35/month)
- Senior Center

### ***Medical Waste***

The District has prepared a Medical Waste Management Plan as required by California's Health and Safety Code – Medical Waste Management Act §117935, "Any small quantity generator required to register with the enforcement agency pursuant to §117930 shall file with the enforcement agency a medical waste management plan...". This plan was established to protect the health and safety of employees, patients, visitors, and the community. Medical waste is defined by any of the following:

- Waste from production of bacteria, viruses, or the use of spores; discarded live/attenuated vaccines; culture dishes and devices used to transfer inoculate and mix cultures.
- Waste containing any microbiological specimens sent to a laboratory for analysis.
- Waste, which at the point of transport from the generators site, at the point of disposal or thereafter, contains recognizable blood, blood products, containers or equipment containing blood that is in fluid form and is known to be infected with diseases which are highly contagious to humans.
- Waste containing discarded materials contaminated with excretion, exudates or secretions from humans who are required to be isolated by the infection control staff, the attending physician or surgeon, or the local health officer to protect others from highly transmittable diseases, which are highly contagious to humans.

Medical waste is temporarily stored in the District's biohazard holding area until the waste is collected once per month by a certified hauler. All infectious waste is sealed in red bags or locked red sharps containers. Staff personnel are required to wear personal protective equipment while handling biohazardous waste.

All medical waste transferred to an offsite medical waste treatment facility is transported, in accordance with chapter six of the Medical Waste Management Act beginning with §11800, by a registered hazardous waste transporter issued a registration certificate by the enforcement agency. A hazardous waste transporter

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transferring medical waste shall have a copy of their valid hazardous waste transporter registration certificate in their possession while transferring medical waste. The transporter shall show the certificate (upon demand) to any enforcement agency personnel or authorized employee of the Department of the California Highway Patrol.

### **4.3 - Topic Areas of Analysis**

#### **Infrastructure Needs or Deficiencies**

**Purpose:** *To evaluate infrastructure needs and deficiencies in terms of supply, capacity, condition of facilities, and service quality.*

According to the MSR Guidelines issued by the State of California Office of Planning and Research, “infrastructure” is defined as public services and facilities, and “infrastructure needs and deficiencies” refers to the status of existing and planned infrastructure and its relationship to the quality and levels of service that can or need to be provided.

The District currently owns:

- A clinic on 285 Hospital Drive which they also rent to the Madera Hospital.
- Skilled Nursing located on 1104 Ventura Avenue
- A Wellness Center for outpatient x-ray on 1200 Ventura Avenue
- Chowchilla Total Fitness on 1505 Robertson Boulevard which they rent

The District manages a Senior Center on 820 Robertson Boulevard that is owned by the City of Chowchilla.

According to the District, they operate out of an older building which requires a lot of upkeep and maintenance. Replacement, maintenance, and upkeep of facilities is done on an as-needed basis. The District is currently working on their “COVID Unit” replacing windows, doors, and a small A/C unit. In 2018, the District completed a large A/C replacement project.

During the COVID-19 Pandemic, keeping enough staff employed to meet demands has been the biggest challenge. The District uses a registry staffing agency (registry) that provides personnel that serve in the healthcare field. The registry helps fill the voids when the District is low on staff, however, numerous times their personnel fail to show up for a scheduled shift. This leads to CMHD staff being asked to work longer shifts. Being low on staff can cause the District to be short on their staff-to-patient ratio, which also requires a minimum number of nursing hours to be provided per patient per day. The State could fine the facility during an audit if it failed to meet the minimum nursing hours required.

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Morale for both staff and residents alike has been a challenge for CMHD during the COVID-19 Pandemic. Residents of the skilled nursing facility have had to be isolated and confined to their rooms for long periods of time due to increasing rates of COVID cases, which has required outings and socializing with one another to be cut back. Cost of supplies, food, staff, and fuel continue to rise and have become difficult to acquire, which poses an additional struggle for the District. However, even with these struggles, the District is still meeting infrastructure needs in terms of supply, capacity, condition of facilities, and service quality.

***Determination:***

- 4.1 The District owns several buildings which they either use or rent
- 4.2 The District manages a Senior Center owned by the City of Chowchilla
- 4.3 The District identified the need for a replacement A/C unit in their “COVID Unit.”
- 4.4 The District has identified a shortage on staff, supplies, food, and fuel due to the COVID-19 Pandemic. However, these struggles are similar to other similar types of facilities due to unusual circumstances and not indicative of gaps or deficiencies that need to be addressed.

