## **Appendix B-2**

Fresno County 2000 General Plan Policy Document

# Disadvantaged Unincorporated Communities SB 244

**County of Fresno** 

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Senate Bill 244 (SB244) requires counties to identify and describe the disadvantaged unincorporated communities (DUCs) within the county except for unincorporated areas within cities' spheres of influence (SOI), on or before the due date for each subsequent revision of its housing element. The descriptions must include an analysis of water, wastewater, storm drainage and structural fire protection needs or deficiencies for each of the DUCs and identify potential funding mechanisms that could resolve those deficiencies (Alex, 2013).

SB 244 defines a DUC as a place that meets the following criteria:

- Contains 10 or more dwelling units in close proximity to one another; and
- Is a legacy community in which the median household income is 80 percent or less than the statewide median household income.

Legacy communities are geographically isolated communities that are inhabited and have existed for more than 50 years (Alex, 2013).

#### **DUC IDENTIFICATION METHODOLOGY**

SB 244 describes the general characteristics of DUCs but does not provide specific guidance on how to identify them. To assist local governments in addressing the requirements of SB 244, the Governor's Office of Planning and Research (OPR) published a technical advisory memo in February 2013. The memo recommends data sources for identifying the income status of communities and mapping sources for identifying "communities" as defined by SB 244. It also referenced methodological guidance prepared by PolicyLink in collaboration with California Rural Legal Assistance. Based on the guidance provided by OPR and PolicyLink, the County identified DUCs in the Fresno County area by focusing on a combination of income status and parcel density (Alex, 2013).

#### LOW INCOME STATUS

The County identified unincorporated communities that were 80 percent below the statewide median household income (MHI). The County used Disadvantaged Communities shapefiles from the California Environmental Protection Agency (SB 535), Census Block Groups, and Census Designated Places (CDP). The shapefile income data was based on the American Community Survey (ACS) 5-Year: 2013 - 2017 Census. During 2013 - 2017, the statewide median household income was \$71,805 (United States Census Bureau, 2019a).

#### PARCEL DENSITY

- The County selected parcels that were outside of the spheres of influence of the fifteen County of Fresno cities for the study.
- The County focused on groupings of parcels that approximate the density of suburban and urban communities, with parcels that are small and close together defining what constitutes suburban or urban development.
- To estimate density, the County calculated the number of parcels per square mile to identify development clusters similar in density to existing Census Designated Places (CDPs).



- The County calculated parcel densities using the centroid (or middle point) of each parcel. The County extracted the XY coordinates from the Fresno Parcel geodatabase layer and created a new point layer from them.
- The County then calculated parcel density using the ArcGIS spatial analyst kernel density tool. As a benchmark, the County relied on a density calculation methodology from the Community Equity Initiative (CEI) (Flegal, Rice, Mann, & Tran, 2013) to establish a minimum threshold value for community density. This calculation was based on the developed portion(s) of CDPs, which often have large undeveloped areas. Based on this methodology, the County selected unincorporated areas that were at least as dense as current Fresno County CDPs (approximately 250 parcels per square mile), which is consistent with CEI findings.
- Some very small rural communities (e.g. Camden Avenue Community, East Adams Avenue Community) were not identified based purely on the GIS-based methodology, so the County used Google Earth and the centroid density layer to identify other areas that had 10 or more dwelling units in close proximity (per the Government Code definition of DUCs).

#### COMBINING THE DATA

- After identifying areas that met the density threshold, the County added the low-income data layer to these areas. The County then selected the areas that met both the density and low-income thresholds and created a new shapefile identifying the DUCs.
- Figures 1 and 2 show the results of this methodology. If a DUC did not have a known name, the County assigned the DUCs a name based on associated CDPs. For communities outside of CDPs, the County used nearby roadway names or numbered County Service Areas as identifiers.
- The results of the initial analysis were verified by using the Density-based Clustering tool in ArcGIS for both parcel density and address point density, and heat map visualization. With these tools, density was reanalyzed using 50 units per half-mile and 25 units per quarter-mile, to prevent anomalies in the analysis resulting from very large parcels in the western side of the County and resulted in the identification of six additional DUCs beyond the 30 previously identified with the methodology.

#### **COMMUNITIES IDENTIFIED**

All the DUCs that the County identified are Legacy Communities, as defined by SB 244. Many of the communities fall within CDP boundaries and are identified accordingly. Table 1 lists the DUCs in the Fresno County area by size (in acres) and the number of parcels in each community. Figure 1 shows the County-wide distribution of DUCs and Figures 1a through 1d show DUCs in the northwest, southwest, central, and southcentral areas of the County respectively.

The analysis utilized to determine communities was undertaken in part to capture areas that may have not been designated by an historic place name. There are several areas and identified places in Fresno County that, although may have historic significance, do not meet all the criteria to be considered a DUC legacy community.



Some examples include the communities of Friant, Centerville, Auberry, Tollhouse and Meadow Lakes. These communities did not meet the lower income thresholds and/or fall within the PolicyLink methodology. Other identified places such as Bretz Mill, Dora Belle, Ockenden and Wildflower are now portions of the larger Shaver Lake community and exceed income level thresholds for DUC identification. Other communities, such as Helm, contain multiple residences on a single parcel as part of housing for farm labor operations, and thus did not achieve the density or parcellation to be identified as a DUC. Communities such as Rolinda didn't possess the density and generally had higher income levels. The communities of Calwa and Tarpey Village are located within the city spheres of influence of Fresno and Clovis respectively and were thus not part of the County's SB 244 analysis.

#### **DUC SERVICE PROFILES**

For each of the identified DUCs, County staff conferred with Fresno Local Agency Formation Commission (LAFCo), Community Services Districts (CSDs), County Service Area (CSA) administrator, CAL Fire and North Central Fire District to determine how water, wastewater, drainage, and fire protection services are provided. The Fresno LAFCo information was drawn primarily from Municipal Service Reviews (MSR) and SOI update reports. In addition, the County drew upon the findings of the 2013 Kings Basin Disadvantaged Communities Pilot Project Study (KBDAC) (California Department of Water Resources, 2013) to supplement Fresno LAFCo's findings. The KBDAC Study was a collaboration between the Kings Basin Water Authority (KBWA) and the California Department of Water Resources (DWR) that included extensive community outreach and partnering with key stakeholder groups, including California Rural Legal Assistance (CRLA) (California Department of Water Resources, 2013).

Regarding drainage in the identified DUCs that do not have drainage infrastructure in place, County staff conducted site visits during the spring of 2019 for any sign of standing water as well as examining the log book of the Road Maintenance and Operations of the Department of Public Works and Planning for any report of flooding received from community residence from residents during the winter of 2018-2019 or the spring of 2019 where Fresno County experienced average rainfall.

The following pages provide summaries of how each area is being served.



#### 1. ASHLAN AVENUE COMMUNITY

The Ashlan Avenue Community is located at the northwest corner of Ashlan Avenue and Chateau Fresno Avenue, and includes 18 parcels totaling approximately 57 acres (Fresno County Department of Public Works and Planning, 2019c).

The area is in Census Tract 41.

The Ashlan Avenue Community is not located within a census tract/block group unit that meets the MHI DUC threshold, but when applying the US Census ACS data, Ashlan Avenue Community meets the MHI DUC threshold. The US Census ACS five-year estimate reports



indicate that Census Tract 41.00- Block Group 1 had an MHI of \$37,268 between 2006 and 2010 (United States Census Bureau, 2019).

*Water* – There is no community water system in place for this community. Private wells provide water to the residents of this area. During the past ten years, there has been one private well permit issued and one well reconnection (Fresno County Department of Public Health, 2019).

*Wastewater* – There is no community wastewater system in place for this community. Septic tanks are used by residents for wastewater disposal. There was one septic permit issued in relation to a replacement of a fire damaged single-family residence during the past ten years (Fresno County Department of Public Works and Planning, 2019a).

**Drainage** – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads. No incident of flooding was reported during the winter of 2018 – 2019 or during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019).

County staff conducted a community site visit on May 8, 2019. On Chateau Fresno, the presence of undeveloped drainage swales was noted, but other drainage infrastructure (curb and gutters, ponding basins, and sidewalks) were absent in the community. Staff noted there were no noticeable areas of erosion or potential for standing water. On Ashlan, no drainage swales were present nor were other drainage infrastructure (curb and gutters, ponding basins, and sidewalks) were absent in the community. Staff noted there were no noticeable areas of erosion or potential for standing water, ponding basins, and sidewalks) were absent in the community. Staff noted there were no noticeable areas of erosion or potential for standing water.

*Fire* – Fire protection is provided to this community by the North Central Fire Protection District. There are no fire service deficiencies in this community. The North Central Fire Protection District provides a full range of emergency services including fire prevention, fire suppression, emergency medical care, hazardous materials response, search and rescue response, emergency preparedness planning, and public education. The North Central Fire Protection District's current model of service is an enhanced level of service provided through the staffing of four fire stations with a total of 15 on-duty firefighters/Emergency Medical Technicians (EMTs). One fire station is located 1.8 miles from the Ashlan Avenue community, allowing a three-minute response time, and is equipped with one front line fire engine with pump capacity of 1,250 gallons per minute (gpm) and an 800-



gallon water tank, one reserve fire engine with pump capacity of 1,250 gpm and a 750-gallon water tank, and one water tender that augments onsite water deficiencies (i.e. lack of fire hydrants) with a pump capacity of 1,250 gpm and a 3,000-gallon water tank (Fey, Flemming, Uc, & Lara. 2016a).

*Service Deficits* – The Ashlan Avenue Community has no identified service deficits. Well and septic replacement activity does not indicate high rates of failure. No incidents of severe flooding or drainage issues have been observed by County staff and there is no evidence that fire protection resources are deficient for this community. As the area is not designated or zoned for future intensive growth opportunities, there is no anticipation that the community will observe additional strain on its existing, albeit limited infrastructure.





Chateau Fresno Avenue looking North



Chateau Fresno Avenue looking South





Ashlan Avenue looking West



Ashlan Avenue looking West



#### 2. BIOLA COMMUNITY

The Biola Community is located near the northwest corner of Shaw Avenue and Howard Avenue and includes 335 parcels in its residential/commercial core and the entire Community Services District boundary contains about 242 acres including industrial properties. The District has approximately 1,100 people except during harvest season (August through September), when the population rises to approximately 1,600 people (Fey, Flemming, & Hendricks, 2013).

The area is in Census Tract 41.

*Water* – Water is provided to this community by the Biola Community Service District through two groundwater wells with a hydro-pneumatic tank, electrical panel boxes, chlorine stations,



and generators and pumps. The District contracts with California Water Services to maintain the water system (Fey, Flemming, & Hendricks, 2013). According to the February 2018 Biola Community Service District Project Update (Biola Water System Upgrade), the District has received approximately \$11.4 million in grants to fund water system upgrades. The project consists of new water lines, a new 500,000-gallon tank, upgrades to Well 4, meter replacement, wastewater treatment plant conversion (secondary treatment, solar system, and three monitoring wells), and a recharge basin (Yamabe & Horn Engineering Inc., 2017). According to the KBDAC Study, there are no water quality issues in Biola (California Department of Water Resources, 2013).

*Wastewater* – Wastewater services are provided to this community by the Biola Community Services District through a wastewater treatment plant. District infrastructure includes a seven-acre wastewater treatment plant, a generator, and five aeration ponds each with an aeration pump. The treatment plant is permitted by the State of California for a flow of 200,000 gallons per day. Average wet weather flows are between 160,000 – 170,000 gallons per day, and dry weather flows average 80,000 to 90,000 gallons per day. There are 358 wastewater connections in the District providing service to residential and industrial customers. The District contracts with California Water Services to maintain wastewater systems. According to the 2013 Biola Community Service District MSR and SOI Update, these facilities are sufficient for current and future populations (Fey, Flemming, & Hendricks, 2013). The KBDAC Study, however, found that there is some risk for violation of wastewater treatment plant upgrades. According to the 2018 Biola Improvements Projects at Wastewater Treatment Plant Preliminary Engineering Report, the District is evaluating the feasibility of reusing treated wastewater from the Wastewater Treatment Plant to produce higher quality effluent that can be reused to offset the District potable water demand. A large portion of District water is used for landscaping and miscellaneous industrial uses (AM Consulting Engineers, Inc, 2018).

**Drainage** – Drainage services are provided to this community by the Biola Community Services District through two stormwater retention basins. County Service Area 35 Zone CG also provides storm drainage services. According to the Biola Community Service District MSR and SOI Update, these facilities are sufficient for current and projected population. There are no reported changes since the 2013 MSR (Fey, Flemming, & Hendricks, 2013).



The Community Service District has a website with useful information for residents: <u>https://www.biolacsd.org/</u>

*Fire* – Fire protection is provided to this community by the North Central Fire Protection District. There are no fire service deficiencies in this community, which has access to fire hydrants. The North Central Fire Protection District provides a full range of emergency services including fire prevention, fire suppression, emergency medical care, hazardous materials response, search and rescue response, emergency preparedness planning, and public education. The North Central Fire Protection District's current model of service is an enhanced level of service provided through the staffing of four fire stations with a total of 15 on-duty firefighters/Emergency Medical Technicians (EMTs). One fire station is located within the Biola community and is equipped with one front line fire engine with pump capacity of 1,500 gallons per minute (gpm) and a 750-gallon water tank, and one water tender with a pump capacity of 1,250 gpm and a 3,000-gallon water tank (Fey, Flemming, Uc, & Lara, 2016a).

*Service Deficits* – The Biola Avenue Community has no identified service deficits for potable water service, drainage or fire protection. As stated above, there is some risk for violation of wastewater treatment standards and the Biola CSD is currently evaluating wastewater treatment plant upgrades.





7<sup>th</sup> Avenue looking South



7<sup>th</sup> Avenue looking South





Shaw Avenue looking West



Shaw Avenue looking East





B Street looking West



Biola Avenue looking South





Biola Avenue looking South



G Street looking East





G Street looking West



G Street looking West





G Street looking East



#### 3. BRITTEN AVENUE/CHERRY AVENUE COMMUNITY

The Britten Avenue/Cherry Avenues Community includes 26 parcels totaling approximately 20 acres (Fresno County Department of Public Works and Planning, 2019c).

The area is in Census Tract 18.

*Water* – Private wells provide water to the residents of this community. During the past ten years, there have been seven well permits issued and three well destruction permits issued. The three well destruction permits correspond with three of the seven properties on which well permits were



issued, representing replacement wells (Fresno County Department of Public Health, 2019).

*Wastewater* – There is no community wastewater system in place for this community. Septic tanks are used by residents for wastewater disposal. Two septic permits were issued, one as a repair associated with a patio permit for a single-family residence and one septic system to remain following the demolition of a single-family residence (Fresno County Department of Public Works and Planning, 2019a).

**Drainage** – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads. No incident of flooding was reported during the winter of 2018 – 2019 or during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019).

County staff conducted a community site visit on April 25, 2019 and again on March 23, 2020 (after a rain event). Staff noted no improvements on Britten Avenue and there was an absence of undeveloped drainage swales. A small portion of the approach off Cherry Avenue is paved, but the remainder is unimproved. Unimproved drainage swales were noted on Cherry Avenue with a minor swale to the east. The March 23, 2020 site visit showed a large volume of puddling occurring on Britten and the unimproved alley/unimproved access to the south of the subdivision. Road conditions appeared muddy with water pooling in depressions and potholes. Puddling along Cherry generally remained in the shoulder areas and was not as severe.

*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no fire service deficiencies in this community. One fire station is located within two miles of the Britten Avenue/Cherry Avenue community. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008). Britten/Cherry is in proximity to the Easton station, which is a staffed facility. Although roads are unpaved, the District's apparatus are designed to function in off-road conditions. The District has responded to calls in this community and weather has not been a factor to access (CalFire/FCFPD, 2020).



*Service Deficits* – The Britten Avenue/Cherry Avenue Community has no significant identified service deficits regarding well, septic, drainage or fire protection services. Staff acknowledges; however, the interior roads are unpaved and subject to muddy conditions during prolonged rain events.



Britten Avenue looking East



Britten Avenue looking East – March 23, 2020





Britten Avenue looking East – March 23, 2020



Britten Avenue looking West





Cherry Avenue looking North



Cherry Avenue looking South





Southerly Dirt Road looking East



Southerly Dirt Road looking East – March 23, 2020





Easterly Dirt Road looking North



#### 4. BURREL COMMUNITY

The Burrel Community is located near the intersection of South Jameson Avenue and West Elkhorn Avenue and includes 26 parcels totaling approximately 12 acres (Fresno County Department of Public Works and Planning, 2019c).

The area is in Census Tract 76.

*Water* – Private wells provide water to the residents of this community. During the past ten years, there has been one well permit issued (Fresno County Department of Public Health, 2019).

*Wastewater* – There is no community wastewater system in place for this community. Septic tanks are used by residents



for wastewater disposal. There has been no record of septic permits being issued during the past ten years (Fresno County Department of Public Works and Planning, 2019a).

**Drainage** – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads. No incident of flooding was reported during the winter of 2018 – 2019 or during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019), but the Department's Road Maintenance and Operations staff have noted past flooding issues on Jones Street between Ellen Street and Hyde Street (Fresno County Department of Public Works and Planning, 2019).

County staff conducted a community site visit on April 30, 2019. Staff noted no improvements on Jones Street or Burrel Avenue and there was an absence of unimproved drainage swales.

**Fire** – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no fire service deficiencies in this community. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

*Service Deficits* – The Burrel Avenue Community has no identified service deficits other than some prior flooding on Jones Street. Well and septic replacement activity does not indicate high rates of failure. No incidents of severe flooding or drainage issues have been observed by County staff and there is no evidence that fire protection resources are deficient for this community. As the area is not designated or zoned for future intensive growth opportunities, there is no anticipation that the community will observe additional strain on its existing, albeit limited infrastructure.





Elkhorn Avenue looking West



Elkhorn Avenue looking East





Ellena Street looking North



Ellena Street looking South





#### Jones Street looking West



Jones Street looking East





Hyde Street looking South



#### 5. CAMDEN AVENUE COMMUNITY

The Camden Avenue Community is a 28-unit mobile home park located near the intersection of East Mount Whitney Avenue and State Route 41. The community includes one parcel totaling approximately four acres (Fresno County Department of Public Works and Planning, 2019c).

The area is in Census Tract 76.

*Water* – The 28-unit mobile home park is served by a public water system regulated by the State Water Board – Division of Drinking Water. The system is identified by public water system ID No. 1000238. The area is served by a single well that has been



identified with elevated arsenic levels. The system has installed point-of-use treatment devices in each unit to remove arsenic from the water that comes from the kitchen faucet, so each home has a potable water source for drinking water (Chauhan, NKGSA, 2020). The KBDAC Study noted Camden Mobile Home Community drinking water exceeded acceptable standards for arsenic (California Department of Water Resources, 2013).

*Wastewater* – There is no community wastewater system in place for this community. Septic tanks are used by residents of this community for wastewater disposal. No septic permits have been issued during the past ten years (Fresno County Department of Public Works and Planning, 2019a).

**Drainage** – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads. No incident of flooding was reported during the winter of 2018 – 2019 or during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019).

County staff conducted a community site visit on April 30, 2019. Staff noted unimproved drainage swales on both Elm and Mount Whitney avenues, with no other improvements present. Staff also noted most portions of access road for mobile home community was paved with speed bumps, but the remainder areas are gravel/unimproved roads.

*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no fire service deficiencies in this community. One fire station is located within two miles of the Camden Avenue community. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

*Service Deficits* – The Camden Avenue Community has no identified service regarding septic or drainage deficits. No incidents of severe flooding or drainage issues have been observed by County staff and there is no evidence that fire protection resources are deficient for this community. As the area is not designated or zoned for future



intensive growth opportunities, there is no anticipation that the community will observe additional strain on its existing, albeit limited infrastructure. As stated above, noted arsenic levels for drinking water exceeded acceptable standards (California Department of Water Resources, 2013; Chauhan, NKGSA, 2020).



Elm Avenue looking South





#### Elm Avenue looking South



Mount Whitney Avenue looking West





Mount Whitney Avenue looking West



Southerly Road - looking West on Elm





Northerly Road - looking West on Elm



Southerly Road looking West





Access Road/Approach off Mount Whitney



Middle Alley Gravel Road





Northerly Road looking East



### 6. CARILLO AVENUE COMMUNITY

The Carillo Avenue Community is located at the corner of Springfield Avenue and Cherry Avenue and includes 28 parcels totaling approximately 20 acres (Fresno County Department of Public Works and Planning, 2019c).

The area is in Census Tract 76.

*Water* – Private wells provide water to the residents of this community. During the past ten years, there have been three well permits issued and one well destruction permit issued. The well destruction permit corresponds with one of the three



properties issued well permits, representing a replacement (Fresno County Department of Public Works and Planning, 2019a).

*Wastewater* – There is no community wastewater system in place for this community. Septic tanks are used by residents of this community for wastewater disposal. One septic permit was issued for a single-family residence addition in the past ten years (Fresno County Department of Public Health, 2019).

**Drainage** – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads. No incident of flooding was reported during the winter of 2018 – 2019 or during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019).

County staff conducted a community site visit on May 1, 2019. Staff noted no improvements on Orchard, Carillo, Angus, Springfield or Cherry Avenues. Staff did note several concrete drive approaches and fences at the right-of-way.

*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no fire service deficiencies in this community. One fire station is located within four miles of the Carillo Avenue community. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

*Service Deficits* – The Carillo Avenue Community has no identified service deficits. Well and septic replacement activity does not indicate high rates of failure. No incidents of severe flooding or drainage issues have been observed by County staff and there is no evidence that fire protection resources are deficient for this community. As the area is not designated or zoned for future intensive growth opportunities, there is no anticipation that the community will observe additional strain on its existing, albeit limited infrastructure.





Looking West down Carillo from Angus



Looking South down Angus from Springfield





Looking West down Springfield from Angus



Looking South down Orchard from Springfield





Looking West down Springfield from Orchard



Looking South down Cherry from Springfield



## 7. CARUTHERS COMMUNITY

The Caruthers Community is located southeast of the intersection of West Mountain View Avenue and South Brawley Avenue in the central portion of Fresno County, approximately 16 miles south of the City of Fresno. It includes 787 parcels totaling approximately 453 acres and consists of 644 service connections serving about 2,576 persons (Witte, Fleming, & Hendricks, 2011).

The area is in Census Tract 75.

*Water* – Water services are provided to this community by the Caruthers Community Service District. The District provides water service via four wells, well pumps, and a water distribution system. The estimated future population in the District is 4,829.



According to the 2011 Caruthers Community Service District MSR and SOI Update, the water facilities are sufficient for current populations. However, high levels of arsenic have been found in the water supply since the 2011 MSR. Further limitations for future growth include undersized water mains for adequate water flow and dead-end water mains (Witte, Fleming, & Hendricks, 2011).

The District's current water supply can support 2,736 people or 747 connections. New development within the District would necessitate new water supplies. The District's water distribution system includes several dead-end runs and a few locations of four-inch and smaller water lines. The smaller water lines were constructed of steel in the early 1960s. According to the District Municipal Service Review, the smaller water lines have exceeded their anticipated useful life. The water system lacks looping and extensions to adequately serve existing development. Long dead-end runs diminish available water pressure and water delivery capacity. The District has completed several projects to increase water line size and looping to improve the current water system (Witte, Fleming, & Hendricks, 2011).

The District has obtained financial assistance through Proposition 84 to construct a test hole and complete the design of a new production well, distribution facilities, and blending tank. The District may receive funding to construct the improvements through Proposition 84 or the Safe Drinking Water State Revolving fund (Witte, Fleming, & Hendricks, 2011).

*Wastewater* – Wastewater services are provided to this community by the Caruthers Community Service District through a wastewater treatment plant. District infrastructure includes the wastewater collection system, two sewage lift stations, and a wastewater treatment facility. The wastewater treatment process consists of an aerated lagoon treatment system. The District wastewater system has a capacity of 0.24 mgd. Existing demands and commitments are 0.214 mgd. The District has submitted to the Regional Water Quality Control Board (RWQCB) a Report of Waste Discharge for an expansion of the treatment and disposal facilities to 0.28 MGD. Additional expansion of the facilities is needed to serve any proposed developments. The RWQCB has expressed the intent to require nitrogen reduction at the wastewater treatment facility. This requirement will result in substantial capital improvement needs. The District has obtained financial assistance from the USDA to construct the improvements (Witte, Fleming, & Hendricks, 2011).



According to the 2011 Carruthers Community Service District MSR and SOI Update, the sewer facilities are sufficient for current and future populations (Witte, Fleming, & Hendricks, 2011). The KBDAC Study concluded that there are no wastewater-related problems in Caruthers (California Department of Water Resources, 2013).

**Drainage** – Drainage services are provided to this community by the Caruthers Community Service District. According to the 2011 Carruthers Community Service District MSR and SOI Update, the drainage facilities are sufficient for current and future populations (Witte, Fleming, & Hendricks, 2011). One complaint of flooding was reported in this community during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019). According to Road Maintenance and Operations staff there have been some flooding issues at Quince and Tahoe, Quince southeast of Sandy, and Henderson and Superior. Staff also noted that for Quince southeast of Sandy the school installed new curbs and drains in the right-of-way, and a private ponding basin was added near Henderson and Superior (Fresno County Department of Public Works and Planning, 2020).

