DISADVANTAGED UNINCORPORATED COMMUNITIES

INTRODUCTION

This section describes the existing conditions, evaluation methodolgy, and regulatory framework of Senate Bill 244 (SB 244), as it pertains to Merced County.

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.

Dibromochloropropane (DBCP). A soil fumigant used prior to 1979.

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.

Domestic Water Use. Water used for household purposed such as drinking, food preparation, bathing, washing clothes, dishes, and animals, flushing toilets, and watering lawns and gardens.

Effluent. Treated wastewater that is discharged from a wastewater treatment facility.

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

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.

Legacy Community. A geographically isolated, inhabited, and unincorporated community outside a city Sphere of Influence that is inhabited and has existed for at least 50 years.

Local Agency Formation Commission (LAFCO). A commission within each county in California 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. The Merced County LAFCO is made up of two members of the County Board of Supervisors, two members from cities in the county, , and one public member. There are also three alternate members, one each from the County, city, and public.

Million Gallons per Day (mgd). A rate of flow of water equal to 133,680.56 cubic feet per day, 1.5742 cubic feet per second, or 3.0689 acre-feet per day. A flow of one million gallons per day for one year equals 1,120 acre-feet (365 million gallons).

Municipal Service Review (MSR). A study conducted by LAFCO 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.

Potable Water. Water of a quality suitable for drinking.

Recharge. Re-supplying of water to the aquifer. Recharge occurs naturally from snowmelt and stormwater runoff. Recharge can also occur through artificial processes that redirect reclaimed water or water from natural sources into aquifers.

Sanitary Sewer. Pipes, pump stations, manholes, and other facilities that convey untreated (raw) wastewater from various sources to wastewater treatment facilities.

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

Stormwater. Precipitation that accumulates in natural and/or constructed storage and stormwater systems during and immediately following a storm event.

Surface Water. Water that is on the earth's surface, such as a stream, river, lake, or reservoir.

Tertiary Treatment. Treatment of wastewater that follows secondary treatment and involves a filtration or membrane processes to remove fine suspended and colloidal material, thus providing a more advanced level of treatment plan secondary to treatment alone.

Wastewater. Sewage (either treated or untreated) from residential, commercial, industrial, and institutional sources.

Water Table. The top of the water surface in the saturated part of an aquifer.

Well (water). An artificial excavation put down by any method for the purposes of withdrawing water from underground aquifers. A bored, drilled, or driven shaft or a dug hole whose depth is greater than the largest surface dimension and whose purpose is to reach underground water supplies.

WWTF. Abbreviation for wastewater treatment facility.

REGULATORY SETTING

Senate Bill 244 Disadvantaged Communities (Government Code Section 65302.10). Senate Bill (SB) 244 requires, on or before the next due date for the next adoption of its housing element, a city or county to review and update the land use element of its general plan to identify, in the case of a city, each unincorporated island or fringe community within the city's Sphere of Influence (SOI), and in the case of a county, each legacy community within the boundaries of the county, but excluding any area within the SOI of any city. The general plan must include for identified communities a description of the community; a map designating its location; an analysis of water, wastewater, stormwater drainage, and structural fire protection needs or deficiencies; and an analysis of benefit assessment districts or other financing alternatives that could make the extension of services financially feasible. It also requires that on or before the due date for each subsequent revision of its housing element, each city and county review, and if necessary amend its general plan to update this analysis.

Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000. The Cortese-Knox-Hertzberg Local Government 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. This law also provided major revisions to LAFCO procedures in processing boundary changes for cities and special districts, and required LAFCO approval before agencies can provide services outside their city or district boundaries.

EXISTING CONDITIONS

Senate Bill 244 (SB 244) was passed in 2011, requiring municipalities to address the inherent inequalities between unincorporated communities. The bill seeks the assessment of access to vital public services and the evaluation of the current state of the infrastructure that these communities rely upon. SB 244 requires that the assessment of these unincorporated communities be done before the adoption of its housing element. Government Code (GC) Section 65302.10. (a). states that each city and county review and update the land use element of its general plan, based on available data, including, but not limited to, the data and analysis

developed pursuant to Section 56430, of unincorporated island, fringe, or legacy communities inside or near its boundaries.

Methodology

As part of the SB 244 evaluation process to determine whether unincorporated communities are disadvantaged, a set of criteria must be satisfied. Local LAFCOs in conjunction with City and County governments, analyze these criteria to determine whether a community is an island, fringe, or legacy community. Counties are only required to identify legacy communities, based on the following:

- The legacy community is located outside the City Limits and the SOI of a city.
- The legacy community must have been inhabited for at least 50 years.
- The community must consist of at least 10 dwelling units that are close to each other.
- The community must have a median household income of 80 percent or less than the statewide average.
- If the community meets all of these requirements, the County must then prepare an analysis of access to public services, status of the infrastructure and whether it is adequately serving the population to determine whether it is a disadvantaged unincorporated community (DUC).

Merced County SB 244 Evaluation Method

The evaluation method began by narrowing down which unincorporated communities were located outside the SOI of incorporated cities in Merced County. Within Census block groups, a density analysis, as well as, aerial spot checking was completed to locate clusters of residential development that consisted of 10 or more dwelling units within close proximity of each other.

The methodology used to determine close proximity was that suggested by Policy Link, which calculated a density scale of at 250 parcels per square mile. Upon identifying the clusters that qualified, the 2000 Census block group datasets, along with the American Community Survey (ACS) for 2014 were utilized to narrow down which of these pockets of development were constructed over 50 years ago.

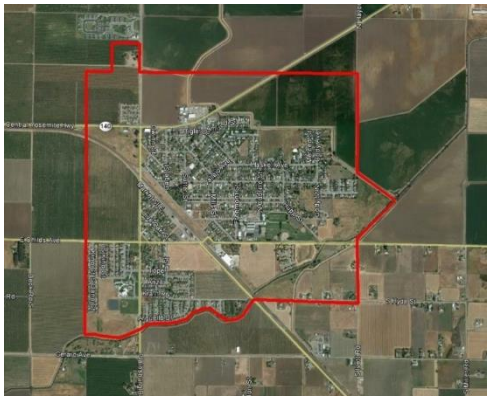
The communities outside the spheres were then analyzed using the 2000 Census to determine the median income, and that it met the requirement of being below 80 percent of the state median household income (MHI). At the time of the 2000 Census, the reported statewide MHI was $47,493, meaning that a community with a MHI of $37,994 or less, would qualify for the income limits as a disadvantaged unincorporated community.

In order to further refine the data, U.S. Census block group datasets from the 2000 Census were used to compare the income status of local households relative to households across the state. The census block groups were derived from census tracts, which typically cover a large geographic area, encompassing both unincorporated communities and incorporated cities. The block groups provide statistical data for a more refined area, which aids in determining the median household income (MHI) for clusters of development that were not recognized as Census Designated Places (CDP) as of 2000 or are not part of currently recognized CDPs.

Based on the research from the U.S. Census, American Community Survey, and mapping tools, it has been concluded that Merced County has 18 "legacy" disadvantaged unincorporated communities.

MERCED COUNTY DISADVANTAGED UNINCORPORATED COMMUNITIES

Planada



Location and Service Providers

Planada is located in eastern Merced County, approximately seven miles east of the City of Merced along California State Route 140. Its boundaries are coterminous with the Planada Census Designated Place. Planada encompasses approximately 945 acres. Water service is provided by the Planada Community Services District (Planada CSD). The District also owns and operates a wastewater treatment plant (WWTP) located southwest of the community. Fire Service in Planada is provided by the Merced County Fire Department. Merced County manages a community-wide stormwater system through Zones of Benefit under the County Service Area No. 1.