**Growth and Population Projections for the Affected Areas**

**Purpose:** *To evaluate service needs based on existing and anticipated growth patterns and population projections.*

According to the 2020 Decennial census data, the city of Chowchilla has a population of approximately 19,039. Census has a projected a population decline of -2.23% by 2021, for an estimated population of 18,500 (refer to Figure 4-2). Since the Chowchilla Memorial Healthcare District service area’s population is mostly located in the city of Chowchilla, the city’s population growth rate will be used for purposes of this report.

The District serves an area consisting of approximately 144,307 acres, which includes the city of Chowchilla and many of the unincorporated communities of Madera County. According to 2020 Decennial Census, the service area has a population of approximately 22,689<sup>3</sup>. Population growth rate for the District’s service area is expected to be close to the city of Chowchilla average of -2.23%, for an estimated population of 18,108 by 2030.

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<sup>3</sup> Calculated assuming uniform population density in each block group.

**Determination:**

4.5 Population in this District’s service area is expected to be approximately 18,108 by 2030. The population estimate assumes a constant growth rate which may not continue to be accurate due to the current uncertainties surrounding the COVID-19 pandemic and other unforeseen factors.

**Financial Ability to Provide Services**

**Purpose:** *To evaluate factors that affect the financing of needed improvements, identify practice or opportunities that may help eliminate unnecessary costs, and identify opportunities to positively impact rates without decreasing service levels.*

The District employs five full-time administrative staff, eight full-time maintenance and operational personnel, twenty-eight full-time and six part-time nursing staff, and one full-time and one part-time senior center employees. The District owns most of its facilities and equipment and does not share with other districts. All the District’s equipment is replaced on an as-needed basis. Regular equipment maintenance is performed to avoid unnecessary repair costs.

The Board of Trustees adopts an annual budget for the District and oversees expenditures to avoid any unnecessary costs. Annual audits are conducted for the District and have shown the District to be in conformity with accounting principles generally accepted in the United States of America.

The District has agreements with third party payers that provide payments to the District at established rates set by the CDPH. Rates and fees are determined by the medical facilities license and the discretion of CDPH.

The District currently has approximately \$290,000 in reserves. The District’s revenues have exceeded expenditures over the last four years (Refer to Table 4-1). Excess revenues are reserved for future capital outlay.

The District’s fiscal year begins on July 1<sup>st</sup> and ends June 30<sup>th</sup> of the following year. The District’s budget performance over fiscal years ending in 2018, 2019 2020, and 2021 is summarized in Table 4-1 through Table 4-3.

**Table 4-1 CMHD Four-Year Budget Summary**

	2017-18	2018-19	2019-20	2020-21
<b>Revenues</b>	\$3,716,937	\$3,825,284	\$3,872,630	\$ 3,874,816
<b>Expenditures</b>	\$3,264,016	\$3,573,226	\$3,763,014	\$ 3,755,054
<b>Net (loss) Income</b>	\$452,921	\$252,058	\$109,616	\$ 119,762

**Table 4-2 CMHD Statement of Income**

	Item	2017-18	2018-19	2019-20	2020-21
Revenue	Net Patient Service	\$ 2,477,179	\$ 2,463,917	\$ 2,489,724	\$ 2,433,756
	Other Operating Revenue	\$ 275,362	\$ 328,494	\$ 322,973	\$ 343,813
	District Tax	\$ 946,890	\$ 1,013,076	\$ 1,047,390	\$ 1,088,563
	Investment Income	\$ 17,251	\$ 13,938	\$ 7,828	\$ 8,039
	Grants and Contributions	\$ 255	\$ 5,859	\$ 4,715	\$ 645
	<b>Total Revenue</b>	<b>\$ 3,716,937</b>	<b>\$ 3,825,284</b>	<b>\$ 3,872,630</b>	<b>\$ 3,874,816</b>
Expenditures	Salaries & Employee Benefits	\$ 2,266,720	\$ 2,424,273	\$ 2,522,051	\$ 2,582,296
	Service and Supplies	\$ 526,569	\$ 641,629	\$ 604,357	\$ 602,967
	Repairs & Maintenance	\$ 53,440	\$ 58,512	\$ 73,996	\$ 20,162
	Utilities and Phone	\$ 111,508	\$ 97,293	\$ 145,054	\$ 165,458
	Building & Equipment Rent	\$ 46,896	\$ 50,443	\$ 46,982	\$ 11,978
	Insurance	\$ 70,163	\$ 92,529	\$ 95,222	\$ 105,262
	Depreciation and Amortization	\$ 83,406	\$ 75,628	\$ 124,782	\$ 167,729
	Other Operating Expenses	\$ 80,389	\$ 98,465	\$ 104,473	\$ 63,506
	Interest Expense	\$ 24,925	\$ 34,454	\$ 46,097	\$ 35,696
	<b>Total Expenditure</b>	<b>\$ 3,264,016</b>	<b>\$ 3,573,226</b>	<b>\$ 3,763,014</b>	<b>\$ 3,755,054</b>
<b>Net Income (Loss)</b>		<b>\$ 452,921</b>	<b>\$ 252,058</b>	<b>\$ 109,616</b>	<b>\$ 119,762</b>