The Caruthers Community Service District has a very limited website which can be accessed at: <a href="http://carutherscsd.com/">http://carutherscsd.com/</a>

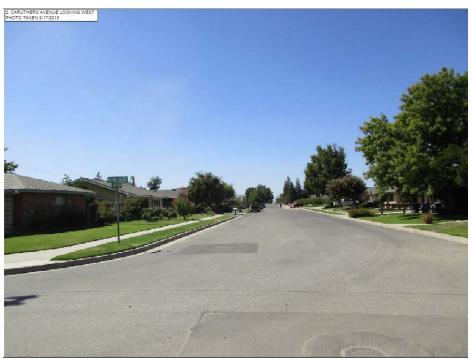
*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no fire service deficiencies in this community, which has access to fire hydrants. One fire station is located within the Caruthers community. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

*Service Deficits* – The Caruthers Community has no identified service deficits regarding sewer services, significant drainage issues or fire protection. As indicated, a flooding complaint was received in 2019 and there have been some flooding issues at certain intersections. High arsenic levels have been found in the water supply, and as stated in the District's MSR, the District has obtained financial assistance through Proposition 84 (test hole construction) and complete design of a new production well, distribution facilities, and blending tank. The District may also receive funding to construct the improvements through Proposition 84 or the Safe Drinking Water State Revolving fund.





# Caruthers Avenue looking East

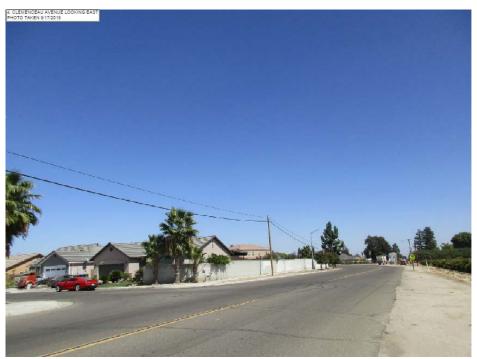


Caruthers Avenue looking West





Clemenceau Avenue looking East

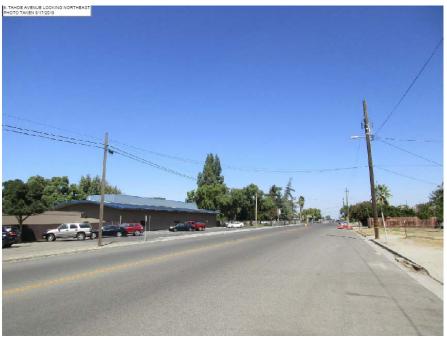


Clemenceau Avenue looking East





Clemenceau Avenue looking East



Tahoe Avenue looking Northeast





Tahoe Avenue looking Northeast



Henderson Road looking Northwest





Henderson Road looking Northwest



Mountain View Avenue looking East



## 8. CHESTNUT AVENUE COMMUNITY – SHADY LAKES

The Chestnut Avenue Community is 62-unit mobile home park located between East Lincoln Avenue and East Jefferson Avenue and five detached single-family residences that front Chestnut Avenue. The community is of made up of two parcels totaling approximately twenty-six acres (Fresno County Department of Public Works and Planning, 2019c; 2020).

The area is in Census Tract 17.

*Water* – The 62-unit mobile home park is served by a public water system regulated by the State Water Board – Division



of Drinking Water (DDW). The water system is identified as ID No. 1000244. The water system is served by a single well with a chlorination station providing disinfected water to the mobile home units (Chauhan, NKGSA, 2020). Between 2009 and 2018, the State of California Office of Drinking Water has found the water system to be in violation of the law on eight occasions. Many of the violations relate either to monitoring or reporting. (California Department of Water Resources, 2020).

*Wastewater* – The mobile home community is served by a privately-owned community wastewater system permitted by the Central Valley Water Board under Waste Discharge requirements from 1975 (Order 75-079). According to the state, these requirements are in the process of being updated. The wastewater treatment system is an extended aeration package sewage treatment plant with a design capacity of 0.017 MGD. Effluent is disposed of by percolation and evaporation into a single, fenced aerated pond. The facility has received multiple odor complaints according to the Central Valley Water Board. (Fresno County Department of Public Works and Planning, 2020).

**Drainage** – This community is served by a system of gutters that drain stormwater into an on-site ponding basin. No incident of flooding was reported during the winter of 2018 – 2019 or during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019).

County staff conducted a community site visit on April 25, 2019. Staff noted developed drainage swales and curb/gutter and the presence of ponding basins. Sidewalks were absent. Privately paved roads for the mobile home community were established with AC swales on northerly east/west road and north/south roads. These swales drain to the southerly road into a valley gutter, then to the west into a private ponding basin. The parcel is approximately 0.4 miles south of FMFCD basin service area CE. Staff did note several concrete drive approaches and fences at the right-of-way.

*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no fire service deficiencies in this community. Three fire stations are located within five miles of the Chestnut Avenue (Shady Lakes) community. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least



four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

**Service Deficits** – The Chestnut Avenue Community has no identified service deficits related to wastewater, as it relates to odor. Well and septic replacement activity does not indicate high rates of failure, but there have been identified monitoring violations as it relates to the community water system. No incidents of severe flooding or drainage issues have been observed by County staff and there is no evidence that fire protection resources are deficient for this community. As the area is not designated or zoned for future intensive growth opportunities, there is no anticipation that the community will observe additional strain on its existing, albeit limited infrastructure.





Typical North/South Road looking North



Southerly Road looking West





Private Ponding Basin looking West



Typical North/South Road looking North



# 9. CHURCH AVENUE/FLOYD AVENUE COMMUNITY

The Church Avenue/Floyd Avenue Community is located at the intersection of Church Avenue and Floyd Avenue and includes 44 parcels totaling approximately 36 acres and includes the Double L Mobile Ranch Park (mobile home park serving approximately 35 units) (Fresno County Department of Public Works and Planning, 2019c; California Department of Water Resources, 2020b).

The area is in Census Tract 39.

*Water* – Private wells provide water to the residents of this community with the exception of residents of the Double L Mobile Home Ranch Park. During the past ten years, there



have been two new well permits issued and one permit to reconnect electrical to an existing well (Fresno County Department of Public Health, 2019). The Double L Mobile Ranch Park is served by a small groundwater-supplied community system. The water system is comprised of 37 residential connections, and services a population of approximately 80 people. Reports of groundwater contaminants, including high levels of uranium have initiated seeking funding to provide potable water lines to serve the park from the City of Kerman (Knickmeyer and Smith, 2015). In 2011 the water system was issued Compliance Order No. 03-23-110-004 for non-compliance with the Uranium maximum contaminant level (MCL) at Well 02, which was the system's sole source of supply, followed by In Compliance Order No. 03\_23\_18R\_005 was issued for non-compliance with the 1,2,3-Trichloropropane (1,2,3-TCP) MCL in early July. In 2016 the City of Kerman was awarded \$3,230,000 in funding for a construction project though the Proposition 1–Water Quality, Supply and Infrastructure Improvement Act of 2014 and the Drinking Water State Revolving Fund. The project could consolidate Double L Mobile Ranch Park water system into the City's system. As part of the construction project, the City would be able to drill and develop a new well (Well 18), install a transmission main to connect the Water System to the City's distribution system, install a master meter, and install a chlorination station (California Department of Water Resources, 2020b). On February 6, 2019, the Kerman City Council adopted a resolution (Res. 19-10) accepting a public utility easement for the Double L Mobile Ranch Park Water Service Project from the property owners, which would allow for potable water to be brought to Double L from the City. The City would be responsible for the cost of water line maintenance (City of Kerman Planning and Development Report, 2019).

At the end of January 2020, the water system was connected to the City's distribution system and began receiving City water. Also, as part of the project, the Water System's two wells (Well 01-Inactive and Well 02-Active) are to be destroyed (California Department of Water Resources, 2020b).

*Wastewater* – There is no community wastewater system in place for this community. Septic tanks are used by residents for wastewater disposal. During the past ten years, one septic permit was issued for a single-family residence addition (Fresno County Department of Public Works and Planning, 2019a).

**Drainage** – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads. No incident of flooding was reported during



the winter of 2018 – 2019 or during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019).

County staff conducted a community site visit on April 30, 2019. Staff noted no improvements on Floyd Avenue and driveway access for lots along west and east side of road and agricultural land to the south-east of Church/Floyd at a higher grade than road.

*Fire* – Fire protection is provided to this community by the North Central Fire Protection District. There are no fire service deficiencies identified in this community. The North Central Fire Protection District provides a full range of emergency services including fire prevention, fire suppression, emergency medical care, hazardous materials response, search and rescue response, emergency preparedness planning, and public education. The North Central Fire Protection District's current model of service is an enhanced level of service provided through the staffing of four fire stations with a total of 15 on-duty firefighters/Emergency Medical Technicians (EMTs). One fire station is located 6.8 miles from the Church Avenue/Floyd Avenue community, allowing a 12-minute response time, and is equipped with one fire engine with pump capacity of 1,500 gallons per minute (gpm) and a 750-gallon water tank. Another fire station is located 6.7 miles from the Church Avenue/Floyd Avenue community, allowing an 11-minute response time, and is equipped with one fire engine with pump capacity of 1,500 gpm and a 750-gallon water tank, one reserve fire engine with pump capacity of 1,250 gpm and a 750-gallon water tank, one reserve fire engine with pump capacity of 1,500 gpm and a 300-gallon water tank, and one water tender that augments onsite water deficiencies (i.e. lack of fire hydrants) with a pump capacity of 1,250 gpm and a 3,000 gallon water tank (Fey, Flemming, Uc, & Lara, 2016a).

*Service Deficits* – The Church Avenue/Floyd Avenue Community had identified service deficits related to groundwater quality for the Double L Mobile Home Park. The mobile home park has since been connected to the City of Kerman's water supply. The community as a whole lacks fire hydrants. Well and septic replacement activity for the other individual residential parcels do not indicate high rates of failure. No incidents of severe flooding or drainage issues have been observed by County staff and there is no evidence that fire protection resources are deficient for this community. As the area is not designated or zoned for future intensive growth opportunities, there is no anticipation that the community will observe additional strain on its existing, albeit limited infrastructure.





Floyd Avenue looking North (South of Church)



Floyd Avenue looking North (North of Church)





Church Avenue looking West



Church Avenue looking West





Church Avenue looking East



Church Avenue looking North (MH Approach/Entrance)



## 10. CORNELIA AVENUE/FLORAL AVENUE COMMUNITY

The Cornelia Avenue/Floral Avenue Community is located at the intersection of Cornelia Avenue and Floral Avenue and includes 38 parcels totaling approximately 60 acres (Fresno County Department of Public Works and Planning, 2019c).

The area is in Census Tracts 75.00/76.00.

*Water* – Private wells provide water to the residents of this community. During the past ten years, there have been six new well permits issued for the community and on well destruction and replacement (Fresno County Department of Public Health, 2019).

*Wastewater* – There is no community wastewater system in place



for this community. Septic tanks are used by residents for wastewater disposal. No septic permit activity of note occurred during the past ten years (Fresno County Department of Public Works and Planning, 2019a).

**Drainage** – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads.

County staff conducted a community site visit on October 8, 2019. There are no drainage improvements on Floral and Cornelia avenues. Driveway access exists for lots along the south side of Floral and east side of Cornelia. Agricultural land surrounds the community.

*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no fire service deficiencies in this community, which has access to fire hydrants. Fresno County Fire Station No. 90 is located in the Community of Caruthers, approximately four miles to the southeast. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

*Service Deficits* – The Cornelia Avenue/Floral Avenue Community has no identified service deficits. Well and septic replacement activity does not indicate high rates of failure. No incidents of severe flooding or drainage issues have been observed by County staff and there is no evidence that fire protection resources are deficient for this community. As the area is not designated or zoned for future intensive growth opportunities, there is no anticipation that the community will observe additional strain on its existing, albeit limited infrastructure.





Intersection of Floral and Cornelia looking Southeast



Floral Avenue looking West from Cornelia





Floral Avenue looking West



Floral Avenue looking East, East of Cornelia Avenue





Cornelia Avenue looking South



Northeast Corner of Intersection of Rose and Cornelia

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West Rose Avenue looking East



### 11. CSA 30 COMMUNITY – EL PORVENIR

CSA 30 Community (El Porvenir) is located at the corner of Clarkson Avenue and Derrick Avenue and includes 61 parcels totaling approximately 29 acres. The area within the district is subdivided and largely built out (Witte, Fleming, & Hendricks, 2011).

The area is in Census Tract 83.02.

*Water* – CSA 30 currently purchases raw surface water from Westlands Water District, treats the water at its surface water treatment facility and then provides the water to its residents and three out-of-agency customers.



District facilities include two water treatment plants, distribution lines, a storage facility, and a backup well. The Fresno County Department of Public Works assumed direct operational responsibilities of the community water system in April 2010. California Water Services out of Coalinga had previously been under contract with the County to operate and maintain the water system. The two existing surface water treatment plants serve the community, one has been in existence for several years and one is new (Fresno County Department of Public Works & Planning, 2019d). They do not provide optimal Total Organic Carbon (TOC) reduction to help control Total Trihalomethanes (TTHM), which are a byproduct of the Contact Time (CT) of disinfectant chemicals with the raw surface water. The system was issued a Compliance Order from the California Department of Public Health (CDPH) due to TTHM violations on November 3, 2008. The County has instituted rate restructuring to generate funds to address deficiencies and received a planning and design grant from the State of California for a ground water supply system. Recent well testing for a new community well detected higher Manganese levels which will require treatment. The final developed well had tested Manganese levels of 0.309 mg/L, compared to a Maximum Contaminant Level of 0.050 (Provost and Pritchard, 2020). As of 2017, the County was awaiting a construction grant award from the State to construct a well water supply system (Witte, Fleming, & Hendricks, 2011; Provost & Prichard Consulting Group, 2017).

According to the 2017 Fresno County Westside Groundwater Project Technical Memorandum, CSA 30's water quality for both trihalomethanes (TTHM) and for Haloacetic Acids (HAA5) exceeds the state MCL standards. CSA 30 received compliance orders from the State Water Resources Control Board in 2014. The Fresno County Westside Groundwater Project is under way. Upcoming project related improvements include construction of a potable groundwater well, well site improvements, and water meter and valve replacements (Fresno County Department of Public Works & Planning, 2019d; Provost & Prichard Consulting Group, 2017).

*Wastewater* – County Service Area No. 30 provides Wastewater Services to this community. The District collects, treats and disposes of wastewater using an on-site package treatment plant. Its facilities include a wastewater collection system, treatment plant, and disposal ponds. The Fresno County Department of Public Works assumed direct operational responsibilities of the community water and sewer systems in April 2010. California Water Services out of Coalinga had previously been under contract with the County to operate and maintain the water and sewer systems. According to the 2011 County Service Area No. 30, MSR and SOI Update, the sewer infrastructure is sufficient to serve the current population. There are no reported changes



since the 2011 MSR (Witte, Fleming, & Hendricks, 2011; Fresno County Department of Public Works & Planning, 2019d).

Water and wastewater service are maintained through the County of Fresno's Department of Public Works and Planning as part of the County Service Area through oversight by the Department's Resources Division. The Department's website can be accessed here: <u>https://www.co.fresno.ca.us/departments/public-works-planning/</u>

**Drainage** – The El Porvenir subdivision (Tract No. 2057, 58 lots) is served by a community storm drain system comprised of curbs and gutters that discharge to Outlot A (0.44-acre parcel) of Tract No. 2057 (Witte, Fleming, & Hendricks, 2011). County staff from the Department of Public Works and Planning, Road Maintenance and Operations Division noted historical instances of flooding in some areas and has caused property owners to pump water from their driveways to avoid water reaching their residences (Fresno County Department of Public Works and Planning, 2020).

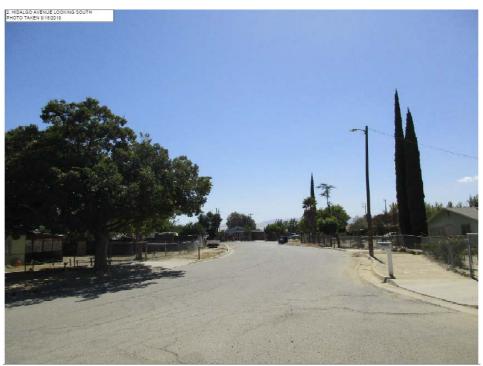
**Fire** – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no identified fire service deficiencies in this community, which has access to fire hydrants. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

**Service Deficits** – The Community of El Porvenir has no identified service deficits regarding wastewater or fire protection. Drainage problems have been noted in the area. Water quality issues associated with TTHM and HAA5 have been identified and Compliance Orders were received from the state in 2014. Additionally, high Manganese levels with the completion of a new production well have been detected. As stated above, a Westside Groundwater Project is in process which could provide improvements to the area. The area is not designated or zoned for future intensive growth opportunities, there is no anticipation that the community will observe additional strain on its existing infrastructure.





El Progresso Avenue looking West



Hidalgo Avenue looking South





Hidalgo Avenue looking East



Derrick Avenue looking North





El Progresso Avenue – March 26, 2020



El Progresso Avenue – March 26, 2020





Hildalgo Avenue – March 26, 2020



El Progresso near intersection with Hildalgo Avenue – March 26, 2020



## 12. CSA 32 COMMUNITY – CANTUA CREEK

CSA 32 Community, which is located within Cantua Creek at the intersection of South San Mateo Avenue and West Clarkson Avenue, includes 79 parcels totaling approximately 80 acres and includes 43 single-family residences and 30 mobile home sites. The area within the district is subdivided and largely built out. The District also provides "out of District" water service (Witte, Fleming, & Hendricks, 2011d).



The area is in Census Tract 82.

*Water* – CSA 32 currently purchases raw surface water from Westlands Water District, treats the water at its surface water treatment facility and then provides the water to its residents and out-of-agency customers. District facilities include a surface water treatment plant, distribution lines, a storage facility, and a backup well. The Fresno County Department of Public Works assumed operational responsibilities of the community water system in April 2010. California Water Services out of Coalinga had previously been under contract with the County to operate and maintain the water and sewer systems (Witte, Fleming, & Hendricks, 2011d; Fresno County Department of Public Works & Planning, 2019).

According to the 2017 Fresno County Westside Groundwater Project Technical Memorandum, CSA 32's water quality for both trihalomethanes (TTHM) and for Haloacetic Acids (HAA5) exceeds the state Maximum Contamination Levels (MCL) standards. Cantua Creek Vineyards IV has seen increasing arsenic concentrations, with 2014 and 2015 arsenic levels exceeding the MCL. Currently bottled water is being supplied to both CSA 32 and Cantua Creek Vineyards IV residents. Both CSA 32 and Cantua Creek Vineyard IV have received compliance orders from the State Water Resources Control Board, Division of Drinking Water and high levels of 1,2,3 Trichloropropane and Manganese have also been reported. Manganese levels at the 710 to 730-foot testing levels were 0.082 mg/L, and at the 940 to 960-foot testing levels were 0.056 mg/L (0.050 mg/L is the MCL). 1,2,3 Trichloropropane were detected to be 0.007 ug/L at the 940 to 960-foot levels (0.005 ug/L is the MCL). The Fresno County Westside Groundwater Project is underway. Upcoming project related improvements include construction of potable groundwater well, well site improvements, and water meter and valve replacements in CSA 32. In addition, consolidation of CSA 32 and Cantua Creek Vineyards IV is anticipated (Provost & Prichard Consulting Group, 2017; Provost & Prichard Consulting Group, 2020; Fresno County Department of Public Works & Planning, 2019).

*Wastewater* – Wastewater Services are provided to this area by County Service Area No. 32. The District collects, treats and disposes of wastewater using an on-site package treatment plant. District facilities include a wastewater collection system, treatment plant, and disposal ponds. The Fresno County Department of Public Works assumed operational responsibilities of the community sewer systems in April 2010. California Water Services out of Coalinga had previously been under contract with the County to operate and maintain the sewer systems. According to the 2011 County Service Area No. 32 MSR, there are no deficiencies in this area (Witte, Fleming, & Hendricks, 2011d).

Water and wastewater service are maintained through the County of Fresno's Department of Public Works and Planning as part of the County Service Area through oversight by the Department's Resources Division. The



Department's website can be accessed here: <u>https://www.co.fresno.ca.us/departments/public-works-planning/</u>

**Drainage** – CSA 32 has the latent power to provide storm drainage services within its boundaries. No incident of flooding was reported during the winter of 2018 – 2019 or during the spring of 2019, which experienced average rainfall in the Fresno area (Witte, Fleming, & Hendricks, 2011d). County staff from the Department of Public Works and Planning, Road Maintenance and Operations have noted instances of flooding in some areas which has caused property owners to pump water from their driveways to avoid water reaching their residences (Fresno County Department of Public Works and Planning, 2020).

*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no fire service deficiencies in this community, which has access to fire hydrants. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008). Cantua Creek had a volunteer fire station until the mid-1990s when it was decommissioned due to a lack of available volunteers (CalFire/FCFPD, 2020).

*Service Deficits* – The Cantua Creek Community has no identified service deficits regarding wastewater. Fire protection response times have likely increased with the decommissioning of the volunteer fire station. Water quality issues associated with TTHM and HAA5 have been identified and Compliance Orders were received from the state, and recent water quality testing for a new groundwater well project has determined high levels of 1,2,3 Trichloropropane and Manganese. Further, arsenic levels have exceeded MCL levels for Cantua Creeks Vineyards IV. As stated above, a Westside Groundwater Project is in process which could provide improvements to the area. The area is not designated or zoned for future intensive growth opportunities, there is no anticipation that the community will observe additional strain on its existing infrastructure. Drainage problems have been noted in the area.





Clarkson Avenue looking West



Santa Clara Avenue looking North





Latta Avenue looking West



Latta Avenue looking West





Terrado Avenue looking South



Corner of Santa Clara and Clarkson – March 26, 2020





S. Santa Clara Avenue – March 26, 2020



## 13. CSA 39 ZONE A COMMUNITY

The CSA 39 Zone A community consists of 52 parcels totaling approximately 19 acres and is served by County Service Area 39 Zone A for water (Fresno County Department of Public Works and Planning, 2019c).

The area is in Census Tract 19.

Water – CSA 39AB provides water services to this area by purchasing potable water from the City of Fresno. CSA No.
39 Zone A was formed in 1990 to provide potable water to two residential subdivision west of the City of Fresno (Fresno County Department of Public Works and Planning, 2019f). According to the 2011 County Service Area No. 39



MSR and SOI, the water infrastructure is sufficient to serve the current population (Witte, Fleming, & Hendricks, 2011e). There have been no reported changes since the 2011 MSR. Water infrastructure and meter service are maintained through the County of Fresno's Department of Public Works and Planning as part of the County Service Area through oversight by the Department's Resources Division (Fresno County Department of Public Works and Planning, 2019d). The Department's website can be accessed here: https://www.co.fresno.ca.us/departments/public-works-planning/

In March of 2016, the Board of Supervisors authorized the Department of Public Works and Planning to work with Self-Help Enterprises to apply to the United States Department of Agriculture (USDA) for an Emergency Community Water Assistance Grant on behalf of CSA 39AB. The grant was not awarded though as the USDA determined the application had insufficient justification for an emergency water situation (Fresno County Department of Public Works and Planning, 2019f).

On September 10, 2019 the Board of Supervisors approved resolution 19-343, which authorized the Department of Public Works and Planning to approve, execute and submit a Financial Assistance Application to the California State Water Resources Control Board for planning improvements consisting of additional connections to the water system. The grant, if approved, would provide \$500,000 in funding for planning and system design (Fresno County Department of Public Works and Planning, 2019f).

Advocacy groups have noted the existence households outside the CSA boundary which are served by private wells. According to these groups, homeowners on private wells have experienced high levels of nitrates and dropping groundwater levels. The County has acknowledged these areas are located outside the service area boundary of CSA 39 and that these residences do not receive potable water and are dependent on private wells. California Rural Legal Assistance (CRLA) has been active in representing community residents and has raised issues regarding a lack of access to potable water for unserved properties. CRLA has cited at least 10 homes that are not included in the CSA boundary and rely on private wells which either have contamination issues (nitrate or uranium) or depletion issues (Thompson, 2020). The County's grant application cited 20 residential connections and one institutional connection (church) as a potential expanded area to be served (Fresno County Department of Public Works and Planning, 2019f).



*Wastewater* – There is no community wastewater system in place for this community. Septic tanks are used by residents for wastewater disposal. Since 1996, there were four septic installations (Fresno County Department of Public Works and Planning, 2019a). In February of 2019, Public Works and Planning Staff met with community representatives and representatives from California Rural Legal Assistance to discuss options and opportunities for establishing a community wastewater treatment system to serve the community (Fresno County Department of Public Works and Planning, 2019g). Residents, with the assistance of California Rural Legal Assistance and Self-Help, have been seeking connection to the City of Fresno's wastewater treatment system (Thompson, 2020).

**Drainage** – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads. No incident of flooding was reported during the winter of 2018 – 2019 or during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019).

County staff conducted a community site visit on April 26, 2019. Staff noted no improvements on Muscat Avenue, Beran Way or Valentine Avenue. A follow-up site visit occurred on March 11, 2020 after a rain event. Photos provided by staff do show water pooling in various areas of the community, although most puddling is occurring off the paved roadway in the dirt shoulders, as would be expected for a rural roadway without curb, gutter and drainage basin infrastructure. County staff acknowledges that members have the community have expressed flooding concerns. Concerns expressed include barriers to pedestrian traffic and impacts to children waiting for school buses in flooded or puddling shoulders. Residents have stated that they must walk in the roadway to avoid flooded conditions, have expressed concerns regarding standing water and mosquitos, and the difficulty of avoiding flooded shoulders at night when walking in absence of street lighting (Thompson, 2020). It should be noted that several of these issues (street lighting as an example) go beyond the scope of analysis for SB 244.

*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. Although the area has access to fire hydrants, a report by Provost and Pritchard determined there is insufficient fire-flow in the water distribution system for existing connections (Provost & Prichard Consulting Group, 2019). The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

**Service Deficits** – The CSA 39 Zone A has service deficits related to fire flow with water service provided by the City of Fresno. Septic replacement activity does not indicate high rates of failure, but community members and representatives have expressed concerns about the continued reliance and septic systems and have sought to pursue a community wastewater treatment system. County staff acknowledges the presence of standing water on the shoulder and into some intersections after recent rain events. There is no evidence that fire protection resources are deficient for this community. A recent study examined the possibility of adding additional parcels to the CSA (Provost & Prichard Consulting Group, 2017; Fresno County Department of Public Works and Planning, 2019f), the area is not designated or zoned for future intensive growth opportunities, there is no anticipation that the community will observe additional strain on its existing infrastructure.