Planada	
Water	The Planada CSD provides domestic water to 1,227 connections (5,500 residents) from the Merced Groundwater Basin using six pressure tanks and six groundwater wells with depths ranging from 296 to 370 feet, with a production capacity of 4.32 mgd. The average usage is approximately 0.97 mgd. Domestic groundwater is treated by chlorination through a water transmission system and is delivered to residents through 12 miles of piping. Currently the peak hour demand is reaching capacity, at 92 percent. The service is adequate for the current population, but in order to accommodate future growth, at least one more well will need to be added to the system.
Wastewater	Planada CSD provides wastewater service to approximately 1,811 connections, although some connections serve multiple units on a parcel, and the district estimates 1,383 dwelling units were served as of 2015. Under order of the Central Valley Regional Water Quality Control Board, the District has to abandon their old treatment plant and construct a new modern plant. The new plant started construction in 2015 and is expected to be operational in early 2017. The maximum capacity in Phase I of the new wastewater treatment plant is 0.75 mgd. Phase I includes capacity for all existing development in the community and 150 new units. The total average monthly daily inflow at the existing wastewater plant was estimated to range between 0.45 to 0.50 gpd as of 2011 by the District engineers.
Stormwater	Storm drainage capture and transport is provided through roadside ditches, curb and gutter, as well as on-site private drainage ponds. Through a combination of grant funds and loans, the County constructed a positive storm drainage system in the community and installed a dual use drainage pond/recreational area on the southwest side of the community to discharge the stormwater. This has led to less ponding and localized flooding during large rain events.
Fire Protection	Merced County Fire Department provides fire protection with the operation of Station #86, located in Planada. Planada is designated as a Category 1 Land Use Area, which refers to the Levels of Services (LOS) provided by MCFD. These categories are determined by the characteristics of the land uses and the distance from a Merced County Fire Station, which ultimately provide an anticipated emergency response time from initial dispatch. The Category 1 Land Use Area, is primarily commercial uses, and residential uses upwards of 20 dwelling units an acre, with an anticipated average emergency response time of seven minutes from initial dispatch.

Service Deficiencies

The Planada CSD water service currently is sufficient, but may become deficient due to groundwater overdraft in the future. The five wells that pump domestic water to Planada are being pumped from what the California Department of Water Resources (DWR) considers a high priority groundwater basin, due to the severe overdraft from both urban and agricultural uses. According to DWR, the Merced Groundwater Basin is being depleted at a rate of 54,000 acre-feet per year (afy) for urban uses and 492,000 afy for agricultural uses. In conjunction with the recent years of drought, pumping groundwater has caused ground subsidence in the basin vicinity. The Planada CSD WWTP has also reached capacity. While existing customers receive sufficient service, limited new connections can be added to the system. However, the Planada CSD is currently in the process of expanding the WWTP. Wastewater service will be sufficient once the new plant is constructed and operational in 2017 with a maximum capacity of 0.75 mgd. Fire emergency services in Planada are sufficient. There are no known localized flooding issues.

Winton

Location and Service Providers

Winton is located in central Merced County, approximately seven miles northwest of the City of Merced and one-mile north of the City of Atwater Its boundaries are coterminous with the Winton Census Designated Place. Winton encompasses approximately 1,284 acres. Water service is provided by the Winton Water and Sanitary District (WWSD). The District currently relies on treatment of wastewater by the City of Atwater. Fire Service in Winton is provided by the Merced County Fire Department. Merced County manages a community-wide stormwater system through Zones of Benefit under the County Service Area No. 1.

Winton	
Water	The Winton Water and Sanitary District (WWSD) provides domestic water to 2,982 connections (8,990 residents) from the Merced Groundwater Basin using three groundwater wells, with depths ranging from 285 to 935 feet. The production capacity of the three wells is currently 6.05 mgd. The daily average usage is approximately 1.56 mgd, with an annual average usage of approximately 569.3 million gallons. The existing service is adequate to meet the demand for the current population, but in order to accommodate projected future growth, additional infrastructure will need to be added.
Wastewater	The WWSD does not own and operate a wastewater treatment facility (WWTF). The WWSD collects wastewater from its 2,969 connections and transports it to the City of Atwater for treatment. The Atwater Wastewater Treatment Plant has reserved a portion (1 mgd) of its designed capacity for the treatment of Winton's wastewater. The last measured sewer flow rate to the Atwater Wastewater Treatment Plant was 0.71 mgd back in 2006. The existing service is adequately meeting demand, but with substantial future growth anticipated, the WWSD is considering the construction of its own treatment facility.
Stormwater	Storm drainage capture and transport is provided through roadside ditches, curb and gutter, as well as on-site private drainage ponds. The County Public Works Department maintains the basins through a property tax assessment on individual 'Zones of Benefit' and no deficiencies have been identified.
Fire Protection	Merced County Fire Department provides fire protection with the operation of Station #88, located in Winton. Winton is designated as a Category 1 Land Use Area, which refers to the Levels of Services (LOS) provided by MCFD. These categories are determined by the characteristics of the land uses and the distance from a Merced County Fire Station, which ultimately provide an anticipated emergency response time from initial dispatch. The Category 1 Land Use Area, is primarily commercial uses, and residential uses upwards of 20 dwelling units an acre, with an anticipated average emergency response time of seven minutes from initial dispatch.

Service Deficiencies

The WWSD provides adequate source of potable water to service Winton customers from district wells. The three wells that pump water to Winton customers extracted from the Merced Groundwater Basin. The California Department of Water Resources considers the basin a high priority due to the severe overdraft from both urban and agricultural uses. In conjunction with the recent years of drought, pumping groundwater has cause ground subsidence in the basin vicinity. Since Winton Water and Sanitary District does not own or operate a wastewater treatment plant to treat wastewater, it has become reliant on the City of Atwater to provide the service. In the future this can become an issue as the population in the area increases. In 2007 a feasibility study was conducted for the placement of a tertiary water treatment plant which could serve up to 800 acres of Winton. Stormwater capture and transport is sufficient, with no known localized flooding issues. Fire protection services are sufficient, with a station located in the community and average response times of seven minutes.

Ballico

Location and Service Providers

Ballico is located in northeastern Merced County, approximately five miles east of Delhi and seven miles north of Winton. Its boundaries are coterminous with the Ballico Census Designated Place. Ballico encompasses approximately 190 acres. Water service is provided by the Ballico Community Services District (Ballico CSD). The District does not own or operates a wastewater treatment facility. Fire Service in Ballico is provided by the Merced County Fire Department.

Ballico	
Water	The Ballico CSD provides domestic water to over 50 connections from the Turlock Groundwater Basin. The CSD was formed in 1983 to install a community well because of poor groundwater quality in the existing individual domestic wells; specifically, high concentrations of nitrates and dibromochloropropane (DBCP). The production capacity of the well the CSD is utilizing is unknown. The State Water Resources Control Board has been coordinating with the County Division of Environmental Health to look at options for installing a second well, and at opportunities for consolidation.
Wastewater	Ballico is not connected to a local sanitary sewer system. The community currently relies on individual or community septic systems. There are no identified problems with the septic systems in the community now that individual domestic wells have been removed. The County does not target Ballico for any future growth.
Stormwater	Storm drainage capture and transport is limited since there is no existing roadside ditches, curb, and gutter.
Fire Protection	Merced County Fire Department provides fire protection with the operation of Station #92, located in Ballico. Ballico is designated as a Category 1 Land Use Area, which refers to the Levels of Services (LOS) provided by MCFD. These categories are determined by the characteristics of the land uses and the distance from a Merced County Fire Station, which ultimately provide an anticipated emergency response time from initial dispatch. The Category 1 Land Use Area, is primarily commercial uses, and residential uses upwards of 20 dwelling units an acre, with an anticipated average emergency response time of seven minutes from initial dispatch.

Service Deficiencies

The Ballico CSD water service currently is sufficient, but may become deficient due to groundwater overdraft in the future. The Ballico CSD only operates one well without a backup well as required by the DWR. The well, that pumps domestic water to Ballico is being extracted from what the California Department of Water Resources

(DWR) considers a high priority groundwater basin, due to the severe overdraft from both urban and agricultural uses. According to DWR, the Turlock Groundwater Basin is being depleted at a rate of 65,000 acre-feet per year (afy) for urban uses and 387,000 afy for agricultural uses. The community solely relies on individual and community septic systems, which in the future will not be able to sustain an increase in development. While Ballico lacks a community stormwater collection system, there is no identified deficiency due to the low density of development in the community and the fact that the sandy soils provide quick drainage. Fire protection services are sufficient, with a station located in the community, and average response times of seven minutes.

Le Grand

Location and Service Providers

Le Grand is located in eastern Merced County, approximately 13 miles southeast of the City of Merced. Its boundaries are coterminous with the Le Grand Census Designated Place. Le Grand encompasses approximately 456 acres. Water service is provided by the Le Grand Community Services District (LGCSD). The District also owns a wastewater treatment facility southwest of the community. Fire service in Le Grand is provided by the Merced County Fire Department.