**Table 4-3 CMHD Changes in Fund Equity**

	2017-18	2018-19	2019-20	2020-21
<b>Funds (Beg of Yr)</b>	\$287,994	\$740,915	\$992,973	\$ 1,102,589
<b>Net (loss) Income</b>	\$452,921	\$252,058	\$109,616	\$ 119,762
<b>Prior Period Adjustment</b>	\$ -	\$ -	\$ -	\$ -
<b>Fund Balance (End of Yr)</b>	\$740,915	\$992,973	\$1,102,589	\$ 1,222,351

The Office of Planning and Research defines Cost Avoidance Opportunities as “Actions to eliminate unnecessary costs derived from, but not limited to, duplication of service efforts, higher than necessary administration/operation cost ratios, use of outdated or deteriorating infrastructure and equipment, underutilized equipment or buildings or facilities, overlapping/inefficient service boundaries, inefficient purchasing or budgeting practices, and lack of economies of scale.”

All services provided by the District are provided by staff and contracted health professionals. The possibility of outsourcing for financial and administrative duties would not be feasible since in-house management is performed by as few team members as possible, yet still provide adequate levels of management. Outsourcing management duties would be cost prohibitive.

The utilization of volunteer staff is a feasible cost saving measure; however, their assistance would be limited unless they have the proper education and training.



Small districts lack economies of scale. The District cannot reduce costs per bed resulting in increased production. Minimal staffing resulting in high operational efficiencies provides patient care for a set number of beds (30).

The regional location of a healthcare facility and its permit status determines the amount facilities may charge patients. California’s Health and Safety Code §1367.09 (4)(A) states: “The skilled nursing facility, multilevel facility, or continuing care retirement community agrees to accept reimbursement from the health care service plan for covered services at either of the following rates: (i) The rate applicable to similar skilled nursing coverage for facilities participating in the plan. (ii) Upon mutual agreement, at a rate negotiated in good faith by the health care service plan or designated agent on an individual, per enrollee, contractual basis.”

Most of the patients that obtain services from the District utilize Medi-Cal for their insurance needs. The District gets most of its revenue through patient service costs. The remainder of the District’s funding to pay for portions of the District’s financial obligations throughout the fiscal year is obtained through the California Property Tax Apportionments System known as Assembly Bill 8 (AB8) or Proposition 13.

During the COVID-19 Pandemic, CDPH regulations on admissions created constraints in generation of revenue. CDPH mandated higher nursing hours and an Infection Control Position without allowing fee increases to compensate for higher expenditures have also impacted the District’s budget. For these reasons, the District anticipates many challenges within the next five years, including issues with adequate staffing and pay.

**Determination:**

- 4.6 The District appears to be well managed and uses appropriate cost avoidance methods.
- 4.7 Outsourcing management duties would be cost prohibitive and is not a feasible cost saving measure.
- 4.8 Chargeable rates and fees for medical services provided are determined by CDPH. Fees are dependent on the District’s license.
- 4.9 Reduced costs per bed resulting in increased production would not benefit the District. Minimal staffing resulting in high operational efficiencies provides patient care for a set number of beds.
- 4.10 Most of the District’s financing comes from patient service costs and Prop 13 assessment benefits.

4.11 The COVID-19 Pandemic has impacted the District's budgets and created financial constraints. The District should explore other revenue options to offset financial impacts caused by the COVID-19 Pandemic.

### **Opportunities for Shared Facilities**

**Purpose:** *To identify the opportunities for jurisdictions to share facilities and resources creating a more efficient service delivery system.*

The District contract's services for Medical Director, Wound Doctor, Dietary Consultant and Pest Control. They also contract services from Mission Linen, Pharmerica, and ONR, Inc.

