THE BOARD OF SUPERVISORS OF THE COUNTY OF STANISLAUS ACTION AGENDA SUMMARY

DEPT: Chief Executive Office	BOARD AGENDA #*B-6
Urgent Routine No CEO Concurs with Recommendation YES NO (Information Attached)	AGENDA DATE January 29, 2013 4/5 Vote Required YES IN NO

SUBJECT:

Approval to Use Community Development Funds to Assist the Monterey Park Tract Community Services District with Securing Proposition 84 Grant Funding from the California Department of Public Health Reserved for their Water Connection Project with the City of Ceres

STAFF RECOMMENDATIONS:

- 1. Approve the use of up to \$30,000 of Community Development Funds to assist the Monterey Park Tract Community Services District with securing Proposition 84 Grant Funding from the California Department of Public Health reserved for their Water Connection Project with the City of Ceres.
- 2. Direct the Auditor-Controller to make the necessary budget adjustments as detailed in the Budget Journal Form.
- 3. Authorize the Chief Executive Officer to execute any agreements associated with the use of these funds.

FISCAL IMPACT:

The total amount recommended to be made available to for use by the Monterey Park Tract Community Services District is up to \$30,000. The Monterey Park Tract Community Services District has successfully received a Letter of Commitment (LOC) from the California Department of Public Health reserving funding in the amount of \$2,220,269 for their Water Connection Project with the City of Ceres. The County allocation from the Community Development Fund will allow the District to obtain gap financing from a local lender to secure the State funding.

(Continued on Page 2)

BOARD ACTION AS FOLLOWS:

No. 2013-41

			·
On motion	of Supervisor	Withrow	, Seconded by Supervisor _ <u>Monteith</u>
and approv	ed by the follow	ving vote,	
Ayes: Supe	ervisors:_Q'Brien	Withrow, Monteit	h, De Martini and Chairman Chiesa
Noes: Sup	ervisors:	None	
	r Absent: Superv	vienre: None	
Abstaining	: Supervisor:	Mana	
1) <u>X</u>	Approved as re-	commended	
2)	Denied		
3)	Approved as an	nended	
4)	Other:		
MOTION:			

ATTEST:

CHRISTINE FERRARO TALLMAN, Clerk

FISCAL IMPACT (Continued:)

The Community Development Fund was established by the Board of Supervisors at \$1.5 million as part of the Final Budget during Fiscal Year 2007-2008. To date, eighteen projects have been awarded funding from this source. Such community projects have included sidewalk, lighting, and infrastructure improvements in the unincorporated areas of Stanislaus County. The current uncommitted balance in the Community Development Fund is \$1,210,769. If the use of Community Development Funds for the Monterey Park Tract Community Services District is approved, the uncommitted balance would be \$1,180,769, not including interest earnings.

DISCUSSION:

Background

The Monterey Park Tract Community Services District (District) was established on May 29, 1984 for the purpose of providing domestic water to residents within its boundaries. The Monterey Park Tract Community Services District owns and operates the community's water system which serves approximately 47 households, a church and a community center for a total of 49 water service connections. The estimated population of the community is approximately 200 residents.

Monterey Park Tract's water supply system consists of two wells. In 2003, the District discovered that the water from one well exceeded the State of California Title 22 primary drinking water quality maximum contaminant level (MCL) for nitrate and the secondary MCL for manganese. High nitrate concentrations pose significant health risks. The concentration of arsenic in the water from that well has also been high. The second well has also shown elevated nitrate and arsenic concentrations. After many years of trying to address their water quality issues, the District in September 2011, authorized that a study be done by Fremming, Parson and Pecchenino to identify possible alternative projects which could correct the water quality problems that exist (Attachment A). The study was funded by grant funding provided by the California Department of Public Health (Proposition 84 - Safe Drinking Water State Revolving Fund) and the former Stanislaus County Redevelopment Agency.

The Water Supply Study prepared for the Monterey Park Tract Community Services District evaluated the existing source water quality problems, analyzed and compared water supply alternatives to resolve problems and identified the best alternative solution. Five (5) alternatives were evaluated by Fremming, Parson and Pecchinino as part of the Water Supply Study.

The alternatives evaluated included:

- (1) Connect to the City of Ceres;
- (2) Treat Water from Well 2;
- (3) Drill a New Well Outside of the District;
- (4) Drill a New Well Inside of the District;
- (5) Repair or Refurbish Well 1 (from an earlier evaluation); and
- (6) No Project.

The Water Supply Study concluded that the recommended alternative was to "Connect to the City of Ceres" due to several factors principally including lower ongoing operations and maintenance costs, economies of scale, better dependability and reliability, complex challenges with the existing water wells, and greater operator expertise. The Water Supply Study further recommended that the District apply for additional Proposition 84 funding to be used for the design and construction of the recommended alternative.

Monterey Park Tract Community Services District/City of Ceres Water Connection Project

Following the results of the Water Supply Study, the Monterey Park Tract began discussions with several critical partners in order to advance and make possible the Water Connection Project. They collaborated with Self-Help Enterprises, an organization dedicated to self-help housing, sewer and water development, housing rehabilitation, multifamily housing and homebuyer programs in the San Joaquin Valley of California, to commence the next critical steps. The Monterey Park Tract Community Services District and Self-Help Enterprises began conversations with the City of Ceres to discuss the Water Connection Project as envisioned and obtain support of the possible service delivery partnership. After several study sessions with the Ceres City Council, it was determined the the Water Connection Project was possible provided certain conditions placed by the City of Ceres were met by the District.

Self-Help Enterprises, who had previously provided technical assistance to the Monterey Park Tract Community Services District to help secure the grant funding necessary to complete the Water Supply Study, again helped facilitate discussions with the California Department of Public Health and assisted the District with preparation of a grant application for additional Proposition 84 funding for design and construction of the Water Connection Project. On April 27, 2012, the Monterey Park Tract Community Services District received a letter from the California Department of Public Health indicating that their application for funding had been reviewed and deemed eligible to receive a Proposition 84 grant (Attachment B). The letter served as a Letter of Commitment (LOC) for funds in the amount of \$2,220,260 reserved for the project provided general terms and conditions were met. The terms and conditions required the District to commence work to secure a bridge loan, draft a memorandum of understanding and water service agreement, prepare documentation demonstrating compliance with the California Environmental Quality Act, prepare final plans and specifications, obtain necessary approvals through resolution and other critical tasks.

Since receiving the Letter of Commitment from the California Department of Public Health, the Monterey Park Tract Community Services District has been doing its best to meet all the State requirements. The District has relied heavily on the technical assistance provided by Self-Help Enterprises and the City of Ceres. The emphasis has been on securing a bridge loan to be able to access the State grant funding (which reimburses grantees in arrears) and on developing a memorandum of understanding and water service agreement with the City of Ceres as part of the Water Connection Project.

The Monterey Park Tract Community Services District also successfully instituted a change to their water rate structure, in compliance with Proposition 218, to support the Water Connection Project and the future service agreement with the City of Ceres. In addition, water meters were installed by the District on their system as required by the State to encourage water conversation practices. The Monterey Park Tract Community Services District has maintained open communication with the California Department of Public Health to share their progress on meeting the requirements of the State grant. The Department of Public Health has been very understanding and patient with the District since they understand that it is a fairly small operator with limited staffing and resources available to them to complete the necessary tasks.

In the Fall of 2012, after contacting a local lender for a possible bridge loan, the Monterey Park Tract Community Services approached Supervisor Jim DeMartini about possible funding from Stanislaus County to assist with the cash flow interest and fee associated with the loan. The District's operating budget is very limited and just now showing signs of improvement after several recent years of being in a deficit position. The County funding would be leveraged to allow the District to secure the Proposition 84 grant funding from the State of California and make the Water Connection Project possible to address the long-standing water quality issues in the Monterey Park Tract community. The Chief Executive Office was referred the request and began to evaluate the feasibility of the proposed project and the District's ability to ultimately deliver the design and construction. The Chief Executive Office and the Department of Public Works held several meetings with the City of Ceres and the Monterey Park Tract Community Services District and found that the project was viable and with the support from Stanislaus County could be accomplished.

The Chief Executive Office identified the Community Development Fund as a possible funding source for the requested \$30,000 which would cover the associated cash flow interest and loan fee over an anticipated 18 month period. The Community Development Fund has previously been used to assist Community Services Districts in other unincorporated areas to complete community projects that provide a general benefit. Additionally, after meeting with staff from the City of Ceres, it was communicated that their City Council expected Stanislaus County to be a project partner and a third party to any memorandum of understanding with the Monterey Park Tract Community Services District. Shortly thereafter, Stanislaus County began working with the City of Ceres and Monterey Park Tract Community Services District on drafting the memorandum of understanding for the Water Connection Project, a requirement of the State grant. The memorandum of understanding is in draft form and will be brought back to the Board of Supervisors for consideration once all parties have reviewed and approved in concept, which is anticipated in the next month. Securing the bridge loan from a local lender and formal execution of the memorandum of understanding are critical tasks necessary to ensure that the State Proposition 84 funds remain available for the Water Connection Project. Once completed, the focus will be shifted on the required environmental review and the out-of-boundary service request from the Local Agency Formation Commission (LAFCO). The City of Ceres has also initiated a Proposition 218 process to implement new water rates for all users. Stanislaus County and the Monterey Park Tract Community Services District will monitor and evaluate any changes to the City's rate structure under the context of the Water Connection Project and develop strategies to ensure its viability and success.

Key components of the memorandum of understanding between Stanislaus County, the City of Ceres and the Monterey Park Tract Community Services District include in general terms the following:

(1) City of Ceres will supply water to the Monterey Park Tract Community Services District;

(2) Monterey Park Tract Community Services District will construct at its expense all improvements necessary to deliver the water from the City of Ceres water system;

(3) Monterey Park Tract Community Services District will own and be responsible for the operation and maintenance of the improvements;

(4) Stanislaus County will provide the Monterey Park Tract Community Services District funding of up to \$30,000 to allow it to secure the Proposition 84 grant funding from the State of California for design and construction of the Water Connection Project; and

(5) Monterey Park Tract Community Services District will exercise its exclusive right to purchase property owned by the former Stanislaus County Redevelopment Agency (now Successor Agency) in Monterey Park Tract for use associated with the Water Connection Project.

