

DISADVANTAGED UNINCORPORATED COMMUNITIES

KEY TERMS

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

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 a city's sphere of influence.

REQUIREMENTS FOR THE CITY

The requirements of SB 244 are as follows:

- Cities must identify and describe each "island community" or "fringe community," as defined, that exist within that city's sphere of influence that is a disadvantaged unincorporated community.
- Cities must include an analysis of water, wastewater, stormwater drainage, and structural fire protection needs or deficiencies for each of the identified communities in the land use element.
- Cities must include an analysis in the land use element of potential funding mechanisms that could make the extension of services and facilities to identified communities financially feasible.

The target area for identifying disadvantaged unincorporated communities is the area located outside the City limits but within the City's sphere of influence. This area is approximately 15,000 acres in size. Generally, it is rural in character. A map (Figure 2) displaying the target area and the identified DUCs is attached.

IDENTIFYING DISADVANTAGED UNINCORPORATED COMMUNITIES

The process of identifying disadvantaged unincorporated communities (DUCs) involved two steps. First, the existing land use pattern within the City's sphere of influence was evaluated to determine the presence of fringe and island communities meeting the definitions included with SB 244, as noted above. Second, once fringe and island communities were identified, a determination was made as to whether the median income characteristics in these areas qualified them as being "disadvantaged".

Determining Presence of Fringe and Island Communities

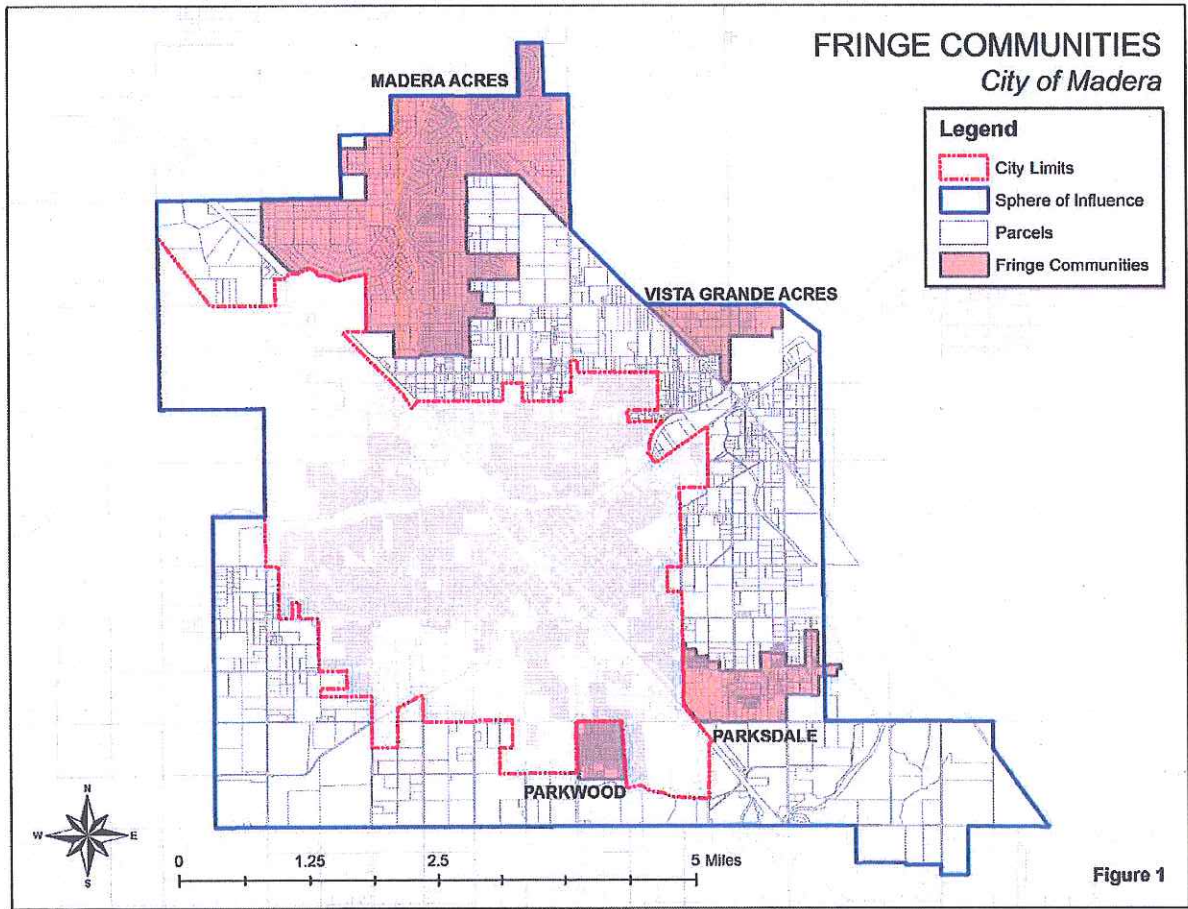
Data from the City's geographic information system was used to help evaluate the existing pattern of development within the City's sphere of influence. Google Earth and Google Maps imagery also helped locate unincorporated communities within the sphere. Fringe and island communities