Le Grand	
Water	The Le Grand CSD provides domestic water to 485 connections (1,760 residents) from the Merced Groundwater Basin using two primary groundwater wells and one standby well, with depths ranging from 340 to 416 feet. The production capacity of the wells is currently 1.8 mgd. The average usage is approximately 0.96 mgd. The existing service is adequate for the current population, but in order to accommodate projected future residential growth, additional wells will need to be added to the system.
Wastewater	The Le Grand CSD owns and operates a wastewater treatment facility (WWTF). The average daily flow rate of the WWTF is 154,000 gpd as noted by a 12-month average from 2004-2005. The treatment plant has a designed capacity of 350,000 gpd. The CSD treatment facility also includes one lift station. The existing facilities are meeting the demand of the community, but with residential growth expected, it's anticipated that an expansion of the facility will need to take place with the possibility of an additional one or two lift stations
Stormwater	Storm drainage capture and transport is sufficient since there are existing roadside ditches, curb, and gutter. The County Public Works Department maintains the basins through a property tax assessment on individual 'Zones of Benefit' and no deficiencies have been identified.
Fire Protection	Merced County Fire Department provides fire protection with the operation of Station #84, located in Le Grand. Le Grand is designated as a Category 1 Land Use Area, which refers to the Levels of Services (LOS) provided by MCFD. These categories are determined by the characteristics of the land uses and the distance from a Merced County Fire Station, which ultimately provide an anticipated emergency response time from initial dispatch. The Category 1 Land Use Area, is primarily commercial uses, and residential uses upwards of 20 dwelling units an acre, with an anticipated average emergency response time of seven minutes from initial dispatch.

Service Deficiencies

The Le Grand CSD water service currently is sufficient, but may become deficient due to groundwater overdraft in the future. The three wells, including a standby, that pump domestic water to Le Grand are being extracted from what the California Department of Water Resources (DWR) considers a high priority groundwater basin, due to the severe overdraft from both urban and agricultural uses. According to DWR, the Merced Groundwater Basin is being depleted at a rate of 54,000 acre-feet per year (afy) for urban uses and 492,000 afy for agricultural uses. In conjunction with the recent years of drought, pumping groundwater has caused ground subsidence in the basin vicinity. The Le Grand CSD WWTF has not yet reached capacity, and is considered sufficient. While existing

demand is being met, anticipated residential growth will likely require an expansion of the facility with the addition of two lift stations. Stormwater capture and transport is sufficient, with no known localized flooding issues. Fire protection services are sufficient, with a station located in the community, and average response times of seven minutes.

Dos Palos "Y"

Location and Service Providers

Dos Palos "Y" is located in southern Merced County, approximately four miles north of the City of Dos Palos at the junction of Highway 152 and Highway 33. Its boundaries are coterminous with the Dos Palos "Y" Census Designated Place. Dos Palos "Y" encompasses approximately 35 acres. Water service is provided by low capacity wells. Dos Palos "Y" is not served by a sanitary sewer system, only by individual and community septic systems. Fire Service in Dos Palos "Y" is provided by the Merced County Fire Department.

Dos Palos "Y"	
Water	Dos Palos 'Y' is not served by a water district, but relies on individual domestic groundwater wells. These wells extract groundwater from the Delta/Mendota Groundwater Basin. The production capacity of the wells and average usage is unknown. Due to the presence of on-site septic systems and on-site wells, there is a threat to water quality over the long-term. Efforts to form a Community Services District in the 1980s and connect to the City of Dos Palos water system failed when the vote to establish the district failed in the community."
Wastewater	Dos Palos "Y" is not connected to a local sanitary sewer system. The community currently relies on individual or community septic systems. There are no identified problems with the septic systems in the community, except for the small size of lots in parts of the community which also have on-site wells. The County does not target Dos Palos "Y" for any future growth.
Stormwater	Storm drainage capture and transport is limited since there is no existing roadside ditches, curb, and gutter.
Fire Protection	Merced County Fire Department provides fire protection with the operation of Station #75, located in Dos Palos "Y". Dos Palos "Y" is designated as a Category 1 Land Use Area, which refers to the Levels of Services (LOS) provided by MCFD. These categories are determined by the characteristics of the land uses and the distance from a Merced County Fire Station, which ultimately provide an anticipated emergency response time from initial dispatch. The Category 1 Land Use Area, is primarily commercial uses, and residential uses upwards of 20 dwelling units an acre, with an anticipated average emergency response time of seven minutes from initial dispatch.

Service Deficiencies

Water service in Dos Palos "Y" may become deficient due to groundwater overdraft or water quality issues. The low capacity wells that pump domestic water to Dos Palos "Y" is being extracted from what the California Department of Water Resources (DWR) considers a high priority groundwater basin, due to the severe overdraft from both urban and agricultural uses. According to DWR, the Delta/Mendota Groundwater Basin is being depleted at a rate of 17,000 acre-feet per year (afy) for urban uses and 491,000 afy for agricultural uses. In conjunction with the recent years of drought, pumping groundwater has caused ground subsidence in the basin vicinity. The community of Dos Palos "Y" also lacks sufficient access to a reliable wastewater treatment facility. The community solely relies on individual and community septic systems. Dos Palos "Y" does not have adequate transport for stormwater, with the community having no sidewalks, curb, gutter, or treatment facility for excess runoff. No known major flooding issues have occurred because of this, but such areas with inadequate infrastructure commonly deal with ponding and

potential flooding during large rain events. Fire protection services are sufficient, with a station located in the community, and average response times of seven minutes.

North Dos Palos

Location and Service Providers

North Dos Palos is located in southern Merced County, situated on the northern city limit line of the City of Dos Palos, adjacent to Highway 33. Its boundaries are W. Carmellia Avenue to the south, Reynolds Avenue to west, and Palm Avenue to the east. North Dos Palos encompasses approximately 141 acres. Water service is provided by the North Dos Palos Water District (NDPWD). North Dos Palos is not served by a sanitary sewer system, only by individual septic systems. Fire Service in North Dos Palos is provided by the Merced County Fire Department.

NORTH DOS PALOS	
Water	The North Dos Palos Water District (NDPWD) provides domestic water to 41 connections. Due to the lack of groundwater quality in North Dos Palos, the community entered into a Joint Powers Agreement (JPA) with three additional surrounding water districts and the City of Dos Palos to provide potable domestic water to the approximately 100 residents Since the JPA was enacted, water quality issues have been addressed with a connection to a water supply from the California Aqueduct and a new water treatment plant."
Wastewater	North Dos Palos is not connected to a local sanitary sewer system. The community currently relies on individual septic systems. The County does not target North Dos Palos for any future growth.
Stormwater	Storm drainage capture and transport is limited since there is no existing roadside ditches, curb, and gutter.
Fire Protection	Merced County Fire Department provides fire protection with the operation of Station #76, located in the City of Dos Palos. North Dos Palos is designated as a Category 1 Land Use Area, which refers to the Levels of Services (LOS) provided by MCFD. These categories are determined by the characteristics of the land uses and the distance from a Merced County Fire Station, which ultimately provide an anticipated emergency response time from initial dispatch. Even though a station is not located in the community, its proximity to a designated MCFD station (within a mile) is sufficient. The Category 1 Land Use Area, is primarily commercial uses, and residential uses upwards of 20 dwelling units an acre, with an anticipated average emergency response time of seven minutes from initial dispatch.

Service Deficiencies

The lack of stormwater improvements is not a problem for this small rural community as it contains only 41 homes on a total of 141 acres stretching along the north side of Carmellia Avenue. Domestic water service provided through the water district via the City of Dos Palos by the JPA is sufficient. Similarly, there is no identified problem with on-site septic systems since the community does not rely on individual wells. Fire protection services are sufficient, with a station located in the community, and average response times of seven minutes.

Cressey

Location and Service Providers

Cressey is located in eastern Merced County, approximately three miles south of Ballico and three miles north of Winton. Its boundaries are coterminous with the Cressey Census Designated Place. Cressey encompasses approximately 207 acres. Water service is provided by individual private wells. Cressey is not served by a sanitary sewer system, only by individual septic systems. Fire Service in Cressey is provided by the Merced County Fire Department.