Use of Community Development Funds - General Public Benefit

The use of Community Development Funds for the purpose of assisting the Monterey Park Tract Community Services District to secure State funding for the Water Connection Project in partnership with the City of Ceres is consistent with the goal of providing funding for "one-time projects or programs benefiting the unincorporated area that demonstrates strong local support and commitment and a general public benefit." Since inception, the Community Development Fund was established as a funding mechanism to assist in the promotion of activities that would enhance infrastructure and services in the unincorporated areas of Stanislaus County.

POLICY ISSUES:

This action is consistent with the Board's priorities of striving for A Healthy Community, Well-Planned Infrastructure System and Effective Partnerships by assisting the Monterey Park Tract Community Services District in their effort to improve infrastructure to enhance water delivery and quality to their service area.

STAFFING IMPACT:

The Chief Executive Office will facilitate and monitor the distribution of funds on behalf of the Monterey Park Tract Community Services District gap financing associated with the Water Connection Project.

CONTACT PERSONS:

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Keith Boggs, Assistant Executive Officer	Telephone: (209) 652-1514



WATER SUPPLY STUDY

FOR THE

MONTEREY PARK TRACT COMMUNITY SERVICES DISTRICT

Grant Funding Provided By: California Department of Public Health through the Safe Drinking Water State Revolving Fund (Project No. 5000389-01) & Stanislaus County Redevelopment Agency

Study Prepared By: Fremming, Parson & Pecchenino 2816 Park Avenue Merced, CA 95348-3375 (209) 723-2066

SEPTEMBER 2011

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> > September, 2011

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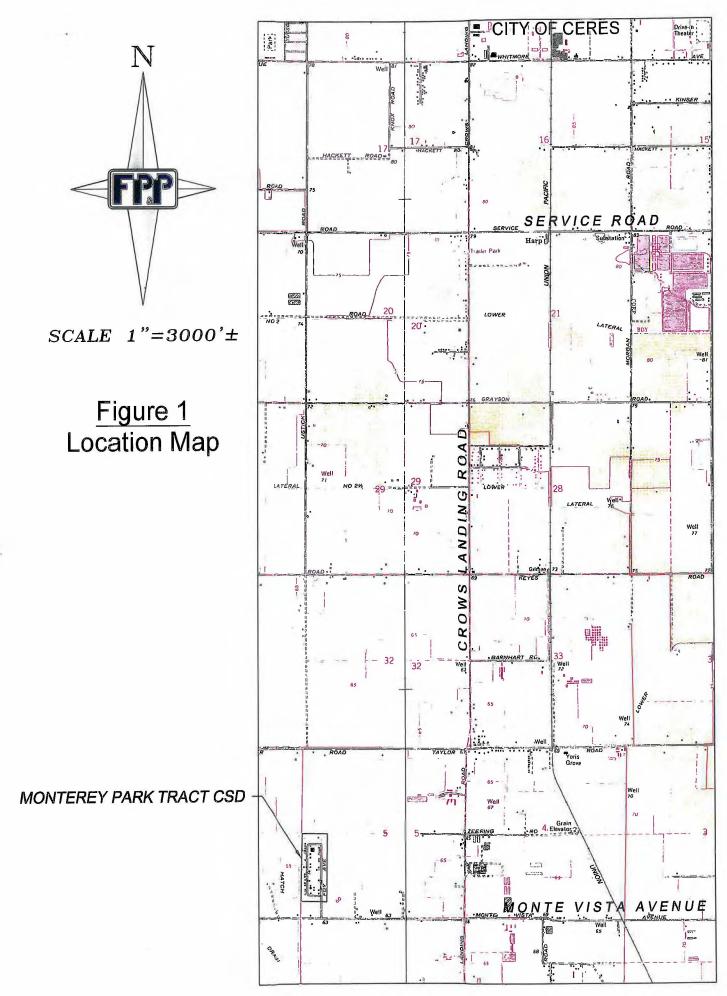
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SECTION 1: INTRODUCTION

1.1 Background

The Monterey Park Tract Community Services District is the responsible agency with authority to provide water service to residents within the boundaries of the Community Services District. This authority was given by consent of registered voters in the community and formed by the Stanislaus County Board of Supervisors in 1984. Monterey Park Tract is a small rural community located approximately 5 miles southerly of the City of Ceres in Stanislaus County. See Figure 1. The Monterey Park Tract Community Services District owns and operates the community's water system which presently serves 47 households (with 2 inactive), a church and a community center for a total of 49 water service connections. There are also 4 inactive service connections. The estimated population of the community is approximately 200 people.

Monterey Park Tract's water supply system consists of two wells: the north well (Well 1) or primary well, and the south well (Well 2) or secondary well. The locations of Wells 1 and 2 are shown in Appendix F. In 2003 the District discovered that the water from Well 1 exceeded the State of California Title 22 primary drinking water quality maximum contaminant level (MCL) for nitrate and the secondary MCL for manganese. See Appendix A for summaries of water sample test results for Wells 1 and 2. The nitrate level in Well 1 has been as high as 74.4 mg/L. High nitrate concentrations are a significant health hazard, and pregnant women and young children are advised not to drink the water. Also, the concentration of arsenic in the water from Well 1 has been as high as 36 ug/L, which is much higher than the primary MCL of 10 ug/L. The nitrate and arsenic concentrations in Well 2 have been as high as 49.8 mg/L and 45 ug/L, respectively. The manganese level in Well 2 has also exceeded the secondary MCL's for manganese and Total Dissolved Solids (TDS). The District has authorized this study to identify possible alternative projects which could correct the water quality problems that now exist.



1.2 Purpose and Scope

The purposes of this study are to:

- Evaluate the existing source water quality problems
- Analyze and compare water supply alternatives to resolve problems
- Identify the best alternative solution

1.3 Planning Objectives and Goals

The major planning objective is to provide a dependable source of potable water for the residents of Monterey Park Tract. To implement this objective five alternatives were evaluated: connection to the City of Ceres; treat water from Well 2; drill a new well outside of the District; drill a new well inside the District; and no project. Storage concerns are also addressed. All construction will be in compliance with California Department of Public Health regulations. The long range goal is to provide adequate domestic water service in the most cost effective and environmentally acceptable manner.

1.4 Legal Authorization

Due to concern over the high percentage of individual water wells contaminated in the community, over eighty percent of the registered voters residing within the boundaries of the Monterey Park Tract Community Services District signed a petition in 1984 to form the District. On May 29, 1984 the Board of Supervisors of the County of Stanislaus approved the formation of the Monterey Park Tract Community Services District per Resolution 84-802. Under California Government Code Section 61000 et seq. community services districts are able to provide a myriad of services. Monterey Park Tract Community Services District was formed to provide only one service - domestic water service to the community.

Stanislaus County received a \$432,000 Community Development Block Grant to build the new water system, repair septic systems and abandon contaminated individual domestic water wells serving residents. Thereafter on October 9, 1984, the County of Stanislaus agreed to administer the installation of the water system and ensure compliance with Community Development Block Grant regulations. In May 1985 the County contracted for the design of a community water system. In 1987 construction commenced and project improvements were completed in October 1987 when Monterey Park Tract CSD became a public water system (see Appendix B for permit). Upon formation of the District, the District Board of Directors adopted an ordinance to set out rules and procedures of supplying water to the community (see Appendix C).

1.5 Organization of Project Study Team

The Monterey Park Tract Community Services District has retained the firm of Fremming, Parson & Pecchenino to this study to determine the most cost effective and environmentally sound solution to the community's water quality issues. In addition, the District has also contracted with Ken Schmidt and Associates to prepare a hydrogeological investigation of the area, to evaluate the potential for rehabilitating an existing well, and if this is not possible, to determine the feasibility of drilling a new well either inside or outside of the District. Also, the District has contracted with Self-Help Enterprises to assist with various non technical aspects of the study, and with Callister & Hendricks of Merced, California for legal services.

SECTION 2: PROJECT PLANNING AREA

2.1 Service Area Boundaries, Composition and Geographic Setting

The project planning area is the Monterey Park Tract Community Services District which encompasses approximately 31 acres of territory. The District lies at an elevation of approximately 60 feet above mean sea level in an area of the valley that is essentially flat, sloping very gently to the southwest with no major obstacles. More specifically the District is in a portion of the southwest quarter of Section 5 of Township 5 South, Range 9 East, Mount Diablo Base and Meridian.

2.2 Land Use

The community of Monterey Park Tract is primarily comprised of lots created by the Foy and Morris subdivision (see Figure 2). The average lot has a frontage of 53 feet and a depth of 190 feet (just under a quarter of an acre). About a quarter of the properties in Monterey Park Tract have 2 or more lots of record lumped together as an assessor's parcel. Almost 30 of the lots of record stand alone as parcels. The large lot sizes and limited number of dwellings in the community gives an appearance of much open ground and much open space between many homes in the community. Surrounding land uses include dairies, a hog farm and agricultural land in field or row crops.

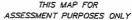
2.3 Median Household Income

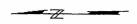
The smallest census area for which income data is available for Monterey Park Tract is Stanislaus County Census Tract 31, Block Group 1 which encompasses about 12 square miles (much larger than the 31 acres in the community). The calculated median annual household income for this area based on Year 2000 census data is \$27,468 (see Appendix D). It is estimated that the median household income for Monterey Park Tract is much lower than this based on a comparison of housing conditions in the community with that of the surrounding rural area in the census tract block group.