The District coordinates with the following agencies to improve services or reduce costs:

- City of Chowchilla – Senior Center
- Community Action Partnership of Madera County – Headstart
- Madera Community Hospital
- Madera Public Health – Emergency Preparedness

### **Determination:**

4.12 The District contract's services for Medical Director, Wound Doctor, Dietary Consultant and Pest Control. They also contract services from Mission Linen, Pharmerica, and ONR, Inc.

4.13 The District coordinates with the above four agencies to improve services and reduce costs.

### **Governmental Structure Operational Efficiencies**

**Purpose:** *To consider the advantages and disadvantages of various government structures that could provide public services. To evaluate the quality of public services and the agency's ability to provide services. To evaluate the accessibility and levels of public participation associated with the agency's decision-making and management processes.*

The District holds open Board of Trustees meetings, during which they encourage public participation. The public can also write-in to the District or submit input through their website. The District's Board of Trustees meets monthly on the last Tuesday at 1104 Ventura Avenue, Chowchilla, CA 93610. In compliance with the Brown Act, all meeting notices are posted 72 hours before at the District office. The agenda and meeting minutes are posted at the facility and on the website.

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The District is governed by a five-member board, elected from within the district to specified terms of office. The Board consists of one Director, a President, a Vice-President, a Secretary, and a Treasurer. The term length for each board member is four years. Board members receive no compensation for their services on the Board.

In the event of a vacancy on the Board, the remaining board members may fill the vacancy by appointment until the next district general election, which will be scheduled 130 or more days after the effective date of vacancy. This is provided that the appointment is made within a period of sixty days after the effective day of vacancy and a notice of vacancy is posted in three or more visible places in the District at least fifteen days before the appointment is made. The remaining members of the Board may, within sixty days of the vacancy, call an election to fill the vacancy.

Policy of the State of California found in Government Code Section 56001 et. seq. encourages the orderly growth and development, which are essential to the social, fiscal, and economic well-being of the state. This code further explains that “this policy should be affected by the logical formation and modification of the boundaries of local agencies, with a preference granted to accommodating additional growth within, or through the expansion of, the boundaries of those local agencies which can best accommodate and provide necessary governmental services.” This responsibility of setting logical service boundaries for communities and special districts based on their ability to provide adequate services is a vital role of LAFCO.

CMHD is a public entity organized under Local Healthcare District Law as set forth in the Health and Safety Code of the State of California. The Healthcare Clinic is a political subdivision of the State of California and is generally not subject to federal or state income taxes.

The District is patterned after numerous successful Healthcare Districts throughout California and many of the positions within the governing structure are mandated by the State. The facility specializes in skilled nursing and caring for long-term patients. All the equipment, staffing, and infrastructure are geared towards this healthcare service.

The Governor’s Office of Planning and Research LAFCO MSR Guidelines provides a definition of Management Efficiency which states, “The term, “management efficiency,” refers to the organized provision of the highest quality public services with the lowest necessary expenditure of public funds. An efficiently managed entity (1) promotes and demonstrates implementation of continuous improvement plans and strategies for budgeting, managing costs, training and utilizing personnel, and customer service and involvement, (2) has the ability to provide service over the short and long-term, (3) has the resources (fiscal, manpower, equipment, adopted

service or work plans) to provide adequate service, (4) meets or exceeds environmental and industry service standards, as feasible considering local conditions or circumstances, (5) and maintains adequate contingency reserves.

The established organizational structure of the District is established in a fashion that eliminates inefficiencies to personnel or equipment use. The District is managed in a cost effective, professional, and efficient manner. Due to the small personnel size of the District, management efficiencies are controlled and maintained by the Board of Trustees. The CEO and administration team make the day-to-day decisions. Any financial decisions over \$25,000 are made jointly by the CEO and the Board. Overall management efficiency is adequate for services currently provided.

**Determination:**

- 4.14 Current governmental structure organization of the District is patterned after numerous successful Healthcare Districts throughout California and the structure should remain unchanged.
- 4.15 Several positions within the governmental structure of the District are mandated by the State and cannot be reorganized. A change in the governmental structure alone will not offset insufficient revenue sources. No governmental structure options would be beneficial for the District at this time.
- 4.16 The District contains an appropriate and adequate administrative structure to govern the District but it not currently in a position to accommodate an increased SOI.
- 4.17 The District provides regularly scheduled Board meetings that are open to public attendance, per the Brown Act. In addition, the public is notified and invited to attend meetings where important District decisions are voted on.