Muscat Avenue looking East – March 11, 2020



Muscat Avenue looking West





# Beran Way looking East



Beran Way looking East





Valentine Avenue looking North



Valentine Avenue looking North - March 11, 2020





Valentine Avenue looking South – March 11, 2020



#### 14. West Park (CSA 39 Zone B)

West Park is located on the southeast corner of the intersection of W. Church and South Valentine Avenues and is largely served by County Service Area 39 Zone B for water. This community consists of 111 parcels totaling approximately 51 acres.

The area is in Census Tract 19.

*Water* – CSA 39 Zone B provides water services to much of the area by purchasing potable water from the City of Fresno. CSA No. 39 Zone B was formed in 1990 to provide potable water to two residential subdivisions west of the City of Fresno (Fresno County Department of Public Works and Planning, 2019f).

According to the 2011 County Service Area No. 39 MSR and SOI Update, the water infrastructure is sufficient to serve the current



population (Witte, Fleming, & Hendricks, 2011e). There are no reported changes since the 2011 MSR (Fresno County Department of Public Works and Planning, 2019d).

Water infrastructure and meter service are maintained through the County of Fresno's Department of Public Works and Planning as part of the County Service Area through oversight by the Department's Resources Division. The Department's website can be accessed here: <u>https://www.co.fresno.ca.us/departments/public-works-planning/</u>

In March of 2016, the Board of Supervisors authorized the Department of Public Works and Planning to work with Self-Help Enterprises to apply to the United States Department of Agriculture (USDA) for an Emergency Community Water Assistance Grant on behalf of CSA 39AB. The grant was not awarded though as the USDA determined the application had insufficient justification for an emergency water situation (Fresno County Department of Public Works and Planning, 2019f).

On September 10, 2019 the Board of Supervisors approved resolution 19-343 with authorized the Department of Public Works and Planning to approve, execute and submit a Financial Assistance Application to the California State Water Resources Control Board for planning improvements consisting of additional connections to the water system. The grant, if approved, would provide \$500,000 in funding for planning and system design (Fresno County Department of Public Works and Planning, 2019f).

Advocacy groups have noted the existence households outside the CSA boundary which are served by private wells. According to these groups, homeowners on private wells have experienced high levels of nitrates and dropping groundwater levels. The County has acknowledged these areas are located outside the service area boundary of CSA 39 Zone B and that these residences do not receive potable water and are dependent on private wells. California Rural Legal Assistance (CRLA) has been active in representing community residents and has raised issues regarding a lack of access to potable water for unserved properties. CRLA has cited at least 10 homes that are not included in the CSA boundary and rely on private wells which either have contamination issues (nitrate or uranium) or depletion issues (Thompson, 2020). The County's grant application cited 20 residential connections and one institutional connection (church) as a potential expanded area to be served (Fresno County Department of Public



Works and Planning, 2019f).

*Wastewater* – There is no community wastewater system in place for this community. Septic tanks are used by residents for wastewater disposal. Since 1996 there were three septic repairs, three septic installations and one septic replacement (Fresno County Department of Public Works and Planning, 2019a). In February of 2019, Public Works and Planning Staff met with community representatives and representatives from California Rural Legal Assistance to discuss options and opportunities for establishing a community wastewater treatment system to serve the community (Fresno County Department of Public Works and Planning, 2019g). Residents, with the assistance of California Rural Legal Assistance and Self-Help, have been seeking connection to the City of Fresno's wastewater treatment system (Thompson, 2020).

**Drainage** – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads. No incident of flooding was reported during the winter of 2018 – 2019 or during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019).

County staff conducted a community site visit on April 26, 2019. Staff noted no improvements on Valentine or Prospect avenues and no noticeable areas of potential for standing water. A follow-up site visit occurred on March 11, 2020 after a rain event. Photos provided by staff do show water pooling in various areas of the community, although most puddling is occurring off the paved roadway in the dirt shoulders, as would be expected for a rural roadway without curb, gutter and drainage basin infrastructure. County staff acknowledges that members have the community have expressed flooding concerns. Concerns expressed include barriers to pedestrian traffic and impacts to children waiting for school buses in flooded or puddling shoulders. Residents have stated that they must walk in the roadway to avoid flooded conditions, have expressed concerns regarding standing water and mosquitos, and the difficulty of avoiding flooded shoulders at night when walking in absence of street lighting (Thompson, 2020). It should be noted that several of these issues (street lighting as an example) go beyond the scope of analysis for SB 244.

*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. Although access to fire hydrants exists, a report by Provost and Pritchard determined there is insufficient fireflow in the water distribution system for existing connections (Provost & Prichard Consulting Group, 2019). The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

Service Deficits – The CSA 39 Zone B West Park Community has service deficits related to fire flow with water service provided by the City of Fresno. Septic replacement activity does not indicate high rates of failure, but community members and representatives have expressed concerns about the continued reliance and septic systems and have sought to pursue a community wastewater treatment system. County staff acknowledges the presence of standing water on the shoulder and into some intersections after recent rain events. There is no evidence that fire protection resources are deficient for this community. A recent study examined the possibility of adding additional parcels to the CSA (Provost & Prichard Consulting Group, 2017; Fresno County Department of Public Works and Planning, 2019f), the area is not designated or zoned for future intensive growth



opportunities, there is no anticipation that the community will observe additional strain on its existing infrastructure.





Church Avenue looking West



Church Avenue looking West – March 11, 2020





## Church Avenue looking East



Church Avenue looking East – March 11, 2020





Grove Avenue looking East



Grove Avenue looking East





Prospect Avenue looking North – March 11, 2020



Jensen Avenue looking West





Jensen Avenue looking East



Jensen Avenue looking East – March 11, 2020





Valentine Avenue looking North



Valentine Avenue looking South





Prospect Avenue looking South



Prospect Avenue looking North - March 11, 2020



## 15. CSA 43 COMMUNITY – RAISIN CITY

CSA 43 in Raisin City is located south of West Manning Avenue, and along South Henderson Road and includes 75 parcels with 67 water connections, including a school, a park, and the Caruthers Easton Little League. The area is subdivided and largely built-out (Witte, Fleming, & Hendricks, 2011f).

The area is in Census Tract 76.

Water - Water is provided to this community by CSA 43.

The Fresno County Local Agency Formation Commission (LAFCo) authorized community water services in 2001 and a domestic water system was designed and completed. Beginning in 2006, the District started providing water from a community well that complies with State drinking water quality standards. This replaced water previously provided by



33 private wells, some of which contained contaminants exceeding drinking water quality standards. The Fresno County Department of Public Works maintains the community water system. According to the 2011 County Service Area No. 43 MSR and SOI, the water infrastructure is sufficient to serve the current population. There are no reported changes since the 2011 MSR (Witte, Fleming, & Hendricks, 2011f).

Water infrastructure and meter service are maintained through the County of Fresno's Department of Public Works and Planning as part of the County Service Area through oversight by the Department's Resources Division. The Department's website can be accessed here: <u>https://www.co.fresno.ca.us/departments/public-works-planning/</u>

*Wastewater* – There is no community wastewater system in place for this community. Septic tanks are used by residents for wastewater disposal. Since 1996, County records indicate there have been two septic repairs and three septic installations.

**Drainage** – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads. No incident of flooding was reported during the winter of 2018 – 2019 or during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019).

County staff conducted a community site visit on April 26, 2019. Staff did note the presence of sidewalks with portions of AC sidewalk and rolled curbs along the north side of Bowles Avenue, leading to school crosswalk. Remainder of community roads are very similar with no notable features or facilities as they relate to drainage and no other improvements were noted.

*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no fire service deficiencies in this community. One fire station is located within five miles of the CSA 43 (Raisin City) community. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The



Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

*Service Deficits* – The Raisin City Community has no identified service deficits. Septic replacement activity does not indicate high rates of failure and the existing water system was sized to serve connected residences. No incidents of severe flooding or drainage issues have been observed by County staff and there is no evidence that fire protection resources are deficient for this community. As the area is not designated or zoned for future intensive growth opportunities, there is no anticipation that the community will observe additional strain on its existing infrastructure.





Bowles Avenue looking West



Bowles Avenue looking East





Bowles Avenue looking West



Bowles Avenue looking West





Bryan Avenue looking South



Ring Avenue looking South





Myrtle Avenue looking East



Gladys Avenue looking East





Oleander Avenue looking North



Gains Avenue looking South





Ormus Avenue looking North



Ormus Avenue looking North at Henderson Transition





Fike Avenue looking West



Fike Avenue looking East





Hendrickson looking Southeast



Hendrickson looking Northwest



## 16. CSA 49 COMMUNITY – O'NEILL FARMS/WESTSIDE

CSA 49 is located along Fresno-Coalinga Road (State Route 145) from its intersection of W. Excelsior Avenue to the north to its intersection with W. Paige Avenue to the south. CSA 49 is distributed across five noncontiguous areas totaling 15 parcels with the District's service area comprising 42 residential units, four commercial operations, a day care center and the Westside Elementary School on approximately 93 acres. The area within the District is a farming community and built-out. No new growth is anticipated (Fey, Flemming, Uc, & Lara, 2016b).

The area is in Census Tract 78.02.

**Water** – Water is provided to this community by CSA 49. The District distributes water obtained from the Westlands Water District to customers within the



District. Funds for the installation of the surface water treatment facility and distribution system were obtained by an 80 percent grant/20 percent loan from the State Revolving Fund and Community Development Block Grant (CDBG) funds. District water infrastructure includes a surface water treatment facility and distribution system (Fey, Flemming, Uc, & Lara, 2016b).

According to the 2016 County Service Area No. 49 MSR and SOI, the water infrastructure is sufficient to serve the current population. The District disinfects raw surface water at a water treatment facility through injection of chlorine solution into the filtered water in accordance with State regulations for the disinfection of surface water intended for human consumption (Fey, Flemming, Uc, & Lara, 2016b).

Treated surface water regularly exceeds Maximum Contaminant Levels (MCL) for disinfection byproducts (DBP) in violation of the U.S. Environmental Protection Agency's Stage 1 Disinfectants/Disinfection By-Products Rule and the California Safe Drinking Water Act, and may subject CSA No. 49 to fines from SWRCB, if not addressed. During the preparation of this MSR, in April 2016, the Fresno County Board of Supervisors approved an agreement authorizing the Director of Public Works and Planning to pursue a planning grant up to \$500,000 from the State Water Resources Control Board, Drinking Water State Revolving Fund. The planning grant is intended to address various improvements to the District's surface water treatment facility needed to reduce the presence of DBP (Fey, Flemming, Uc, & Lara, 2016b).

Water infrastructure and meter service are maintained through the County of Fresno's Department of Public Works and Planning as part of the County Service Area through oversight by the Department's Resources Division. The Department's website can be accessed here: <u>https://www.co.fresno.ca.us/departments/public-works-planning/</u>

*Wastewater* – There is no community wastewater system in place for this community. Septic tanks are used by residents for wastewater disposal. There were two septic permits issued within the boundaries of the CSA. One permit was for a new septic system to replace an existing unit, and another permit was to replace a septic system



for an existing market.

**Drainage** – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads.

County staff conducted a community site visit on October 8, 2019. Staff noted no improvements on State Route 145 or W. Excelsior Avenue. On-site curb and gutter improvements do exist for the school, but drainage appears to be directed to surrounding agricultural parcels or unimproved road shoulder. Some roads and private drives lack paving.

*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no known fire service deficiencies in this community. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

*Service Deficits* – The O'Neill Farms/Westside Community has no identified service deficits regarding septic replacement activity with no high failure rates. No incidents of severe flooding or drainage issues have been observed by County staff. There is no evidence that fire protection resources are deficient for this community. As stated above, treated surface water regularly exceeds MCL's for DBP, and the County has approved pursing a state revolving grant fund to address water quality issues. The area is not designated or zoned for future intensive growth opportunities.





Northbound SR 145 – School Bus Facility to West



West Excelsior Avenue looking West





West Excelsior



West Excelsior Avenue looking South





West Excelsior Avenue looking West



Elementary School on West Excelsior Avenue





Looking North at Private Drive off West Excelsior Avenue



Private Drive off West Excelsior Avenue





West Excelsior Avenue East of State Route 145



West Excelsior Avenue East of State Route 145





Looking South State Route 145 from West Excelsior Avenue



## 17. DEL REY COMMUNITY

The Del Rey Community is located between East American Avenue to the north and East and Lincoln Avenue to the south and the community is located south of Sanger. Del Rey consists of 316 parcels totaling approximately 108 acres and is served by the Del Rey Community Services District (PMC, 2007a).

The area is in Census Tract 69.

*Water* – Water is provided to this area by the Del Rey Community Service District. It provides water services to a population of approximately 1,200 residents as well as commercial and industrial development. District infrastructure includes three pump houses that also store equipment, as well as water lines (PMC, 2007a).



According to the 2018 Engineer's Report the District has

prepared a scope and budget for wellhead treatment for TCP removal. The project includes all active wells (4, 6, and 7) and standby wells (3, 5). The State Water Resources Control Board, Division of Drinking Water has issued a Compliance Order due to TCP contamination at all the District wells. The District has also submitted a grant application to install water meters in the community (AECOM, 2018).

*Wastewater* – Wastewater services are provided to this community by the Del Rey Community Service District through a wastewater treatment plant.

District infrastructure includes a wastewater treatment plant, an equipment building, and related wastewater infrastructure. In 2007 an industrial wastewater treatment plant was constructed adjacent to the domestic wastewater treatment plant to treat wastewater from a raisin plant. The domestic plant would need to be upgraded if subdivision development occurred in the community. Future development will be required to finance any additional infrastructure necessary to provide it with required services (Fresno County Department of Public Works and Planning, 2019a). The District is in the process of acquiring land for the purpose of establishing a wastewater discharge area. The proposed wastewater discharge area is adjacent to an existing District wastewater treatment plant. The District plans to grow alfalfa or other row crops on the subject parcel, which would be irrigated with treated wastewater effluent, well water, and/or water from the Consolidated Irrigation District Canal. It proposes to exchange properties with POM Wonderful LLC. POM Wonderful wishes to expand east of their existing facility and is willing to trade their property located east of the wastewater treatment facilities for the two parcels owned by Del Rey Community Services District located south of the wastewater treatment facilities (Fresno County Department of Public Works and Planning, 2013).

According to the 2007 Del Rey Community Service District MSR, the sewer infrastructure is sufficient for the current population. The KBDAC Study, however, found that there is considerable risk of violation of wastewater treatment standards based on recent records. There are no reported changes since the 2007 MSR (Fresno County Department of Public Works and Planning, 2019a; California Department of Water Resources, 2013).



**Drainage** – Drainage services are provided to this area by the Del Rey Community Service District. According to the 2007 Del Rey Community Service District MSR, the stormwater infrastructure is sufficient for the current population. There are no reported changes since the 2007 MSR (PMC, 2007a).

The Del Rey Community Services District does not have a website. The District's contact information is listed as: 10649 E Morro Avenue, Del Rey, CA 93616/Phone: (559) 888-2272

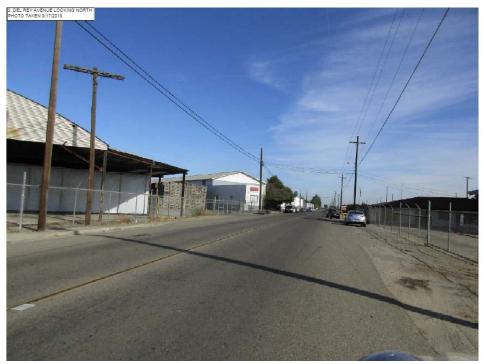
*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no fire service deficiencies in this community, which has access to fire hydrants. One fire station is located within one mile of the Del Rey community. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

**Service Deficits** – The Del Rey Community has no identified service deficits regarding drainage or fire protection. TCP contamination has been identified in specific community system wells, resulting in a compliance order from the state. The District engineer has prepared a report to study TCP removal. Well and septic replacement activity does not indicate high rates of failure. Prior MSR data indicated wastewater services were sufficient to serve the community, but more recent data released as part of the KBDAC Study stated risk of violation of wastewater treatment standards.



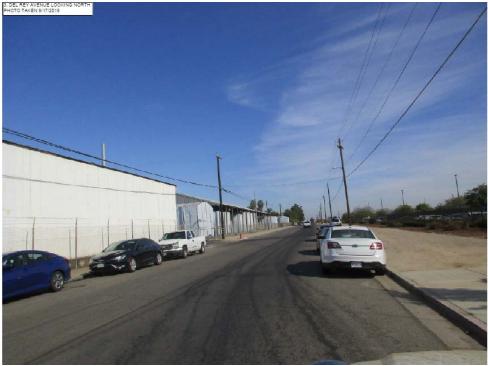


Portola Avenue looking Southeast



Del Rey Avenue looking North





Del Rey Avenue looking North



Morro Avenue looking Northeast





Morro Avenue looking Northeast



Jefferson Avenue looking West



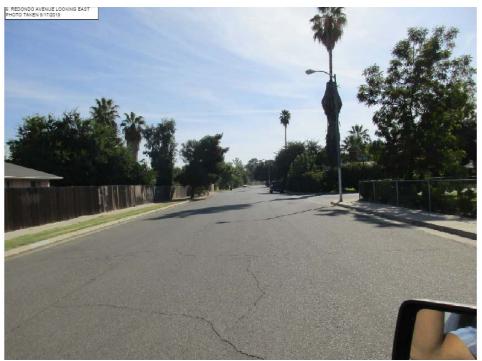


Jefferson Avenue looking West

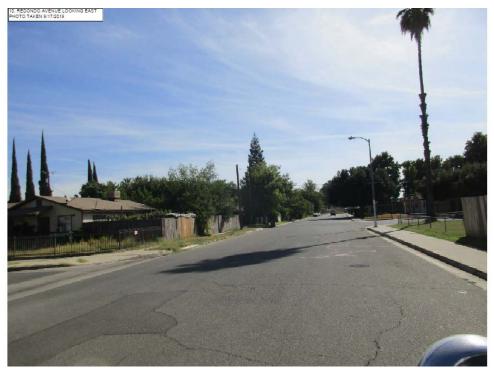


Autumn Avenue looking South





Redondo Avenue looking East



Redondo Avenue looking East



### 18. EAST ADAMS AVENUE COMMUNITY

The East Adams Avenue Community is located at the corner of East Adams and Navelencia Avenues and includes 18 parcels totaling approximately nine acres (Fresno County Department of Public Works and Planning, 2019c).

East Adams Avenue Community is not located within a census tract/block group unit that meets the MHI DUC threshold, but when applying the US Census ACS data Avenue, the community does meet the MHI DUC threshold. The US Census ACS five-year estimate reports indicate that Census Tract 63.00 - Block Group 4 had an MHI of \$47,639 between 2006 and 2010.

The area is in Census Tract 63.

*Water* – Private wells provide water to the residents of this community (Fresno County Department of Public Health, 2019).



*Wastewater* – There is no community wastewater system in place for this community. Septic tanks are used by residents for wastewater disposal. Since 1996 County records indicate there was one new septic installation and two septic repairs (Fresno County Department of Public Works and Planning, 2019a).

**Drainage** – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads. No incident of flooding was reported during the winter of 2018 – 2019 or during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019).

County staff conducted a community site visit on April 26, 2019. Staff noted no improvements along either Navelencia or East Adams avenues. No areas of potential standing water were noted.

*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no fire service deficiencies in this community. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

*Service Deficits* – The East Adams Avenue Community has no identified service deficits. Well and septic replacement activity does not indicate high rates of failure, and no incidents of severe flooding or drainage issues have been observed by County staff. There is no evidence that fire protection resources are deficient for this community, and as the area is not designated or zoned for future intensive growth opportunities, there is no anticipation that the community will observe additional strain on its existing, limited infrastructure.





Looking West down Adams Avenue from the Most Easterly Lot



Looking North up Navelencia Avenue



### 19. EASTON COMMUNITY

The Easton Community is located south of West American Avenue and East of South Walnut Avenue and includes 522 parcels totaling approximately 701 acres. The Easton Community Service District, which maintains a storm drainage basin within the Easton Village subdivision serves a population of 1,966. Maintenance includes clearing the basin of debris and maintaining the landscape to retain the basin's capacity for storm runoff (Witte, Fleming, & Hendricks, 2011g).

The Easton Community is not located within a census tract/block group unit that meets the MHI DUC threshold, but when applying the US Census ACS data, the community meets the MHI DUC threshold. The US Census ACS five-year estimate reports indicate that



Census Tract 18.00-Block Group 1 had an MHI of \$43,646 between 2006 and 2010.

The area is in Census Tract 18.

*Water* – Private wells provide water to the residents of this area except for a small privately-maintained community water system which serves an existing subdivision east of Cherry Avenue. The Easton Estates Water Company, established in 1979, serves 107 connections for an existing subdivision located adjacent to Cherry Avenue between Lincoln and Fantz (California Department of Water Resources, 2020). The high school and Washington Colony School are also connected by a small community water system (California Department of Water Resources, 2020b). For the remainder if the Easton Community, which is provided water from individual wells. According to the KBDAC Study, there are considerable drinking water concerns in Easton, namely coliform, dibromochloropropane (DBCP), and nitrate contamination (California Department of Water Resources, 2013). During the past ten years, there have been 75 permits for new wells, 10 well demolition permits, and two public/industrial well permits. There were also six monitoring well permits issued for a single parcel (Fresno County Department of Public Health, 2019).

The State of California Water Resources Control Board issued Washington Union High School (WUHS) Compliance Order No. 03\_23\_090\_005 in 2009 for non-compliance with the dibromochloropropane (DBCP) maximum contaminant level (MCL) in Well 03. The Water Resources Board issued Compliance Order No. 03\_23\_13R\_014 in 2013 for non-compliance with the Gross Alpha MCL in Well 01. WUHS installed Point of Entry Reverse Osmosis treatment in 2015 as a temporary measure to mitigate the violation until a permanent longterm solution was identified. The state issued Citation No. 03\_23\_18C\_061 in 2018 for non-compliance with 1,2,3-Trichloropropane (1,2,3-TCP) MCL in Well 01 and Well 02.

In 2012 Washington Union School District (WUSD) received a grant for a Proposition 84 planning project to investigate drilling a new well, installing treatment, blending of water sources, and consolidation. WUSD evaluated costs and long-term feasibility. WUSD decided to consolidate with Washington Colony School (WCS), which is located approximately 600 feet east of Washington Union High School (WUHS). In 2000, WCS



constructed a well that produced reliable, potable water meeting all primary drinking water standards.

In 2016, WUSD executed a Proposition 1 construction funding agreement for \$3,015,600. The construction project consisted of drilling a new well at WUHS, installing a pipeline connecting the two schools, and creating a joint-powers agreement (JPA) having the authority and responsibility to manage the ongoing operations and maintenance of the newly formed non-transient non-community water system. The new well would serve as the primary water source and the existing well at WCS would be a secondary source. The JPA board is comprised of members from each school district as well as one community member. In June of 2019 WUHS and WUSD returned to compliance when Well 01, Well 02, and Well 03 were physically disconnected from the drinking water system. Well 02 will still be in use solely for irrigation purposes. The JPA may eventually extend service to nearby private homes and businesses located along the alignment of the distribution main installed to connect both schools. This could occur after one year of production data has been collected (California Department of Water Resources, 2020b).

*Wastewater* – There is no community wastewater system in place for this community. Septic tanks are used by residents for wastewater disposal. A search of historical septic permit records for the area indicated two new septic system permits, three permits for replacements, ten permits for repairs, six permits for inspections and two septic demolition permits (Fresno County Department of Public Works and Planning, 2019a).

**Drainage** – The Easton Community Service District maintains storm drain inlets along the community's Elm Avenue commercial center and along Lincoln Avenue in proximity to churches and schools. Additionally, the Easton Village subdivision (Tract No. 1826, 53 lots) and the Easton Village No. 2 subdivision (Tract No. 2284, 44 lots) are served by a community storm drain system comprised of curbs, gutters and storm drain basin maintained by the Easton Community Service District. According to the 2011 Easton Community Service District MSR and SOI Update, the stormwater facility is sufficient for the current population. There have not been any reported changes since the 2011 MSR (Witte, Fleming, & Hendricks, 2011g). One complaint of flooding was reported in this community during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019).

County staff conducted a site visit on May 8, 2019. Staff noted noticeable areas of erosion and standing water east of State Route 41, and the presence of two curb inlets on the north and south side of Fantz Avenue, just east of Cherry Avenue. Tract 1826 has concrete curb, gutters, valley gutters and 4-foot sidewalks serviced by a storm basin maintained by Easton Community Service District on northerly end of the subdivision. West of State Route 41 there were also areas of erosion and standing water observed. Staff noted storm drain facilities fronting schools, churches and commercially developed lots along Lincoln and Elm avenues.

The Easton Community Service District does not have a website. The District's contact information is listed as 5783 S. Elm Avenue, Fresno, CA 93706 /Phone: (559) 443-1754.

**Fire** – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no fire service deficiencies in this community, some of which has access to fire hydrants. One fire station is located within the Easton community. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at



least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

**Service Deficits** – As identified in the KBDAC Study Easton continues to have drinking water concerns associated with DBCP and nitrate contamination, also as stated above, there have been 75 permits for new wells and six monitoring well permits issued during the past 10 years. There is the possibility that improvements could benefit nearby residences if connection to the water line serving the schools occurs, although the larger community will still be dependent on individual wells. There is no community wastewater system for this community, but septic permit activity has been relatively minimal for an area of this size. Residents acknowledged at a community meeting on March 10, 2020 that a lack of sewer and community water system will severely limit the community's ability to grow and accommodate additional housing. The Easton CSD maintains storm drain inlets for certain areas of the community, and the 2011 Easton CSD MSR did not indicate any drainage or flooding service concerns. There was only one complaint of flooding was reported in the community during the spring of 2019. There are no reports of fire service concerns for the community.