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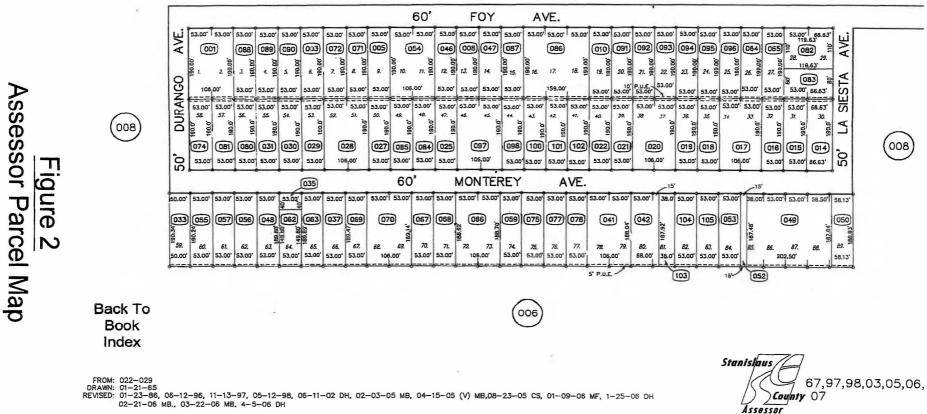
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2.4 Environmental Resources Present

The Monterey Park Tract Community Services District is not in an environmentally sensitive area. There are no wetlands in the community. The project area is not within the 100-year floodplain. There is no important farmland in the area based on the fact that:

- Only one soil type in the community (Delhi loamy sand) has the potential of being classified as prime farmland, and;
- this land in the community is not prime farm land because it is not irrigated

Ground water underlying the community is shallow. Soundings of both community wells has shown depth to water of less than ten feet. Water level measurements have also been recorded in the surrounding area by the Department of Water Resources. A representative example of these depths to water measurements is shown in Appendix E

2.5 Growth Areas and Population Trends

The community of 47 houses (2 being unoccupied), one church and a community building has not seen the unprecedented growth that other more urban portions of Stanislaus County have seen. When the water system was built in 1987, there was approximately the same number of homes in the community. This translates to a stable community with essentially no growth. There is, however, the potential for almost a doubling of the community's size due to the fact that there are 89 lots of record in the District (see Figure 2). Any lot splits smaller than the lots of record are not anticipated since there is no community sewer system. Assuming a growth rate of 2 percent per year, it is estimated that there could be 72 connections at the end of a 20-year design period (See Table 1). However, the community has grown very little over the last 24 years. Also, the California Department of Public Health's Safe Drinking Water State Revolving Fund requirements limit fundable growth to 10%. Since one new house will be constructed soon, which will bring the total number of connections to 50, the new improvements will be designed to serve a total of 55 connections (50 connections + 10%). This equates to a design population of 200 people based on an average of about 3.65 persons per household.

TABLE 1 MONTEREY PARK TRACT COMMUNITY SERVICES DISTRICT PROJECTED CONNECTION BASED ON 2% GROWTH RATE				
				Total Projected Connections
	2% GR			at 2%
			Comm.	
Year	Dwellings	Church	Cntr.	Growth
2011	47	1	1	49
2012	48	1	1	50
2013	49	1	1 -	51
2014	50	1	1	52
2015	51	1	1	53
2016	52	1	1	54
2017	53	1	1	55
2018	54	1	1	56
2019	55	1	1	57
2020	56	1	1	58
2021	57	1	1	59
2022	58	1	1	60
2023	60	1	1	62
2024	61	1	1	63
2025	62	1	1	64
2026	63	1	1	65
2027	65	1	1	67
2028	66	1	1	68
2029	67	1	1	69
2030	68	1	1	70
2031	70	1	1	72*

* However, this will be limited to 55 connections (See Section 2.5)

3.1 Water System Layout, Service Area and History

The existing water supply and distribution system facilities operated by the Monterey Park Tract Community Services District include the following:

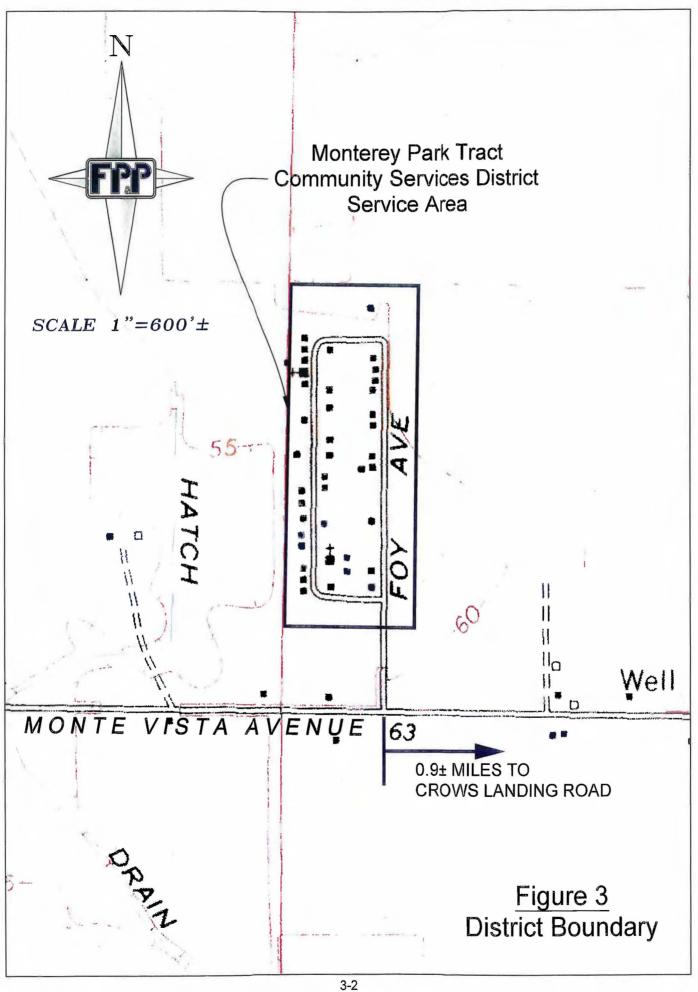
- Two (2) wells each equipped with a 50 hp oil lubricated turbine pump. The pump settings are at depth of 135 feet below ground surface elevation. Well driller reports show that the Well 1 casing extends down to a depth of 200 feet, and that the Well 2 casing extends down to a depth of 185 feet.
- One (1) 7,000 gallon hydropneumatic tank located adjacent to Well 1
- Approximately 3,920 feet of 8-inch C900 PVC looped water main
- Eight (8) Fire hydrants
- Six (6) Gate valves to isolate the distribution system
- Fifty (50) service connections (some of which serve vacant houses or properties)

Figure 3 delineates the contiguous service area and boundaries of the Monterey Park Tract Community Services District water system. Attached as Appendix F are the as-bid plans for the water system drawn in 1986 which identifies the layout of the water system and the area served.

3.2 Condition of Facilities

The system was built in 1987 and no major renovations to the system have occurred. The current condition of the facilities varies. Water quality from the wells has deteriorated substantially to where water produced from the wells has exceeded the primary maximum contaminant levels (MCL) for nitrates and arsenic, and the secondary MCL's for manganese and total dissolved solids (TDS). See Appendix A for water quality data.

Each of the two wells provides an adequate volume of water to meet both current and 20year design flow requirements for domestic demand, and both wells together can provide fire flow requirements. The motor and pump installations presently appear to be in good



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working order at both well sites. The flow meters at both well sites were recently replaced with new meters. Well flow meter data can be found in Appendix G.

No problems have arisen from the water mains, however service line problems have occurred infrequently. The volume of water to several homes was substantially reduced due to the precipitation of manganese compounds in the service lines providing water to those properties. In the past it has been necessary for the District to temporarily disconnect and flush out those lines to resume service.

3.3 Water Meters

The District has awarded a contract for the installation of meters on its 49 existing water services. This project has recently been completed and the District will be going through a Proposition 218 process to change the rate structure from flat rate to metered rate.

SECTION 4: NEED FOR PROJECT

4.1 Health Issues

The primary health issue is the level of nitrate and arsenic in the water supply which exceed the State of California Title 22 primary maximum contaminant levels (MCL). A secondary issue is the high manganese and total dissolved solids concentrations (TDS). Meeting the secondary MCL's for manganese and TDS is important, but of lesser significance.

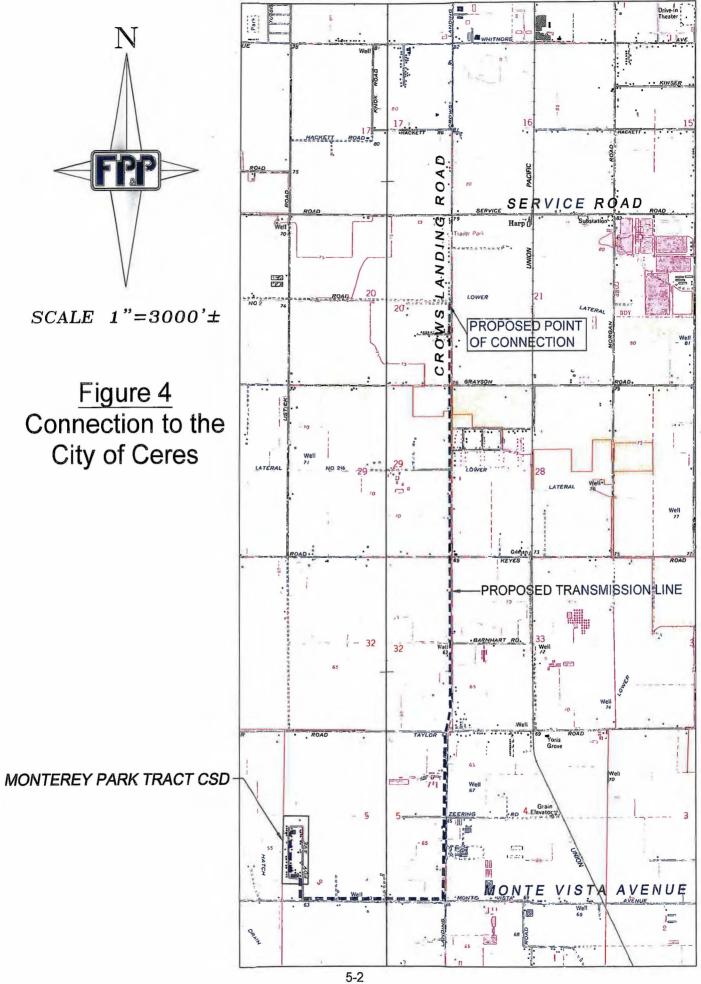
4.2 Growth Issues

The selected water supply alternative will be designed to meet the estimated metered water demand of the existing 49 connections, the new home that will be constructed soon, plus 10% for growth as allowed by the Safe Drinking Water State Revolving Fund, for a total of 55 connections. The existing water distribution facilities will be adequate for the 55 connections.

5.1 Description of Alternatives

Alternative 1- Connect to the City of Ceres

This alternative is to connect to the City of Ceres' water distribution system on Crows Landing Road about 1/2 mile south of Service Road. See Figure 4. This alternative would include: a water service connection to the City's water main on Crow Landing Road (i.e., tapping tee, valve, pipe, fittings meter setting and backflow preventer); installation of a 4-inch diameter, approximately 5 mile long AWWA C900 PVC (with restraining gaskets) transmission line from the new water service connection on the City's water main to the District; and installation of a welded steel water storage tank, booster pump system, small hydropneumatic tank, motor control center, chlorination equipment, standby diesel generator and other necessary site improvements. Three locations have been identified as possible sites for the tank, pumps, etc. and are discussed later in this section. As part of this study, the pump from Well 2 was removed and the well was video inspected to determine its condition and whether it could be designated as an "inactive well" (as defined by the California Department of Public Health) for use as emergency backup water supply, or to provide water for treatment (See description for Alternative 2 below). The hydrogeologist has indicated that the well is in good condition, but the louvers in the well may need to be acid cleaned. As part of this alternative, the pump in Well 2 will be converted from oil lubed to water lubed, and it will be connected to the storage tank so that it can be run by hand in emergency situations when allowed by the California Department of Public Health. Well 1 will be destroyed and the equipment and fence removed, and the site demolished. On July 25, 2011 at a Ceres City Council study session the Council voted unanimously to support providing water service to the District. The City will consider approving a memorandum of understanding (MOU) with the District at a Council meeting sometime in September or October of 2011.