**Disadvantaged Unincorporated Communities - DUCs**

**Purpose:** *To identify DUCs adjacent to District and analyze any service issues and deficiencies within those DUCs.*

LAFCO is required to evaluate services available within disadvantaged unincorporated communities as part of municipal services reviews, including the location and characteristics of any such communities (Government Code Section 56430). Typically, these areas are evaluated for their basic services: water, sewer, and fire protection. However, healthcare districts do not provide these services and therefore an in-depth review of these service types as they relate to disadvantaged

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communities does not apply. DUCs identified within the Madera County can be seen in Figure 4-3 and Figure 4-4.

### **Review of Agency SOI**

Pursuant to state law, the Chowchilla Memorial Healthcare District's SOI was reviewed in conjunction with the service review presented in this report. The primary purpose in reviewing the District's SOI was to evaluate if this ultimate boundary is appropriate and necessary, determine if the District can feasibly provide well planned efficient services in this territory, and if the current location of the SOI (or another location) will be a benefit to residents, those that receive services and property owners within the area. It is noted that the District's boundary and SOI are coterminous.

The District usually operates near capacity. Increasing the SOI would not be conducive to the services provided. Based on recent events due to the COVID-19 Pandemic, the District is understaffed and experiencing financial hardships. The District feels that their SOI and boundaries are adequate at this time. Increasing or changing the SOI would not generate enough revenue to make a significant difference in the financial budget nor could the service capacity be increased.

The District is not currently considering expanding its boundaries, nor does it believe that there are areas within the District that may be served more efficiently by another agency or district. The district is not considering consolidation or reorganization with other agencies at this time.

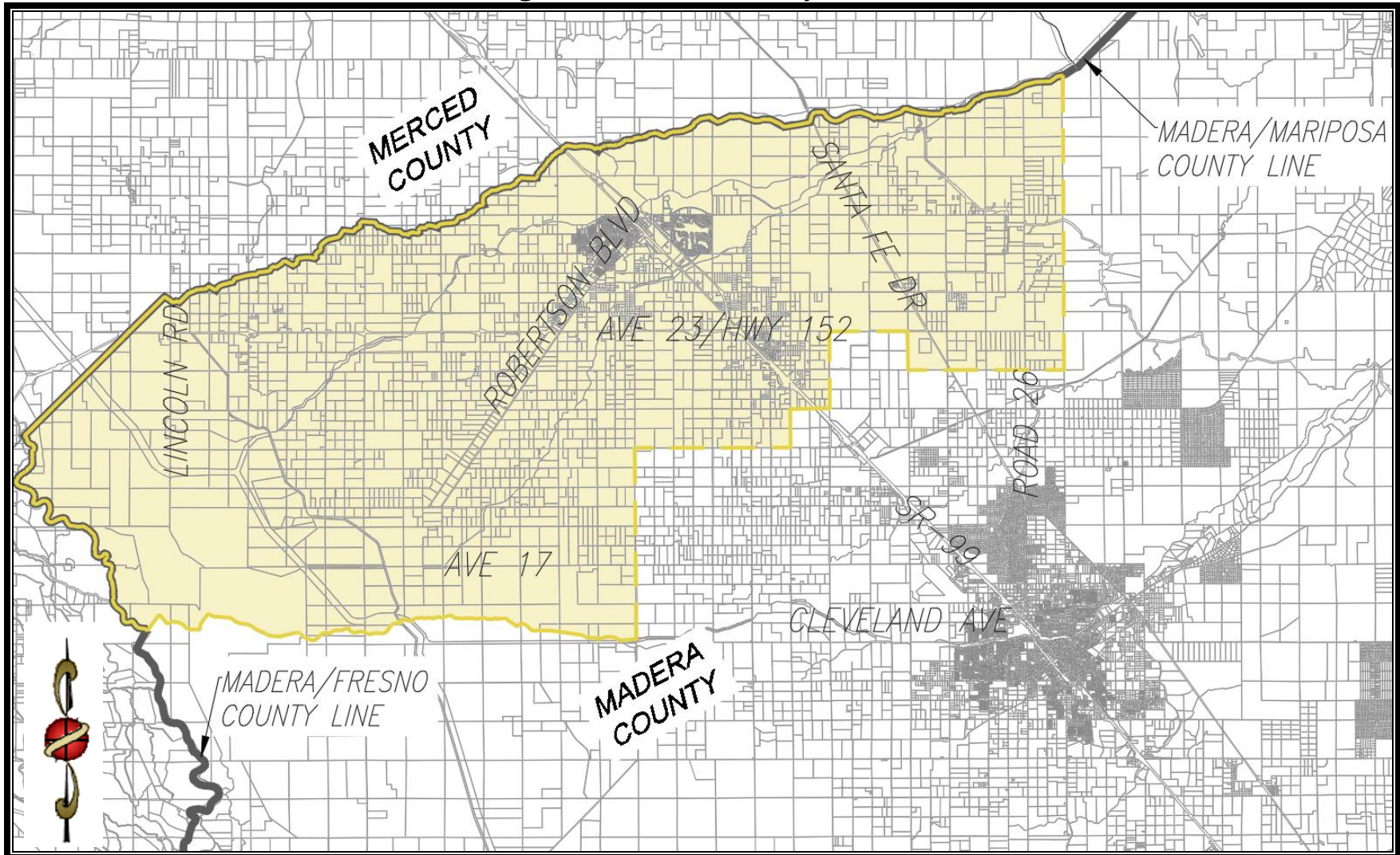
Based on the analysis presented in this MSR for the CMHD and review of its SOI, it was concluded that the District can provide well planned efficient services. The current location of the SOI is a benefit to those that receive services and/or property owners within the Chowchilla area.