may be identified according to "official" names and boundaries, including those referenced by the U.S. Geological Survey's (USGS) Geographic Names Information System (GNIS). Alternatively, clusters of inhabited dwellings may exist within unincorporated rural residential areas to form unnamed neighborhoods or communities. Both "named" and "unnamed" communities were identified as part of this evaluation.

After reviewing all of the available information, four neighborhoods fit the criteria for a fringe community. Three of these are identified as Census Designated Places (CDP) by the U.S. Census Bureau, while the fourth is a semi-rural neighborhood which is not officially designated as a CDP (see Figure 1):

- Parkwood (CDP)
- Madera Acres (CDP)
- Parksdale (CDP)
- Vista Grande Acres

The remaining unincorporated area within the City's sphere of influence is either heavily industrial or rural with minimal residential properties.



Evaluating Fringe Communities to Determine Qualification as Disadvantaged

In order to determine if these fringe communities can be considered a DUC, their median household income must be 80 percent or less than the statewide median household income. American FactFinder, a portal for accessing US Census and other survey data, has median household income data for the CDPs identified in this analysis. Since Vista Grande Acres is not a CDP, census data at the block group level was used to estimate its median household income. The block group boundary does cut off a small portion of Vista Grande Acres, with the larger portion covering another residential neighborhood within City limits. For the purpose of this evaluation, it is assumed that all of Vista Grande Acres qualifies as a DUC.

Two census datasets were used, one with five year estimates from 2009-2013, and one from 2000. Some CDPs had larger margin of errors with the five year estimate dataset, so the 2000 dataset was used for reliability. Below are two tables showing the median household income for each DUC from the two different datasets:

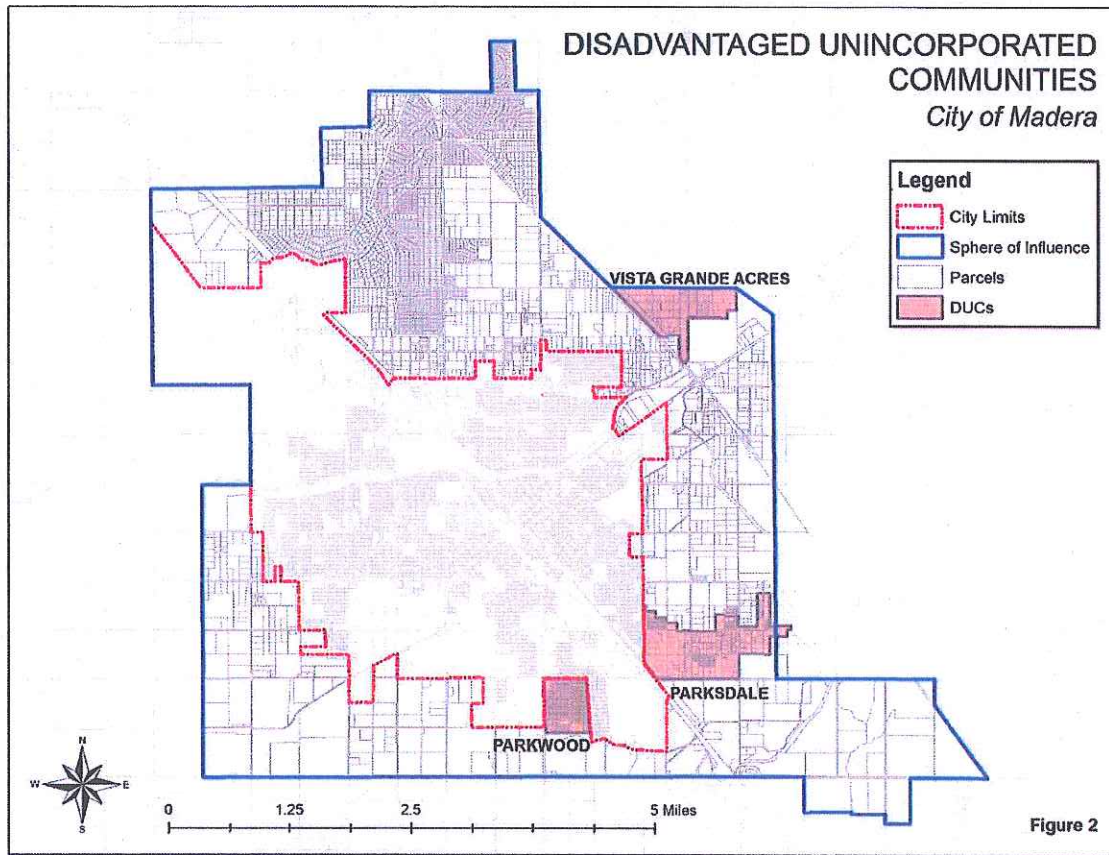
| 2009-2013 ACS 5-Year Estimates | | |
|--------------------------------|--------|------------------|
| NAME | INCOME | TARGET INCOME |
| California* | 61,094 | 80% = 48,875.20 |
| Madera Acres | 62,155 | Not a DUC |
| Parkwood | 39,967 | Qualifies as DUC |
| Parksdale | 33,083 | Qualifies as DUC |
| Vista Grande Acres | 45,735 | Qualifies as DUC |

* Used as base target income.

| 2000 Census Data | | |
|--------------------|--------|------------------|
| NAME | INCOME | TARGET INCOME |
| California* | 47,493 | 80% = 37,994.40 |
| Madera Acres | 45,438 | Not a DUC |
| Parkwood | 33,411 | Qualifies as DUC |
| Parksdale | 29,821 | Qualifies as DUC |
| Vista Grande Acres | 31,319 | Qualifies as DUC |

* Used as base target income.

The final results from the analysis include Parkwood, Parksdale and Vista Grande Acres as the City's disadvantaged unincorporated communities. Madera Acres will not be included as it is above the median household income requirement. Figure 2 below displays the DUCs located within the City's sphere of influence. No island communities were identified as part of the analysis.



INFRASTRUCTURE ANALYSIS

This infrastructure analysis evaluates all three of the DUCs identified by the City as part of SB244 general plan amendment. Little existing information exists regarding Vista Grande Acres, reflecting its physical separation from the existing city limits. Substantially more information is available for Parkwood and Parksdale, as described below.

In the fall of 2015, when this analysis was being prepared, the City and County of Madera were considering the potential annexation of the Parkwood and Parksdale neighborhoods into the City of Madera in conjunction with the negotiation of a tax sharing agreement. The City expressed concern about the status of existing infrastructure and the potential liabilities and cost burden associated with accepting jurisdiction of the aging neighborhoods. The City and County agreed to jointly fund and prepare a study to evaluate existing infrastructure. City and County staff jointly coordinated to study the condition of existing streets. The City hired a consultant, with the costs split evenly between the two agencies, to evaluate other infrastructure and utilities serving the two neighborhoods. The following discussion regarding Parkwood and Parkdale is taken primarily from the Draft Infrastructure and Street Evaluation Reports which are attached to this evaluation and are incorporated by reference.

PARKWOOD

The unincorporated area of Parkwood is bound by Conrad Street to the west, Raymond Thomas Road to the east, Avenue 13 to the north, and agricultural lands to the south. The majority of the Parkwood area is currently developed as Low Density Residential land uses, with some Medium Density Residential lands in the southern most extents. The areas not currently developed are on the southern extent.