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Alternative 1 is a viable option and will be examined more extensively in the next section.

Alternative 2- Treat Water from Well 2

As indicated in the description above for Alternate 1, the pump from Well 2 was recently removed and the well was video inspected to determine its condition and whether it could be designated as an "inactive well" (as defined by CDPH) for use as an emergency backup water supply or to provide water for treatment. Based on the video inspection, the hydrogeologist has indicated that the condition of Well 2 is good, but the louvers in the well may need to be acid cleaned. Alternative 2 consists of removing the existing pump from Well 2, acid cleaning the well, replacing the existing pump with a smaller submersible pump (50 to 60 gpm), installing treatment to remove arsenic, nitrate and manganese so that the water from Well 2 meets Title 22 requirements, and installing the same site improvements as described in Alternative 1 above (i.e., storage tank, booster pumps, etc.). Note that some of the total dissolved solids (TDS) test results for water samples taken from Well 2 exceed the secondary maximum contaminant level of 500 mg/L (see Appendix A). TDS removal is not included in this alternative. Treatment will consist of the addition of sodium hypochlorite to oxidize the arsenic (and manganese) and to prevent biological growth in the filters. The pH of the water will then be adjusted for optimum arsenic removal. Following the pH adjustment, ferric chloride will be added as a coagulant. The water will then pass through a pressure filter to remove the coagulated arsenic (and manganese). Following the arsenic removal process, reverse osmosis (RO) will be used to removed nitrate to meet Title 22 requirements. After this the pH will be adjusted. Also, sodium bisulfite may be injected to lower the chlorine concentration, if needed. TDS removal will not be included in Alternative 2. Well 1 will be cleaned and rehabilitated as needed, its pump converted from oil lubed to water lubed, and it will be connected to the storage tank so that it can be run by hand in an emergency when allowed by the California Department of Public Health. Alternative 2 is also a viable option (assuming that the existing

TDS concentration is acceptable to CDPH) that will be examined in more detail in the next section.

Alternative 3- Drill a New Well Outside of the District

Based on his experience with water wells in the area, the hydrogeologist (Ken Schmidt of Kenneth D. Schmidt & Associates) recommended testing the water from some of the existing wells that are located northeasterly of the District to see if the water quality in these wells justified drilling a casing hammer test well and taking water samples. After much time and effort (especially effort keeping out of the biting range of protective farm dogs) contacting property owners in the designated area, Self-Help Enterprises was able to get permission from three property owners to test the water from their wells. At the request of the property owners, the locations of these wells must be kept confidential. The water sample test results are tabulated in Appendix I. All of the wells had at least one primary constituent that did not meet Title 22 maximum contaminant level requirements. Based on these results the hydrogeologist determined that a casing hammer test well should not be drilled northeasterly of the District, and instead recommended drilling a casing hammer test well on a lot within the District that is owned by Stanislaus County to determine if a new well could be constructed there. Alternative 3 is considered to be not feasible.

Alternative 4- Drill a New Well Inside of the District

A casing hammer test well was drilled on a Stanislaus County owned lot within the District and water samples were taken at various depths to determine if it would be feasible to construct a production well on the site. See the maps and the Well Completion Report for the test well in Appendix J. After analyzing the Well Completion Report and water sample test results, the hydrogeologist concluded that the water that would be produced from a well drilled at this location would not meet Title 22 water quality requirements (see letter dated July 13, 2011 with attached water sample data in Appendix J).

Alternative 5- No Project

The requirements of Title 22 are mandatory. A "No Project" option is not feasible.

Another alternative, which was considered in a previous study (and which was found to be unfeasible), is as follow:

Repair or refurbish Well 1-

This alternative is the repair or refurbishing of Well 1 to open up plugged lower perforations to possibly lower the nitrate concentration to an acceptable level. However, based on data collected from Well 1 and the evaluation of this data by the hydrogeologist, Mr. Ken Schmidt, it appears that this option does not warrant further consideration (See letter from Mr. Schmidt in Appendix K). Water can only enter the well from a depth of between 150 to 160 feet. It appears that Well 1, which was apparently drilled to an original depth of 185 feet (based on the Well Driller's Report), has had its bottom 25 feet filled in with an unknown material, possibly cement. An attempt was made to remove this material, but was unsuccessful. Mr. Schmidt's opinion is that the main reason for the increasing nitrate concentrations in Well 1 is the filling in of the bottom of the well. He states that this resulted in all of the water coming from above a depth of 160 feet, where high nitrate groundwater is present. Since the fill material cannot be removed and the perforations unplugged, the repair or refurbishing of this well is not feasible.

5.2 General Design Criteria

The following criteria apply to both of the feasible alternatives (i.e., Alternatives 1 & 2) Water Demand-

Maximum Day Demand

The District has just installed new meters at its two existing well sites. See the well flow meter data in Appendix G. Flow data prior to these readings is inaccurate. For the period July 8, 2011 to August 8, 2011 the total volume of water used was:

Volume = (1,402,800 - 78,600)+(2,586,800 - 2,115,400) = 1,795,600 gallons.

Since this period of time included hot weather (>100°F) and, due to the lack of accurate long term flow data, this volume will be assumed to be the maximum month demand. Per Section 64554(b)(2) of the California Water Works Standards. The maximum day demand (MDD) is calculated as follows:

> Ave. Daily Demand (ADD) = Max. Month Demandduring the maximum month No. of days in month ADD = (1,795,600 gal/mo.)/(31 days/mo.)

ADD during max. month = 57,923 gallons per day (gpd) MDD = 1.5 x ADD during the max. month MDD = 1.5 x 57,923 = 86,885 gpd

There are presently 47 active water services, so:

MDD/service = (86,885gpd)/(47 services) MDD/service = 1,849 gpd/service

There are two (2) inactive water services and the District is planning on serving six (6) additional services, so:

Total services for design = 47 + 2 + 6Total services for design = 55

So:

Future MDD = 55 services x 1,849 gpd/service Future MDD = 101,695 gpd Using the factor in Section 64544(b)(3)(c) of the California Water Works Standards to convert MDD to the Average Daily Demand (ADD) for the whole year:

 $MDD = 2.25 \times ADD$ for the year

So,

ADD for the year = MDD/2.25ADD for the year = (101,695 gpd)/(2.25) = 45,198 gpd

To see if this is reasonable, the following is an estimate of the cost to purchase water from the City of Ceres based on the calculated ADD for the year:

> Ave. monthly water use = (ADD x 365 days/year)/(12 months/year) Ave. monthly water use = (45,198 gpd x 365 days/yr)/(12 months/year) Ave. monthly water use = 1,374,773 gals/month

Ceres would charge the District based on the following rate (effective 7-1-12):

Water rate = $1.5 \times$ (rate charged to city users) Water rate = $(1.5 \times 1.46)/(1,000 \text{ gals.})$ Water rate = 2.19/1,000 gals.

So the estimated average monthly water bill from Ceres would be:

Ave. monthly bill = (1,374,773 gals./month.) x (\$2.19/1,000 gals) = \$3,011/month The average monthly cost per service for purchasing water from Ceres would be:

Ave. monthly water cost per service = (\$3,011/month)/(55 services)

Ave. monthly water cost per service

= \$54.75/month/service*

*Does not include existing or future O & M costs or debt service

This monthly cost does not include the District's existing or future cost to store, pump and distribute the water or pay off any loans. The District currently charges \$35/month. The total average future monthly charge at the estimated average monthly water usage would probably exceed \$100 per month. However, the District has recently installed water meters on all existing water services and will be billing based on the meter readings soon. With this in mind it is assumed that the water usage will drop substantially due to the significant cost of water, so:

> Assume MDD = 60,000 gpd for 55 total future services ADD for year = MDD/2.25 ADD for year = (60,000 gpd)/2.25 = 26,667 GPD Average monthly use = (26,667 gpd x 365 days/year)/(12 months/year) Average monthly use = 811,111 gals./month Ave. monthly water cost per service = [(811,111 gals.) x (\$2.19/1,000 gals.)]/(55 services) Ave. monthly water cost per service = \$32.30/month./service*

*Does not include existing or future O & M costs or debt service

This is a much more affordable cost for the water, so:

Assume MDD for design = 60,000 GPD

The required *Does not include existing or future O & M costs or debt service

The domestic pumping capacity must be equal to or greater than the peak hour demand (PHD). Per Section 64554(b)(2)(D) of the California Water Works Standards:

PHD = 1.5 x MDD PHD = 1.5 x 60,000 gpd = 90,000 gpd = 63 gallons per minute (gpm)

Since this is a very small system and the additional cost to increase the pumping rate would be relatively small, so design the pumps for:

Domestic Pumping Capacity = 100 gpm

Water Storage and Fire Flow Requirements

Per the California Water Works Standards, Section 64554(a)(2),

for systems with less than 1,000 services connections:

Minimum domestic water storage capacity = MDD

Minimum domestic water storage capacity = 60,000 gals.

Per an e-mail from the Modesto Regional Fire Authority (see Appendix H), the required fire flow is 1,000 gpm for 35 minutes, so:

> Req'd fire flow storage = 1,000 gpm x 35 minutes Req'd Fire Flow Storage = 35,000 Gals.

The minimum total required water storage would be:

Min. req'd water storage = 60,000 + 35,000Min. req'd water storage = 95,000 Gals.

Provide a standard sized 100,000 gallon welded steel storage tank (27' diameter x 24' high)

Booster Pump System

The pumping system will include a 100 gpm pump to meet domestic demand and a 1,000 gpm pump to provide the required fire flow. Both pumps will be operated using variable frequency drives (VFD). The fire flow pump will serve as the backup to the domestic pump. The normal flow (i.e., no fire flow) from the fire flow pump will be limited to 100 gpm so that the minimum pump start-to-start time is not exceeded (see hydropneumatic tank section below). The fire flow pump will operate very inefficiently at this reduced flow, but this will only occur when the domestic pump is down for repairs or maintenance.