Typical Residential Road looking North



Typical Valley Gutter looking South





One of two Curb Inlets looking West



Stormwater Basin for Tract 1826 looking West





Primary Basin looking Southwest



Primary Basin looking Northwest





Lincoln Avenue looking East



Lincoln Avenue looking West





Elm Avenue looking North



Elm Avenue looking South





Typical Un-serviced Road looking North



Typical Un-serviced road looking West



### 20. FIVE POINTS COMMUNITY

The Five Points community is located at the intersection of West Mount Whitney Avenue and Lassen Avenue (SR 269) and includes three parcels totaling approximately 16 acres (Fresno County Department of Public Works and Planning, 2019c).

The area is in Census Tracts 82.00/78.02.

**Water** – The Britz/Five Points System (CA1009179) serves 23 connections including 13 residential connections in the area. The system serves a population of 76 and treats raw water from the California Aqueduct. Between 2010 and 2016 the State of California Water Resources Control Board issued nine violation notices to the Britz/Five Points system for monitoring



violations including MCL. All violations have been resolved with state compliance achieved (California Department of Water Resources, 2020). Private wells provide water other areas of this community. During the past ten years, there were permits for the demolition of one apartment building that included two wells and septic systems (Fresno County Department of Public Health, 2019).

*Wastewater* – There is no community wastewater system in place for this community. Septic tanks are used by residents for wastewater disposal. See above regarding septic permitting activity (Fresno County Department of Public Works and Planning, 2019a).

**Drainage** – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads. No incident of flooding was reported during the winter of 2018 – 2019 or during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019).

County staff conducted a site visit to the area on April 30, 2019. On Lassen Avenue, undeveloped drainage swales were noted. Minor/small portions of swales in front of developed lots with portions of concrete valley gutters to the east to direct runoff south away from several buildings. Dirt/gravel approach to the east to enter residential community. Along Mount Whitney Avenue there were no drainage swales noted.

**Fire** – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no fire service deficiencies in this community, which has access to fire hydrants. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

*Service Deficits* – The Five Points Community has no identified service deficits. The Five Point System has no recent reported violations, well and septic replacement activity does not indicate high rates of failure, and no



incidents of severe flooding or drainage issues have been observed by County staff. There is no evidence that fire protection resources are deficient for this community, and as the area is not designated or zoned for future intensive growth opportunities, there is no anticipation that the community will observe additional strain on its existing, limited infrastructure.



Lassen Avenue looking North





Lassen Avenue looking North



Lassen Avenue looking South





Lassen Avenue looking North



Mount Whitney Avenue looking East





Mount Whitney Avenue looking West



Northerly Road looking East





Southwesterly Road looking Southeast



Easterly Road looking South





Southwesterly Road looking Northwest



#### 21. FLAMINGO MOBILE HOME COMMUNITY

The Flamingo Mobile Home Community is located on East Central Avenue between South Maple Avenue and Highway 99 and includes one parcel totaling approximately nine acres.

The area is in Census Tract 15.

*Water* – Water service is provided by Malaga County Water District (MCWD) via three groundwater wells. MCWD delivers approximately 1500 acre-feet of water per year. Water usage is about 20% residential and 80% commercial/industrial (PMC,



2007d). According to a letter from MCWD dated March 13, 2018, the District has improved its water treatment facility and delivers very high-quality drinking water without harmful levels of contaminants (I.e. arsenic and nitrates) often found in central valley water supplies (Malaga County Water District, 2018).

MCWD's website is <a href="http://www.malagacwd.org/">http://www.malagacwd.org/</a>

New residential water meters are being installed in 2018 for all residential and commercial/industrial customers. This water meter system (AMR- Automated Meter Reading) operates by cellular signal and allows MCWD to effectively monitor system and individual accounts for leaks and usage in real time. MCWD owns and operates 80 fire hydrants for community fire protection. The District has plans for a fire hydrant upgrade project in FY 2019-2020 (PMC, 2007d).

*Wastewater* – Sewer services are provided to this community by the Malaga County Water District through a wastewater treatment plant. According to the 2007 Malaga Community Service District MSR and SOI Update, the wastewater infrastructure is sufficient to serve the current population (PMC, 2007d; Central Valley Regional Water Quality Control Board, 2014).

**Drainage** – There is no community storm drain system in place for this community. However, this community is located within Fresno Metropolitan Flood Control District (FMFCD) Drainage Zone AY. No incident of flooding was reported during the winter of 2018 – 2019 or during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019).

County staff conducted a site visit to the area on May 1, 2019. This mobile home park consists of all AC and concrete. Staff noted no street (row) names or numbers, but some rows have a small concrete path that could be considered sidewalk. No visible drainage system appeared present.

*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no fire service deficiencies in this community, which has access to fire hydrants. One fire station is located within three miles of the Flamingo Mobile Home community. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water



tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

*Service Deficits* – The Flamingo Mobile Home Community has no identified service deficits. The Community receives water and sewer services from the MCWD. There is no evidence that fire protection resources are deficient for this community and no flooding or drainage issues are noted.



#1 Looking South from Central





# #2 looking East



# #3 looking North

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# #4 looking North



#5 looking North





# #6 looking North



# #7 looking West





Looking West – March 26, 2020



#### 22. HAYES ROAD COMMUNITY/PERRIN COLONY

The Hayes Road Community is located at the corner of Hayes Road and Parlier Avenue and includes 42 parcels totaling approximately 54 acres (Fresno County Department of Public Works and Planning, 2019c).

The area is in Census Tract 76.

*Water* – Private wells provide water to the residents of this area. During the past ten years, there have been five well permits issued and electrical permits issued for wells on two additional properties (Fresno County Department of Public Health, 2019).



*Wastewater* – There is no community wastewater system in place for this community. Septic tanks are used by residents of this community for wastewater disposal.

Regarding septic systems, there were three installations, one connection to an existing septic system, two septic inspections and one demolition of an existing single-family residence in which the septic system was permitted to remain during the past ten years (Fresno County Department of Public Works and Planning, 2019a).

**Drainage** – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads. No incident of flooding was reported during the winter of 2018 – 2019 or during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019).

County staff conducted a site visit to the area on April 26, 2019. No developed or undeveloped drainage features were noted by staff. On Hayes Avenue, staff observed agricultural land to the west and driveway/dirt road access to the East. On Parlier Avenue there was property access to the north, agricultural land to the south. The unnamed dirt/gravel roads were observed to be in poor condition (very rough and uneven). Many potholes/low areas filled with gravel. There were several speed bumps intact on the easterly road.

**Fire** – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no fire service deficiencies in this community. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

*Service Deficits* – The Hayes Road Community has no identified service deficits related to well and septic systems. Well and septic replacement activity does not indicate high rates of failure, and no incidents of severe flooding or drainage issues have been observed by County staff. Poor paving conditions of the private roads



were identified. There is no evidence that fire protection resources are deficient for this community, and as the area is not designated or zoned for future intensive growth opportunities, there is no anticipation that the community will observe additional strain on its existing, limited infrastructure.





Hayes Avenue looking South



Hayes Avenue/Northerly Road looking North





Parlier Avenue looking East



Parlier Avenue looking East





Northerly Road looking East



Northerly Road looking East





Easterly Road Speed Bump looking North



Easterly Road looking South





Middle Road looking West



# 23. HUGHES AVENUE/MAGNOLIA AVENUE COMMUNITY

The Hughes Avenue/Magnolia Avenue Community is located south of the intersection of S. Hughes Road and W. Magnolia Avenue. This community consists of 30 parcels totaling approximately 40 acres (Fresno County Department of Public Works and Planning, 2019c).

The area is in Census Tract 75.

*Water* – Private wells provide water to the residents of this community. During the past ten years, there has been only one well permit for a new well. That permit is noted as pending (Fresno County Department of Public Health, 2019).

*Wastewater* – There is no community wastewater system in



place for this community. Septic tanks are used by residents for wastewater disposal. No septic permitting was noted during the past ten years (Fresno County Department of Public Works and Planning, 2019a).

**Drainage** – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads. No incident of flooding was reported during the winter of 2018 – 2019 or during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019).

County staff conducted a site visit to the area on April 30, 2019. No developed or undeveloped drainage features were noted by staff on Hughes or Magnolia avenues with lower field area for crops to the west of road, driveway access for lots on east and west side of road for Hughes and lower field area for crops to the north of road, driveway access for lots on north and south side of road for Magnolia.

*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no fire service deficiencies in this community. One fire station is located within three miles of the Hughes Avenue/Magnolia Avenue community. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

*Service Deficits* – The Hughes Avenue/Magnolia Avenue Community has no identified service deficits. Well and septic replacement activity does not indicate high rates of failure. No incidents of severe flooding or drainage issues have been observed by County staff and there is no evidence that fire protection resources are deficient for this community. As the area is not designated or zoned for future intensive growth opportunities, there is no anticipation that the community will observe additional strain on its exiting, albeit limited infrastructure.





# Hughes Avenue looking South



Hughes Avenue looking South





Magnolia Avenue looking East



Magnolia Avenue looking East



# 24. LANARE COMMUNITY

The Lanare Community is located near the intersection of South Grantland Avenue and Mount Whitney Avenue located a few miles west of Riverdale and approximately 25 miles southwest of the city of Fresno. It is served by the Lanare Community Service District (CSD) which provides water service in the community of Lanare. The community encompasses approximately 346 acres (PMC, 2007c).

The area is in Census Tract 77.

*Water* – The Lanare Community Service District (Lanare CSD) provides water to this area through two wells, water filtrations system, and distribution system (PMC, 2007c).



The District has approximately 149 water service connections including residential and commercial. Water service is provided to a few connections outside of the District's boundary. The District's current water supply facilities include two wells, a water filtration system, and a distribution system. The District estimates its average daily water production is 156,000 gallons, which equates to up to 56,940,000 gallons annually. Maximum daily demand is estimated to be 312,000 gallons per day. The District estimates the water system can produce approximately 300 gallons per minute. The existing system's production capacity is satisfactory for the District's current water supply needs (PMC, 2007c).

The District's newest well is connected to a water filtration system that was installed at the beginning of 2007. The primary purpose of the filtration system is to ensure the District can meet federal arsenic standards of less than 10 parts per billion (ppb). When operating, this filtration system allows the District to comply with this standard, among others. The filtration system is not being used at this time because the limited number of water users, at the current service rates, cannot support the filtration system's significant operational costs. Without filtration arsenic levels are above 10 ppb but are below the previous federal standard of 50 ppb (PMC, 2007c). The Community Services District received several state violation notifications since 2007, particularly regarding exceeding MCLs for arsenic, although the District also received coliform monitoring violations as late as 2011 (California Department of Water Resources, 2020). Six months after being placed on-line, the water treatment plant was idled due to the District's inability to fund operating costs. The community continues to have unfiltered drinking water (Romero and Klein, 2017).

The District is currently supplying water through use of its oldest well, which the District states is not adequate to supply the community 24 hours a day, seven days a week, for an indefinite period. According to the District's 2007 Municipal Services Review, the District was in the process of installing a bypass system so that its newest well can supply water for the community without first being filtered (PMC, 2007c). As of 2017, Lanare CSD's public water treatment system was in court-ordered receivership because of concerns for the technical, managerial, and financial (TMF) capacity of the CSD. In addition, the 2013 Kings Basin Water Authority Disadvantaged Community (KBDAC) Study noted that the arsenic levels in Lanare's drinking water exceeded acceptable standards (California Department of Water Resources, 2013).

According to CA Bond Accountability Reports, Lanare CSD received grant funding in 2014 for a feasibility study to



evaluate an alternative to consolidate with Riverdale Public Utility District. In 2015, Tito Balling in conjunction with the Lanare CSD received a Prop. 84, Small Community Infrastructure Improvements Program Grant of \$3.42 million for arsenic remediation of the existing treatment plant. The grant-funded project is for the installation of two new water wells and to reactivate the existing arsenic treatment plant. As part of the reactivation of the plant, additional onsite supplies and equipment will need to be replaced, including pumps hoses, injectors, filters, and tanks. To achieve a sustainable plant once operational, a separate USDA grant was awarded for the installation of water meters and the establishment of a tiered rate system to guarantee sufficient income to run the plant (California Natural Resource Agency, 2017).

The Lanare Community Service District does not have a website. The District's contact information for the Community Center is listed as 20620 S Grantland Ave, Riverdale, CA 93656/Phone: (559) 867-3469. Water Services are provided by California Water Services with contact information listed as 700 W Elm Ave, Coalinga, CA 93210/ Phone: (559) 935-2300.

*Wastewater* – Lanare does not have a community wastewater collection and treatment system Septic systems are used by residents for wastewater disposal. The 2015 LAFCo report documented wastewater problems in Lanare. These findings corroborated the 2013 KBDAC Study, which concluded that the lack of a wastewater collection and treatment system was the community's highest priority. Both reports cited connection with the Riverdale Public Utility District system as a potential solution (California Department of Water Resources, 2013). According to County records, since 1996 there were four septic installations, two replacements and one septic repair.

**Drainage** – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads. No incident of flooding was reported during the winter of 2018 – 2019 or during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019).

*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no fire service deficiencies in this community, which has access to fire hydrants. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008). The Fire District has an automatic aid agreement with Riverdale's fire department and with Kings County, which benefits Lanare. The community also had pressurized water system hydrant improvements installed in the past 10 years (CalFire/FCFPD, 2020).

Service Deficits – As identified above, the Lanare CSD water treatment system was in court-ordered receivership because of District TMF concerns and its water filtration system has been off-line due to operating costs that exceed the District's budget. Further, the 2013 KBDAC Study noted high drinking water arsenic levels. The CSD has pursued grant funding both from the state and USDA to address some of the District's drinking water issues. Wastewater treatment issues have also been identified in the community. The area is currently only served by individual septic systems. Connection to the Riverdale PUD has been one possible approach to address this problem. The community does not have storm drainage infrastructure, and a lack of such infrastructure has been identified as a problem for the community by organizations active in the community. As stated above, the



Department of Public Works and planning received no reports of flooding at or near the time of the alleged flooding during 2018-19. However, the Leadership Counsel for Justice and Accountability has reported continued flooding problems occurring in the community, in a letter dated March 13, 2020 (Martinez, 2020).



Mount Whitney from Garfield looking East – March 26, 2020





Grantland Avenue looking North

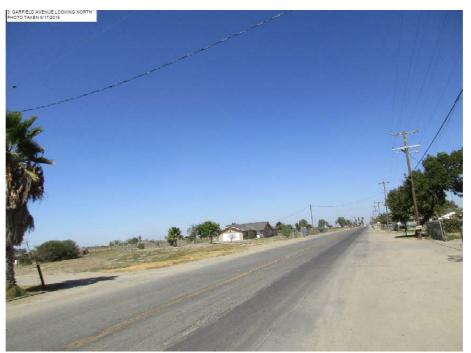


Grantland Avenue looking North – March 26, 2020





Mount Whitney Avenue looking West



Garfield Avenue looking North





Garfield Avenue looking North – March 26, 2020



Chateau-Fresno Avenue looking North



# 25. LATON COMMUNITY

The Laton Community is located near the intersection of South Fowler Avenue and Murphy Avenue in the southcentral portion of Fresno County adjacent to the Kings River. The District's boundaries contain about 500 acres with an approximate population of 1,230. During harvest season (August through September), the District's population increases to 1,600 (Witte, Fleming, & Hendricks, 2011b).

The area is in Census Tract 74.

*Water* – Water is provided to this community by the Laton



Community Service District (Laton CSD) through two groundwater wells and a water distribution system. According to the 2011 Laton CSD Municipal Service Review (MSR) and Sphere of Influence (SOI) Update, the water infrastructure is sufficient for current populations. According to the KBDAC Study, there are no water quality issues in Laton. There are no reported changes since the 2011 MSR. The District currently has 461 connections for water and wastewater service, with 410 of the connections being for single family residential uses. Additional groundwater wells needed for future development will be constructed on sites located within the new developments. The well sites will be determined as development occurs 600 (Witte, Fleming, & Hendricks, 2011b).

*Wastewater* – Wastewater system services are provided to this community by the Laton CSD through a wastewater collection and treatment system. The District currently owns and operates the wastewater collection and treatment system, which consists of sewer mains, pumps, and a treatment plant. The treatment plant is operating at approximately two-thirds of its design capacity and is expected to be able to serve anticipated growth. The current permitted treatment capacity is 200,000 gallons per day (gpd). There are 461 connections for wastewater service, of which 410 are for single family residential uses. According to the 2011 Laton CSD MSR and SOI Update, the sewer infrastructure is sufficient for current populations 600 (Witte, Fleming, & Hendricks, 2011b). The KBDAC Study, however, noted that there are some concerns related to infiltration in Laton (California Department of Water Resources, 2013). There are no reported changes since the 2011 MSR.

Drainage – The Adams Manor subdivision (Tract No. 3608, 48 lots) and the Adams Manor No. 2 subdivision (Tract No. 4025, 42 lots) are served by a community storm drain system comprised of curbs and gutters.
 Otherwise, unpaved road shoulders absorb runoff from paved roads (California Department of Water Resources, 2013). No incident of flooding was reported during the winter of 2018 – 2019 or during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019).

*Fire* – Fire protection services are provided to this community by the Laton CSD. There are no fire service deficiencies in this community. The Laton Volunteer Fire Department provides basic fire protection services to the community. In support of the volunteer firefighters, the Laton CSD maintains a fire station, fire engines and related equipment. The CSD's volunteer fire department has Mutual Aid Agreements with Kings County Fire Department and the Fresno County Fire Protection District to provide additional fire protection services 600



(Witte, Fleming, & Hendricks, 2011b).

The Laton Community Service District does not have a website. The District's contact information is listed as 6501 E. Latonia Street, Laton, CA 93242/Phone: (559) 923-4802.

*Service Deficits* – The Laton Community has no identified service deficits related to potable water provided through the CSD. As stated above, the KBDAC Study noted some concerns concerning infiltration as it relates to wastewater. No service deficits related to stormwater drainage, flooding or fire protection were noted.





Fowler Avenue looking Southeast



De Woody Street looking Northeast





# Castro Avenue looking Northwest

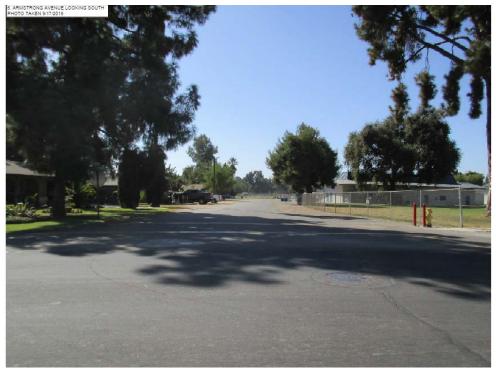


Murphy Avenue looking Northeast





De Woody Street looking West



Armstrong Avenue looking South





# Bliss Avenue looking North



Gonser Street looking Southeast





Latonia Street looking Southwest



Dennis Avenue looking North





Mount Whitney Avenue looking East



#### **26. LOST HILLS COMMUNITY**

The Lost Hills Community is located at along State Route 33 (Lost Hills Road) approximately 12 miles southeast of the City of Coalinga and approximately one-mile northwest of the Kings County Line. The community includes 172 parcels totaling approximately 162 acres (Fresno County Department of Public Works and Planning, 2019c).

The area is in Census Tract 78.01.

Water – Private wells provide water to the residents of this



community. During the past ten years, there have been one well permit and well yield test for a property preparing to install a mobile home (Fresno County Department of Public Health, 2019).

Wastewater – There is no community wastewater system in place for this community. Septic tanks are used by residents for wastewater disposal. During the past ten years one permit for a test hole and new septic system were issued for a single parcel (Fresno County Department of Public Works and Planning, 2019a).

Drainage – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads. County staff conducted a community site visit on October 8, 2019. Staff noted no improvements on in the community and all private drives unpaved or gravel. The sole improved access to the community is from State Route 33 (Lost Hills Road).

*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no known fire service deficiencies in this community. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

*Service Deficits* – The Lost Hills Community has no identified service deficits for its very limited infrastructure. The community's private roads are unpaved but there is no evidence of severe flooding or recent flooding incident reports. Well and septic replacement activity does not indicate high rates of failure. There is also no evidence that fire protection resources are deficient for this community. As the area is not designated or zoned for future intensive growth opportunities, there is no anticipation that the community will observe additional strain on its limited and exiting infrastructure. Lost Hills benefits from being in proximity to a Cal Fire station at 25600 W. Jayne Avenue approximately nine miles to the northwest. There is also an automatic aid agreement with Pleasant Valley State Prison which has a fire truck (CalFire/FCFPD, 2020).





Looking Northwest at State Route 33 from private drive



Typical private drive looking East





Typical Private Drive and Residences looking East



Private Drive and Residence





#### Private Drive and Residences



Private Drive and Residences

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# 27. MADERA AVENUE COMMUNITY

The Madera Avenue Community is located on Madera Avenue between North and Jensen Avenues. The community consists of 27 parcels totaling approximately 22 acres (Fresno County Department of Public Works and Planning, 2019c). The area is in Census Tract 39.

*Water* – Water is provided to this community by the City of Kerman although, according to the City of Kerman's Public Works Department, several parcels have chosen not to connect and are served by private wells (K. Moore, 2019).

*Wastewater* – There is no community wastewater system in place for this community. Septic tanks are used by residents of this community for wastewater disposal (Fresno County Department of Public Works and Planning, 2019a).



**Drainage** – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads. No incident of flooding was reported during the winter of 2018 – 2019 or during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019).

County staff conducted a site visit on April 30, 2019. Developed drainage swales were noted on Madera Avenue. Agricultural land is located to the west, and a minor AC swale/trenched utility area along market parking lot to the east. Date Avenue contained no developed or undeveloped drainage swales or other infrastructure and lot access to the north and south.

*Fire* – Fire protection services are provided to this community by the North Central Fire Protection District with no identified fire service deficiencies. The community has access to fire hydrants. The North Central Fire Protection District provides a full range of emergency (fire prevention, fire suppression, emergency medical care, hazardous materials response, search and rescue response, emergency preparedness planning, and public education). The District's current model of service is an enhanced level of service provided through staffing four fire stations with a total of 15 on-duty firefighters/EMTs. A station is located 2.7 miles from this community, allowing a six-minute response time, and is equipped with one front line fire engine with pump capacity of 1,500 gpm and a 750-gallon water tank, one reserve fire engine with pump capacity of 1,250 gpm and a 750-gallon water tank, one ladder truck (105-foot ladder) with pump capacity of 1,500 gpm and a 300 gallon water tank, and one water tender with a pump capacity of 1,250 gpm and a 3,000-gallon water tank (Fey, Flemming, Uc, & Lara, 2016a; North Central Fire Protection District, 2019; United States Census Bureau, 2019).

*Service Deficits* – The Madera Avenue Community has no identified service deficits. However, staff acknowledges that several properties have chosen not to connect to the City of Kerman water system (K. Moore, 2019) (Chauhan, NKGSA, 2020). There are no records of high incidents of septic failure in the community, no incidents of severe flooding or drainage issues have been observed by County staff. There is no evidence that fire protection resources are deficient for this community. The area is not designated for future intensive



growth opportunities and there is no anticipation that the community will observe additional strain on its existing infrastructure.



Madera Avenue looking South



Madera Avenue looking North





Date Avenue looking West



Date Avenue looking East





Date Avenue looking East



# 28. MALAGA COMMUNITY

The Malaga Community is located at the southeast corner of Muscat Avenue and Chestnut Avenue and includes 232 parcels totaling approximately 72 acres. The Malaga County Water District (MCWD) provides water and wastewater services to the residents of the unincorporated Community. Fresno Metropolitan Flood Control District provides drainage services to the Community. MCWD serves an area adjacent to and overlapping with the southern edge of the City of Fresno's boundaries. The District's northern boundary is roughly along East North Avenue; the western boundary is roughly along the railroad running from north to south between the Maple and Cedar Avenue alignments; the eastern boundary runs along South Minnewawa Avenue; and the southern boundary runs along East American Avenue (Fresno County Department of Public Works and Planning, 2019c; PMC, 2007d).



The area is in Census Tract 15.

*Water* – Water service is provided by MCWD via three groundwater wells. MCWD delivers approximately 1,500 acre-feet of water per year. Water usage is about 20% residential and 80% commercial/industrial. MCWD owns its water distribution system and provides water services to both residential and business customers. The District has two active wells, two inactive wells, and two wells designated as "standby". The District is presently constructing water system upgrades that would enable standby power at Well 7. The District recently completed construction of a water main in North Avenue between Chestnut and Willow Avenues. The District is also planning for a new well west of State Route 99 (SR 99). District staff has stated that its infrastructure is currently acceptable to provide said services, however, future demands are unknown and may require infrastructure improvements or upgrades beyond those already planned (PMC, 2007d).

According to a letter from MCWD dated March 13, 2018, the District has improved its water treatment facility and delivers very high-quality drinking water without harmful levels of contaminants (i.e. arsenic and nitrates) often found in central valley water supplies. New residential water meters are being installed in 2018 for all residential and commercial/industrial customers. This water meter system (AMR- Automated Meter Reading) operates by cellular signal and allows MCWD to effectively monitor system and individual accounts for leaks and usage in real time. MCWD owns and operates 80 fire hydrants for community fire protection. The District has plans for a fire hydrant upgrade project in FY 2019-2020 (Malaga County Water District, 2018).

*Wastewater* – Wastewater service is provided to the Malaga community by a wastewater treatment facility (WWTF) owned and operated by MCWD. Daily flow to the WWTF averages 600,000 gallons per day. The WWTF also includes three lift stations, sewer lines, disposal ponds, and two buildings. The reported design treatment and disposal capacity of the wastewater treatment facility (WWTF) is 1.2 million gallons per day. The District is authorized to discharge up to 0.45 million gallons per day of disinfected tertiary-treated wastewater to Central Canal, which is connected to Fresno Slough and flows into the San Joaquin River. Secondary-treated wastewater is discharged to onside disposal ponds. Due largely to deferred maintenance, the actual treatment and disposal



capacity of the WWTF is considerably less than authorized by permit (2008; PMC, 2007d; Central Valley Regional Water Quality Control Board, 2014; Fresno County, 2008).