Water System

The Parkwood water system consists of mostly 6-inch and 8-inch diameter water pipelines in a looped network from Avenue 13 in the north to Georgia Avenue in the south. The piped system was primarily constructed between 1953 and 1979, and is mostly asbestos cement pipe. The system is supplied by a single well located on the eastern edge of Parkwood Park, which is capable of supplying 400 gallons per minute (gpm), and is controlled by a variable frequency drive motor. There are two other wells in the Parkwood system that have been decommissioned.

Sewer System

The Parkwood sewer system is separated into two separate systems: one flow north to the City of Madera sewer system, and one flow south to the Parkwood wastewater treatment plant. The systems are described as follows:

North System: This is generally bound by Stanford Avenue in the south and Avenue 13 in the north, and consists of pipes ranging in size from 6-inches to 10-inches in diameter. Pipes in this system are predominantly non-reinforced concrete and vitrified clay pipe and were constructed between 1953 and 1955. Sewer flows are generally conveyed west to Conrad Street where they are then conveyed south, first in an 8-inch, and then in a 10-inch pipeline, before discharging into the Parkwood Wastewater Treatment Plant.

South System: The southern system is generally bound by Georgia Avenue in the south and San Carlos Avenue in the north, and consists of pipes ranging in size from 6- inches to 12-inches in diameter. Pipes in this system are predominantly polyvinyl chloride (PVC) and were constructed between 1978 and 1979. Sewer flows are conveyed to Watt Street, before flowing north and connecting to the City of Madera sewer system on Avenue 13.

Storm Drainage

The Parkwood storm drainage system is limited, and consists of mostly curb and gutter, allowing sheet flow to the south. Sheet flow is collected by two 18-inch storm drains, which discharge into the Parkwood retention basin. The Parkwood retention basin has an approximate capacity of 23 acre-feet (AF), and is a dual use facility. The western most portion is closed via chain-link fence, and serves as an initial discharge point for storm water, with a small ditch which provides some water quality benefit. The eastern portion of the basin can be used as a park facility in the dry season.

Fire Protection

The fire flow analysis results indicate that the majority of the system is capable of meeting the maximum day demand plus fire flow conditions, with the exception of a small portion of development in the far southeast of the system. It should be noted that the analysis results assume that the well can produce the required fire flow capacity. If this is not the case, the system would require well redundancy or emergency connections to the City water system. An inventory

of the street-related improvements indicated that fire hydrant spacing is deficient in comparison to City standards on several street segments within Parkwood. A total of 16 additional hydrants are required in order to meet current standards.

Infrastructure Deficiencies

Improvements required to mitigate existing system deficiencies and the needs of future customers have been evaluated for Parkwood. For improved water delivery, improvements to mitigate fire flow deficiencies and to meet the needs of future development have been identified. These improvements include proposed connections to the City of Madera water system at Avenue 13 and Watt Street, and at Raymond Thomas Road and Georgia Avenue, or construction of additional wells to provide redundancy to the water system. The County recently provided notice of a potential project to add an above-ground water storage tank to the water system. It is not clear how this improvement would impact existing deficiencies or other necessary improvements called out in the infrastructure study.

Parkwood does not have any existing sewer capacity deficiencies due to existing or future users. However, an evaluation was performed in order to determine the cost to decommission the existing Parkwood wastewater treatment plant, and provide preliminary design to re-route sewer flows from the north half of Parkwood to the existing City of Madera sewer system. The decommissioning analysis and preliminary design of the sewer trunk were completed by MWH Americas.

The Parkwood subbasin has an existing retention basin with an approximate capacity of 23 acre-feet (AF). The 100-year inflow volume for existing and future development is 30 AF. The existing Parkwood retention basin is a mixed use facility, serving as a retention basin during the wet season, and a park facility in the dry season. Excavating the facility was unreasonable due to the mixed use, and therefore, it is recommended that additional conveyance be provided to divert the overflow volume west, to the City of Madera Agajanian Basin. The conveyance of this overflow volume would require the enlargement of the Agajanian retention pond by 7 AF.