Hydropneumatic Tank and Pump Controls-

In order to mitigate water hammer in the distribution system from pump starts and stops, a hydropneumatic tank with an air volume controller will be provided. The tank will be sized to keep the start-to-start time at a minimum of 4 minutes. In order to accomplish this the tank volume in gallons must be at least 10 times the domestic flow design rate in gallons per minute, which is 100 gpm. So:

Minimum Tank Volume = $10 \times 100 = 1,000$ gallons

Provide a 1,000 gallon hydropneumatic tank

The pumps would be controlled using variable frequency drives (VFD's) as follows:

- Assuming both pumps are off, when the pressure drops to 45 psi the domestic pump will start at the minimum allowable speed or flow, which is assumed to be about 30 gpm.
- The pump will then adjust its speed so that the pressure is maintained at 50 psi. If the pressure starts to rise after the pump turns on, the flow rate will stay at 30 gpm. If the pressure continues to rise the pump will be turned off when the pressure reaches 60 psi. If the pressure drops after the pump starts the pump speed will be increased to keep the pressure at 50 psi (target pressure).
- In the case of a fire, flushing or other high uses of water, the fire flow pump will also start and adjust its speed to keep the pressure at 50 psi.
- If the domestic pump fails, the fire flow pump's maximum flow will be restricted to 100 gpm until the domestic pump is repaired.

Land Requirements-

Three possible sites for the storage tank, booster pumps, motor control center, generator, chlorination facilities, and treatment facility, which are needed for both Alternatives 1 and 2, have been identified so that they can be studied during the future CEQA process.

They are indicated on Figure 5. Two of these sites consist of merging two of the existing 53 feet wide by 190 feet long lots to form a site 106 feet wide by 190 feet deep. The third site on the north end of Monterey Avenue is assumed to have the same dimensions. The minimum setback distance from the 100,000 gallon storage tank (Outside diameter = 27') would be about 39 feet, which would provide sufficient room for ease of construction and future tank maintenance. This site will also accommodate a basin for storing the water flushed from the transmission line or drained from the storage tank. The tank could be drawn down over time so that only a small fraction of the tank volume would need to be drained for cleaning, so the pond would be sized to hold a minimum of two times the volume of the 4-inch transmission line. The volume of the transmission line will be roughly 18,000 gallons, so the pond would need to hold about 36,000 gallons. See Figure 6 in Section 7 for a sample site layout.

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Figure 5

1"=300'±

Site Location Alternatives

6.1 Specific Design Criteria

General

Only Alternatives 1 and 2 will be analyzed in this Section as they are the only alternatives which have been deemed to be feasible. See Section 6 for the general design criteria that applies to both alternatives (e.g., storage volume, booster pump capacity, etc.).

Alternative 1- Connection to the City of Ceres

The transmission line from Ceres to the District would be sized to carry the average flow from the maximum day demand (MDD) which is: Average flow on maximum day = (MDD)/[(24 hours/day) x (60 minutes/hour)] = 60,000 gpd/[(24 hours/day) x (60 minutes/hour)] Average flow on maximum day = 42 gpm

The transmission line would be constructed using AWWA C900 PVC pipe and would be about 26,400 feet long. The pipe would be installed using directional drilling and the joints would have internal restraint. Per CDPH requirements, the minimum pressure required in the transmission line would be 20 psi. The City of Ceres has stated that the minimum pressure at the location where the transmission line would connect to the City's water distribution system is greater than 35 psi. Also, according to the Ceres and Brush Lake USGS quadrangle maps, the elevation of the District is at least 15 feet lower than the elevation where the transmission line would connect to the City's water main. This provides an additional 15 feet of head (or about 6.5 psi of pressure) to overcome the head loss in the transmission line. Assuming a Hazen-Williams roughness coefficient ("C" factor) of 140 for the PVC pipe, the head loss through a 4-inch diameter pipeline with an estimated length of 26,400 feet would be about 15 psi. Since the velocity of water flowing at 42 gpm through a 4-inch pipeline is a little over 1 foot per

second, the head loss from minor losses (fittings, valves, etc.) would be virtually zero. The only other head loss would occur in the meter and backflow preventer. Assuming a minimum pressure of 35 psi in the City main, the head loss through the meter and backflow preventer would need to be limited to:

Allowable Meter & Backflow Preventer Head Loss

=35 psi + 6.5 psi - 20 psi -15 psi = 6.5 psi

Note that the minimum pressure at the City main will likely be higher than 35 psi. Prior to the start of design a more accurate determination of the available minimum pressure at the connection point will be made. The meter and backflow preventer will be sized so that the combined head loss through them does not cause the pressure in the transmission line to be less than 20 psi. If this is not possible, a small booster pump will be installed near the connection to the City's water main.

Per Section 64577(a) of the California Waterworks Standards, valves would be installed on the transmission line at a maximum spacing of 1,320 feet. Provisions for flushing the line would also be provided by installing necessary fittings just downstream of the backflow preventer at the connection to the Ceres' water main so that a temporary booster pump, and also chlorination equipment, could be installed to flush and disinfect the line if needed. A small pond would be provided at the storage tank/booster pump site to accommodate the water that would be flushed from the end of the transmission line. If possible, intermediate flushing points would also be provided.

Alternative 2- Treat Water from Well 2

The treatment facilities would be designed to remove the arsenic and manganese concentrations to less than the Title 22 maximum contaminant levels (MCL's) by coagulation/filtration, and to remove the nitrate to less than the Title 22 MCL by reverse osmosis (RO). The facility would also be designed to treat the MDD of 60,000 gallons.

6.2 Construction Cost Estimates

See Tables 2 and 3 for construction cost estimates for the two alternatives.

6.3 Operation & Maintenance (O&M) Cost Estimates

General

It is assumed for both alternatives that the District will receive 100% grant funding through Proposition 84 for construction, engineering, etc, so no loan repayment costs are included in the estimates. The costs below are based on a total of 55 connections.

Alternative 1 (Connect to City of Ceres)

Recently the District raised its monthly service fee to \$35.00 per month. This monthly fee has been providing adequate revenue to operate and maintain the existing water system which consists of 2 wells with 500 gpm pumps, one hydropneumatic tank, electrical controls and the water distribution system. It is also assumed that the cost to operate and maintain the proposed 100 GPM/1,000 GPM booster pump system and the water distribution system would also be adequately paid by the existing \$35.00 per month service fee. The additional O&M costs for the proposed system are estimated as follows:

Average monthly cost of water from Ceres \$32.30/month (26,667 gpd- See Section 5.2)

Storage Tank/Flow Controls	\$ 8.00/month
Chlorination	\$ 3.00/month
Generator	\$ 5.00/month
Transmission Line	<u>\$ 5.00/month</u>
Estimated Additional O&M Cost	\$53.30/month

So, for Alternative 1:

Total estimated O&M cost = \$35.00 + \$53.30 = \$88.30/month

TABLE 2

CONSTRUCTION COST ESTIMATE FOR ALTERNATIVE 1 (CONNECT TO CITY OF CERES)

ITEM #	DESCRIPTION	QUANTITY	UNIT		UNIT COST	TOTAL
1.	MOBILIZATION/DEMOBILIZATION	1	LS	\$	30,000.00	\$ 30,000.00
2.	BACKFLOW PREVENTER ON WATER SERVICE	1	LS		7,000.00	7,000.00
3.	FLUSHING/CHLORINATION FITTINGS	1	LS		3,000.00	3,000.00
4.	4-INCH PVC WATER LINE (BY DIRECTIONAL DRILLING)	26,400	LF		28.00	739,200.00
5.	4-INCH WATER VALVES	22	EA		1,200.00	26,400.00
6.	PAVEMENT REPAIR	1	LS		20,000.00	20,000.00
7.	TRAFFIC CONTROL	1	LS		20,000.00	20,000.00
8.	100,000 GAL. WATER STORAGE TANK	1	LS	1	60,000.00	160,000.00
9.	100 GPM/1000 GPM BOOSTER PUMP SYSTEM	1	LS		60,000.00	60,000.00
10.	PIPING & APPURTENANCES	1	LS		20,000.00	20,000.00
11.	1,000 GAL, HYDRO TANK & APPURTENANCES	1	LS		20,000.00	20,000.00
12.	CHLORINATION EQUIPMENT & BUILDING	1	LS		10,000.00	10,000.00
13.	ELECTRICAL WORK	1	LS		60,000.00	60,000.00
14.	GENERATOR	1	LS		60,000.00	60,000.00
15.	SITE PREPARATION	1	LS		40,000.00	40,000.00
16.	CHAIN LINK FENCE, GATES & CURB	1	LS		20,000.00	20,000.00
17.	PULL PUMP & ACID CLEAN WELL 2	1	LS		4,000.00	4,000.00
18.	CONVERT WELL 2 TO WATER LUBED	1	LS		14,000.00	14,000.00
19.	REFURBISH WELL 2 MOTOR CONTROL CENTER	1	LS		5,000.00	5,000.00
20.	PIPING FROM WELL 2 TO STORAGE TANK	1	LS		10,000.00	10,000.00
21.	DESTROY WELL 1 & DEMO SITE	1	LS		20,000.00	 20,000.00
				S	UBTOTAL	\$ 1,348,600.00
			LAND	ACQ	UISITION	50,000.00
	CITY WATER SERVICE INSTAL	LATION (HOT	TAP, F	PIPE 8	METER)	7,000.00
		(CITY CA	PACI	TY FEES*	255,000.00
		LEGAL / AD	DMINIST	RATI	VE (1.5%)	20,229.00
		BRIDGE LO	AN INT	ERES	T & FEES	25,700.00
	SURVEY / ENGINEERING / GEOTECHNICAL/ CO	NSTRUCTION	OBSER	RVAT	ON (20%)	269,720.00
			CONTI	NGEN	ICY (20%)	 269,720.00
		тот	AL EST	IMAT	ED COST	2,245,969.00
	* IT IS POSSIBLE THAT THESE FEES COULD BE LESS					

6 - 4

TABLE 3

CONSTRUCTION COST ESTIMATE FOR ALTERNATIVE 2 (TREAT WATER FROM WELL 2)