Cressey	
Water	Cressey is not served by a water district, but receives its domestic water from individual private wells in the community. These wells extract groundwater from the Merced Groundwater Basin. The production capacity of the wells and average usage is unknown.
Wastewater	Cressey is not connected to a local sanitary sewer system. The community currently relies on individual septic systems. The County does not target Cressey for any future growth.
Stormwater	Storm drainage capture and transport is limited since there is no existing roadside ditches, curb, and gutter.
Fire Protection	Merced County Fire Department provides fire protection with the operation of Station #94, located in Cressey. Cressey is designated as a Category 1 Land Use Area, which refers to the Levels of Services (LOS) provided by MCFD. These categories are determined by the characteristics of the land uses and the distance from a Merced County Fire Station, which ultimately provide an anticipated emergency response time from initial dispatch. The Category 1 Land Use Area, is primarily commercial uses, and residential uses upwards of 20 dwelling units an acre, with an anticipated average emergency response time of seven minutes from initial dispatch.

Service Deficiencies

Water service in Cressey has the potential to become deficient due to groundwater overdraft, but due to its location along the Merced River overdraft in the larger basin may not result in an impact to the local communtiy. The individual private wells that pump domestic water to Cressey is being extracted from what the California Department of Water Resources (DWR) considers a high priority groundwater basin, due to the severe overdraft from both urban and agricultural uses. According to DWR, the Merced Groundwater Basin is being depleted at a rate of 54,000 acre-feet per year (afy) for urban uses and 492,000 afy for agricultural uses. In conjunction with the recent years of drought, pumping groundwater has caused ground subsidence in the basin vicinity. The community of Cressey also lacks sufficient access to a reliable wastewater treatment facility. The community solely relies on individual and community septic systems. Cressey does not have adequate transport for stormwater, with the community having no sidewalks, curb, gutter, or treatment facility for excess runoff. No known major flooding issues have occurred because of this, but such areas with inadequate infrastructure commonly deal with ponding and potential flooding during large rain events. Fire protection services are sufficient, with a station located in the community, and average response times of seven minutes.

Celeste

Location and Service Providers

Celeste is located in central Merced County, on the eastern edge of the City of Merced along Highway 140. Its boundaries are Kibby Road to the east, Highway 140 to the south, and Harley Lateral canal to the west. Celeste encompasses approximately 47 acres. Water and wastewater service are provided by the City of Merced. The Celeste County Water District was formed in the 1970's to obtain grant funding and a bond for water and wastewater infrastructure due to failing wells and septic systems. However, because the infrastructure was installed and is maintained by the City, the District does not collect monthly sewer or water service charges and does not provide any services. Fire Service in Celeste is provided by the Merced County Fire Department.

Celeste	
Water	The City of Merced provides domestic water to the community of Celeste through a network of over 21 wells. The wells that Merced City utilizes have depths ranging from 98 to 833 feet. These wells extract water from the Merced Groundwater Basin.
Wastewater	Wastewater collection and treatment is administered by the City of Merced.
Stormwater	Storm drainage capture and transport is limited since there is no existing roadside ditches, curb, and gutter.
Fire Protection	Merced County Fire Department provides fire protection to Celeste, and does not have a station located in the community. The closest MCFD fire station would be Station #85 and Station #81 located in the City of Merced. Both County Fire Stations are located three miles away. Celeste is designated a Category 2 Land Use Area, which refers to the Levels of Services (LOS) provided by MCFD. These categories are determined by the characteristics of the land uses and the distance from a Merced County Fire Station, which ultimately provides an anticipated emergency response time from initial dispatch. The Category 2 Land Use Area is primarily agricultural uses, and rural residential density ranging from a population of 200-250 per square mile, with an anticipated average emergency response time of 10 minutes from initial dispatch.

Service Deficiencies

Stormwater treatment and collection in Celeste is deficient due to lack of infrastructure to dispose and treat the excess runoff. No known major flooding issues have occurred because of this, but such areas with inadequate infrastructure commonly deal with ponding and potential flooding during large rain events. The City of Merced provides wastewater collection and treatment at adequate levels to the community, and this area is not identified as a growth area in the Merced County General Plan. Although the City of Merced provides domestic water, and that the demand is sufficient, it is still important to note that the water being extracted is creating a sever overdraft in the basin. The California Department of Water Resources (DWR)considers the Merced Groundwater Basin a high priority, due to the overdraft from both urban and agricultural uses, and lack of recharge into the water table. According to DWR, the Merced Groundwater Basin is being depleted at a rate of 54,000 acre-feet per year (afy) for urban uses and 492,000 afy for agricultural uses. Fire emergency services in Celeste are inadequate due to the rural location of the community. In order for Celeste to have sufficient fire protection services a station must either be located in the community or within one-half mile.

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The Grove

Location and Service Providers

The Grove is located in northern Merced County, approximately one-mile north of the City of Atwater and one-mile northeast of Winton. The Grove encompasses approximately 28 acres. Water service is provided by individual private wells. The Grove is not served by a sanitary sewer system, only by individual septic systems. Fire Service in The Grove is provided by the Merced County Fire Department.

The Grove	
Water	The Grove is not served by a water district, but receives its domestic water from private wells in the community. These wells extract groundwater from the Merced Groundwater Basin. The production capacity of the wells and average usage is unknown.
Wastewater	The Grove is not connected to a local sanitary sewer system. The community currently relies on individual or community septic systems. The community relies on individual septic systems, and the County does not identify this community as an area for growth.
Stormwater	Storm drainage capture and transport is limited since there is no existing roadside ditches, curb, and gutter.
Fire Protection	Merced County Fire Department provides fire protection to The Grove, and does not have a station located in the community. The closest MCFD fire station would be Station #88 in Winton and Station #89 located at Castle Air Force Base. Both County Fire Stations are located two to three miles away. The Grove is designated a Category 2 Land Use Area, which refers to the Levels of Services (LOS) provided by MCFD. These categories are determined by the characteristics of the land uses and the distance from a Merced County Fire Station, which ultimately provide an anticipated emergency response time from initial dispatch. The Category 2 Land Use Area, is primarily agricultural uses, and rural residential density ranging from a population of 200-250 per square mile, with an anticipated average emergency response time of 10 minutes from initial dispatch.

Service Deficiencies

Water service in The Grove may become deficient due to groundwater overdraft. The low private wells pumping domestic water to The Grove is being extracted from what the California Department of Water Resources (DWR) considers a high priority groundwater basin, due to the severe overdraft from both urban and agricultural uses. According to DWR, the Merced Groundwater Basin is being depleted at a rate of 54,000 acre-feet per year (afy) for urban uses and 492,000 afy for agricultural uses. In conjunction with the recent years of drought, pumping groundwater has caused ground subsidence in the basin vicinity. The community also lacks sufficient access to a reliable wastewater treatment facility. The community solely relies on individual and community septic systems, which in the future will not be able to sustain an increase in development. The Grove does not have adequate transport or treatment for stormwater. No known major flooding issues have occurred because of this, but such areas with inadequate infrastructure commonly deal with ponding and potential flooding during large rain events. Fire emergency services in The Grove are inadequate due to the rural location of the community. In order for The Grove to have sufficient fire protection services a station must either be located in the community or within one-half mile.

El Nido

Location and Service Providers

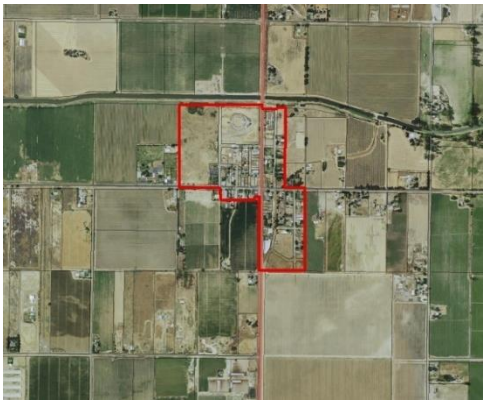
El Nido is located in southeastern Merced County, approximately nine miles south of the City of Merced and three miles north of the Madera County line. Its boundaries are coterminous with the El Nido Census Designated Place. El Nido encompasses approximately 64 acres. Water service is provided by individual private wells. El Nido is not served by a sanitary sewer system, only by individual and community septic systems. Fire Service in El Nido is provided by the Merced County Fire Department.