In total, the approximate cost of repairing existing water and sewer deficiencies exceeds \$5,500,000. An additional, but unknown cost for the addition of 16 fire hydrants would also occur. Costs to resolve storm drainage deficiencies is currently not available.

PARKSDALE

The unincorporated area of Parksdale is generally bound by Road 28 to the west, the Madera Irrigation District (MID) Main Canal to the east, Avenue 14 to the north, and Avenue 13 to the south. Approximately half of the Parksdale area is currently developed as varying land uses, including Very Low Density Residential, Low Density Residential, and Medium Density Residential land uses.

Water System

The Parksdale water system consists of 6-inch, 8-inch, and 12-inch diameter water pipelines in a network from Rd 29 ¼ in the east to Rd 28 in the west. A majority of the piped system, composed of asbestos cement pipe, was constructed between 1978 and 1990, with additional periodic development taking place as recently as 2011. The system is supplied by three wells located throughout the community, which are each capable of supplying over 700 gpm. There is one other well in the Parksdale system that is currently inactive due to mechanical failure.

Sewer System

The Parksdale sewer system consists of 6-inch to 10-inch diameter pipelines which collect flows from an area generally bound by Avenue 13 in the south, Road 28 in the west, the Madera Canal in the east, and Avenue 13 ½ in the north. There is some development just north of Avenue 13 ½ that also flows to the Parksdale sewer system. The sewer system was constructed between 1978 and 1990, with intermittent development between 1990 and 2011. The sewer system is constructed entirely of PVC pipe.

Storm Drainage

The Parksdale storm drainage system is divided into 5 separate hydrologic subbasins. Each of the subbasins is described as follows:

- For the Ducor-Posey subbasin, sheet flow is collected by two 18-inch storm drains, which discharge into the Ducor-Posey retention basin that has a capacity of approximately 6 AF.
- The Madera Homes subbasin runoff is collected by curb and gutter and directed to a retention basin with a capacity of approximately 23 AF.
- The Parksdale subbasin runoff also is collected by curb and gutter and directed to a retention basin with a capacity of approximately 10 AF.
- For the two other subbasins, no storm drainage infrastructure exists to convey stormwater runoff to existing retention basins. Currently, the land use is mostly agricultural and rural residential, and runoff infiltrates or sheet flows onto agricultural land to the south.

Fire Protection

The fire flow analysis results indicate several areas that are incapable of meeting the 1,500 gpm fire flow requirement. This includes the Ducor-Posey neighborhood; homes along Fern Street, Robbins Lane, and Rd 29 ¼; and the fire hydrant farthest east along Avenue 13 ½. Additionally, the 6-inch pipelines on Fern Street, Road 29 ¼, and several smaller cul-de-sac areas experience pipe velocities during fire flow exceeding 15 feet per second. Velocities this high could be potentially damaging under sustained fire flow conditions. An inventory of the street-related improvements indicated that fire hydrant spacing is deficient in comparison to City standards on several street segments within Parksdale. A total of 47 additional hydrants are required in order to meet current standards.

Infrastructure Deficiencies

Improvements required to mitigate existing system deficiencies and the needs of future customers have evaluated for Parksdale. For improved water delivery, improvements to mitigate fire flow deficiencies and to meet the needs of future development have been identified. These improvements include proposed connections to the City of Madera water system at Lada Avenue, Avenue 13 ½, and Knox Street, each along Road 28. Additionally, to meet the fire flow requirements in the extreme eastern portion of the Parksdale area, it is recommended that a new 12-inch connection to the City system at the intersection of Road 28 ½ and Avenue 14 be constructed in lieu of replacing the entire length of 8-inch pipeline on Avenue 13 ½. This connection will greatly enhance the reliability of the Parksdale water system. Additional improvements are required to serve future development anticipated to occur in the Parksdale DUC.

The existing Parksdale sewer system has capacity deficiencies due to the sizing of the lift station. There is considerable anticipated future development, which is tributary to the existing Parksdale sewer system. Capacity improvements are necessary to service existing and future customers. Additionally, it should be noted that the existing lift station becomes deficient under future conditions. Capacity expansion of the new lift station will be required to service future development.