### **Recommendations:**

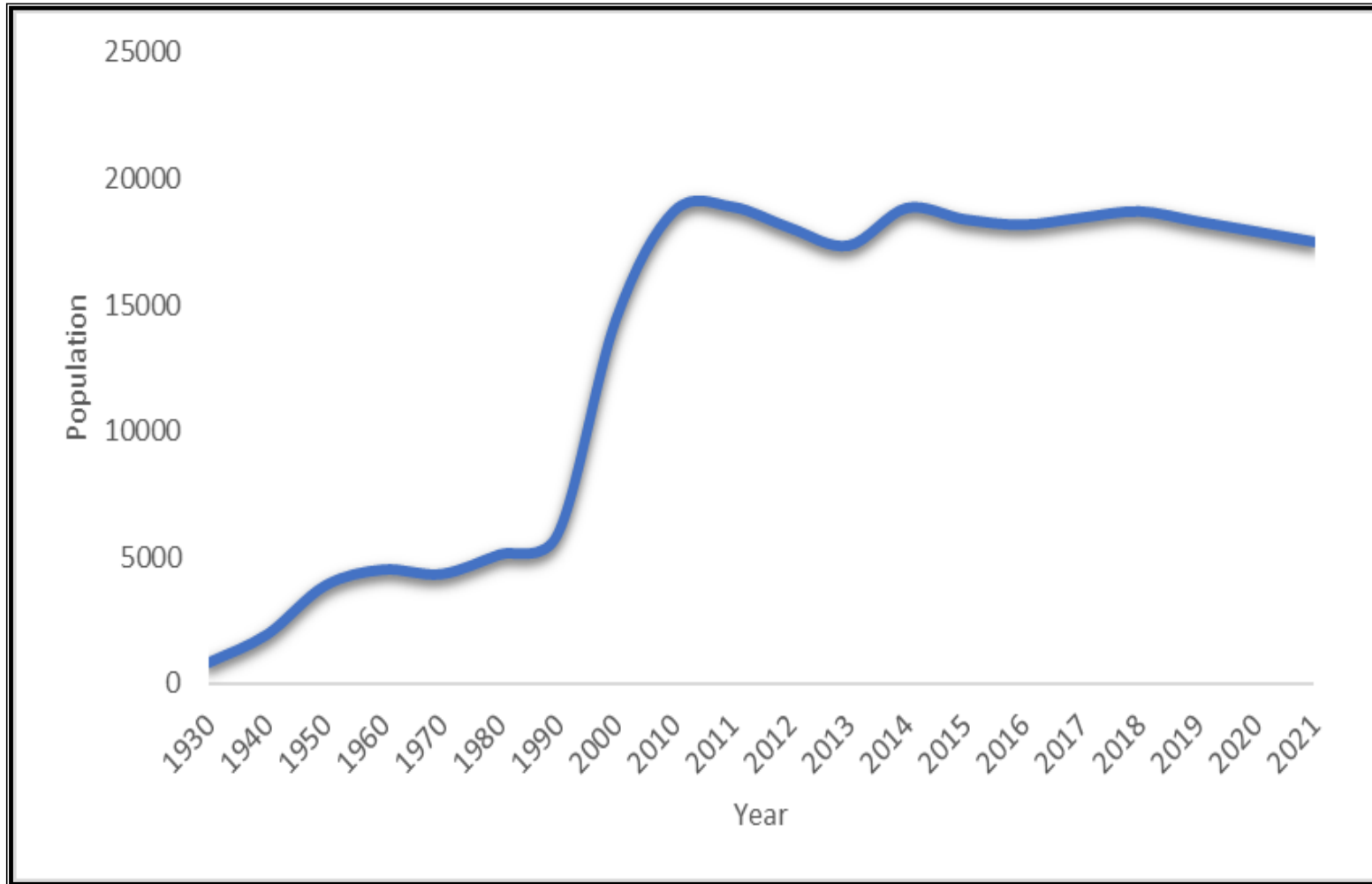
The following is recommended:

1. Adopt the written determinations for the Chowchilla Memorial Healthcare District and accept the analysis and conclusion presented in this service review (Section 56430).
2. Find that the District's current SOI is appropriate and necessary, and the District can provide well planned efficient services to this territory.
3. Re-evaluate in five years.

Figure 4-1 CMHD Boundary, 2021

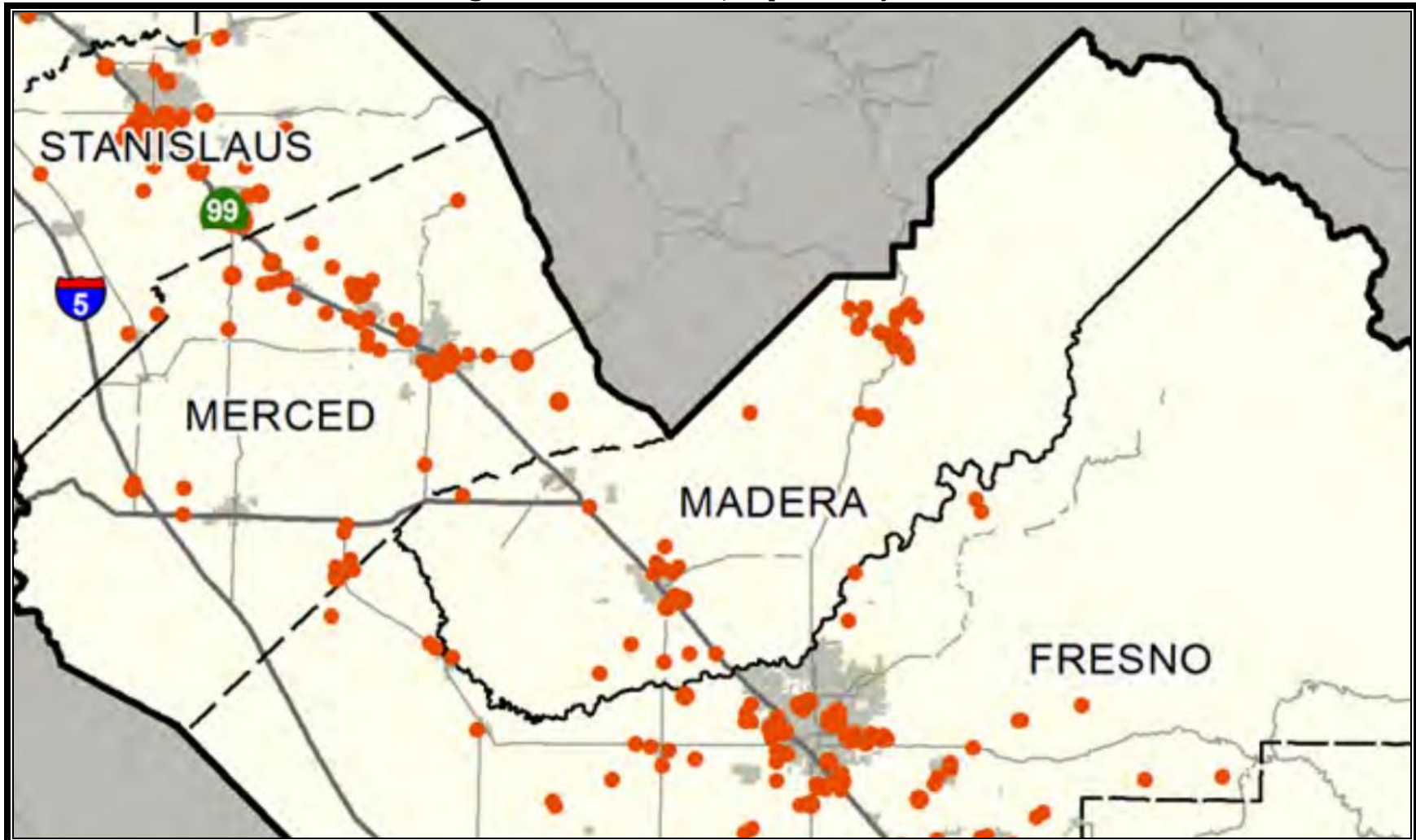


**Figure 4-2 Chowchilla Population Growth, 1930 - 2020**



Source: Data from U.S. Census Bureau

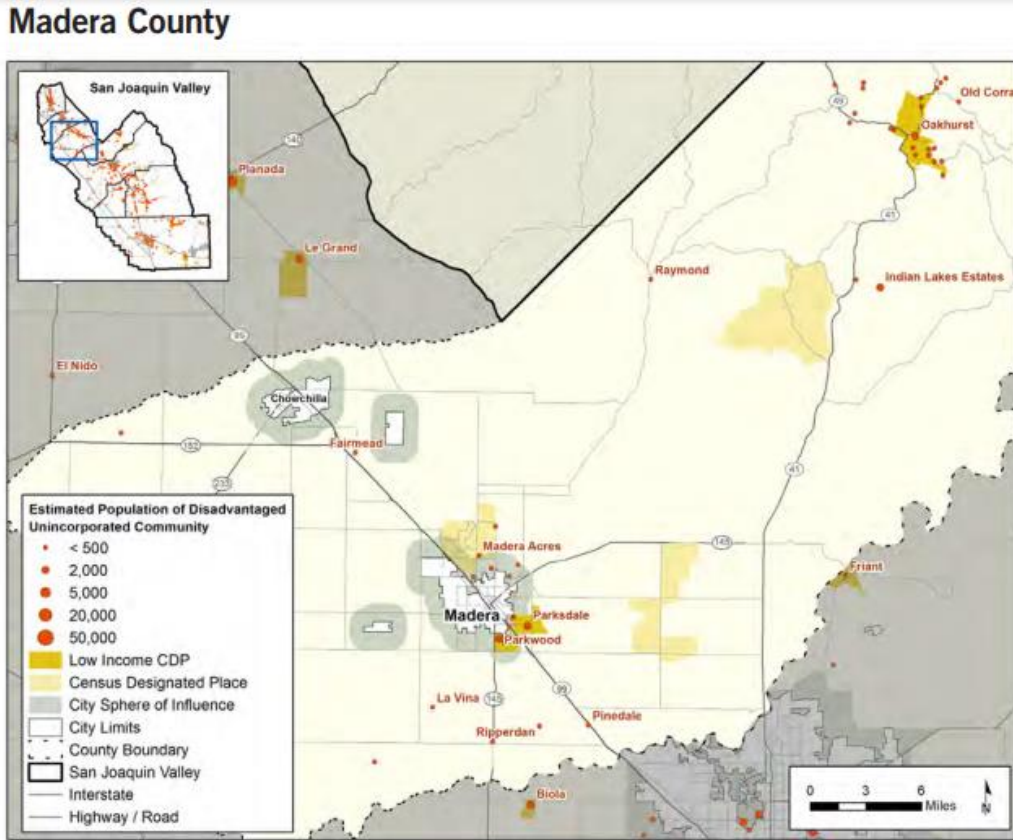
Figure 4-3 DUCs in San Joaquin Valley, 2000



Source: Policy Link Analysis of 2000 U.S. census and county parcel and boundary data.



**Figure 4-4 DUCs in Madera County, 2000**



Source: PolicyLink analysis of 2000 U.S. census and county parcel and boundary data.

MADERA COUNTY	Number of DUCs	Estimated Total Population
<b>Total</b>	<b>44</b>	<b>8,558</b>
Fringe	10	3,074
Legacy	54	5,484
Island	0	0

**DUCs with commonly recognized names in Madera County:**

Fairmead	Madera Acres	Parksdale	Raymond
Indian Lakes Estates	Oakhurst	Parkwood	Ripperdan
La Vina	Old Corral	Pinedale	