The WWTF performs primary and secondary treatment that allows plant effluent to be used for groundwater recharge through eight percolation ponds on site at the WWTF. The Malaga WWTF produces a very high-quality effluent by its treatment processes. MCWD has no history of violating its treated wastewater discharge permit requirements. MCWD is currently investigating the feasibility to further modernize its WWTF to become a regional facility for fats, oil, and grease (FOG) collection to produce hydrogen gas as a sustainable, renewable energy source. The sewer collection system that delivers sewage to the WWTF is well maintained and inspected regularly. There is no evidence of infiltration/inflow (I&I) into the collection system due to storm events or flooding (PMC, 2007d; Fresno County, 2008).

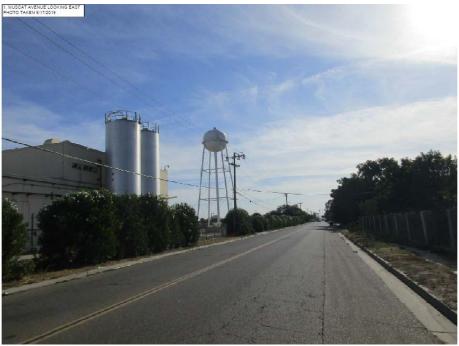
The Malaga County Water District website, which includes resident information, community center activities and contact information is <u>http://www.malagacwd.org/</u>

**Drainage** – Drainage services are provided to this community by the Fresno Metropolitan Flood Control District. The District manages stormwater through storm drains, detention basins, and pump stations.

*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no fire service deficiencies in this community, which has access to fire hydrants. One fire station is located within two miles of the Malaga community. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

*Service Deficits* – The Malaga Community has no identified service deficits related to potable water, wastewater or fire protection services. FMFCD provides drainage services to the area and there are no indications of specific drainage or flooding deficiencies.





Muscat Avenue looking East



Muscat Avenue looking East





Winery Avenue looking South



Harding Avenue looking Southeast



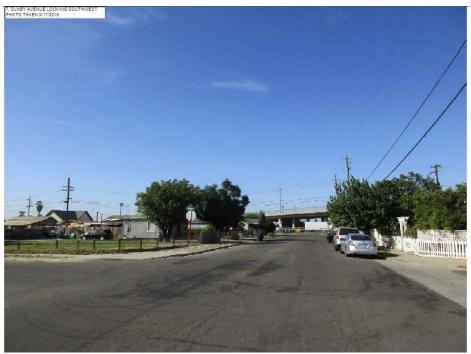


Harding Avenue looking Southeast

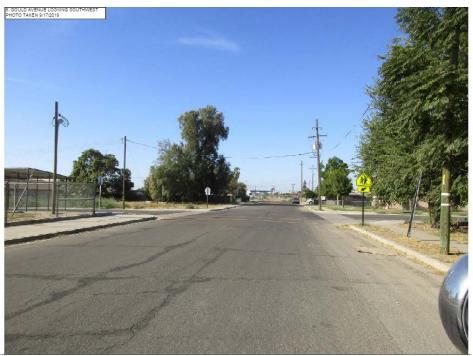


Olney Avenue looking Southwest



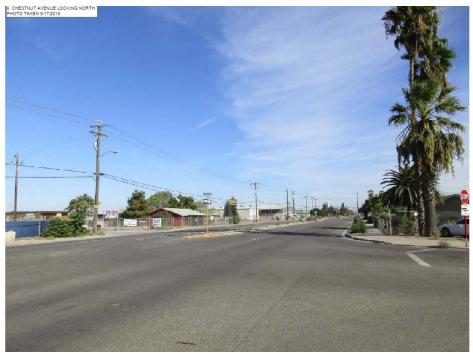


Olney Avenue looking Southwest

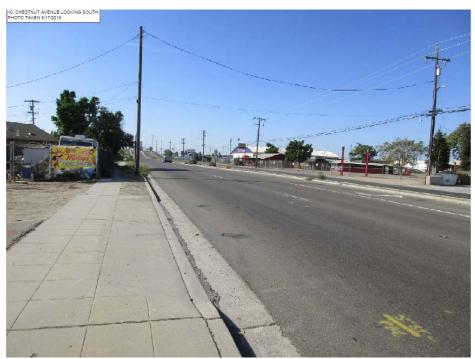


Gould Avenue looking Southwest





Chestnut Avenue looking North



Chestnut Avenue looking South



# 29. MONMOUTH COMMUNITY

The Monmouth Community is located at the northeast corner of South Chestnut Avenue and East Nebraska Avenue and includes 36 parcels totaling approximately 15 acres (Fresno County Department of Public Works and Planning, 2019c).

The area is in Census Tract 73.

*Water* – Private wells provide water to the residents of this community. During the past ten years, there have been eleven new well permits issued and two well destruction and replacement permits issued (Fresno County Department of Public Health, 2019).



*Wastewater* – There is no community wastewater system in place for this community. Septic tanks are used by residents for wastewater disposal. During the past ten years there was one septic demolition and replacement permit issued (Fresno County Department of Public Works and Planning, 2019a).

**Drainage** – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads. No incident of flooding from this community was reported during the winter of 2018 – 2019 or during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019).

County staff conducted a site visit on May 1, 2019. Staff noted no developed or undeveloped drainage infrastructure, and no noticeable areas of erosion or potential for standing water on Overholser, Topeka, Xenia, or Avenell Avenues. On Chestnut Avenue, staff did note the presence of AC cross-gutters at Overholser and Avenell Avenue intersections.

*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no fire service deficiencies in this community. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

*Service Deficits* – The Monmouth Community has no identified service regarding wastewater (septic), flooding/drainage or fire protection services. New well activity has been higher than as seen for other rural communities of a similar size, but there has been no identification of abnormally high well failures or contamination.





Looking East down Overholser from Topeka



Looking East down Avenell from Topeka





Looking North down Xenia from Avenell



Looking West down Avenell from Chestnut





Looking West down Overhosler from Chestnut



Looking South down Chestnut from Overholser





Looking South down Xenia from Overholser



Looking North down Topeka from Avenell





Looking North down Topeka from Overholser



Looking North down Chestnut from South of Avenell



#### 30. PARLIER AVENUE /ELM AVENUE COMMUNITY

The Parlier Avenue/ Elm Avenue Community is located on the northwest corner of Parlier and Elm Avenues. This community consists of 30 parcels totaling approximately 36 acres (Fresno County Department of Public Works and Planning, 2019c).

The area is in Census Tract 76.

*Water* – Private wells provide water to the residents of this community. During the past ten years, there have been four well permits issued and electrical permits issued for wells on two additional properties (one for domestic reconnection and for separate electrical for a domestic well) (Fresno County Department of Public Health, 2019).



*Wastewater* – There is no community wastewater system in place for this community. Septic tanks are used by residents for wastewater disposal. For septic, during the past ten years there was one demolition of an existing single-family residence in which the septic system was permitted to remain (Fresno County Department of Public Works and Planning, 2019a).

**Drainage** – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads. No incident of flooding was reported during the winter of 2018 – 2019 or during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019).

County staff conducted a site visit on April 26, 2019. Staff noted no developed or undeveloped drainage infrastructure, and no noticeable areas of erosion or potential for standing water on Parlier or Elm avenues. Staff noted agriculture land to the south and lot access/driveways to the north on Parlier and agriculture land to the sest with lot access/driveways to the west on Elm.

*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no known fire service deficiencies in this community. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

*Service Deficits* – The Parlier Avenue/Elm Avenue Community has no identified service deficits. Well and septic replacement activity does not indicate high rates of failure. No incidents of severe flooding or drainage issues have been observed by County staff or reported to the County, and there is no evidence that fire protection resources are deficient for this community. As the area is not designated or zoned for future intensive growth opportunities, there is no anticipation that the community will observe additional strain on its limited infrastructure.





# Parlier Avenue looking West



Parlier Avenue looking West





Elm Avenue looking North



Elm Avenue looking North

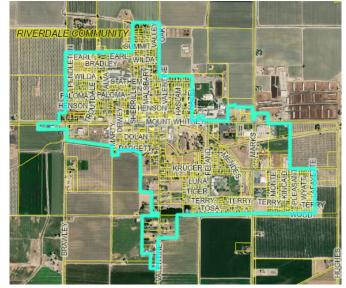


### 31. RIVERDALE COMMUNITY

The Riverdale Community is in Central Fresno County near the Fresno/Kings County boundary near the intersection of South Marks and Mount Whitney Avenues. It includes 1,024 parcels totaling approximately 501 acres. Land uses within the consist of a mixture of residential, commercial, and agriculture. Riverdale has an estimated population of 2,416 people (US Census 2000 data). The Riverdale Public Utility District provides water, wastewater, storm drainage and fire services to the community (Fresno County Department of Public Works and Planning, 2019c; Fey, Flemming, Uc, & Lara, 2018a).

The area is in Census Tract 77.

#### *Water* – Water is provided to this community by the



Riverdale Public Utilities District through two water wells and a water distribution system. The District owns seven wells. Two of the seven wells are active; two wells are on standby, and three wells are inactive. Wells 04-07 are on standby due to arsenic levels about the maximum contaminant level (MCL) of 10ppd. The District has approximately 950 water connections. A water supply distribution system composed of 6 and 8-inch pipes distributes water from these wells. Demand for water is approximately 50% of the District's two primary wells' capacity. Each well has a capacity of approximately 1,250 gallons per minute and is estimated to be able to serve 630 units. Annual average water usage for the District is approximately 0.6 million gallons per day (mgd), corresponding to 735 gallons per day (gpd) per water customer (Fey, Flemming, Uc, & Lara, 2018a).

The District primary water supply is from well 06. According to the 2018 Riverdale Public Utilities District MSR and SOI Update, the District has an on-going improvement plan that addresses the agency's infrastructure maintenance program. The District informed LAFCo that they regularly seek grants that could fund necessary infrastructure improvement (Fey, Flemming, Uc, & Lara, 2018a).

*Wastewater* – Wastewater services are provided to this community by Riverdale Public Utilities District. According to the 2018 Riverdale Public Utilities District MSR and SOI Update, the District wastewater treatment facility is currently operating at 88 percent capacity. The District serves approximately 923 sewer treatment connections, including 864 residential services, 47 commercial businesses, nine churches, a library, and three schools. There are no significant industrial land uses served by the District (Fey, Flemming, Uc, & Lara, 2018a).

The District's wastewater treatment plant is an aerated lagoon system designed to remove biochemical oxygen demand (BOD) and suspend solids from the community's wastewater. The District's wastewater collection system is tied to three lift stations that convey wastewater from the source to the District's wastewater treatment plant. The lift station is equipped with two 420 gallons per minute submersible pumps, with room for a future third pump. Each pump is designed and sized to handle the existing peak hour flow. The District's treatment facility consists of a comminutor, an aeration pond, and six stabilization ponds operated in series. Sewage is collected from throughout the community in a network of gravity sewers which come together at a lift



station located at the corner of Valentine and Stahem Avenues. All sewage from the community passes through the lift station through a 10-inch sewer force main. The existing force main was installed in 1958. Its condition is unknown. Treated wastewater is disposed of on 33 acres of pasture west of the wastewater treatment Plant. The District sewage disposal process is regulated by the California Environmental Protection Agency, Central Valley Regional Water Quality Control Board, Wastewater Reclamation Order No. 85-252.

The WWTF's design capacity is 0.25 mgd. The Central Valley Regional Water Quality Control Board (RWQCB) requires planning for capacity expansion when a system reaches 80 percent of design capacity.

According to the RWQCB, the District is running near capacity (0.25 mgd) and historically has had numerous violations for standing water in the land application area (disposal) and for submittal of late and/or incomplete monitoring reports to the RWQCB. In response, the District's requested permit update proposed a two-phased enlargement of the wastewater treatment facility to meet the estimated growth of the community of Riverdale. To accommodate projected growth and development, the District plans an expansion of its wastewater treatment plant to an average daily flow rate of 0.325 mgd. According to the District's January 24, 2017 Preliminary Engineering Report Wastewater Treatment Plant Improvement Project, the District projected a total of 1,243 to 1,372 sewer service connections by 2035, an increase of 320 to 449 new connections. Based on the District's estimates, the wastewater treatment plant would have capacity to add approximately 383 new home connections within a 20-year planning horizon (Fey, Flemming, Uc, & Lara, 2018a).

The District has an on-going improvement plan that addresses the agencies wastewater treatment infrastructure needs and maintenance program (Fey, Flemming, Uc, & Lara, 2018a).

**Drainage** – The Riverdale Public Utilities District maintains the storm drainage system within the community. The District storm water collection system relies on natural topographic drainage to connect to piping located under existing developed areas. The District expands storm drainage with each new approved development (Fey, Flemming, Uc, & Lara, 2018a). Flooding issues have been noted in Riverdale, especially in front of the high school on Mount Whitney. As an example, 3160 Mount Whitney is in proximity to a drywell/drains that were repaired approximately four years ago, but just east of this location is a spot where water collects from the school on to Mount Whitney. Staff also noted that Mendez between Feland and Krueger has flooding issues due to paved driveways and frontages (Fresno County Department of Public Works and Planning, 2020).

The Riverdale Public Utilities District maintains a website which includes contact numbers, community information and watering information for residents. The Districts website is <a href="http://www.riverdalepublicutilitydistrict.com/">http://www.riverdalepublicutilitydistrict.com/</a>

*Fire* – Fire protection services are provided to this community by the Riverdale Public Utilities District. This is a volunteer fire department, which provides basic fire protection services to the community. The Riverdale Public Utilities District contracts with Fresno County FPD for fire protection services. Its infrastructure includes one station within the District at 10068 Malsbury in Riverdale, two fire trucks, and an administrative building. The Station is staffed by 18 volunteer firefighters. Response time within a three-mile radius is approximately five minutes. The Riverdale station had an ISO rating of 6 according to the Riverdale Public Utilities District MSR (Fey, Flemming, Uc, & Lara, 2018a).

There are no fire service deficiencies in this community, which has access to fire hydrants.



Service Deficits – As stated above, the Riverdale Community has experienced arsenic issues with the potable water system maintained by RPUD. The District has an ongoing improvement plan that addresses the agency's infrastructure and maintenance and has deactivated the affected wells. The wastewater system maintained by the RPUD is operating at 88 percent capacity and is also being monitored though the District's ongoing improvement program. Studies have been conducted to examine capacity and RWQCB issues. There are no issues noted related fire protection services for the community. There have been flooding issues noted in certain areas of the community, as described more fully above.





Sherrill and Earl Streets – March 23, 2020



Mount Whitney in front of high school – March 23, 2020





Mount Whitney – March 23, 2020



Mendes and Benedict streets – March 23, 2020





Paloma Avenue looking West

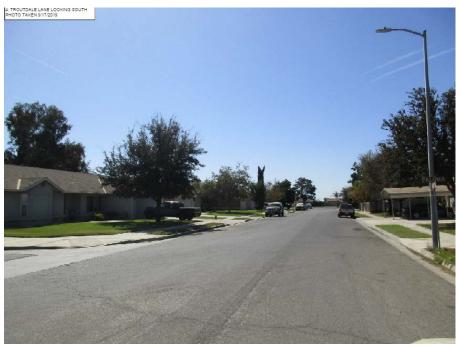


Malsbary Street looking North





Summit Avenue looking West

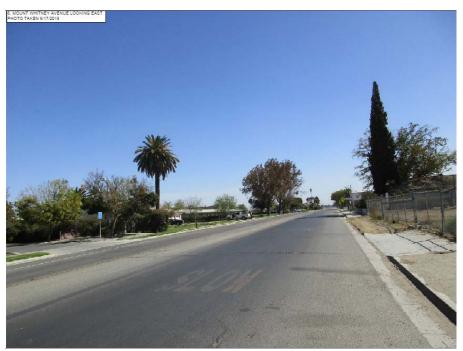


Troutdale Lane looking South



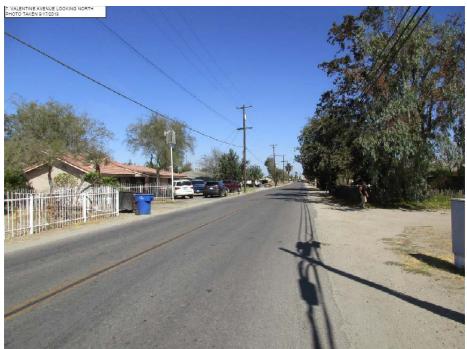


Mount Whitney Avenue looking East

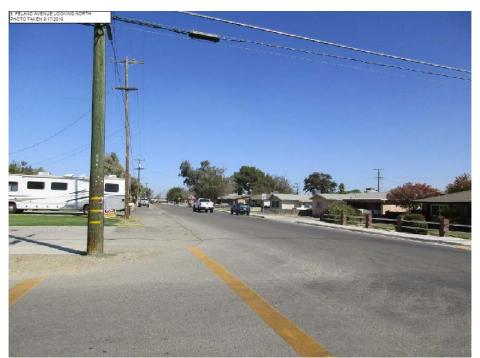


Mount Whitney Avenue looking East





Valentine Avenue looking North



Feland Avenue looking North



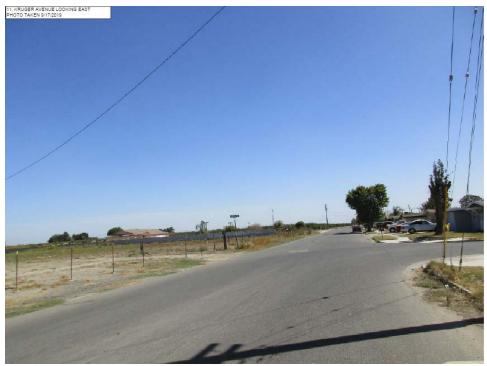


Luna Drive looking West



Marks Avenue looking South





Kruger Avenue looking East



Wood Avenue looking West



## 32. RUSSELL AVENUE COMMUNITY

The Russell Avenue Community is located on the west side of Russell Avenue approximately four miles north of its intersection with Nees Avenue, and approximately four miles southwest of the City of Dos Palos, located in Merced County. The community includes 158 parcels totaling approximately 51 acres (Fresno County Department of Public Works and Planning, 2019c).

The area is in Census Tract 84.02.

*Water* – Private wells provide water to the residents of this community. During the past ten years, there have been permits issued for five new wells and two well destruction and replacements (Fresno County Department of Public Health, 2019).



*Wastewater* – There is no community wastewater system in place for this community. Septic tanks are used by residents for wastewater disposal. During the past ten years one permit for an existing septic system to be issued for a replacement mobile home was noted (Fresno County Department of Public Works and Planning, 2019a).

**Drainage** – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads. County staff conducted a community site visit on October 8, 2019. Staff noted no improvements on Russell Avenue. Residences gained access directly off Russell or via unimproved private driveways that intersect with Russell.

*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no known fire service deficiencies in this community. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

*Service Deficits* – The Russell Avenue Community has no identified service deficits. Well and septic replacement activity does not indicate high rates of failure. No incidents of severe flooding or drainage issues have been observed or reported and there is no evidence that fire protection resources are deficient for this community. As the area is not designated or zoned for future intensive growth opportunities, there is no anticipation that the community will observe additional strain on its limited infrastructure.





## Russell Avenue looking North



Residences Along Russell Avenue





Typical Private Driveway Intersecting with Russell Avenue



Residences Along Russell Avenue





Private Driveway Intersecting with Russell Avenue



Private Driveway North of Previous Photo





Private Driveway Intersecting Russell Avenue



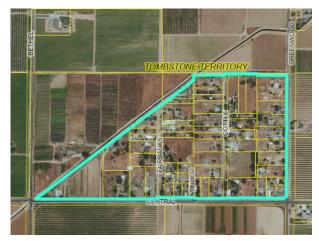
Private Drive - Northern part of Community Intersecting Russell Avenue



#### 33. TOMBSTONE TERRITORY

The Tombstone Territory is located at the intersection of East Central Avenue South Greenwood Avenue. The community consists of 57 rural residential-sized lots with 83 residential units covering approximately 50 acres. It is situated about one-half mile south of the nearest Sanger city limits (Fresno County Department of Public Works and Planning, 2019c; Self-Help Enterprises, 2020).

Tombstone Territory is not located within a census tract/block group unit that meets the MHI DUC threshold but does meet the MHI DUC threshold by Census Tract datasets. According to ACS, Census tract 61.00 has a reported MHI of



\$44,043, but according to a recent study prepared by Self-Help Enterprises, income levels are estimated to be approximately \$27,000 annually (Fresno County Department of Public Works and Planning, 2019c; United States Census Bureau, 2019b; Self-Help Enterprises, 2020).

The area is in Census Tract 61.

*Water* – Private wells provide water to the residents of this community. During the past ten years, there have been six new well permits issued and one destruction and replacement well permit issued (Fresno County Department of Public Health, 2019). In the past year the City of Sanger has pursued funding to receive \$1 million to connect the community to the City of Sanger's potable water system to improve water reliability (Chauhan, NKGSA, 2020). The City's engineer, in separate efforts, has reached out to County staff regarding efforts to determine community boundaries as a step in initiating this effort (Yamabe & Horn, 2019). This effort is due in part to the Safe and Affordable Drinking Water Bill signed by the governor in 2019 (California Water News Daily, 2019).

In February of this year, Self-Help Enterprises prepared a preliminary engineering report for a water connection project for the community. The report concluded that the most feasible and cost-effective approach is to connect the community to the City of Sanger to provide domestic water service and fire protection for Tombstone Territory. The estimated project cost is \$3.0 million. The study was funded by a grant from the California State Water Resources Board Division of Financial Assistance (Self-Help, 2020).

*Wastewater* – There is no community wastewater system in place for this community. Septic tanks are used by residents for wastewater disposal. For septic, during the past ten years there was one demolition of an existing single-family residence in which the septic system was permitted to remain (Fresno County Department of Public Works and Planning, 2019a).

**Drainage** – There is no community storm drain system in place for this community. There are noticeable areas of potential standing water and noticeable areas of erosion based on survey of the DUC's during spring of 2019. However, no incident of flooding was reported during the winter of 2018 – 2019 or during the spring of 2019, which experienced average rainfall in the Fresno area (Fresno County Department of Public Works and Planning, 2019e; National Weather Service, 2019).



County staff conducted a site visit on April 26, 2019. Staff noted no developed or undeveloped drainage infrastructure on Fairbanks Avenue, but did not noticeable areas of erosion and areas of potential standing water. Other comments included fences at the right-of-way line and the road offset to the west creating a large shoulder on the east side of the road. Staff noted no developed or undeveloped drainage infrastructure on Tinoco or Cottle Avenues but did note areas of potential standing water with both roads being relatively narrow. For Greenwood Avenue, staff noted no developed or undeveloped drainage infrastructure but areas of potential standing water, fences at the right-of-way line and grade changes drain road run-off back onto properties. On Central Avenue, staff noted roughly 50 feet of AC dike and an edge drain between Greenwood and Cottle avenues, with grade changes causing road drainage on to properties.

*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no fire service deficiencies in this community. Two fire stations are located within three miles of the Tombstone Territory community. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008). A preliminary engineering report prepared by Self-Help Enterprises for a community water connection project includes discussion of pressurized hydrants as part of extending community services from the City of Sanger to Tombstone Territory (Self-Help, 2020).

**Service Deficits** – Availability of reliable potable water sources has been an identified deficiency for the Tombstone Territory Community. This deficiency may be resolved with available grant funding to connect the community to the City of Sanger for water service. No evidence that fire protection resources are deficient for this community have been noted, but according to a Self-Help study, there is consideration to having the City of Sanger expand fire protection services to the community via pressurized hydrants as part of a possible water system expansion. Instances of flooding and areas of potential flooding or standing water were noted. The area has no developed drainage infrastructure.





Fairbanks Avenue looking North from Central Avenue



Fairbanks Avenue looking North from Central Avenue – April 6, 2020





Tinoco Avenue looking North from Central Avenue



Cottle Avenue looking North from Central Avenue





Looking East from North end of Cottle



Looking South down Cottle towards Central





Greenwood Avenue looking North from Central Avenue

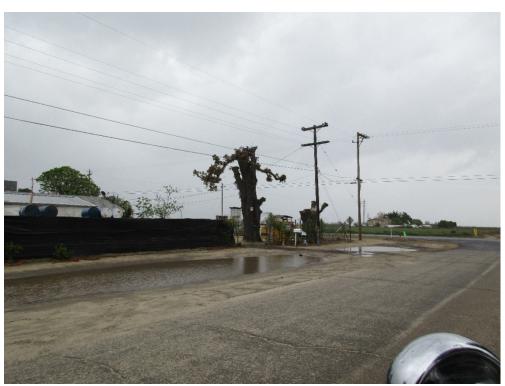


South Fairbanks Avenue looking North – April 6, 2020





Looking West from S. Fairbanks Avenue - April 6, 2020



Looking South from South Fairbanks Avenue – April 6, 2020



## 34. TRANQUILLITY COMMUNITY

The Tranquillity Community is in western Fresno County, northwest of the City of San Joaquin near the intersection of South James Road and Colorado Road. It includes 296 parcels totaling approximately 157 acres (Fresno County Department of Public Works and Planning, 2019c).

The area is in Census Tract 82.