In terms of storm drainage deficiency, the following conditions are prevalent in the Parksdale DUC. The Ducor-Posey subbasin is an existing retention basin with an approximate capacity of 6 AF. The 100-year flow volume is 9 AF for existing and future development. Expansion of the existing retention basin is not feasible due to existing site constraints; therefore, improvements are recommended to convey overflow volume to the existing City Las Palmas retention pond. The Madera Homes subbasin has an existing retention basin with an approximate capacity of 23 AF. The 100-year inflow volume is 25 AF for existing and future development. Therefore a 2 AF expansion of the existing Madera Homes retention pond is recommended. Additionally, storm drain pipelines are recommended to convey stormwater runoff to the expanded retention pond.

Two subbasins have no existing retention basin. The first subbasin will require the construction of a retention pond with an approximate capacity of 30 AF to service existing and future development. Storm drain pipelines are recommended to convey stormwater runoff to the new retention pond. The second subbasin will require the construction of retention pond with an approximate capacity of 18 AF to accommodate existing and future development. Storm drain pipelines are recommended to convey stormwater runoff to the new retention pond.

One subbasin, the Parksdale subbasin, has an existing retention basin with an approximate capacity of 10 AF. The 100-year inflow volume is 9 AF for existing and future development. The Parksdale subbasin is nearly fully developed and no improvements are required to account for additional runoff from future development.

In total, the approximate cost of repairing existing water and sewer deficiencies exceeds \$2,600,000. An additional, but unknown cost for the addition of 47 fire hydrants would also occur. Costs to resolve storm drainage deficiencies is currently not available.

VISTA GRANDE ACRES

The unincorporated areas of Vista Grande Acres is generally bound by the BNSF railroad right-of-way to the east, Road 29 to the west, Avenue 17 to the north, and Ellis Street to the south. Approximately half of the Vista Grande Acres area is currently developed in rural residential development, on parcels generally less than one acre in size.

Infrastructure

Water supply and distribution in Vista Grande Acres is provided by residential private wells and wastewater is provided through residential private septic systems. Storm drainage capture and transport is provided through roadside ditches and on-site private drainage ponds. The Madera County Fire Department provides fire emergency services to all of unincorporated Madera County, through a contract with CAL FIRE. Fire Station #6, located approximately two miles to the southwest in the City of Madera, is the nearest fire station to Vista Grande Acres.

Infrastructural Deficiencies

Water, wastewater, storm drainage, and fire emergency services in Vista Grande Acres are currently considered to be sufficient. Reports of well failure are not available. Water supply demands are currently (2015) being met and there are no known water quality issues. There are no known localized flooding issues.

Because Vista Grande Acres is located within the sphere of influence, the City's master plans for sewer, water, and storm drainage improvements demonstrate how City infrastructure and utilities can be extended into the area. Sewer and water improvements rely on the physical extension of the respective pipe networks; new wells and an above-ground water storage tank will also be required to serve the northeast quadrant of the sphere of influence, though the specific well and above ground storage facilities required to serve Vista Grande Acres are unknown. Storm drainage can be accommodated by installing a basin and localized storm drainage collection within the neighborhood. Until utilities are extended towards this neighborhood, probably through normal growth patterns, the installation of City infrastructure to serve this area is likely cost prohibitive.

POTENTIAL FUNDING SOURCES

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

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

Given the scale of the infrastructure deficiencies within the identified disadvantaged unincorporated communities, service charge increases may be needed within communities that already have special districts to keep up with the cost of construction, labor, power, repairs, operations, and maintenance. In 1996 the California voters passed Proposition 218, requiring local governments to have a majority vote of the affected property owners for any proposed new or increased assessment for major improvements and replacements. It also requires that local governments have a majority vote of the affected property owners for any proposed increases to the service charges for operations and maintenance. While this makes increases to service charges difficult, the City may need to consider Prop 218 elections to allow adequate funding for maintenance of infrastructure improvements. To the extent the City and County mutually agree on either annexation or provision of City services to unincorporated communities, the provisions of new tax sharing agreements can include provisions whereby existing deficiencies are addressed.