El NIDO	
Water	El Nido is not served by a water district, but receives its domestic water from low capacity wells in the community. These wells extract groundwater from the Chowchilla Groundwater Basin. The production capacity of the wells and average usage is unknown.
Wastewater	El Nido is not connected to a local sanitary sewer system. The community currently relies on individual or community septic systems. The community currently relies on individual or community septic systems, and the County does not identify this community as an area for any growth.
Stormwater	Storm drainage capture and transport is limited since there is no existing roadside ditches, curb, and gutter.
Fire Protection	Merced County Fire Department provides fire protection with the operation of Station #83, located in El Nido. El Nido is designated as a Category 1 Land Use Area, which refers to the Levels of Services (LOS) provided by MCFD. These categories are determined by the characteristics of the land uses and the distance from a Merced County Fire Station, which ultimately provide an anticipated emergency response time from initial dispatch. The Category 1 Land Use Area, is primarily commercial uses, and residential uses upwards of 20 dwelling units an acre, with an anticipated average emergency response time of seven minutes from initial dispatch.

Service Deficiencies

Water service in El Nido may become deficient due to groundwater overdraft. The low capacity wells pumping domestic water to El Nido is being extracted from what the California Department of Water Resources (DWR) considers a high priority groundwater basin, due to the severe overdraft from both urban and agricultural uses. According to DWR, the Chowchilla Groundwater Basin is being depleted at a rate of 6,000 acre-feet per year (afy) for urban uses and 249,000 afy for agricultural uses. In conjunction with the recent years of drought, pumping groundwater has caused ground subsidence in the basin vicinity. The community of El Nido also lacks sufficient access to a reliable wastewater treatment facility. The community solely relies on individual and community septic systems, which in the future will not be able to sustain an increase in development. El Nido does not have adequate transport or treatment for stormwater. No known major flooding issues have occurred because of this, but such areas with inadequate infrastructure commonly deal with ponding and potential flooding during large rain events. Fire protection services are sufficient, with a station located in the community, and average response times of seven minutes.

Stevinson



Location and Service Providers

Stevinson is located in northwestern Merced County, approximately four miles south of Hilmar and 12 miles west of the City of Merced along Highway 165. Its boundaries are coterminous with the Stevinson Census Designated Place. Stevinson encompasses approximately 74 acres. Water service is provided by individual private wells. Stevinson is not served by a sanitary sewer system, only by individual and community septic systems. Fire Service in Stevinson is provided by the Merced County Fire Department.

Stevinson	
Water	Stevinson is not served by a water district, but receives its domestic water from private wells in the community. These wells extract groundwater from the Merced Groundwater Basin. The production capacity of the wells and average usage is unknown.
Wastewater	Stevinson is not connected to a local sanitary sewer system. The community currently relies on individual or community septic systems. The lack of proper treatment of wastewater will limit the ability for future growth.
Stormwater	Storm drainage capture and transport is limited since there is no existing roadside ditches, curb, and gutter.
Fire Protection	Merced County Fire Department provides fire protection with the operation of Station #97, located in Stevinson. Stevinson is designated as a Category 1 Land Use Area, which refers to the Levels of Services (LOS) provided by MCFD. These categories are determined by the characteristics of the land uses and the distance from a Merced County Fire Station, which ultimately provide an anticipated emergency response time from initial dispatch. The Category 1 Land Use Area, is primarily commercial uses, and residential uses upwards of 20 dwelling units an acre, with an anticipated average emergency response time of seven minutes from initial dispatch.

Service Deficiencies

Water service in Stevinson may become deficient due to groundwater overdraft. The private individual wells in Stevinson are pumping domestic water from what the California Department of Water Resources (DWR) considers a high priority groundwater basin, due to the severe overdraft from both urban and agricultural uses. According to DWR, the Merced Groundwater Basin is being depleted at a rate of 54,000 acre-feet per year (afy) for urban uses and 492,000 afy for agricultural uses. In conjunction with the recent years of drought, pumping groundwater has caused ground subsidence in the basin vicinity. The community of Stevinson also lacks sufficient access to a reliable wastewater treatment facility. The community solely relies on individual and community septic systems, which in the future will not be able to sustain an increase in development. Stevinson does not have adequate transport or treatment for stormwater, with approximately 95 percent of the community having no sidewalks, curb, and gutter. No known major flooding issues have occurred because of this, but such areas with inadequate infrastructure commonly deal with ponding and potential flooding during large rain events. Fire protection services are sufficient, with a station located in the community, and average response times of seven minutes.

Volta

Location and Service Providers

Volta is located in western Merced County, approximately five miles east of Santa Nella and four miles northwest of Los Banos. Its boundaries are Ingomar Grade to the east, Volta Road to south, Frontier Street to the west, and 3rd Street to the north. Volta encompasses approximately 19 acres. Water service is provided by the Volta Community Services District (VCSD). Volta is not served by a sanitary sewer system, only by individual and community septic systems. Fire service in Volta is provided by the Merced County Fire Department.

Volta	
Water	The Volta CSD provides domestic water to 30 connections (100 residents) from the Delta/Mendota Groundwater Basin using a community groundwater well. The production capacity of the well and average usage is unknown. Due to the ongoing drought in California, Volta has been placed under the Stage 4 Drought Alert, which has placed mandatory conservation measures into place to conserve and limit the use of water. Even with the mandatory conservation measures in place, the existing service is adequate for the current population, but it has been noted that any future connections to the system will require an upgrade of facilities. The Volta CSD lacks a back-up well required by the DWR, but has a temporary agreement with an industrial tomato processing plant to access one of their wells in an emergency.
Wastewater	Volta is not connected to a local sanitary sewer system. The community currently relies on individual or community septic systems The County does not target Volta for any future growth.
Stormwater	Storm drainage capture and transport is limited since there is no existing roadside ditches, curb, and gutter.
Fire Protection	Merced County Fire Department provides fire protection to Volta, and does not have a station located in the community. The closest MCFD fire station would be Station #72 in Santa Nella and Station #71 located in Los Banos. Both County Fire Stations are located over six miles away. Volta is designated a Category 3 Land Use Area, which refers to the Levels of Services (LOS) provided by MCFD. These categories are determined by the characteristics of the land uses and the distance from a Merced County Fire Station, which ultimately provide an anticipated emergency response time from initial dispatch. The Category 3 Land Use Area, is primarily agricultural uses, and rural residential density ranging from a population of 100-249 per square mile, with an anticipated average emergency response time of 15 minutes from initial dispatch.

Service Deficiencies

The Volta CSD water service may become deficient due to groundwater overdraft and the lack of a district owned back-up well. The well that pumps domestic water to Volta is being pumped from what the California Department of Water Resources (DWR) considers a high priority groundwater basin, due to the severe overdraft from both urban and agricultural uses. According to DWR, the Delta/Mendota Groundwater Basin is being depleted at a rate of 17,000 acre-feet per year (afy) for urban uses and 491,000 afy for agricultural uses. In conjunction with the recent years of drought, pumping groundwater has caused ground subsidence in the basin vicinity. The community of Volta also lacks sufficient access to a reliable wastewater treatment facility. Volta does not have adequate transport or treatment for stormwater. No known major flooding issues have occurred because of this, but such areas with inadequate infrastructure commonly deal with ponding and potential flooding during large rain events. Fire emergency services in Volta are inadequate due to the rural location of the community. In order for Volta to have sufficient fire protection services a station must either be located in the community or within one-half mile.

Snelling

Location and Service Providers

Snelling is located in northeastern Merced County, approximately 13 miles northeast of the City of Merced along Highway 59. Its boundaries are coterminous with the Snelling Census Designated Place. Snelling encompasses approximately 105 acres. Water service is provided by individual wells. Sanitary treatment is provided by the Snelling Community Services District (SCSD) with the operation of a Waste Water Treatment Facility (WWTF) located west of the community. Fire Service in Snelling is provided by the Merced County Fire Department.