*Water* – Water is provided to this community by Tranquillity Irrigation District (TID) through pumped groundwater and provided through a public water distribution system. According to the 2007 TID MSR and SOI Revision, the water infrastructure is sufficient to serve the current population (Braitman & Associates, 2007). TID maintains the following website http://trqid.com/wp/



*Wastewater* – Wastewater services are provided to this community by Tranquillity Public Utility District (TPUD) through a wastewater collection and treatment plant located north of the District service area. TPUD provides wastewater collection and treatment services to 263 sewer connections. The treatment plant is near its permitted capacity of 120,000 gpd. Sewer lines need repairs or replacement in various locations. Any additional development connecting to the District sewer system would require expansion of the wastewater treatment facility. According to the 2018 TPUD MSR and SOI Revision, the wastewater collection system consists of gravity fed lines to a series of lift stations that convey sewage to the wastewater treatment plant. In addition to the lift stations, the wastewater treatment plant includes six unlined oxidation lagoons, two irrigation lagoons, two sludge-drying beds, and a 34-acre reclamation area. Two of the six oxidation lagoons have been out of operation since 2010 but are available for use when necessary. The current wastewater treatment plant infrastructure has a design capacity of 120,000 gallons per day (Fey, Flemming, Uc, & Lara, 2018b).

Current daily flows are averaging 50,000 gallons per day. The infrastructure is sufficient to serve the current population (Fey, Flemming, Uc, & Lara, 2018b).

**Drainage** – Drainage services are provided to this area by TPUD through a series of natural drainage paths that connect to a series of underground collection pipes. According to the 2018 TPUD MSR and SOI Revision, the drainage infrastructure consists of curbs and gutters, underground piping, and two lift pump stations. Collected stormwater is then funneled into the Colorado Canal system on the southeast side of the community adjacent to Colorado Avenue. The MSR notes that the existing infrastructure needs repair in the north and northeastern parts of the community, especially the curbs and gutter system. Currently, there is no capital improvement funding mechanism in place to address the needed upgrades to infrastructure. Even though there is no revolving funding mechanism for continual repairs, infrastructure is expanded and improved whenever new development is approved within the Districts service area (Fey, Flemming, Uc, & Lara, 2018b).

TPUD does not have a website but has the following contacted information listed: P.O. BOX 622, Tranquillity, CA 93668/phone (559) 842-3310.



*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. There are no fire service deficiencies in this community, which has access to fire hydrants. One fire station is located within the Tranquility community. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

*Service Deficits* – The Tranquillity Community has no identified water service deficits. TID has water infrastructure to serve the community for potable water and TPUD has sufficient infrastructure to continue to serve the community for wastewater services although repairs to existing infrastructure have been identified. Regarding drainage, TPUD provides drainage services for the community, and it has been acknowledged in the community's MSR that existing drainage infrastructure needs to be repaired in the north and northeastern parts of the community, primarily the curb and gutter system. Fire protection services are adequate for the community.



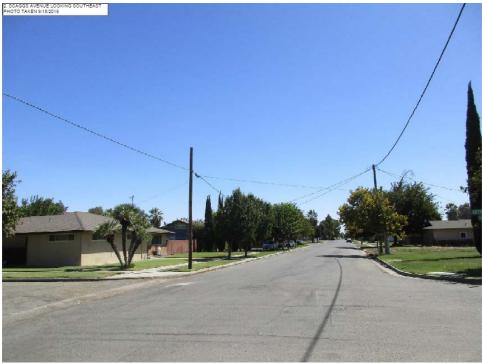


James Road looking Southwest

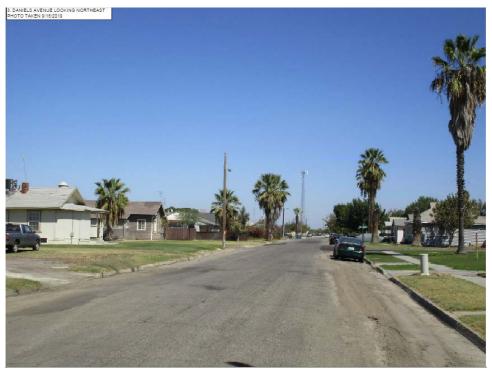


Colorado Road looking west towards James Road – March 23, 2020



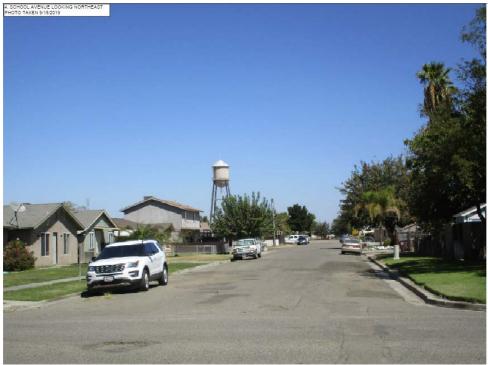


Scaggs Avenue looking Southeast



Daniels Avenue looking Northeast





School Avenue looking Northeast



Corner of Williams and School – March 23, 2020



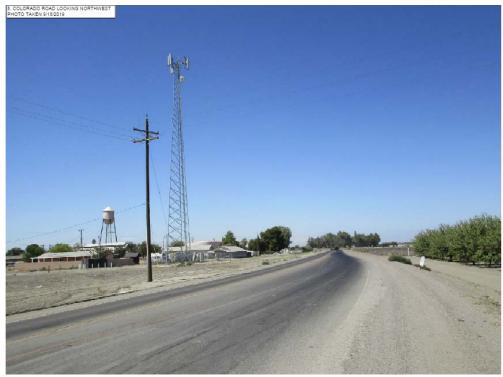


Tuft and School Northwest Corner – March 23, 2020



Tuft and School Southwest Corner – March 23, 2020





## Colorado Road looking Northwest



Scaggs Avenue looking Southeast





Randolph Avenue looking Southeast



Randolph Avenue Looking Northwest – March 23, 2020





Randolph Avenue looking Northwest



Morton Avenue looking East





# Morton Avenue looking West



Southwest corner of Williams and Daniels – March 23, 2020

Fresno County SB 244 Analysis – Page 216



# 35. WHITESBRIDGE COMMUNITY

The Whitesbridge Community is located along the south side of State Route 180 (Whitesbridge Avenue) approximately three miles southeast of the City of Mendota and includes 139 parcels totaling approximately 24 acres (Fresno County Department of Public Works and Planning, 2019c).

The area is in Census Tract 82.

*Water* – Private wells provide water to the residents of this community. During the past ten years, there have been no well permits pated or issued (Freene County Department of Put



well permits noted or issued (Fresno County Department of Public Health, 2019).

*Wastewater* – There is no community wastewater system in place for this community. Septic tanks are used by residents for wastewater disposal. During the past ten years, there were special inspection and septic permits issued for a property associated with a new mobile home. One permit for repair of an existing septic system on another property was also issued (Fresno County Department of Public Works and Planning, 2019a).

**Drainage** – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads. County staff conducted a community site visit on October 8, 2019. Staff noted no major improvements along State Route 180, although this segment did possess some large and deep swales to catch runoff. In some areas, it appears swales not improved by Caltrans may have been improved or enlarged/deepened by individual property owners. Driveway access for lots occurs along the south side of State Route 180.

*Fire* – Fire protection services are provided to this community by the Fresno County Fire Protection District. Fresno County Fire District Station No. 96 is located within the City of Mendota approximately four miles northwest of this community. The Fresno County Fire Protection District has Automatic Aid and Mutual Aid Agreements with all other fire agencies within Fresno County and fire agencies within neighboring counties. The Fresno County Fire Protection District responds to structure fires by providing at least four fire engines with pump capacities of 1,250 gallons per minute (gpm) and 700-gallon water tanks, and at least two water tenders with pump capacities of 1,250 gpm and 3,000-gallon water tanks (Fey, 2013; Fresno County Fire Protection District, 2008).

*Service Deficits* – The Whitesbridge Community has no identified service deficits. Well and septic replacement activity does not indicate high rates of failure, and no incidents of severe flooding or drainage issues have been observed by County staff. There is no evidence that fire protection resources are deficient for this community, and as the area is not designated or zoned for future intensive growth opportunities, there is no anticipation that the community will observe additional strain on its existing, limited infrastructure.





Looking Southwest Across State Route 180



Looking Southwest Across State Route 180





Typical Residences – South of State Route 180



Typical Residences – South of State Route 180



# 36. YUBA AVENUE COMMUNITY

The Yuba Avenue Community is located generally between S. Yuba and S. Butte avenues, north of the Central Avenue alignment, approximately five miles southwest of the City of Kerman and approximately one-mile northwest of the Countyoperated American Avenue Disposal Site. The community includes 633 parcels totaling approximately 118 acres (Fresno County Department of Public Works and Planning, 2019c).

The area is in Census Tract 39.

*Water* – Private wells provide water to the residents of this community. During the past ten years, there have been nine new well permits issued and two properties that obtained well



destruction and replacement permits (Fresno County Department of Public Health, 2019).

*Wastewater* – There is no community wastewater system in place for this community. Septic tanks are used by residents for wastewater disposal. During the past ten years there have been twelve septic permits issued. Five permits were for new septic systems, two test hole permits, one septic system repair, one open and pump for a mobile home replacement, three septic permits related to farm labor housing (mobile home) (Fresno County Department of Public Works and Planning, 2019a).

**Drainage** – There is no community storm drain system in place for this community. Unpaved road shoulders and/or adjacent agricultural lands absorb runoff from paved roads. County staff conducted a community site visit on October 8, 2019. Staff noted no improvements on Yuba or Butte avenues. Residences gained access directly off these roads, from unimproved road alignments or via unimproved private driveways that intersect with improved roads or unimproved road alignments.

*Fire* – Fire protection is provided to this community by the North Central Fire Protection District. The North Central Fire Protection District provides a full range of emergency services including fire prevention, fire suppression, emergency medical care, hazardous materials response, search and rescue response, emergency preparedness planning, and public education. The North Central Fire Protection District's current model of service is an enhanced level of service provided through the staffing of four fire stations with a total of 15 onduty firefighters/Emergency Medical Technicians (EMTs) (Fey, Flemming, Uc, & Lara, 2016a).

*Service Deficits* – The Yuba Avenue Community has no identified service deficits. Well and septic replacement activity does not indicate high rates of failure for the number of parcels associated with the community. No incidents of severe flooding or drainage issues have been noted and there is no evidence that fire protection resources are deficient for this community. As the area is not designated or zoned for future intensive growth opportunities, there is no anticipation that the community will observe additional strain on its exiting, limited infrastructure.





Intersection of Butte Avenue and Central (unimproved) Avenue







Central Avenue Alignment looking West

# Typical Unimproved Roadway



Unimproved Roadway with Housing





Housing and Unimproved Roadway



Housing and Unimproved Roadway





**Butte Avenue** 



| TABLE 1<br>IDENTIFIED DISADVANTAGED UNINCORPORATED COMMUNITIES<br>FRESNO COUNTY |     |       |  |  |  |  |
|---|-----|-------|--|--|--|--|
| Name Size Parcels (acres)   |     |       |  |  |  |  |
| 1. Ashlan Avenue Community  | 57  | 18    |  |  |  |  |
| 2. Biola Community  | 242 | 335   |  |  |  |  |
| 3. Britten Avenue/Cherry Avenue Community                                       | 20  | 26    |  |  |  |  |
| 4. Burrel Community   | 12  | 26    |  |  |  |  |
| 5. Camden Avenue Community  | 4   | 1     |  |  |  |  |
| 6. Carillo Avenue Community   | 20  | 28    |  |  |  |  |
| 7. Caruthers Community  | 453 | 787   |  |  |  |  |
| 8. Chesnut Avenue Community – Shady Lakes                                       | 26  | 2     |  |  |  |  |
| 9. Church Avenue/Floyd Avenue Community   | 44  | 36    |  |  |  |  |
| 10. Cornelia Avenue/Floral Avenue Community                                     | 60  | 38    |  |  |  |  |
| 11. CSA 30 Community – El Porvenir  | 29  | 61    |  |  |  |  |
| 12. CSA 32 Community – Cantua Creek   | 80  | 79    |  |  |  |  |
| 13. CSA 39 Zone A Community   | 19  | 52    |  |  |  |  |
| 14. CSA 39 Zone B Community   | 51  | 111   |  |  |  |  |
| 15. CSA 43 Community – Raisin City  | 38  | 75    |  |  |  |  |
| 16. CSA 49 Community – O'Neill Farms/Westside                                   | 93  | 15    |  |  |  |  |
| 17. Del Rey Community   | 108 | 316   |  |  |  |  |
| 18. East Adams Avenue Community   | 9   | 18    |  |  |  |  |
| 19. Easton Community  | 701 | 522   |  |  |  |  |
| 20. Five Points Community   | 16  | 3     |  |  |  |  |
| 21. Flamingo Mobile Home Community  | 9   | 1     |  |  |  |  |
| 22. Hayes Road Community/Perrin Colony  | 54  | 42    |  |  |  |  |
| 23. Hughes Avenue/Magnolia Avenue Community                                     | 40  | 30    |  |  |  |  |
| 24. Lanare Community  | 51  | 346   |  |  |  |  |
| 25. Laton Community   | 251 | 510   |  |  |  |  |
| 26. Lost Hills Community  | 172 | 162   |  |  |  |  |
| 27. Madera Avenue Community   | 22  | 27    |  |  |  |  |
| 28. Malaga Community  | 72  | 232   |  |  |  |  |
| 29. Monmouth Community  | 15  | 36    |  |  |  |  |
| 30. Parlier Avenue/Elm Avenue Community   | 36  | 30    |  |  |  |  |
| 31. Riverdale Community   | 501 | 1,042 |  |  |  |  |
| 32. Russell Avenue Community  | 158 | 51    |  |  |  |  |
| 33. Tombstone Territory   | 57  | 50    |  |  |  |  |
| 34. Tranquillity Community  | 157 | 296   |  |  |  |  |
| 35. Whitesbridge Community  | 139 | 24    |  |  |  |  |
| 36. Yuba Avenue Community   | 633 | 118   |  |  |  |  |



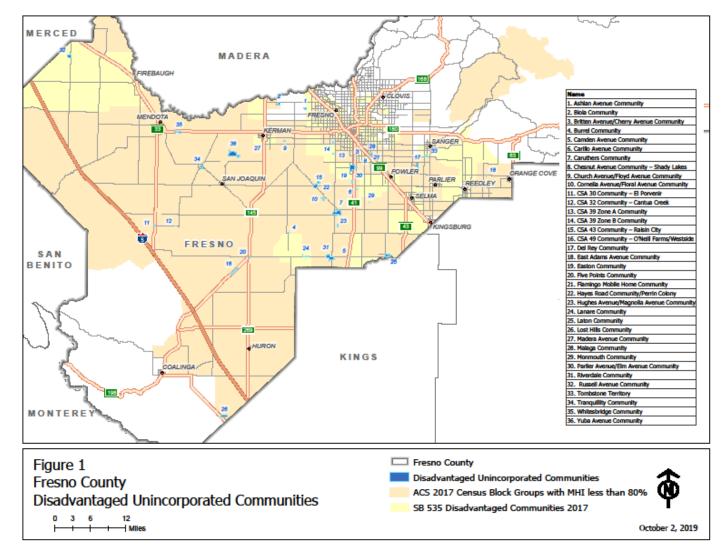


Figure 1 Disadvantaged Unincorporated Communities – Fresno County



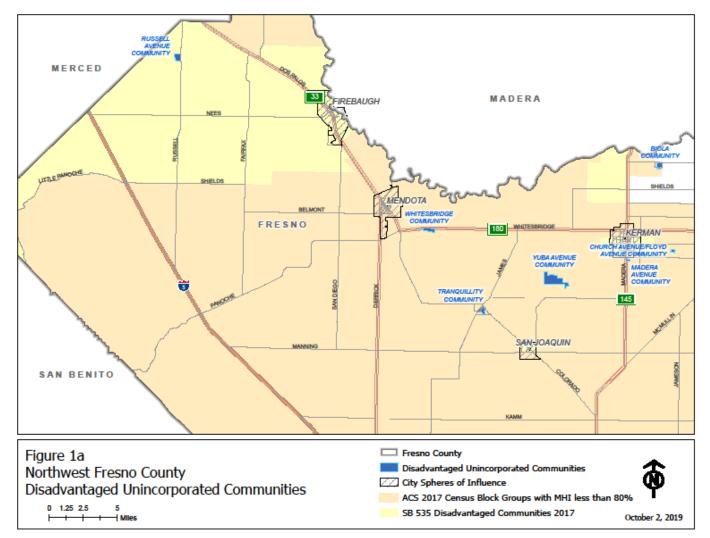


Figure 1a Northwest Disadvantaged Unincorporated Communities – Fresno County



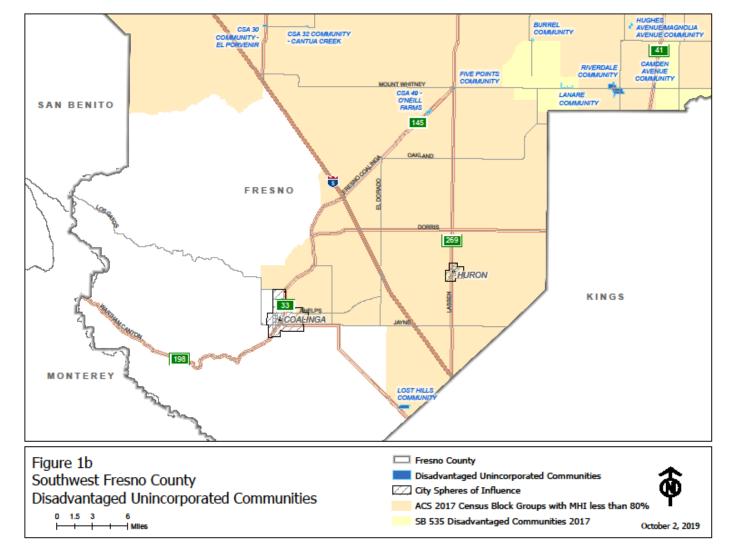


Figure 1b Southwest Disadvantaged Unincorporated Communities – Fresno County



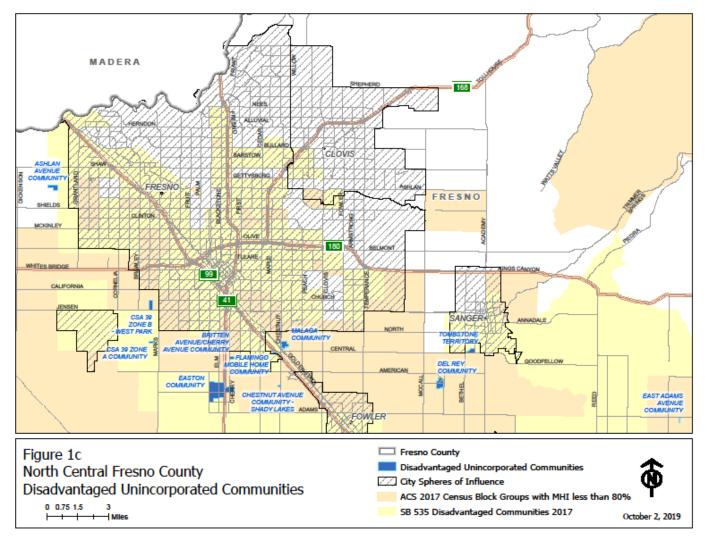
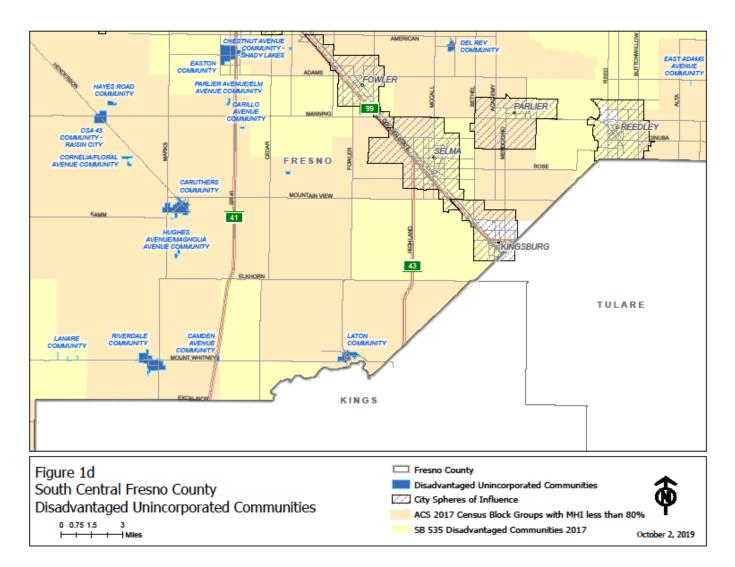


Figure 1c North Central Disadvantaged Unincorporated Communities – Fresno County



Figure 1d South Central Disadvantaged Unincorporated Communities – Fresno County





# **INFRASTRUCTURE ANALYSIS**

### OVERVIEW OF SERVICE PROVIDERS IN UNINCORPORATED FRESNO COUNTY

SB 244 requires an analysis of infrastructure services for each DUC. This section first provides an overview of service providers in the County that provide one or more services in the DUCs and then describes public services within each DUC consistent with the requirements of SB 244.

SB 244 calls for "an analysis of water, wastewater, stormwater drainage, and structural fire protection needs or deficiencies" for all identified DUCs. In Fresno County, these services are provided by special districts, except for the Madera Avenue Community, which receives water from the City of Kerman. Where public water and wastewater services are not provided, onsite systems (e.g., private wells and septic systems) are used. Private wells and septic systems were not evaluated in this report. The following is an overview of how services are provided to the DUCs in Fresno County.

#### WATER

### **Regulatory Setting**

Water in California is managed by a complex network of Federal and State regulations. California administers rights to surface water at the State level, but not rights to groundwater, which is managed under a variety of authorities including local governments. Major regulatory policies pertaining to domestic water management are summarized below.

#### **Federal Regulations**

**Safe Drinking Water Act**. The Safe Drinking Water Act (SDWA), administered by the United States Environmental Protection Agency (EPA) in coordination with the California Department of Public Health California Department of Public Health (CDPH), is the main Federal law that ensures the quality of Americans' drinking water. Under SDWA, EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards. In 1996 Congress amended the Safe Drinking Water Act to emphasize sound science and risk-based standard setting, small water supply system flexibility and technical assistance, community-empowered source water assessment and protection, public right-to-know, and water system infrastructure assistance through a multi-billion-dollar state revolving loan fund.

**U.S. Environmental Protection Agency (EPA)**. The EPA is responsible for developing and enforcing regulations that implement environmental laws enacted by Congress. EPA is responsible for researching and setting national standards for a variety of environmental programs, and delegates to states and tribes the responsibility for issuing permits and for monitoring and enforcing compliance.

Arsenic is an example of a groundwater contaminant that is regulated by the EPA. Arsenic is a naturally occurring element and its presence can be traced back to geologic deposits. These natural deposits of arsenic can be found throughout the United States and are prevalent in New England and the Southwest. Groundwater that flows over these deposits may be contaminated with arsenic, which then makes its way into public and private drinking water wells. In 2001 the U.S. EPA lowered the existing 50 ppb standard to 10 ppb; all water



systems must comply with this standard by January 2006. The California CDPH must adopt a new arsenic standard that is equal to or more stringent than the U.S. EPA standard and set as close as economically feasible to the Public Health Goal (PHG). A PHG is the level of arsenic in drinking water that would not pose a significant health threat if consumed over a lifetime. The CDPH adopted the 10-ppb standard for arsenic on November 28, 2008.

## **State Regulations**

**California Water Code**. The California Water Code, a section of the California Code of Regulations, establishes the governing laws pertaining to all aspects of water management in California. Domestic water service in the unincorporated areas of San Joaquin County is generally provided by special districts. These agencies operate in accordance with the California Water Code.

**Urban Water Management Planning Act**. In 1983 the California Legislature enacted the Urban Water Management Planning Act (Water Code Section 10610 to 10656). The Act states that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet annually, should make every effort to ensure the appropriate level of reliability in its water service is sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The Act requires that urban water suppliers adopt and submit an urban water management plan at least once every five years to the Department of Water Resources. Non-compliant urban water suppliers are ineligible to receive funding pursuant to Division 24 (commencing with Section 78500) or Division 26 (commencing with Section 79000) or receive drought assistance from the State until the Urban Water Management Plan (UWMP) is submitted pursuant to the Urban Water Management Planning Act.

**Cortese-Knox-Hertzberg Governmental Reorganization Act of 2000**. The Cortese-Knox-Hertzberg Governmental Reorganization Act of 2000 requires California Local Agency Formation Commission's (LAFCO) to conduct municipal service reviews for specified public agencies under their jurisdiction. One aspect of municipal service review is to evaluate an agency's ability to provide public services within its ultimate service area. A municipal service review is required before an agency can update its sphere of influence.

**Senate Bills (SB) 610 and SB 221**. SB 610 and SB 221 amended State law, effective January 1, 2002, to improve the link between the information on water supply availability and certain land use decisions made by cities and counties. Both statutes require detailed information regarding water availability to be provided to the City and County decision-makers prior to approval of specified large (greater than 500 dwelling units) development projects. Both statutes also require this detailed information to be included in the administrative record that serves as the evidentiary basis for an approval action by the City or County on such projects. Under SB 610, water assessments must be furnished to local governments for inclusion in any environmental documentation for certain projects as defined in Water Code 10912 subject to the California Environmental Quality Act (CEQA). Under SB 221, approval by a City or County of certain residential subdivisions requires an affirmative written verification of sufficient water supply.