ITEM #	DESCRIPTION	QUANTITY	UNIT	UNIT COST	 TOTAL
1.	WATER TREATMENT FACILITY*	1	LS	\$ 850,000.00	\$ 850,000.00
				SUBTOTAL	\$ 850,000.00
2.	TREATMENT FACILITY STARTUP & TESTING	1	LS	\$ 50,000.00	\$ 50,000.00
3.	100,000 GAL. WATER STORAGE TANK	1	LS	160,000.00	160,000.00
4.	100 GPM/1000 GPM BOOSTER PUMP SYSTEM	1	LS	60,000.00	60,000.00
5.	PIPING & APPURTENANCES	1	LS	20,000.00	20,000.00
6.	1,000 GAL. HYDRO TANK & APPURTENANCES	1	LS	20,000.00	20,000.00
7.	CHLORINATION EQUIPMENT & BUILDING	1	LS	10,000.00	10,000.00
8.	ELECTRICAL WORK	1	LS	80,000.00	80,000.00
9.	GENERATOR	1	LS	60,000.00	60,000.00
10.	SITE PREPARATION	1	LS	40,000.00	40,000.00
11.	CHAIN LINK FENCE, GATES & CURB	1	LS	20,000.00	20,000.00
12.	PULL PUMP & ACID CLEAN WELL 2	1	LS	4,000.00	4,000.00
13.	INSTALL NEW SUBMERSIBLE PUMP (50 GPM) IN WELL 2	1	LS	14,000.00	14,000.00
14.	REFURBISH WELL 2 MOTOR CONTROL CENTER	1	LS	5,000.00	5,000.00
15.	PIPING FROM WELL 2 TO TREATMENT FACILITY	1	LS	10,000.00	10,000.00
16.	CLEAN & REHABILITATE WELL 1	1	LS	4,000.00	4,000.00
17.	CONVERT WELL 1 TO WATER LUBE	1	LS	14,000.00	14,000.00
18.	REFURBISH WELL 1 MOTOR CONTROL CENTER	1	LS	5,000.00	5,000.00
19.	PIPING FROM WELL 1 TO TREATMENT FACILITY	1	LS	10,000.00	 10,000.00
				SUBTOTAL	\$ 586,000.00
		TOTAL CO	ONSTR	UCTION COST	\$ 1,436,000.00
			LAND	ACQUISITION	50,000.00
		LEGA	AL / ADI	MINISTRATIVE	21,540.00
		BRIDGE LO	AN INT	EREST & FEES	25,700.00
	SURVEY / ENGINEERING / GEOTECHNICAL/ CONS	TRUCTION	DBSER\	/ATION (20%)**	117,200.00
			CONTI	NGENCY (25%)	 359,000.00
		TOT	AL EST	IMATED COST	2,009,440.00

* COST ESTIMATED FOR ARSENIC REMOVAL BY COAGULATION/FILTRATION AND NITRATE REMOVAL BY REVERSE OSMOSIS USING "ARSENIC TREATMENT TECHNOLOGY EVALUATION HANDBOOK FOR SMALL WATER SYSTEMS" (EPA 816-r-03-014). COST INCLUDES ENGINEERING.

** DOES NOT APPLY TO WATER TREATMENT FACILITY.

Alternative 2 (Treat Water From Well 2)

It is also assumed for Alternative 2 that that the cost to operate and maintain the proposed 100 GPM/1,000 GPM booster pump system and the water distribution system would also be adequately paid by the existing \$35.00 per month service fee. The additional O&M costs for the proposed system are estimated as follows:

Water Treatment Facility (\$75,000/yr)*	\$1	25.00/month
Storage Tank/Flow Controls	\$	8.00/month
Generator	<u>\$</u>	5.00/month

Estimated Additional O&M Cost \$138.00/month

* This O&M cost was calculated using the "Arsenic Treatment Technology Evaluation Handbook for Small Systems" (EPA 816-R-03-014, July 2003)

So, for Alternative 2:

Total estimated O&M cost = \$35.00 + \$138.00 = \$173.00/month

6.4 Advantages/Disadvantages

Alternative 1- Connection to the City of Ceres:

Advantages

- 1. Simple to maintain and operate.
- 2. Lower operator certification required than for Alternative 2 which will result in lower payroll costs.
- 3. No total dissolved solids issues.
- 4. Only liquid chlorine to be stored on-site, not multiple chemicals.
- 5. City of Ceres will be responsible for meeting future Title 22 requirements (e.g., 1, 2, 3 TCP, Chromium VI, etc).
- 6. Much lower O&M costs.
- 7. Better dependability and reliability.
- 8. No residuals disposal.

Disadvantages

1. Higher capital cost.

- 2. May have stale water issues in long transmission line. May have to rechlorinate prior to discharging into storage tank. Routine disinfection and flushing may be needed.
- 3. Expansion beyond 55 service connections may not be possible.

Alternative 2- Treat Water from Well 2

Advantages

- 1. Lower capital cost
- 2. Can expand beyond 55 total connections.

Disadvantages

- 1. Complex and more difficult to maintain and operate
- 2. Higher certification required, higher payroll costs.
- 3. TDS will still be over the secondary MCL after treatment is initiated.
- 4. Multiple chemicals to be stored on site.
- 5. Future increases in the concentration of the existing regulated contaminants that are being removed may require the construction of additional treatment units. Future Title 22 requirements (e.g., for 1, 2, 3 TCP, Chromium VI, etc.) could result in the need for new treatment facilities.
- 6. Much higher O&M cost.
- 7. Higher complexity could cause less dependability and reliability.
- 8. Residual disposal required.
- 9. Pilot studies must be completed before the actual required treatment and costs can be determined.

6.5 Present Worth (Life Cycle) Cost Analysis

Even though the construction cost estimate for Alternative 2 is lower than for Alternative 1 by about \$250,000, it is obvious that Alternative 2 is unaffordable due to it's extremely high estimated O&M cost. A present worth analysis is not needed.

7.1 Recommended Alternative

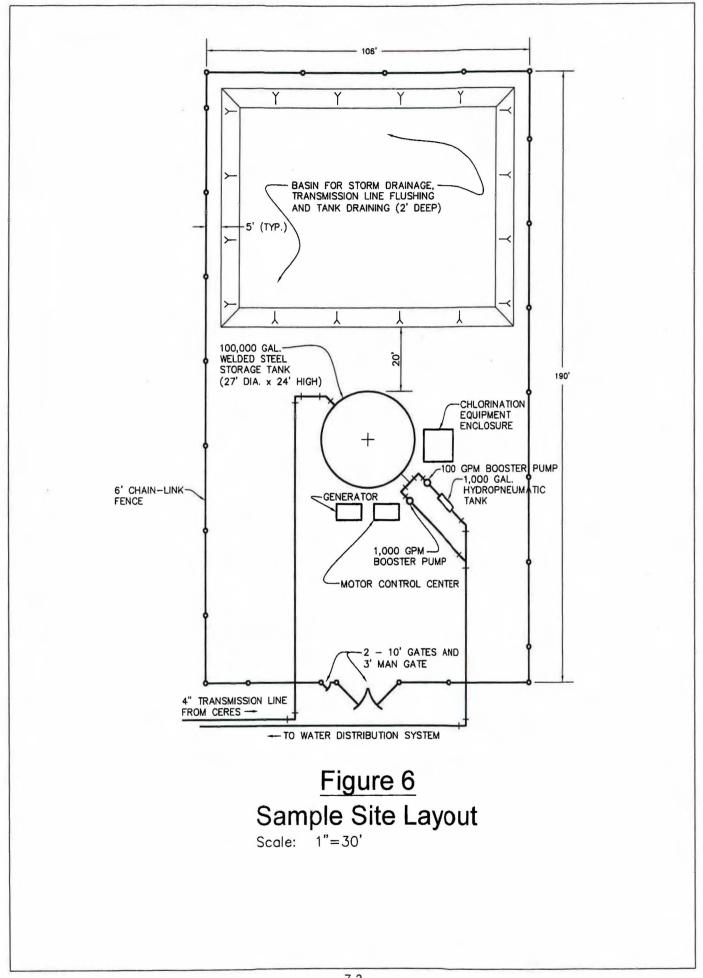
The recommended alternative is Alternative No. 1 (Connect to City of Ceres). This alternative has an estimated O&M cost that is over \$80.00 per month less than Alternative 2 (Treat Water from Well 2). Also, Alternative 1 has many advantages over Alternative 2, including:

- 1. It is very simple when compared to the other alternative. It does not seem reasonable to expect a district this small to operate and maintain relatively complicated treatment equipment on a long term basis.
- 2. Lower operator certification required which will result in lower payroll costs.
- No total dissolved solids (TDS) issues. Well 2's TDS concentration is >500 mg/L and the proposed treatment included in Alternative 2 would not lower the level.
- 4. Only liquid chlorine to be stored on-site, not multiple chemicals. Alternative 2 would require the storage of liquid chlorine plus ferric chloride, sodium hydroxide, and sodium bisulfite.
- 5. The City of Ceres will be responsible for meeting future Title 22 requirements (e.g., 1, 2, 3 TCP, Chromium VI, etc).
- Much lower O&M costs. The cost difference has been estimated at over \$80.00 per month per connection.
- 7. Better dependability and reliability. The treatment alternative requires significantly more equipment and controls, which would make a breakdown more likely.
- 8. No residuals disposal. The residuals from the coagulation/filtration process would have to be mechanically dewatered, and then trucked to a landfill. If the residuals are considered hazardous waste the cost of disposal will be more expensive than if it could be disposed of at a normal municipal landfill.

It is recommend that the District apply for Proposition 84 grant funding which can be used for the design and construction of Alternative 1 (Connect to the City of Ceres).

7.2 Sample Site Layout

See Figure 6 for a sample site layout the storage tank, booster pump system, generator, chlorination equipment and storage pond.