Snelling	
Water	Snelling is not served by a water district, but receives its domestic water from individual private low capacity wells in the community. The production capacity of these private wells and average usage is unknown. These wells extract groundwater from Turlock Groundwater Basin.
Wastewater	The Snelling CSD owns and operates a Waste Water Treatment Facility (WWTF) which services 115 connections. The average daily flow rate of the WWTF is 31,000 gpd. The treatment plant has a designed capacity of 60,000 gpd, including a 7-acre portion of a distribution pond for effluent discharge. To respond to stress in the system or potential emergencies during abnormally high influx of use, the District crafted a policy which would limit the maximum capacity in the facility to not exceed 75 percent, equating to 45,000 gpd. The existing service is meeting demand.
Stormwater	Storm drainage capture and transport is limited since there is no existing roadside ditches, curb and gutter.
Fire Protection	Merced County Fire Department provides fire protection with the operation of Station #87, located in Snelling. Snelling is designated as a Category 1 Land Use Area, which refers to the Levels of Services (LOS) provided by MCFD. These categories are determined by the characteristics of the land uses and the distance from a Merced County Fire Station, which ultimately provide an anticipated emergency response time from initial dispatch. The Category 1 Land Use Area, is primarily commercial uses, and residential uses upwards of 20 dwelling units an acre, with an anticipated average emergency response time of seven minutes from initial dispatch.

Service Deficiencies

The Snelling Community Services District (SCSD) wastewater system supplies an adequate source of treatment to Snelling customers, where current capacity has not been met. The individual pumping of domestic groundwater currently provides enough capacity for the community, but it is unknown if additional growth and connections will strain local groundwater supply. It is important to note that the domestic water being pumped by the private wells is extracted from the Turlock Groundwater Basin, which is noted as a high priority basin in the San Joaquin Valley due to excessive overdraft. The current depletion rate of the basin is 65,000 acre-feet per year (afy) for urban uses and 387,000 afy for agricultural uses. Snelling does not have reliable transport for stormwater in the form of curbs, gutter, and roadside ditches or the proper facilities to treat runoff. No known major flooding issues have occurred because of this, but such areas which do have inadequate infrastructure commonly deal with ponding and potential flooding during large rain events. Fire protection services are sufficient, with a station located in the community, and average response times of seven minutes.

Tuttle

Location and Service Providers

Tuttle is located in central Merced County, approximately four miles east of the City of Merced. Its boundaries are N Orchard Road to the west, Highway 140 to the south, and N Arboleda Drive to the east. Tuttle encompasses approximately 20 acres. Water service is provided by individual private wells. Tuttle is not served by a sanitary sewer system, only by individual and community septic systems. Fire Service in Tuttle is provided by the Merced County Fire Department.

Tuttle	
Water	Tuttle is not served by a water district, but receives its domestic water from private wells in the community. These wells extract groundwater from the Merced Groundwater Basin. The production capacity of the wells and average usage is unknown.
Wastewater	Tuttle is not connected to a local sanitary sewer system. The community currently relies on individual or community septic systems. The County does not target Tuttle for any future growth.
Stormwater	Storm drainage capture and transport is limited since there is no existing roadside ditches, curb, and gutter.
Fire Protection	Merced County Fire Department provides fire protection to Tuttle, and does not have a station located in the community. The closest MCFD fire station would be Station #85 and Station #81 located in the City of Merced. Both County Fire Stations are located four miles away. Tuttle is designated a Category 2 Land Use Area, which refers to the Levels of Services (LOS) provided by MCFD. These categories are determined by the characteristics of the land uses and the distance from a Merced County Fire Station, which ultimately provides an anticipated emergency response time from initial dispatch. The Category 2 Land Use Area is primarily agricultural uses, and rural residential density ranging from a population of 200-250 per square mile, with an anticipated average emergency response time of 10 minutes from initial dispatch.

Service Deficiencies

Water service in Tuttle may become deficient due to groundwater overdraft. The private individual wells in Tuttle are pumping domestic water from what the California Department of Water Resources (DWR) considers a high priority groundwater basin, due to the severe overdraft from both urban and agricultural uses. According to DWR, the Merced Groundwater Basin is being depleted at a rate of 54,000 acre-feet per year (afy) for urban uses and 492,000 afy for agricultural uses. In conjunction with the recent years of drought, pumping groundwater has caused ground subsidence in the basin vicinity. The community of Tuttle also lacks sufficient access to a reliable wastewater treatment facility. The community solely relies on individual and community septic systems, and the County does not target Tuttle for any future growth.Tuttle does not have adequate transport or treatment for stormwater. No known major flooding issues have occurred because of this, but such areas with inadequate infrastructure commonly deal with ponding and potential flooding during large rain events. Fire emergency services in Tuttle are inadequate due to the rural location of the community. In order for Tuttle to have sufficient fire protection services a station must either be located in the community or within one-half mile.

Unincorporated Community #1

Location and Service Providers

Unincorporated Community #1 is located in southern Merced County, approximately one-mile south of the City of Los Banos at the junction of Highway 165 and Phillips Road. Its boundaries are bound by an irrigation canal to the west, and Highway 165 (Mercy Springs Road) to the east. Unincorporated Community #1 encompasses approximately three acres. Water service is provided by individual private wells. Unincorporated Community #1 is not served by a sanitary sewer system, only by individual and community septic systems. Fire Service in Unincorporated Community #1 is provided by the Merced County Fire Department.

Unincorporated Community #1	
Water	Unincorporated Community #1 is not served by a water district, but receives its domestic water from private wells in the community. These wells extract groundwater from the Delta/Mendota Groundwater Basin. The production capacity of the wells and average usage is unknown.
Wastewater	Unincorporated Community #1 is not connected to a local sanitary sewer system, and currently relies on individual or community septic systems. The County does not target this rural agricultural area for any future growth.
Stormwater	Storm drainage capture and transport is limited since there is no existing roadside ditches, curb, and gutter.
Fire Protection	Merced County Fire Department provides fire protection to Unincorporated Community #1, and does not have a station located in the community. The closest MCFD fire station would be Station #71 located in the City of Los Banos. The County Fire Station is located two miles away. Unincorporated Community #1 is designated a Category 2 Land Use Area, which refers to the Levels of Services (LOS) provided by MCFD. These categories are determined by the characteristics of the land uses and the distance from a Merced County Fire Station, which ultimately provides an anticipated emergency response time from initial dispatch. The Category 2 Land Use Area is primarily agricultural uses, and rural residential density ranging from a population of 200-250 per square mile, with an anticipated average emergency response time of 10 minutes from initial dispatch.

Service Deficiencies

Water service in Unincorporated Community #1 may become deficient due to groundwater overdraft. The private wells pumping domestic water to Unincorporated Community #1 are being extracted from what the California Department of Water Resources(DWR) considers a high priority groundwater basin, due to the severe overdraft from both urban and agricultural uses. According to DWR, the Delta/Mendota Groundwater Basin is being depleted at a rate of 17,000 acre-feet per year (afy) for urban uses and 491,000 afy for agricultural uses. In conjunction with the recent years of drought, pumping groundwater has caused ground subsidence in the basin vicinity. Unincorporated Community #1 lacks sufficient access to a reliable wastewater treatment facility. This isolated cluster of rural homes solely relies on individual and septic systems, and the County does not target this area for any future growth. Unincorporated Community #1 does not have adequate transport or treatment for stormwater. No known major flooding issues have occurred because of this, but such areas with inadequate infrastructure commonly deal with ponding and potential flooding during large rain events. Fire emergency services in Unincorporated Community #1 are inadequate due to the rural location of the community. In order for Unincorporated Community #1 to have sufficient fire protection services a station must either be located in the community or within one-half mile.

Unincorporated Community #2

Location and Service Providers

Unincorporated Community #2 is located in northern Merced County, approximately two miles south of the community of Delhi and two miles north of the City of Livingston. Its boundaries are bound by the Merced River to the south, Bloss Avenue to north, Sycamore Street to the west and rural ranchettes to the east. Unincorporated Community #2 encompasses approximately 22 acres. Water service is provided by individual private wells. Unincorporated Community #2 is not served by a sanitary sewer system, only by individual and community septic systems. Fire Service in Unincorporated Community #2 is provided by the Merced County Fire Department.

Unincorporated Community #2	
Water	Unincorporated Community #2 is not served by a water district, but receives its domestic water from private wells in the community. These wells extract groundwater from the Merced Groundwater Basin. The production capacity of the wells and average usage is unknown.
Wastewater	Unincorporated Community #2 is not connected to a local sanitary sewer system, and currently relies on individual or community septic systems. The County does not target this rural agricultural area for any future growth.
Stormwater	Storm drainage capture and transport is limited since there is no existing roadside ditches, curb, and gutter.
Fire Protection	Merced County Fire Department provides fire protection to Unincorporated Community #2, and does not have a station located in the community. The closest MCFD fire station would be Station #91 located in Delhi and Station #96 located in Livingston. Both County Fire Stations are located two miles away. Unincorporated Community #2 is designated a Category 2 Land Use Area, which refers to the Levels of Services (LOS) provided by MCFD. These categories are determined by the characteristics of the land uses and the distance from a Merced County Fire Station, which ultimately provides an anticipated emergency response time from initial dispatch. The Category 2 Land Use Area is primarily agricultural uses, and rural residential density ranging from a population of 200-250 per square mile, with an anticipated average emergency response time of 10 minutes from initial dispatch.