**Sustainable Groundwater Management Act**. Signed into law on September 16, 2014, the Sustainable Groundwater Management Act (SGMA) is a comprehensive legislation for the management of groundwater throughout the State. The SGMA was created through a combination of Senate Bills 1168 and 1319 and Assembly Bill 1739. It established a new structure for managing California's groundwater resources at a local



level by local agencies. SGMA requires, by June 30, 2017, the formation of locally controlled groundwater sustainability agencies (GSAs) in California's high- and medium-priority groundwater basins and subbasins (basins). A GSA is responsible for developing and implementing a groundwater sustainability plan (GSP) to meet the sustainability goal of the basin to ensure that it is operated in its sustainable yield, without causing undesirable results. DWR is required to develop and adopt emergency regulations for evaluating GSPs, the implementation of GSPs, and coordination of agreements by June 1, 2016. A GSP may be any of the following (Water Code § 10727(b)):

- A single plan covering the entire basin developed and implemented by one GSA
- A single plan covering the entire basin developed and implemented by multiple GSAs
- Multiple plans implemented by multiple GSAs and coordinated pursuant to a single coordination agreement that covers the entire basin and which is subject to Water Code Section 10727.6

The legislative intent of SGMA was to recognize and preserve the authority of cities and counties to manage groundwater pursuant to their existing powers. As such, local governments play an important land use and water management role in California and should be involved in GSA formation and GSP implementation. GSPs are required to take into account the most recent planning assumptions stated in local general plans of jurisdictions overlying the basin. (Water Code §10726.9)

- In the event that there is an area in a high- or medium-priority basin that is not in the management area of a GSA, the county in which that unmanaged area lies will be presumed to be the GSA for that area. (Water Code § 10724(a))
- A county shall provide notification to DWR of its intent to manage the unmanaged area pursuant to Water Code §10723.8 unless the county notifies DWR in writing that it will not be the GSA for the area. (Water Code § 10724(b))
- An "unmanaged area" as used in Water Code §10724(a) is an area of a basin that has not yet had (or will not have) a local agency file a GSA formation notice with DWR.
- Water Code §10724 does not give the county exclusive authority to be the GSA in a basin if other local agencies have also declared their intent to manage groundwater but have not yet resolved their service area overlap.

Since the 2014 adoption and starting in early 2020 individual GSAs have begun reviewing and providing comments on various County planning documents and well permitting activity. The intent of better coordination is to meet some of the key goals of SGMA, including the contained availability and sustainability of groundwater resources.

**State Water Resources Control Board**. In 2014 oversight of state drinking water was shifted from the California Department of Public Health to the State Water Resource Control Board Division of Drinking Water (EPA delegation agreement). A major component remains the regulation of public water systems. Regulatory responsibilities include the enforcement of Federal and State Safe Drinking Water Acts, the regulatory oversight



of approximately 8,700 public water systems, the oversight of water recycling projects, issuance of water treatment permits, and certification of drinking water treatment and distribution operators. Other functions include supporting and promoting water systems security, providing support for small water systems, and improving technical, managerial, and financial (TMF) capacity, and for providing subsidized funding for water system improvements under the State Revolving Fund (SRF) and Proposition 50.

**California Department of Water Resources**. The California Department of Water Resources is responsible for preparing and updating the California Water Plan, which is a policy document that guides the development and management of the State's water resources. The plan is updated every five years to reflect changes in resources and urban, agricultural, and environmental water demands. The California Water Plan suggests ways of managing demand and augmenting supply to balance water supply with demand.

Potable water service in DUCs in Fresno County is provided primarily by special districts or private community systems, although several areas are reliant on individual wells. Special districts that provide water include:

- Biola Community Services District
- Caruthers Community Service District
- City of Kerman
- County Service Area No. 30 El Porvenir
- County Service Area No. 32 Cantua Creek
- County Service Area No. 39AB
- County Service Area No. 43 Raisin City
- County Service Area No. 49 O'Neill Farms/Westside
- Del Rey Community Service District
- Double L Mobile Ranch Park/Church and Floyd (deactivated)
- Britz/Five Points System (CA1009179)
- Lanare Community Service District
- Laton Community Service District
- Malaga County Water District
- Riverdale Public Utilities District
- Tranquility Irrigation District
- Easton Estates Water Company and Washington Unified School District (Easton)
- Shady Lakes Water System



## WASTEWATER

#### **Regulatory Setting**

Key organizations that regulate wastewater treatment and disposal in California include the United States EPA and the State Water Resources Control Board (SWRCB). These agencies are responsible for carrying out and enforcing environmental laws enacted by Congress. Local government agencies, including the San Joaquin County Environmental Health Department (EHD), are responsible for establishing and implementing specific design criteria related to onsite septic systems. Major regulatory policies pertaining to sanitary sewer management are summarized below.

### **Federal Regulations**

**U.S. Environmental Protection Agency (EPA)**. The EPA Office of Wastewater Management (OWM) supports the Federal Water Pollution Control Act (Clean Water Act) by promoting effective and responsible water use, treatment, disposal and management, and by encouraging the protection and restoration of watersheds. The OWM is responsible for directing the National Pollutant Discharge Elimination System (NPDES) permit, pretreatment, and municipal bio-solids management (including beneficial use) programs under the Clean Water Act. The OWM is also home to the Clean Water State Revolving Fund, the largest water quality funding source, focused on funding wastewater treatment systems, non-point source projects, and estuary protection.

**Clean Water Act (CWA)**. The CWA is the cornerstone of surface water quality protection in the United States. The stature employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff.

Section 303 of the CWA requires states to adopt water quality standards for all surface water of the United States. Where multiple uses exist, water quality standards must protect the most sensitive use. Water quality standards are typically numeric although narrative criteria based on biomonitoring methods may be employed where numerical standards cannot be established or where they are needed to supplement numerical standards. The SWRCB and the RWQCB are responsible for ensuring implementation and compliance with the provisions of the Federal CWA.

#### **State Regulations**

**State Water Resources Control Board (SWRCB)**. The SWRCB, in coordination with nine Regional Water Quality Control Boards (RWQCB), performs functions related to water quality, including issuance of wastewater discharge permits (NPDES and WDR) and other programs on stormwater runoff, and underground and above ground storage tanks.

**Cortese-Knox-Hertzberg Governmental Reorganization Act of 2000**. The Cortese-Knox-Hertzberg Governmental Reorganization Act of 2000 requires California Local Agency Formation Commission's (LAFCO) to conduct municipal service reviews for specified public agencies under their jurisdiction. One aspect of municipal service review is to evaluate an agency's ability to provide public services within its ultimate service area. A municipal service review is required before an agency can update its sphere of influence.



**Small Community Wastewater Grant Program**. The small community wastewater grant program (SCWG), funded by Propositions 40 and 50, provides grant assistance for the construction of publicly owned wastewater treatment and collection facilities. Grants are available for small communities with financial hardships. Communities must comply with population restrictions (maximum population of 20,000 people) and annual median household income provisions (maximum income of \$37,994) to qualify for funding under the SCWG Program.

**Title 22 of California Code of Regulations**. Title 22 regulates the use of reclaimed wastewater. In most cases, only disinfected tertiary water may be used on food crops where the recycled water would come into contact with the edible portion of the crop. Disinfected secondary treatment may be used for food crops where the edible portion is produced above ground and will not come into contact with the secondary effluent. Lesser levels of treatment are required for other types of crops, such as orchards, vineyards, and fiber crops. Standards are also prescribed for the use of treated wastewater for irrigation of parks, playgrounds, landscaping and other non-agricultural irrigation. Regulation of reclaimed water is governed by the nine RWQCBs and CDPH.

Wastewater collection and treatment services are provided to Fresno County DUCs through a combination of special districts and onsite septic systems. Special districts that provide wastewater include:

- Biola Community Services District
- Caruthers Community Service District
- County Service Area No. 30
- County Service Area No. 32
- Del Rey Community Service District
- Laton Community Service District
- Malaga County Water District
- Riverdale Public Utilities District
- Shady Lakes Wastewater Treatment System
- Tranquility Public Utility District

# STORMWATER DRAINAGE AND FLOOD PROTECTION

#### Overview

During winter and spring months, river systems in Fresno County swell with heavy rainfall and snow melt runoff. To prevent flooding, a wide variety of storm drainage and flood control measures are utilized throughout the county. Storm drainage systems composed of street gutters, inlets, underground storm drains, retention basins, pumping stations, and open channels are used to collect and control stormwater runoff. The following discussion characterizes the storm drainage and flood control systems for unincorporated areas within Fresno County.

# **Existing Conditions**

Most of the storm drainage systems within the unincorporated areas of Fresno County are managed by a single flood control district. The Fresno Metropolitan Flood Control District services the Fresno and Clovis areas



including unincorporated areas stretching east into the Foothills. A small number of individual communities have storm drainage systems serviced by special districts. Drainage services in these areas center on the creation and maintenance of retention basins to collect stormwater. Data for each service provider was primarily obtained from Municipal Service Review (MSR) documents filed with the Fresno County Local Area Formation Commission (LAFCo).

# **Regulatory Setting**

Key organizations that regulate the stormwater industry in California include the EPA and SWRCB. These agencies are responsible for carrying out and enforcing environmental laws enacted by Congress. The need to protect the environment has resulted in several laws and subsequent regulations and programs. Local government agencies are responsible for establishing and implementing specific design criteria related to storm drain systems. Various Federal and State programs related to the control of pollutants in stormwater are summarized below.

### **Federal Regulations**

**Clean Water Act**. In 1972, the CWA was amended to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with an NPDES permit. The 1987 amendments to the CWA added Section 402(p), which establishes a framework for regulating municipal and industrial stormwater discharges, including discharges associated with construction activities, under the NPDES program.

**U.S. Environmental Protection Agency (EPA)**. In 1990 EPA published final regulations that establish stormwater permit application requirements. The regulations, also known as Phase I of the NPDES program, provide that discharges of stormwater to waters of the United States from construction projects that encompass one or more acres of soil disturbance are effectively prohibited unless the discharge complies with an NPDES permit. Phase II of the NPDES program expands the requirements by requiring operators of small MS4s in urbanized areas and small construction sites to be covered under an NPDES permit, and to implement programs and practices to control polluted stormwater runoff.

#### **State Regulations**

**State Water Resources Control Board (SWRCB)**. In California, the NPDES stormwater permitting program is administered by the SWRCB. The SWRCB has established a construction General Permit that can be applied to most construction activities in the State. Construction permittees may choose to obtain individual NPDES permits instead of obtaining coverage under the General Permit, but this can be an expensive and complicated process, and its use is generally limited to very large construction projects that discharge to critical receiving waters. In California, owners of construction projects may obtain NPDES permit coverage by filing a Notice of Intent (NOI) to be covered under the SWRCB Order No. 99-08- DWQ, NPDES General Permit No. CAS00002, WDRs for Discharges of Storm Water Runoff Associated with Construction Activity (General Permit) and subsequent adopted modification.

Storm drainage services are provided to Fresno County DUCs by the following special districts:



- Biola Community Services District
- Caruthers Community Services District
- County Service Area No. 30
- County Service Area No. 32
- Del Rey Community Services District
- Easton Community Services District
- Fresno Metropolitan Flood Control District
- Tranquility Public Utility District

### FIRE PROTECTION

### **Existing Conditions**

Unincorporated Fresno County is served by the Fresno County Fire Protection District, Fig Garden Fire Protection District, North Central Fire Protection District, Orange Cove Fire Protection District, Bald Mountain Fire Protection District, Laton Community Service District, Riverdale Public Utilities District, County Service Area 31 (Shaver Lake), and the California Department of Forestry and Fire Protection (CAL FIRE), County Service Area 50 (Auberry Volunteer Fire Department), and various Volunteer Fire Companies.

### **ISO Ratings**

The Insurance Services Office (ISO) rates fire departments and assigns public protection classifications for the establishment of fire insurance rates. The higher the Insurance Rating number, the lower the level of service and the higher the cost for a homeowner's fire insurance. An area with no organized fire protection services is assigned a Class 10 rating, but that rating would not be applicable to areas covered under a recognized fire protection district. The ISO ratings for fire protection service providers are included in the following profiles (CalFire/FCFPD, 2020).

According to CalFire, to obtain a premium reduction on insurance, a residence must be within proximity of five road miles from a 24/7 staffed station, which limits this reduction availability for rural areas. (CalFire/FCFPD, 2020).

# **Relevant Fire Districts to this Analysis**

# Fresno County Fire Protection District

The Fresno County Fire Protection District provides fire prevention and suppression, emergency medical response, search and rescue, building permits and inspections, and emergency dispatch services. The District encompasses approximately 2,547 square miles and serves a population of more than 220,000 residents. It extends from Kings and Tulare Counties on the south to Madera County on the north, and from the coastal range on the west to the foothills of the Sierras on the east. District territory includes unincorporated "islands" surrounded by the Cities of Clovis and Fresno. The District contracts with Cal Fire for staff and is administered by the District Fire Chief. In addition, the District provides full fire protection services to many incorporated and unincorporated communities within the County.



Fresno County FPD operates 14 permanent fire stations located throughout is boundaries. An additional three stations are staffed with Paid Call Firefighters (PCF). The District operates its fire engine companies with a minimum of 2-3 career Firefighters on duty every day, totaling 56 Firefighters on duty daily. District fire apparatus include 25 engines, 2 ladder trucks, 1 Bulldozer, 2 Squads, 1 rescue apparatus, 6 water tenders, and 20 support vehicles.

The District's response standards range from five-minute response times in heavy urban areas to fifteen-minute response times in rural areas. It normally meets these standards unless multiple incidents are occurring, or the incidents are in a few areas that cannot be reached within the referenced time standard. The District's ISO ratings are as follows:

• The Fresno County Fire Protection District's ISO rating, updated approximately every five years, is currently a 4/4y rating. The District has implemented several operational changes recently and has improved its rating further. The District will achieve a 3/3Y in October of 2020 which is an excellent performance rating for a fire district of this size (FCFPD, 2020).

The Fresno County FPD and the North Central FPD have faced reductions in the size of their districts due to the growth of the Cities of Fresno and Clovis. Such growth has resulted in the reduction of District tax bases, as a significant portion of District revenues are generated from property taxes on properties located within the Spheres of Influence of the Cities of Fresno and Clovis. Although a tax sharing agreement is in effect between the FPDs and the Cities of Fresno and Clovis, continued detachments of District land will result in long-term revenue loss and a potential reduction of service levels over time. (FCFPD 2020)

# North Central Fire Protection District

North Central Fire Protection District, originally established in 1947, encompasses approximately 138,700 acres within the northern portion of Fresno County. Its services include fire prevention and suppression, emergency medical response, search and rescue, building permits and inspections, emergency dispatch services, and hazardous material response. District territory includes the City of Kerman.

In 2017, and the District and City of Fresno agreed to splitting effective in July of 2019. The District took over operations again of three stations, fire engines, trucks and other equipment. After splitting from the City of Fresno, the District re-assumed responsibility for fire services in a 230-square-mile service area west of State Route 99.

#### Laton Community Service District

The Laton Community Service District is located in the south-central portion of Fresno County adjacent to the Kings River. It provides fire protection services to about 500 acres and an approximate population of 1,600 during harvest season (August-September) and 1,230 throughout the remainder of the year. The District owns one station located at Dewitty and Fowler Avenues. The station has a staff of one fire chief and ten volunteers. There are no Emergency Medical Technicians. Approximately three to four calls are received each month. The Laton CSD has an ISO rating of 8. (Laton Community Services District MSR, 2011; Fresno County, Fresno County General Plan, October 2000).



## Riverdale Public Utilities District

The Riverdale Public Utilities District contracts with Fresno County FPD for fire protection services. Its infrastructure includes one station within the District at 10068 Malsbury in Riverdale, two fire trucks, and an administrative building. The Station is staffed by 18 volunteer firefighters. Response time within a three-mile radius is approximately five minutes. The Riverdale station has an ISO rating of 6 (MSR). (Riverdale Public Utilities District MSR, 2007)

### **Mutual and Automatic Aid**

Mutual Aid is defined as the provision of resources (personnel, apparatus, and equipment) to a requesting jurisdiction already engaged in emergency operations, which have exhausted or will shortly exhaust local resources.

Mutual aid was designed as a cost-effective solution to help mitigate this shortage of resources as well as providing for those rare major emergencies that border upon or are actual disasters. Mutual Aid is simply a plan designed to allow fire agencies to assist each other during situations when an agency cannot muster sufficient resources to bring a successful completion to the incident.

Mutual Aid is provided using a progressive system, commencing with the closest neighboring agencies and working out from the incident until all resource needs are fulfilled. This strategy has been designed to minimize delays for agencies needing additional help when calling for Mutual Aid.

Automatic aid is a relatively new concept in the fire service. It is the process whereby the closest piece of emergency apparatus responds to a call for assistance regardless of jurisdiction. As city boundaries continue to expand, County fire stations find themselves surrounded by annexed neighborhoods and in a position to assist the cities with response in the area surrounding them. Conversely, the city fire stations constructed to mitigate the development allow the County Fire Department to relocate its equipment and stations to locations better serving the county residents by automatically responding to county areas to which they are closer. In this way, automatic aid also helps agencies become more cost effective by doing away with duplication of services.

The Fresno County Fire Protection District participates in mutual aid and response agreements with other agencies to obtain enhanced levels of service and coverage. These include cities and special districts in Fresno County, adjacent counties, the California Department of Forestry and Fire Protection (CAL FIRE), U.S. Army Corp of Engineers, and the U.S. Forest Service.

# POTENTIAL INFRASTRUCTURE FUNDING SOURCES

There are potential funding and financing mechanisms the County may pursue to address infrastructure and service deficiencies. Principal funding sources for local government infrastructure usually include taxes, benefit assessments, bonds, and exactions (including impact fees). Table 2 provides a list of these mechanisms. There are also federal and state programs that could potentially help address existing deficiencies identified in the communities discussed above. Table 3 provides a brief summary of programs that could provide funding to address infrastructure deficiencies in Fresno County's DUCs.



# TABLE 2 POTENTIAL FUNDING AND FINANCING MECHANISMS

| Funding Options for Existing Deficiencies                       |
|---|
| Assessment District   |
| Certificates of participation                                   |
| General obligation bonds  |
| Infrastructure Financing District                               |
| Mello-Roos Community Facilities District                        |
| Revenue bonds   |
| Tax allocation bonds  |
| User rate increases – no financing                              |
| User rate increases – with loans                                |
| Funding Options for Expansion of Facilities for New Development |
| Assessment District   |
| Developer-assisted extensions                                   |
| Infrastructure Financing District                               |
| Mello-Roos Community Facilities District                        |



| TABLE 3<br>POTENTIAL INFRASTRUCTURE FUNDING SOURCES                               |   |   |                                    |  |
|---|---|---|------------------------------------|--|
| Agency  | Program Name<br>(year<br>passed/created)  | Funding<br>Provided   | Funding<br>Remaining/<br>Available | Limitations/Barriers on<br>Use of Funds  |
| United States Housing and<br>Urban Development<br>Department (HUD)                | Community<br>Development Block<br>Grants (CDBG)<br>(1974) (grants)  | Grants of various<br>sizes, generally<br>\$250,000 to \$100<br>million, for the<br>construction or<br>reconstruction of<br>streets, water and<br>sewer facilities,<br>neighborhood<br>centers, recreation<br>facilities, and other<br>public works. | Annually                           | Not less than 70 percent of<br>CDBG funds must be used<br>for activities that benefit low-<br>and moderate-income<br>persons. In addition, each<br>activity must meet one of the<br>following national objectives<br>for the program: benefit low-<br>and moderate-income<br>persons, prevention or<br>elimination of slums or blight,<br>or address community<br>development needs having a<br>urgency because existing<br>conditions pose a serious<br>and immediate threat to the<br>health or welfare of the<br>community for which other<br>funding is not available. |
| USDA (United States<br>Department of Agriculture)<br>Rural Development<br>Program | Rural Utilities<br>Service - Water &<br>Environmental<br>Programs:<br>Circuit Rider<br>Program<br>Emergency<br>Community Water<br>Assistance Grants<br>Household Water<br>Well System<br>Grants<br>Individual Water &<br>Wastewater<br>Grants | Varies. See<br>website.   |                                    |  |



| TABLE 3 CONTINUED   |   |                         |                                    |   |  |
|---|---|-------------------------|------------------------------------|---|--|
| Agency  | Program Name<br>(year<br>passed/created)  | Funding<br>Provided     | Funding<br>Remaining/<br>Available | Limitations/Barriers on<br>Use of Funds |  |
| USDA (United States<br>Department of Agriculture)<br>Rural Development<br>Program (CONTINUED) | SEARCH - Special<br>Evaluation<br>Assistance for Rural<br>Communities<br>and Households<br>Solid Waste<br>Management Grants<br>Water & Waste<br>Disposal Grants to<br>Alleviate Health<br>Risks on Tribal<br>Lands and Colonies<br>Water & Waste<br>Disposal Loans &<br>Grants<br>Water & Waste<br>Disposal Loan<br>Guarantees<br>Water & Waste<br>Disposal Predevelopment<br>Planning Grants<br>Water & Waste<br>Disposal Revolving<br>Loan Funds<br>Water & Waste<br>Disposal Technical<br>Assistance &<br>Training Grants<br>Drinking water<br>disinfecting projects<br>using UV technology<br>and ozone<br>treatment (2002)<br>(grants) | Varies. See<br>website. |                                    |   |  |



| TABLE 3 CONTINUED   |   |  |  |   |
|---|---|--|--|---|
| Agency  | Program Name<br>(year<br>passed/created)  | Funding<br>Provided  | Funding<br>Remaining/<br>Available   | Limitations/Barriers on<br>Use of Funds   |
| California Financing<br>Coordinating Committee<br>(CFCC)              | Made up of six<br>funding agencies:<br>four state and two<br>federal (1998)             | CFCC member<br>agencies facilitate<br>and expedite the<br>completion of<br>various types of<br>infrastructure<br>projects by helping<br>customers<br>combine the<br>resources of<br>several agencies.<br>Project information<br>is shared between<br>members so<br>additional<br>resources can be<br>identified. | CFCC member<br>agencies conduct<br>free funding fairs<br>statewide each<br>year to educate<br>the public and<br>potential<br>customers about<br>the different<br>member<br>agencies and the<br>financial and<br>technical<br>resources<br>available. |   |
| State Water Resources<br>Control Board (SWRCB)<br>(State Water Board) | Safe Drinking Water<br>State Revolving<br>Fund (SDWSRF)<br>(1996) (grants and<br>loans) | Generally, \$100–<br>\$150 million: Low-<br>interest loans and<br>some grants to<br>support water<br>systems with<br>technical,<br>managerial, and<br>financial<br>development and<br>infrastructure<br>improvements.  | \$130-\$150<br>million (revolving<br>funds) (annually).  | 20 to 30 percent of annual<br>federal contribution can be<br>used for grants. The<br>remainder must be<br>committed to loans.<br>Funds can be used only for<br>capital costs.<br>Cannot be used for operation<br>and maintenance.<br>Only loans (not grants) for<br>privately owned water<br>systems.<br>Some funds available for<br>feasibility and planning<br>studies for eligible<br>projects/systems.<br>Can only be used for public<br>water systems (not domestic<br>wells or state small systems) |



| TABLE 3 CONTINUED |   |  |  |  |
|-------------------|---|--|--|--|
| Agency            | Program Name<br>(year<br>passed/created)  | Funding<br>Provided  | Funding<br>Remaining/<br>Available                               | Limitations/Barriers on<br>Use of Funds  |
| и и<br>           | Proposition 1, Water<br>Quality, Supply and<br>Infrastructure<br>Improvement Act<br>(2014) (grants)<br>Storm Water Grant<br>Program Prop. 1<br>funds are<br>administered by<br>multiple agencies. | \$7.545 billion for<br>water projects<br>including surface<br>and groundwater<br>storage,<br>ecosystem and<br>watershed<br>protection and<br>restoration, and<br>drinking water<br>protection (Storm<br>Water Program is<br>\$200 million;<br>Groundwater<br>Program is \$800<br>million). | \$7.545 billion.<br>Project selection<br>anticipated in<br>2016. | Eligible applicants: Public<br>agencies, nonprofit<br>organizations, public utilities,<br>federally recognized Indian<br>tribes, state Indian tribes<br>listed on Native American<br>Heritage Commission's<br>California Tribal Consultation<br>List, and mutual water<br>companies.<br>State Water Board Guideline<br>Adoption Hearings:<br>Prop 1. SWGP Guidelines<br>adoption hearings -<br>tentatively December<br>2015/January 2016<br>Storm Water Resource Plan<br>Guidelines – Tuesday,<br>December 1, 2015 |
| α α               | Clean Water State<br>Revolving Fund<br>(Expanded Use<br>Program) (CWSRF)<br>(1987) (loans)  | \$200–\$300 million<br>per year: Water<br>quality protection<br>projects,<br>wastewater<br>treatment,<br>nonpoint source<br>contamination<br>control, and<br>watershed<br>management.  | \$50 million per<br>agency per year;<br>can be waived.           | Eligible uses: Stormwater<br>treatment and diversion,<br>sediment and erosion<br>control, stream restoration,<br>land acquisition. Drinking<br>water treatment generally not<br>eligible except under certain<br>expanded use scenarios.<br>Capital cost only. Operation<br>and maintenance is not<br>eligible.  |



| TABLE 3 CONTINUED |   |  |  |   |  |
|-------------------|---|--|--|---|--|
| Agency            | Program Name<br>(year<br>passed/created)  | Funding<br>Provided  | Funding<br>Remaining/<br>Available   | Limitations/Barriers on<br>Use of Funds   |  |
| α α               | Small Community<br>Groundwater Grants<br>(Prop. 40) (2004,<br>amended 2007)<br>(grants) | \$9.5 million. Assist<br>small<br>disadvantaged<br>communities (less<br>than 20,000<br>people) with<br>projects where the<br>existing<br>groundwater<br>supply exceeds<br>maximum<br>contaminant<br>levels, particularly<br>for arsenic or<br>nitrate.   | \$1.4 million<br>remaining –<br>\$300,000<br>available to<br>encumber; \$1.1<br>million available<br>to appropriate.   | Funding can go to local<br>government or<br>nongovernmental<br>organization. Must<br>demonstrate financial<br>hardship. Can only provide<br>alternate water supply. No<br>operation and maintenance<br>costs. Program not currently<br>active due to staff resource<br>limitations. |  |
|                   | Small Community<br>Wastewater Grant<br>(SCWG) Program                                   | The SCWG<br>Program was most<br>recently funded in<br>2002 (by<br>Propositions 40<br>and 50), and<br>provided grants to<br>small (i.e., with a<br>population of<br>20,000 persons, or<br>less)<br>disadvantaged<br>(i.e., annual<br>median household<br>income [MHI] is 80<br>percent or less of<br>the statewide MHI)<br>communities for<br>planning, design,<br>and construction<br>of publicly owned<br>wastewater<br>treatment and<br>collection facilities. | All available<br>SCWG funds<br>were committed<br>to projects<br>several years<br>ago; however,<br>some of the<br>funds previously<br>committed to<br>projects have<br>gone unused for<br>various reasons.<br>These "residual<br>bond funds" have<br>been<br>disencumbered<br>and can be used<br>to fund new<br>projects. |   |  |