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APPENDIX A

Water Quality Data for Existing District Wells

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		MONTEREY	PARK TH	RACT	SD		+	CALL/LOTT								1		1	<u> </u>					
	<u> </u>	WELL 1 WATER SAM					+	+													+			+
		VILLE I WATER SAN		ST RESU	ULIS						<u> </u>							ļ						<u> </u>
	+						1								1					+		<u> </u>		+
Maximum Conta	minate Le	evel (MCL) Legend-		Test Resu	Its Legend														†		+			†
 Primary MCI 				ND = No	ot Detected																			
** Secondary M	MCL			* exceed	ds MCL (exis	sting or prop	oosed)																	<u> </u>
^ Other Stand Blank Means			1			+	<u> </u>										ļ	<u> </u>	+					+
		Short Term Maximum													1			<u> </u>	+		+			
² Measured At	The Tan					+						<u> </u>			+				<u> </u>					
initiation of the								1		······		+				· · · ·					+			1.
MCL	UNITS	CHEMICAL			Date			:											1	+				
			5/22/2003	9/30/2003	12/12/2003	3/5/2004	6/20/2005	9/19/2005	1/12/2006	3/20/2006	6/30/2006	9/1/2006	9/29/2006	11/29/2006	12/29/2006	2/28/2007	5/25/2007	6/27/2007	8/17/2007	9/27/200	11/26/2007	12/19/2007	4/18/2008	3 9/19/2008
General Miner	ral, Physic	al & Inorganic Total Hardness as CaCO ₃									100 7								<u> </u>					+
100^		Calcium									163.7 28.4				· · · · ·				<u> </u>		+			+
50^		Magnesium		15.5	<u>_</u>	1	1				14.0								-i					
150^	mg/L	Sodium				İ					11								1					1
		Potassium									2.8								ļ					
30^ Min.	mg/L	Total Alkalinity as CaCO3									214.2					ļ			ļ		<u> </u>			
	mg/L mg/L	Hydroxide (OH) Carbonate (CO ₃)	+								<1.0 <1.0				+				1					+
	mg/L	Bicarbonate (HCO3)				-	†				261.3								†		+			+
250-500-600**1	mg/L	Sulfate (SO ₄)				1					25.4								1	1	<u>.</u>		· .	1
250-500-600**1	mg/L	Chloride (Cl)									87								<u>.</u>		+			+
45*		Nitrate (as NO ₃)		70.8*	71.8*	68.5*	17.3	25.7		22.4	25		68.6*	22.9		62.7*	74.4*		35.2		41.8			
2.0*		Fluoride (Temperature Dependent)									<0.1								<u> </u>					
6.5-8.5** 900-1600-2200** ¹	unitless	Specific Conductance (E.C.)									6.9 762													+
500-1000-1500**1	mg/L	Total Filterable Residue at 180° (TDS)							3		445								+					
15**	CU	Apparent Color (Unfiltered)									<3									<u></u>				1
3**		Odor Threshold at 60° C									<1								-	121				
1-5 (see std.)**		Lab Turbidity									< 0.05								<u> </u>		<u> </u>			
0.5** 1000*/200**		MBAS (Foaming Agents)									<0.02 <50				· · · · · · · · · · · · · · · · · · ·					<u> </u>	ļ			
6*	ug/L ug/L	Antimony	+			<u> </u>					<50								<u> </u>		+			
10*		Arsenic				1					31.0*				36*			34*		12		33*		+
1000*		Barium									130				· ·			-						
4*		Beryllium	+			ļ					<1								ļ	L				
5* 50*	ug/L ug/L	Cadmium Chromium (Total Cr)									<1 <10							I I	<u> </u>		1			
1300* ² /1000**	ug/L ug/L	Copper									<10								 					
300**	ug/L		1																<u>+</u>	+	+			+
15* ²	ug/L										<100 <5													
50**	ug/L	Manganese			82.5*	91.2*	ļ				<20		49.9		<20			·						<u> </u>
2*		Mercury				<u> </u>					<1				<u> </u>		ļ			<u> </u>				+
100* 50*	ug/L ug/L	Nickel Selenium				<u> </u>					<10 <5			· · · ·	+			·		+	+	i		
100**	ug/L	Silver				<u> </u>	<u> </u>				<10					1			1	+				†
2*	ug/L	Thallium									<1		2								1			
5000**		Zinc									<50		2						ļ					
10000* 1000*		Nitrate + Nitrite as Nitrogen (N) Nitrite as Nitrogen (N)	16860*								5650 <400				+				<u> </u>	+	<u> </u>			4
200*	ug/L ug/L	Cyanide		······		+					~400									+	<u>i</u> 	- <u>-</u>		
	ug/L	Chromium, Hexavalent (CrVI)				1.													†	1	+			1
	ug/L	Vanadium																	1					
	ug/L	Perchlorate	<u> </u>]																		+		<4.0	0 <4.0
		Silica Phosphate	+			<u> </u>			41.1 <1.0							<u> </u>			+		+			
		Boron	++			<u> </u>			<1.0						+				+	+	1			
		Langelier Index				†					-0.4				1	-			1	1				
																					1			
Regulated & L	Inregulate	d Organic Chemicals																	ļ					
		All Analyses Results									ND									+	┿────			
Radionuclides			+																+					
15*		Gross Alpha	<u>├</u>			<u> </u>											19.4*	+	<3.0)	<3.0	······		+
	pCi/L	Radium 228														<1.0	<1.0		1		1	·		
20*		Uranium														1	15.0		1					
20	porc	Radium 226															<1.0		<1.0					

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			1	T	1	T					2990.0
		· · · · · · · · · · · · · · · · · · ·			·						8/22/20
		MONTEREY F		ACTO		L		-			0/22/20
		WELL 2 WATER SAM	PLE TES	ST RESI	JLTS		2				
									1.12		
		el (MCL) Legend-			its Legend						
 Primary MCL 				ND = No	ot Detected						
** Secondary MO				* excee	ds MCL (ex	isting or pro	posed)				
^ Other Standar	rds (not enf	orceable)									
Blank Means I			· ·								
		ort Term Maximum									
² Measured At T	he Tap	· · · · · · · · · · · · · · · · · · ·			Date						
					(Time)						
MCL	UNITS	CHEMICAL	2/23/2004	5/13/2004	6/18/2008			2/2/2010	12/1/2010	1/5/2011	3/2/201
					(8:42 AM)	(9:07 AM)	(9:21 AM)				
General Minera											
500^	mg/L	Total Hardness as CaCO ₃	156					171.0			
100^	mg/L	Calcium	32.8					34.5			
50^	mg/L	Magnesium	11.0					7.4			
150^	mg/L	Sodium	116					121			
	mg/L	Potassium	3					6.3			
30^ Min.	mg/L	Total Alkalinity as CaCO3	209					210			
		Hydroxide (OH)	1					<1			
	mg/L	Carbonate (CO ₃)	1					<1			
	mg/L	Bicarbonate (HCO ₃)	254.9					256.2			
250-500-600**'		Sulfate (SO ₄)									
	mg/L		25.1					22.5			
250-500-600** ¹	mg/L	Chloride (CI)	88.5					97			
45*	mg/L	Nitrate (as NO ₃)	14.6	14.7				42.5		49.8*	
2.0*	mg/L	Fluoride (Temperature Dependent)	0.4		÷			<0.1			
6.5-8.5**		Ph	6.8					7.5			
900-1600-2200**1	umho/cm	Specific Conductance (E.C.)	713					831			
500-1000-1500**1		Total Filterable Residue at 180° (TDS)	439		526*	531*	513*	538*			
15**	CU	Apparent Color (Unfiltered)	<3	· · · · · · ·				<3			
3**		Odor Threshold at 60° C	<1					<1			
1-5 (see std.)**	NTU	Lab Turbidity	0.08					< 0.05			
0.5**		MBAS (Foaming Agents)	<0.02					<0.02			
1000*/200**	ug/L	Aluminum	<50					<50			
6*	ug/L	Antimony	<6					<6			
10*	ug/L	Arsenic	26*	29.7*	28.4*	30.6*	32.4	35*	33*		4
1000*	ug/L	Barium	<100	£4,1	£0,7	50.0	V2.7	169			
4*	ug/L	Beryllium	<1					<1			
	ug/L	Boron	<100							ini-	
5*	ug/L	Cadmium	<1					<1			
50*	ug/L	Chromium (Total Cr)	<10					<10			
1300* ² /1000**			<50					<50			
300**	ug/L	Copper	<100		<100	<100	<100	<100			
	ug/L			· · · · · · · · · · · · · · · · · · ·	<100	< 100	<100				
15*2	ug/L	Lead	<5					<5			
50**		Manganese	48	45.5	67.7*	74*	74*	67*			
2*		Mercury	<1					<1			
100*		Nickel	<10					<10			
50*		Selenium	<5					<5			
100**		Silver	<10					<10			
2*	ug/L	Thallium	<1					<1			
5000**		Zinc	<50					<50			
10000*		Nitrate + Nitrite as Nitrogen (N)	3300					9605			
1000*		Nitrite as Nitrogen (N)	<400					<400			
200*	ug/L	Cyanide	<100								
		Chromium, Hexavalent (CrVI)	<1								
	ug/L	Vanadium	24							-	
		Perchlorate	<4	· · · ·							
		Silica			43.8	43.9	44.0				
Regulated & Un		Organic Chemicals									
		All Analyses Results	ND					ND	<u> </u>		
Radionuclides											
15*	pCi/L	Gross Alpha	4.81		· · · · · · · · · · · · · · · · · · ·		I				

APPENDIX B

Public Water Supply Permit for MPTCSD

Juliibidus County



FILE COPY **Department of Environmental Resources**

1716 Morgan Road Modesto, California 95358-5894 . FAX# (209) 525-4163 (209)

COMMUNITY

525-4154

PUBLIC WATER SUPPLY PERMIT

5000389 Water System #:

Pursuant to the California Health and Safety Code, Section 4011-4019A, a public water supply permit is hereby issued.

PERMIT IS ISSUED TO:

MONTEREY PARK TRACT CSD PO. BOX 1301 CERES 95307 CA

PERMIT ALLOWS WATER SERVICE TO:

MONTEREY PARK TRACT C.S.D. 7519 FOY AVE CERES CA

PERMIT ALLOWS WATER SERVICE FROM THE FOLLOWING FACILITIES:

MONTEREY PARK WELL # 1 & 2

This permit is granted subject to the following provisions:

- Water for domestic purposes shall, under all circumstances 1. and conditions, be pure, wholesome, and potable, and shall not endanger the lives or health of human beings;
- 2. A program for the protection of the domestic water system against possible backflow from premises having dual or unsafe water systems shall be maintained in accordance with the Cross-Connection Regulations of the California State Board of Public Health;

PUBLIC WATER SUPPLY PERMIT PAGE TWO

- 3. Competent and adequate operation shall be provided at all times, and operating records, including water flow, quantity of water treated, chemicals used, and other data as may be required by the State Department of Public Health and/or the Stanislaus County Department of Environmental Resources, shall be maintained;
- 4. Bacteriological and chemical tests performed in compliance with the methods set forth in Title 22 of the California Code of Regulations (C.C.R.), Sections 64421 and 64447, shall be made in accordance with the reguirements of the State Department of Public Health, or the Stanislaus County Department of Environmental Resources;
 - A. Bacteriological tests shall be performed according to a bacteriological sample Siting Plan approved by this Department. (Section 64422)
- 5. Necessary treatment works or improvements in operation, maintenance or construction, shall be provided when needed or when required by the State Department of Public Health and/or the Stanislaus County Department of Environmental Resources;
- 6. Modifications, additions, or changes in the distribution system shall comply in all particulars with the provisions of State and County laws and regulations relating to public water systems.
- 7. Permit is non-transferrable.
- 8. An annual report providing specific information on water quality of all sources shall be distributed to each customer per C.C.R. Section 64463.1.
- 9. This permit supersedes all domestic water supply permits previously issued for this system.