Service Deficiencies

Water service in Unincorporated Community #2 may become deficient due to groundwater overdraft. The private wells pumping domestic water to Unincorporated Community #2 are being extracted from what the California Department of Water Resources(DWR) considers a high priority groundwater basin, due to the severe overdraft from both urban and agricultural uses. According to DWR, the Merced Groundwater Basin is being depleted at a rate of 54,000 acre-feet per year (afy) for urban uses and 492,000 afy for agricultural uses. In conjunction with the recent years of drought, pumping groundwater has caused ground subsidence in the basin vicinity. Unincorporated Community #2 lacks sufficient access to a reliable wastewater treatment facility This isolated cluster of rural homes solely relies on individual and septic systems, and the County does not target this area for any future growth. Unincorporated Community #2 does not have adequate transport or treatment for stormwater. No known major flooding issues have occurred because of this, but such areas with inadequate infrastructure commonly deal with ponding and potential flooding during large rain events. Fire emergency services in Unincorporated Community #2 are inadequate due to the rural location of the community. In order for Unincorporated Community #2 to have sufficient fire protection services a station must either be located in the community or within one-half mile.

Unincorporated Community #3

Location and Service Providers

Unincorporated Community #3 is located in northern Merced County, approximately two miles south of the community of Delhi and two miles north of the City of Livingston. Its boundaries are the Merced River to the south, an irrigation canal to north, Merced Avenue to the west and rural ranchettes to the east. Unincorporated Community #3 encompasses approximately 14 acres. Water service is provided by individual private wells. Unincorporated Community #3 is not served by a sanitary sewer system, only by individual and community septic systems. Fire Service in Unincorporated Community #3 is provided by the Merced County Fire Department.

Unincorporated Community #3	
Water	Unincorporated Community #3 is not served by a water district, but receives its domestic water from private wells in the community. These wells extract groundwater from the Merced Groundwater Basin. The production capacity of the wells and average usage is unknown.
Wastewater	Unincorporated Community #3 is not connected to a local sanitary sewer system, and currently relies on individual or community septic systems. The County does not target this rural agricultural area for any future growth.
Stormwater	Storm drainage capture and transport is limited since there is no existing roadside ditches, curb, and gutter.
Fire Protection	Merced County Fire Department provides fire protection to Unincorporated Community #3, and does not have a station located in the community. The closest MCFD fire station would be Station #91 located in Delhi and Station #96 located in Livingston. Both County Fire Stations are located two miles away. Unincorporated Community #3 is designated a Category 2 Land Use Area, which refers to the Levels of Services (LOS) provided by MCFD. These categories are determined by the characteristics of the land uses and the distance from a Merced County Fire Station, which ultimately provides an anticipated emergency response time from initial dispatch. The Category 2 Land Use Area is primarily agricultural uses, and rural residential density ranging from a population of 200-250 per square mile, with an anticipated average emergency response time of 10 minutes from initial dispatch.

Service Deficiencies

Water service in Unincorporated Community #3 may become deficient due to groundwater overdraft. The private wells pumping domestic water to Unincorporated Community #2 are being extracted from what the California Department of Water Resources(DWR) considers a high priority groundwater basin, due to the severe overdraft from both urban and agricultural uses. According to DWR, the Merced Groundwater Basin is being depleted at a rate of 54,000 acre-feet per year (afy) for urban uses and 492,000 afy for agricultural uses. In conjunction with the recent years of drought, pumping groundwater has caused ground subsidence in the basin vicinity. Unincorporated Community #3 lacks sufficient access to a reliable wastewater treatment facility. This isolated cluster of rural homes solely relies on individual and septic systems, and the County does not target this area for any future growth. Unincorporated Community #3 does not have adequate transport or treatment for stormwater. No known major flooding issues have occurred because of this, but such areas with inadequate infrastructure commonly deal with ponding and potential flooding during large rain events. Fire emergency services in Unincorporated Community #3 are inadequate due to the rural location of the community. In order for Unincorporated Community #3 to have sufficient fire protection services a station must either be located in the community or within one-half mile.

Unincorporated Community #4

Location and Service Providers

Unincorporated Community #4 is located in northern Merced County, approximately two miles south of the community of Delhi and two miles north of the City of Livingston. Its boundaries are the Merced River to the south, an irrigation canal to north, and the community is situated at the intersection of Hinton and Oak. Unincorporated Community #4 encompasses approximately 19 acres. Water service is provided by individual private wells. Unincorporated Community #4 is not served by a sanitary sewer system, only by individual and community septic systems. Fire Service in Unincorporated Community #4 is provided by the Merced County Fire Department.

Unincorporated Community #4	
Water	Unincorporated Community #4 is not served by a water district, but receives its domestic water from private wells in the community. These wells extract groundwater from the Merced Groundwater Basin. The production capacity of the wells and average usage is unknown.
Wastewater	Unincorporated Community #4 is not connected to a local sanitary sewer system, and currently relies on individual or community septic systems. The County does not target this rural agricultural area for any future growth.
Stormwater	Storm drainage capture and transport is limited since there is no existing roadside ditches, curb, and gutter.
Fire Protection	Merced County Fire Department provides fire protection to Unincorporated Community #4, and does not have a station located in the community. The closest MCFD fire station would be Station #91 located in Delhi and Station #96 located in Livingston. Both County Fire Stations are located two miles away. Unincorporated Community #4 is designated a Category 2 Land Use Area, which refers to the Levels of Services (LOS) provided by MCFD. These categories are determined by the characteristics of the land uses and the distance from a Merced County Fire Station, which ultimately provides an anticipated emergency response time from initial dispatch. The Category 2 Land Use Area is primarily agricultural uses, and rural residential density ranging from a population of 200-250 per square mile, with an anticipated average emergency response time of 10 minutes from initial dispatch.

Service Deficiencies

Water service in Unincorporated Community #4 may become deficient due to groundwater overdraft. The private wells pumping domestic water to Unincorporated Community #2 are being extracted from what the California Department of Water Resources(DWR) considers a high priority groundwater basin, due to the severe overdraft from both urban and agricultural uses. According to DWR, the Merced Groundwater Basin is being depleted at a rate of 54,000 acre-feet per year (afy) for urban uses and 492,000 afy for agricultural uses. In conjunction with the recent years of drought, pumping groundwater has caused ground subsidence in the basin vicinity. Unincorporated Community #4 lacks sufficient access to a reliable wastewater treatment facility. This isolated cluster of rural homes solely relies on individual and septic systems, and the County does not target this area for any future growth. Unincorporated Community #4 does not have adequate transport or treatment for stormwater. No known major flooding issues have occurred because of this, but such areas with inadequate infrastructure commonly deal with ponding and potential flooding during large rain events. Fire emergency services in Unincorporated Community #4 are inadequate due to the rural location of the community. In order for Unincorporated Community #4 to have sufficient fire protection services a station must either be located in the community or within one-half mile.

Unincorporated Community #5

Location and Service Providers

Unincorporated Community #5 is located in central Merced County, approximately 0.75 mile south of Dos Palos "Y". Its boundaries are the Arroyo Canal to the north, Highway 33 to the east, and an irrigation canal to the west. Unincorporated Community #5 encompasses approximately 8 acres. Water service is provided by individual private wells. Unincorporated Community #5 is not served by a sanitary sewer system, only by individual and community septic systems. Fire Service in Unincorporated Community #5 is provided by the Merced County Fire Department.