| TABLE 3 CONTINUED |  |   |  |   |
|-------------------|--|---|--|---|
| Agency            | Program Name<br>(year<br>passed/created)   | Funding<br>Provided   | Funding<br>Remaining/<br>Available   | Limitations/Barriers on<br>Use of Funds   |
| α α               | Nonpoint Source<br>(NPS) Grant<br>Program - Clean<br>Water Act §319(h)<br>and Timber<br>Regulation and<br>Forest Restoration<br>Fund | Funding range per<br>project for CWA<br>319(h) is<br>\$250,000–<br>\$800,000. Projects<br>are<br>implementation<br>actions to restore<br>impaired surface<br>waters and<br>groundwater by<br>controlling NPS<br>pollution.<br>Funding range per<br>project for Timber<br>Fund Projects is<br>\$250,000–<br>\$1,000,000.<br>Projects are<br>implementation<br>actions to improve<br>water quality on<br>forest lands in<br>watersheds with<br>State<br>Responsibility<br>Area.<br>Projects that<br>involve<br>disadvantaged<br>communities may<br>be eligible for a<br>waiver or<br>reduction of | No additional<br>specifics<br>available.   |   |
| и "               | State Water Quality<br>Control Fund:<br>Cleanup and<br>Abatement Account<br>(2009)   | matching funds.<br>\$10 million in 2012<br>(varies annually):<br>Projects to (a) clean<br>up waste/abate<br>effects on state<br>waters, when no<br>viable responsible<br>party, or (b) address<br>significant<br>unforeseen water<br>pollution problem<br>(reg. boards only).<br>Funds can be<br>allocated to public<br>ag., tribal<br>governments, and<br>NOP orgs. serve<br>DUCs.   | No additional<br>specifics<br>available.<br>\$10 million is<br>most recent<br>available figure,<br>but varies. | Eligible uses: Emergency<br>cleanup projects; projects to<br>clean up waste or abate its<br>effects on waters of the<br>state; regional water board<br>projects to address a<br>significant unforeseen water<br>pollution problem.<br>Recipient must have<br>authority to clean up waste.<br>Under certain circumstances<br>this fund has been used to<br>provide drinking water<br>operation and maintenance<br>for limited durations. |



| TABLE 3 CONTINUED |  |  |  |  |  |
|-------------------|--|--|--|--|--|
| Agency            | Program Name<br>(year<br>passed/created)   | Funding<br>Provided  | Funding<br>Remaining/<br>Available                     | Limitations/Barriers on<br>Use of Funds  |  |
| ""                | Agricultural Drainage<br>Loan Program<br>(created by the<br>Water Conservation<br>and Water Quality<br>Bond Act of 1986)   | \$6.66 million. Loan<br>repayments are for<br>a period of up to<br>20 years. | Accepting applications.                                | To address treatment,<br>storage, conveyance, or<br>disposal of agricultural<br>drainage water that<br>threatens waters of the state.  |  |
| а а               | Agricultural Drainage<br>Management Loan<br>Program (created by<br>Proposition 204 and<br>distributed through<br>the Agricultural<br>Drainage<br>Management<br>Subaccount) | \$10.44 million for<br>loans. (All grants<br>have been<br>disbursed.)        | Accepting<br>applications.                             | Funding for Drainage Water<br>Management Units (land and<br>facilities for the treatment,<br>storage, conveyance,<br>reduction, or disposal of<br>agricultural drainage water<br>that, if discharged untreated,<br>would pollute or threaten to<br>pollute the waters of the<br>state.)  |  |
| и и<br>           | Water Recycling<br>Funding Program<br>(2008) (grants)  | \$5 million for<br>construction.   | Accepting<br>applications.<br>\$0, fully<br>committed. | Provide for treatment and<br>delivery of municipal<br>wastewater to users that<br>replace the use of local<br>water supply with recycled<br>water.<br>Provide treatment and reuse<br>of groundwater contaminated<br>due to human activity and<br>provide local water supply<br>benefits.<br>Provide for the treatment and<br>disposal of municipal<br>wastewater to meet waste<br>discharge requirements<br>imposed for water pollution<br>control.<br>Projects that do not have<br>identifiable benefits to the<br>state or local water supply. |  |



| TABLE 3 CONTINUED                                 |  |  |  |  |  |
|---|--|--|--|--|--|
| Agency  | Program Name<br>(year<br>passed/created)   | Funding<br>Provided  | Funding<br>Remaining/<br>Available                 | Limitations/Barriers on<br>Use of Funds  |  |
| California Department of<br>Water Resources (DWR) | Integrated Regional<br>Water Management<br>(IRWM) (2002)<br>(grants)                                       | Recently<br>announced<br>awards for the<br>final solicitation.   | Check website<br>for possible<br>continued funding | Must be consistent with an<br>adopted IRWM Plan and<br>other program requirements.<br>For capital investment only.<br>Covers infrastructure but not<br>operations and maintenance.                     |  |
| "   | Contaminant<br>treatment or removal<br>technology pilot and<br>demonstration<br>studies (2002)<br>(grants) | Up to \$5 million<br>per grant.                                  | \$15 million<br>available.                         | Eligible applicants are public<br>water systems under the<br>regulatory jurisdiction of the<br>California Department of<br>Public Health and other<br>public entities. For capital<br>investment only. |  |
| "   | Safe Drinking Water<br>Bond Law (Prop 81)<br>(1988)  | Up to \$74 million<br>to be awarded to<br>current priority list. | Remaining<br>balance to be<br>determined.          | Provides funding for projects<br>that investigate and identify<br>alternatives for drinking<br>water system improvements.  |  |
| <i>и и</i>  | Drinking water<br>disinfecting projects<br>using UV technology<br>and ozone treatment<br>(2002) (grants)   | \$5,000 minimum,<br>up to \$5 million<br>per grant.              | \$19 million<br>remaining.                         | Eligible applicants are public<br>water systems under the<br>regulatory jurisdiction of the<br>California Department of<br>Public Health. For capital<br>investment only.                              |  |



| TABLE 3 CONTINUED                                 |  |   |  |   |
|---|--|---|--|---|
| Agency  | Program Name<br>(year<br>passed/created)                                   | Funding<br>Provided   | Funding<br>Remaining/<br>Available   | Limitations/Barriers on<br>Use of Funds   |
| iBank (CA Infrastructure<br>and Development Bank) | Infrastructure State<br>Revolving Fund<br>(ISRF) Program<br>(2000) (Ioans) | \$50,000 to<br>\$25,000,000 loans<br>per project to<br>finance water<br>infrastructure that<br>promotes job<br>opportunities.<br>Eligible projects<br>include<br>construction or<br>repair of publicly<br>owned water<br>supply, treatment,<br>and distribution<br>systems. | \$52.6 million<br>approved to date<br>for water supply,<br>treatment, and<br>distribution.<br>Applications<br>continually<br>accepted. | Finances system capital<br>improvements only. Must<br>show job creation. Special<br>loan tier for DUCs was<br>discontinued.   |
| Local Governments and<br>Public Agencies          | Ongoing  | Taxation  | n/a  | In 1982, the California State<br>Legislature enacted the<br>Community Facilities Act,<br>commonly referred to as<br>Mello-Roos. This act<br>authorized local jurisdictions<br>to establish community<br>facility districts, which would<br>directly serve as another<br>funding mechanism for<br>financing public work<br>projects, and even public<br>services. This method of<br>revenue generation<br>potentially could be used to<br>finance projects that will<br>make the necessary<br>improvements to the<br>deficiencies in these<br>communities. |



| TABLE 3 CONTINUED                        |  |                        |                                    |  |  |
|--|--|------------------------|------------------------------------|--|--|
| Agency                                   | Program Name<br>(year<br>passed/created) | Funding<br>Provided    | Funding<br>Remaining/<br>Available | Limitations/Barriers on<br>Use of Funds  |  |
| Local Governments and<br>Public Agencies | Ongoing                                  | Impact Fees            | n/a                                | Development Impact Fees<br>can be imposed for new<br>development, in order to<br>acquire funding to construct<br>capital facilities. Applying<br>development impact fees to<br>projects does have<br>substantial limitations under<br>the California Mitigation Fee<br>Act and under the State and<br>Federal Constitutions. |  |
| Local Governments and<br>Public Agencies | Ongoing                                  | User Rate<br>Increases | n/a                                | Method for funding existing<br>deficiencies. Could be<br>implemented in conjunction<br>with loans or with no<br>financing. Would be subject<br>to a Proposition 218<br>hearings process.   |  |



### KEY TERMS

**Community.** An inhabited area within a city or county that is comprised of no less than 10 dwelling units adjacent or in close proximity to one another.

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

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

**Fringe Community.** Any inhabited and unincorporated territory that is within the city's sphere of influence.

**Legacy Community.** A geographically isolated community that is inhabited and has existed for at least 50 years.

**Local Agency Formation Commission (LAFCo).** A commission within each county that reviews and evaluates all proposals for formation of special districts, incorporation of cities, annexation to special districts or cities, consolidation of districts, and merger of districts with cities. Each county's LAFCo is empowered to approve, disapprove, or conditionally approve such proposals. This commission is made up of two members of the County Board of Supervisors, two City Council members, and a public member.

**Municipal Service Review (MSR).** A study conducted for a city, county, or special district that examines all public service needs for the area and recommends action to promote the efficient provision of public services.

**Sphere of Influence (SOI).** The probable physical boundaries and service area of a local agency, as determined by the Local Agency Formation Commission (LAFCo).



#### References

AECOM. (2018). Engineer's report: Del Rey Community Service District.

- Alex, K. (2013). Technical Advisory, Senate Bill 244: Land use, general plans, and disadvantaged communities. Prepared for the Office of Planning and Research for the State of California.
- AM Consulting Engineers, Inc. (2018). *Improvements project at wastewater treatment plant: Preliminary engineering report.* Prepared for Biola Community Service District.
- Anderson, J. (2018). *Excerpt from the Fresno County General Plan Background Report on Malaga* [Letter, Jim Harnish]. Prepared for Tranquillity Public Utility District.
- Braitman & Associates. (2007). *Tranquillity Irrigation District: Municipal service review and sphere of influence update*. Fresno Local Agency Formation Commission. Retrieved from <u>http://www.fresnolafco.org/documents/staff-</u> reports/Approved%20MSR's/Tranquillity%20Irrigation.pdf
- California Department of Water Resources. (2013). *Final report: Kings Basin Water Authority disadvantaged community pilot project study*. Retrieved from <u>https://www.kingsbasinauthority.org/wp-</u> <u>content/uploads/2014/03/Kings%20Basin%20DAC%20Final%20Report.pdf</u>
- California Department of Water Resources. (2020). Fresno County Water Systems. [Webpage]. Retrieved from <u>https://sdwis.waterboards.ca.gov/PDWW/JSP/WaterSystems.jsp?PointOfContactType=</u> <u>none&number=&WaterSystemStatus=A&name=&county=Fresno</u>
- California Department of Water Resources (2020b). Water Partnership Success Stories. [Webpage]. Retrieved from <u>https://www.waterboards.ca.gov/drinking\_water/certlic/drinkingwater/partnershipsuccess.html</u>
- CalFire/Fresno County Fire Protection District (FCFPD) (2020). [Telephone conversation between County Staff (Dan Mather, Chief Building Official, Chris Motta, Principal Planner, Ryan Michaels, Battalion Chief, Cal Fire and Chris Bump, Assistant Chief, Fresno County Fire]. June 18, 2020.
- California Natural Resource Agency. (2017). *Bond accountability: Emergency project for Lanare Community Services District*. [Webpage]. Retrieved from <u>http://bondaccountability.resources.ca.gov/Project.aspx?ProjectPK=12793&Proposition</u> <u>PK=4</u>



- California Water News Daily (2019). Fresno County's Tombstone Territory Home to Signing of Safe and Affordable Drinking Water Bill, [California Water News Daily].
- Central Valley Regional Water Quality Control Board. (2014). *Malaga County Water District: Wastewater treatment facility, Fresno County*. Retrieved from <u>https://www.malagacwd.org/files/54b360c94/CVRWQCB.Salinity+Plan.Approved.pdf</u>
- Chauhan, Kassy. (2020). North Kings Groundwater Sustainability Agency (personal communication, April 1, 2020).
- City of Kerman Department of Public Works. (2019). [Discussion, Ken Moore, Public Works Director]. Fresno, CA
- City of Kerman Planning and Development Staff Report. (2019). Resolution Approving Maintenance Agreement with the County of Fresno for the Double L Mobile Ranch Park Water Service Project. [Staff Report to the City Council, February 6, 2019].
- Fey, D. (2015). Agenda item no. 7: Consider approval: Disadvantaged unincorporated communities database management and implementation guidelines. Fresno Local Agency Formation Commission [Report]. Retrieved from <u>http://www.fresnolafco.org/documents/staff-</u> <u>reports/February%202015/DUC%20Policy%20Staff%20Report.pdf</u>
- Fey, D. (2013). Fresno County Fire Protection District: Municipal service review and sphere of influence update. Fresno Local Agency Formation Commission. Retrieved from <u>http://www.fresnolafco.org/documents/staff-</u> <u>reports/Approved%20MSR's/Fresno%20County%20Fire.pdf</u>
- Fey, D., Fleming, C., & Hendricks, S. (2007). Fresno Metropolitan Flood Control District: Municipal service review and sphere of influence update. Fresno Local Agency Formation Commission. Retrieved from http://www.fresnolafco.org/documents/MSRs/FMFCD%20MSR%20(1).pdf
- Fey, D., Flemming, C., & Hendricks, S. (2013). Biola Community Service District: Municipal service review and sphere of influence update. Fresno Local Agency Formation Commission. Retrieved from <u>http://www.fresnolafco.org/documents/staff-</u> <u>reports/Approved%20MSR's/Biola%20CSD.pdf</u>
- Fey, D., Flemming, C., Uc, G., & Lara, J. (2018a). Riverdale Public Utility District: Municipal service review and sphere of influence revision. Fresno Local Agency Formation Commission. Retrieved from <u>http://www.fresnolafco.org/documents/MSRs/Final\_Riverdale%20PUD%20MSR\_02142</u> <u>018.pdf</u>



- Fey, D., Flemming, C., Uc, G., & Lara, J. (2018b). *Tranquillity Public Utility District: Municipal service review and sphere of influence revision*. Fresno Local Agency Formation Commission. Retrieved from <a href="http://www.fresnolafco.org/documents/MSRs/Final\_Tranquillity%20PUD%20MSR\_0214">http://www.fresnolafco.org/documents/MSRs/Final\_Tranquillity%20PUD%20MSR\_0214</a> 2018.pdf
- Fey, D., Flemming, C., Uc, G., & Lara, J. (2016a). North Central Fire Protection District: Municipal service review and sphere of influence update. Fresno Local Agency Formation Commission. Retrieved from <u>http://www.fresnolafco.org/documents/MSRs/NCFPD\_MSR\_121416\_Final.pdf</u>
- Fey, D., Flemming, C., Uc, G., & Lara, J. (2016b). County Service Area No. 49/O'Neill Farms: Municipal service review and sphere of influence revision. Fresno Local Agency Formation Commission. Retrieved from <u>http://www.fresnolafco.org/documents/MSRs/CSA%20No%2049%20(O'Neill%20Farms)</u> %20Final MSR 09142016.pdf
- Flegal, C., Rice, S., Mann, J., & Tran, J. (2013). *California unincorporated: Mapping disadvantaged communities in the San Joaquin Valley*. Policy Link. Retrieved from <a href="https://www.policylink.org/sites/default/files/CA%20UNINCORPORATED\_FINAL.pdf">https://www.policylink.org/sites/default/files/CA%20UNINCORPORATED\_FINAL.pdf</a>
- Fresno County. (2000). *Fresno county general plan*. Retrieved from <u>https://www.co.fresno.ca.us/departments/public-works-planning/divisions-of-public-works-and-planning/development-services-division/planning-and-land-use/general-plan-maps</u>
- Fresno County. (2008). Malaga wastewater treatment facility [Report]. Fresno, CA.
- Fresno County Department of Public Health. (2009). *Envision Connect: Well data records* [Database]. Fresno, CA.
- Fresno County Department of Public Works and Planning. (2019a). Amanda: Permit records [Database]. Fresno, CA.
- Fresno County Department of Public Works and Planning. (2019b). *Permit records* [Microfiche]. Fresno, CA.
- Fresno County Department of Public Works and Planning. (2019c). *Geographic information* systems (GIS) [Database]. Fresno, CA.
- Fresno County Department of Public Works and Planning. (2019d). Resources Division. Special Districts Administration [Discussion]. Fresno, CA.



- Fresno County Department of Public Works and Planning. (2019e). Road Maintenance and Operations Division: Radio Logs, November 2018 through June 2019 [Data]. Fresno, CA.
- Fresno County Department of Public Works and Planning (2019f). Planning Grant Application for Additional Residential Property Connections – County Service Area No. 39, Zone AB [September 10, 2019 Board Agenda Item No. 50]. Fresno, CA.
- Fresno County Department of Public Works and Planning (2019g). Resources Division: Special Districts Request for Meeting with CRLA [December 20, 2018 to January 22, 2019 staff e-mails]. Fresno, CA.
- Fresno County Department of Public Works and Planning. (2020). Road Maintenance and Operations Division: Area Supervisor Updates for Flooding in SB 244 DUCs [April 8, 2020 e-mail to staff].
- Fresno County Department of Public Works and Planning (2013). *General plan conformity findings: Del Rey Community Services District wastewater discharge area,* [Report, February 7, 2013]. Fresno, CA.
- Fresno County Fire Protection District. (2008). *Fresno county fire protection plan: Strategic plan for 2008-2012*. Retrieved from <u>https://www.fresnocountyfire.org/wp</u> <u>content/uploads/2017/04/fco\_strategic\_plan\_3.14.08-master\_copy-kla-</u> <u>with\_signatures.pdf</u>
- Knickmeyer, Ellen and Scott Smith (2015). Uranium Contaminates Water Across California's Central Valley, [KQED/Associated Press]
- Malaga County Water District. (2018). Letter to Fresno County Public Works and Planning Director in response to Fresno County General Plan Review December 17, 2017 Public Review Draft [Letter, March 13, 2018]. Fresno, CA
- Martinez, Leslie (2020) Letter from Leadership Counsel for Justice and Accountability to Fresno County Public Works and Planning in response to the County's Draft Senate Bill 244 Analysis [Letter, March 13, 2020]. Fresno, CA
- National Weather Service (2019). *California rain year data: Fresno monthly rainfall by water year*. Retrieved from <u>https://www.wrh.noaa.gov/hnx/fat/normals/fath2oyr.pdf</u>
- North Central Fire Protection District. (2019). *North Central Fire Protection District* [Webpage]. Retrieved from <u>https://northcentralfire.org/</u>
- PMC. (2007a). *Del Rey Community Service District: Municipal service review*. Fresno Local Agency Formation Commission. Retrieved from <u>http://www.fresnolafco.org/documents/staff-</u> <u>reports/Approved%20MSR's/Del%20Rey%20CSD.pdf</u>



- PMC. (2007b). *Kings River Water District: Municipal service review and sphere of influence update*. Fresno Local Agency Formation Commission. Retrieved from <u>http://www.fresnolafco.org/documents/staff-</u> reports/Approved%20MSR's/Kings%20River%20Water.pdf
- PMC. (2007c). Lanare Community Service District: Municipal service review and sphere of influence update. Fresno Local Agency Formation Commission. Retrieved from <u>http://www.fresnolafco.org/documents/staff-</u> reports/Approved%20MSR's/Lanare%20CSD%20MSR.pdf
- PMC. (2007d). Malaga County Water District: Municipal service review and sphere of influence update. Fresno Local Agency Formation Commission. Retrieved from <u>http://www.fresnolafco.org/documents/staff-</u> <u>reports/Approved%20MSR's/Malaga%20County%20Water.pdf</u>
- PMC. (2007e). *Riverdale Public Utility District: Municipal service review and sphere of influence update*. Fresno Local Agency Formation Commission. Retrieved from <a href="http://www.fresnolafco.org/documents/MSRs/Final\_Riverdale%20PUD%20MSR\_02142">http://www.fresnolafco.org/documents/MSRs/Final\_Riverdale%20PUD%20MSR\_02142</a> <a href="http://www.fresnolafco.org/documents/MSRs/Final\_Riverdale%20PUD%20MSR\_02142">http://www.fresnolafco.org/documents/MSRs/Final\_Riverdale%20PUD%20MSR\_02142</a> <a href="http://www.fresnolafco.org/documents/MSRs/Final\_Riverdale%20PUD%20MSR\_02142">http://www.fresnolafco.org/documents/MSRs/Final\_Riverdale%20PUD%20MSR\_02142</a> <a href="http://www.fresnolafco.org/documents/MSRs/Final\_Riverdale%20PUD%20MSR\_02142">http://www.fresnolafco.org/documents/MSRs/Final\_Riverdale%20PUD%20MSR\_02142</a> <a href="http://www.fresnolafco.org/documents/MSRs/Final\_Riverdale%20PUD%20MSR\_02142">http://www.fresnolafco.org/documents/MSRs/Final\_Riverdale%20PUD%20MSR\_02142</a>
- Provost & Prichard Consulting Group. (2019). County of Fresno County Service Area 39 Zone A & Zone B: Preliminary system capacity review, April 23, 2019 [Report]. Fresno, CA.
- Provost & Prichard Consulting Group. (2017). *County of Fresno County Service Areas 30 and 32 El Porvenir and Cantua Creek: Fresno county westside groundwater project technical memorandum*. [Memorandum April 2017]. Fresno, CA.
- Provost & Prichard Consulting Group. (2020). CSA 30 and 32 Groundwater Well Project Water Quality Results and Proposed Improvements. [Memorandum January 7, 2020]. Fresno, CA.
- Romero, Ezra David and Kerry Klein (2017). They Built It, But Couldn't Afford to Run It Clean Drinking Water Fight Focuses on Gaps in Funding, [Valley Public Radio]
- State of California. (2019). Open data portal: SB 535 Disadvantaged communities 2017 [Dataset]. Retrieved from <u>https://data.ca.gov/dataset/sb-535-disadvantaged-communities-2017</u>.
- Self-Help Enterprises. (2020). Preliminary Engineering Report Tombstone Territory Water Connection Project, February 20, 2020 [Report]. Fresno, CA.
- Thompson, Mariah C. (2020) Letter from California Rural Legal Assistance, Inc. to Fresno County Public Works and Planning Director in response to the County's Draft Senate Bill 244 Analysis [Letter, February 3, 2020]. Fresno, CA



- United States Census Bureau. (2019a) *American Community Survey 2013 2017* [Database]. Retrieved from <u>https://www.census.gov/programs-surveys/acs/news/data-releases.2017.html</u>
- United States Census Bureau. (2019b). *American Community Survey* [Webpage]. Retrieved from www.census.gov/programs-surveys/acs
- Witte, J., Fleming, C., & Hendricks, S. (2011a). *Caruthers Community Service District: Municipal* service review and sphere of influence update. Fresno Local Agency Formation Commission. Retrieved from <u>http://www.fresnolafco.org/documents/staff-</u> reports/Approved%20MSR's/Caruthers%20CSD.pdf
- Witte, J., Fleming, C., & Hendricks, S. (2011b). Laton Community Service District: Municipal service review and sphere of influence update. Fresno Local Agency Formation Commission. Retrieved from <u>http://www.fresnolafco.org/documents/staff-</u> <u>reports/Approved%20MSR's/Laton%20CSD.pdf</u>
- Witte, J., Fleming, C., & Hendricks, S. (2011c). *County Service Area No. 30: Municipal service review and sphere of influence update*. Fresno Local Agency Formation Commission. Retrieved from <u>http://www.fresnolafco.org/documents/staff-reports/Approved%20MSR's/CSA%20No.%2030%20MSR.pdf</u>
- Witte, J., Fleming, C., & Hendricks, S. (2011d). County Service Area No. 32: Municipal service review and sphere of influence update. Fresno Local Agency Formation Commission. Retrieved from <u>http://www.fresnolafco.org/documents/staff-</u> <u>reports/Approved%20MSR's/CSA%20No.%2032%20MSR.pdf</u>
- Witte, J., Fleming, C., & Hendricks, S. (2011e). County Service Area No. 39: Municipal service review and sphere of influence update. Fresno Local Agency Formation Commission. Retrieved from <u>http://www.fresnolafco.org/documents/staff-</u> <u>reports/Approved%20MSR's/CSA%2039.pdf</u>
- Witte, J., Fleming, C., & Hendricks, S. (2011f). *County Service Area No. 43: Municipal service review and sphere of influence update*. Fresno Local Agency Formation Commission. Retrieved from <u>http://www.fresnolafco.org/documents/staff-reports/Approved%20MSR's/CSA%20No.%2043%20MSR.pdf</u>
- Witte, J., Fleming, C., & Hendricks, S. (2011g). Easton Community Service District: Municipal service review and sphere of influence update. Fresno Local Agency Formation Commission. Retrieved from <u>http://www.fresnolafco.org/documents/staff-</u> <u>reports/Approved%20MSR's/Easton%20CSD.pdf</u>
- Yamabe & Horn Engineering Inc. (2017). Water System Upgrade, Preliminary Project Evaluation and Pre-Design Engineering Report: Prepared for Biola Community Service District [Report, March 31, 2017]. Fresno, CA.



Yamabe & Horn Engineering Inc. (2019). [Telephone conversation between engineer representing City of Sanger and Mohammad Khorsand, Fresno County Senior Planner]. October 24, 2019.