Unincorporated Community #5	
Water	Unincorporated Community #5 is not served by a water district, but receives its domestic water from private wells in the community. These wells extract groundwater from the Delta/Mendota Groundwater Basin. The production capacity of the wells and average usage is unknown.
Wastewater	Unincorporated Community #5 is not connected to a local sanitary sewer system, and currently relies on individual or community septic systems. The County does not target this rural agricultural area for any future growth.
Stormwater	Storm drainage capture and transport is limited since there is no existing roadside ditches, curb, and gutter.
Fire Protection	Merced County Fire Department provides fire protection with the operation of Station #75, located in the Dos Palos "Y". Unincorporated Community #5 is designated as a Category 1 Land Use Area, which refers to the Levels of Services (LOS) provided by MCFD. These categories are determined by the characteristics of the land uses and the distance from a Merced County Fire Station, which ultimately provide an anticipated emergency response time from initial dispatch. Even though a station is not located in the community, its proximity to a designated MCFD station (within a mile) is sufficient. The Category 1 Land Use Area, is primarily commercial uses, and residential uses upwards of 20 dwelling units an acre, with an anticipated average emergency response time of seven minutes from initial dispatch.

Service Deficiencies

Water service in Unincorporated Community #5 may become deficient due to groundwater overdraft. The private wells pumping domestic water to Unincorporated Community #5 are being extracted from what the California Department of Water Resources(DWR) considers a high priority groundwater basin, due to the severe overdraft from both urban and agricultural uses. According to DWR, the Delta/Mendota Groundwater Basin is being depleted at a rate of 17,000 acre-feet per year (afy) for urban uses and 491,000 afy for agricultural uses. In conjunction with the recent years of drought, pumping groundwater has caused ground subsidence in the basin vicinity. Unincorporated Community #5 lacks sufficient access to a reliable wastewater treatment facility This isolated cluster of rural homes solely relies on individual and septic systems, and the County does not target this area for any future growth. Unincorporated Community #5 does not have adequate transport or treatment for stormwater. No known major flooding issues have occurred because of this, but such areas with inadequate infrastructure commonly deal with ponding and potential flooding during large rain events. Fire protection services are sufficient, with a station located in the community, and average response times of seven minutes.

POTENTIAL FUNDING SOURCES

As summarized above, there are over a dozen legacy disadvantaged communities that have known service deficiencies and needs. In order to provide adequate services to these areas and resolve or minimize the deficiencies there must be viable sources of funding, which can potentially make the necessary improvements. It should be noted that many of these funding mechanisms could require voter approval, making the overall success of funding such improvement projects difficult. Some of the potential sources of funding are:

- **Bonds**. Utilizing bonds is one funding mechanism that can be used specifically to fund large infrastructure projects in disadvantaged communities. Bonding can be done through three methods, either revenue bonds, lease revenue bonds, or obligations bonds. Revenue bonds are typically ensured by the project that is being constructed. Such projects are revenue generating, and it is the revenue generated that finances projects costs. A common revenue bond infrastructure project would be a water treatment facility. Lease revenue bonds are secured by either a non-profit or privately financed group, that constructs the infrastructure project, then leases the completed facility back to the jurisdiction, until the costs of the bond have been paid for. Once the bond is paid, the facility operation and ownership is turned over to the jurisdiction. Lastly, general obligation bonds are issued for the improvement and enhancement of real property. Local governments have the ability to raise property taxes in order to cover the costs of the bond and infrastructure project. Unlike the previous two types of bonding methods, the general obligation bond, does require voter approval.

- **Impact Fees.** Development Impact Fees can be imposed for new development, in order to acquire funding to construct capital facilities. Applying development impact fees to projects does have substantial limitations under The Mitigation Fee Act, sections 66000.

- **Taxes**. Taxing by local governments can also generate revenue to fund capital improvement projects. This can be achieved through the collection of either a general tax or special tax. General taxes can be assessed on the value of the property that would benefit from the capital project. For example, they can be extensions to either your utility tax or property taxes. A special tax can also be issued by Special Districts in order to finance large infrastructure projects. In 1982 the California State Legislature enacted the Community Facilities Act, commonly referred to as Mello-Roos. This act authorized local jurisdictions to establish community facility districts, which would directly serve as another funding mechanism for financing public work projects, and even public services. This method of revenue generation potentially could be used to finance projects that will make the necessary improvements to the deficiencies in these communities.

Additional methods of potential funding sources that can be utilized for capital improvement projects can also include the following:

- **Community Development Block Grants (CDBG).** Community Development Block Grants are an annual funding mechanism distributed by the United States Housing and Urban Development Department (HUD). These grants often fund the construction of projects such as water and sewer facilities, recreation facilities, street maintenance, as well as other public work projects. Merced County is not an entitlement county receiving CDBG funds annually, and therefore must select projects and compete for funding through the State Department of Housing and Community Development.

- **Proposition 84 (2006).** The Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act provides funding from the State Water Resources Control Board. Proposition 84 allows the funding to be utilized for capital costs on projects that pertain to protecting river, lakes, and streams from excessive stormwater runoff. Such projects that can be funded could be related to the collection of stormwater, and treatment of water to reduce the likelihood of ground contamination.

- **Clean Water State Revolving Fund (CWSRF).** The State Water Resources Control Board offers low cost financing for a wide variety of water quality projects that include wastewater treatment and stormwater treatment.

- **Safe Drinking Water State Revolving Fund (DWSRF).** The Drinking Water State Revolving Fund program, from the State Water Resources Control Board, assists public water systems in financing the cost of drinking water infrastructure projects needed to achieve or maintain compliance with Safe Drinking Water Act (SDWA) requirements. The State Water Resources Control Board is getting more active in funding small public water system improvements or assisting public and private water suppliers in serving disadvantaged communities with the passage of SB 88 in 2015.

- **Rural Development Grants and Loans.** The United States Department of Agriculture and Rural Development offers a number of loans and grants meant to finance clean water systems, reliable sewer systems, and stormwater draining mechanisms for rural area. One of the grant programs offered would be the Water and Waste Disposal Loan and Grant Program.

REFERENCES

Alex, Ken. 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, February 2, 2013.

American Fact Finder. U.S. Census. http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml, March 23, 2016

California's Groundwater Bulletin 118. San Joaquin River Hydrologic Region, San Joaquin Valley Groundwater Basin: Chowchilla Subbasin. February 27, 2004.

California's Groundwater Bulletin 118. San Joaquin River Hydrologic Region, San Joaquin Valley Groundwater Basin: Delta/Mendota Subbasin. January 20, 2006.

California's Groundwater Bulletin 118. San Joaquin River Hydrologic Region, San Joaquin Valley Groundwater Basin: Merced Subbasin. February 27, 2004.

California's Groundwater Bulletin 118. San Joaquin River Hydrologic Region, San Joaquin Valley Groundwater Basin: Turlock Subbasin. January 20, 2006.

Economic Planning Systems. County of Merced Water and Sewer Service Providers Municipal Service Review: Final Report. Prepared for Merced County Local Agency Formation Commission, May 24, 2007.

Economic Planning Systems. Planada Community Services District Municipal Service Review: Final Report. Prepared for Merced County Local Agency Formation Commission, April 15, 2015.

Guerrero, Brian, Planner III. Merced County, Urban and Regional Planning Division. March 16, 2016.

Guerrero, Brian, Planner III. Merced County, Urban and Regional Planning Division. April 5, 2016.

Guerrero, Brian, Planner III. Merced County, Urban and Regional Planning Division. April 7, 2016.

Ibarra, Ana. Planada to expand wastewater facility. Merced Sun Star, Published, March 18, 2016.

Merced, County of. GIS Data. March 2016

Merced, County of, The Merced County 2030 General Plan Background Report. December 2013.

Nicholson, Bill, Executive Officer. Merced County, LAFCo. March 16, 2016.

Nicholson, Bill, Executive Officer. Merced County, LAFCo. April 5, 2016.

Nicholson, Bill, Executive Officer. Merced County, LAFCo. April 7, 2016.

Policy Link. California Unincorporated: Mapping the Disadvantaged Communities of the San Joaquin Valley. Technical Guide. 2013

State of California. Cortese Knox Hertzberg Local Government Reorganization Act of 2000.

State of California, State Water Resources Control Board. http://www.waterboards.ca.gov/water_issues/. April 14, 2016.

State of California Natural Resources Agency Department of Water Resources, San Joaquin Hydrologic Region. California's Groundwater Update 2013: A Compilation of Enhanced Content for California Water Plan Update 2013, April 2015.

United States Department of Agriculture and Rural Development. http://www.rd.usda.gov/. April 5, 2016.

U.S. Census (2000). http://www.census.gov/main/www/cen2000.html , April 5, 2016.

U.S. Department of Commerce: Economics and Statistics Administration. United States Census: California 2000 Census Profile. August, 2002.