STANLSLAUS COUNTY DEP RTMENT OF ENVIRONMENTAL RESOURCES By: BRYAN KUMIMOTO, Sr.E.H.S. SENIOR ENVIRONMENTAL HEALTH SPECIALIST Division of Environmental Health

Date Issued:

ck

APPENDIX C

Water Ordinance

Ordinance Number.

MONTEREY PARK TRACT COMMUNITY SERVICES DISTRICT

FILE

AN ORDINANCE ESTABLISHING CHARGES, RULES AND REGULATIONS FOR WATER SERVICES AND FACILITIES FURNISHED BY THE RIVERDALE PARK TRACT COMMUNITY SERVICES DISTRICT.

Be it ordained by the Board of Directors of the Montermy Park Tract Community Services District as follows:

Article I. - Purpose

 The purpose of this ordinance is to set forth the water policies, procedures and charges.

Article II. - General Provisions

- <u>Short Title</u>. This Ordinance shall be known and may be cited as Monterey Park Tract Community Services District Water Ordinance.
- 3. <u>Words and Phrases</u>. For the purpose of this Ordinance, all words herein in the present tense shall include the future, all words in the plural number shall include the singular number, and all words in the singular number shall include the plural number.
- 4. <u>Separability</u>. If any section, subsection, sentence, clause, or phrase of this Ordinance is for any reason held to be invalid or unconstitutional, such decision shall not affect the validity of the remaining portions of this Ordinance.
- 5. <u>Water System</u>. The District will furnish a system that includes equipment and facilities that obtain water, store water, and distribute water, including lands and easements as part of said system for the purpose of providing water for public and private users.
- 6. <u>Water Pressure Conditions and Interruptions of Services</u>. All water users are required to accept conditions of pressure and services as are provided by

the distribution system at the location of the service connection, and to hold the District harmless for any damages arising out of low pressure or high pressure conditions or interruptions in services.

<u>Tampering with District Property</u>. No one except a District employee or representative of the Board shall at any time in any manner operate or interfere with the curb stop or valves, main cocks, gates or valves, street mains or other parts of the District's water system.

Also, no one is to build structures such as sheds, fences, driveways, etc., on District easements without first obtaining permission from the District. The District is not responsible for any damage to structures built on easements that may occur as a result of seepage from broken water lines, and from repairing or replacing of said lines.

- 8. <u>Penalty for Violation</u>. For the failure of the user to comply with all or any part of this ordinance, any District ordinance, resolution or order fixing rates and charges of the District, a penalty of \$100, or \$100 plus cost of repairs, if any, shall be levied. Also, the user's <u>water</u> service may be discontinued and the water shall not be supplied to such user until the user complies with the rule or regulation, rate or charge which the user has violated, or in the event that the user has satisfied the District that in the future the user will comply with all the rules and regulations established by ordinance of the District and with all rates and charges of the District.
- 9. <u>Reconnection Fee. The user shall pay the District the sum of \$15 for renewal</u> of the water service if the District discontinued the service. The District may require a deposit for reestablishment of credit if bill paying performance is inadequate. Refer to Section 76.
- 10. <u>Final Ruling</u>. All rulings of the Board of Directors shall be final. All rulings of the General Manager shall be final unless appealed in writing to

the Board within five (5) days after the General Manager's ruling. When appealed, the Board's ruling shall be final.

Article III. - Definitions

- The meanings of terms as follows shall govern the construction of this Ordi nance and its application, unless otherwise apparent from the context.
- 12. District means Monterey Park Tract Community Services District.
- 13. Board means the Board of Directors of the District.
- 14. <u>Water Department</u> means the Board, together with the General Manager, the Water Operator, the Secretary/Billing Clerk, and other authorized representatives that perform functions related to the District's water services.
- 15. <u>Distribution Mains</u> means water lines in streets, alleys, and easements used for public fire protection and for general distribution of water.
- 16. <u>Water Service or Water Service Connection</u> means pipeline and appurtenant facilities such as curb stop, meter and meter box, if any, all used to extend water service from a distribution main to premises. Where services are divided at the curb or property line to serve several customers, or units, each branch service shall be deemed a separate service.
- 17. <u>Regular Nater Services</u> means water service and facilities rendered for normal domestic and commercial purposes on a permanent basis.
- 18. <u>Temporary Water Services</u> means water service and facilities rendered for construction work and other uses of limited duration.
- 19. <u>Public Fire Protection Service</u> means the service and facilities of the entire water supply, storage, and distribution system of the District, including the fire hydrants, and the water available for fire protection, excepting house service connections and appurtenances thereto.
- 20. <u>Cross-Connection</u> means any physical connection between the piping system from the District service and that of any other water supply that is not, or

cannot be, approved as safe and potable for human consumption, whereby water from the unapproved source may be forced or drawn into the District distribu-

- 21. <u>Premises</u> means a lot or parcel of real property developed with a structure, building or unit under one ownership,
- 22. Unit means a house, an apartment, a mobile home, an inhabited trailer, an inhabited recreational vehicle, a public establishment, or an industrial or a commercial establishment. This term does not refer to an apartment <u>building</u>, or a commercial or industrial <u>building</u> housing more than one establishment.
- 23. Non-Residential means all uses other than as defined for residential.
- 24. <u>Residential</u> means any single-family or multiple-family dwelling used as a residence.
- 25. <u>Single-Family Dwellings</u> means premises designed, improved or used as a restdence for one family with sanitary and kitchen facilities.
- 26. <u>Multiple-Family Dwellings</u> means premises designed, improved or used as a residence for two or more families. Tiving independently of each other in two or more structurally joined dwelling units with separate entrances and with sanitary and kitchen facilities. This term shall include apartment houses and duplexes, but it shall not include motels, dormitories, or similar structures.
- 27. <u>Owner means the person owing the fee</u>, or the person in whose name the legal title to the property appears, by deed duly recorded in the County Recorder's office, or the person in possession of the property or buildings under claim of, or exercising acts of ownership over same for himself, or as executor administrator, guardian or trustee of the owner.
- 28. <u>Person and User</u> means any human being, individual, firm, company, partnership, association and private or public or municipal corporations, the United States of America, the State of California, districts and all political

subdivisions, governmental agencies, departments and mandatories thereof served by the District for compensation.

29. <u>Cost</u> means the cost of labor or service, material, transportation, supervision, engineering, and all other necessary overhead expenses.

Article IV. - Water Department.

30. Department. Refers to the Water Department.

- 31. <u>Personnel</u>. The Water Department may comprise the following appointed positions: General Manager, Water Operator and Secretary/Billing Clerk. The same person may be appointed General Manager, Secretary/Billing Clerk, and Water Operator. The appointees shall serve at the pleasure of the Board.
- 32. <u>General Manager Dutles</u>. The General Manager is to perform the services or make determinations permitted or required under this Ordinance.
- 33. <u>Water Operator Dutfes</u>. The Operator shall regularly inspect all physical facilities related to District water system, to see that it is in good repair and proper working order, and to note violations of any water regulation.
- 34. <u>Water Operator Violations and Repairs</u>. The Operator shall promptly report any violation or disrepair to the Board. If the work is in the nature of an emergency, the Operator shall take whatever steps are necessary to maintain services to users pending action by the Board.
- 35. <u>Water Operator Supervision</u>. Operator may supervise all repair or construction work authorized by the Board, and perform any other duties prescribed elsewhere in this Ordinance or which shall be hereinafter prescribed by the Board.
- 36. <u>Secretary/Billing Clerks Duties</u>. Secretary/Billing Clerks shall compute prepare, and mail bills as hereinafter prescribed, make and deposit collect tions, maintain proper books of account, collect, account for, refund deposits, and credit accounts, and do whatever else is necessary to set up and

other duties prescribed by the Board.

- 37. <u>Performance of Duties</u>. The foregoing duties of the General Manager, Water Operator, and Secretary/Billing Clerk may be performed by District personnel or contracted out.
- 38. <u>Bank Deposit Requirements</u>. The President of the Board of Directors, the General Manager, and the Secretary/Billing Clerk shall be permitted to make bank deposits acquired through District revenues, charges, etc.
- 39. <u>Compensation</u>. The General Manager, Water Operator, and Secretary/Billing Clerk shall receive such compensation as is prescribed by the Board.

Article V. - Notices

- 40. <u>Notices to Users</u>. Notice from the District to a user will normally be given in writing and either delivered or mailed to the user, and when warranted, to the property owner as well. Where conditions warrant and in emergencies, the District may resort to notification either by telephone or messenger.
- 41. <u>Notices From Users</u>. Notices from the user to the District may be given by the user or the user's authorized representative in writing to one of the following: (1) the District's operating office; (2) the General Manager of the District; or (3) an officer or agent duly authorized by the Board to receive notices or complaints.

Article VI. - Water General-Use Regulations

- 42. <u>Water Use Limitations</u>. The District water shall be limited to domestic, commercial, or industrial use including normal yard upkeep only. The use of District water for extensive irrigation is prohibited.
- 43. <u>Changes in User's Usage</u>. Users making any material change in the size, character or extent of the equipment or operations utilizing water service, or whose change in operations results in a large increase in the use of water

service, shall immediately give the District written notice of the nature of the change.

- 44. <u>Number of Services</u>. Generally, the District shall require a water service connection at every new unit. The District, however, can make exceptions if deemed reasonable. Furthermore, the District may recommend water service lines (hook-ups) larger than one inch (1") for the purpose of insuring adequate service pressures. The hook-ups must meet or exceed the State Uniform Plumbing Codes which stipulate locations of water turn-off valves, etc., otherwise the District will not allow the hook-ups to be connected to the District's system. The cost of all services shall be borne by the applicant.
- 45. <u>Water Conservation</u>. It is the duty of all users utilizing water provided by the District to cooperate in conserving water.
- 46. <u>Mater Waste</u>. No user shall knowingly permit leaks or water waste. Where water is wastefully or negligently used on a user's premises, the District shall notify the user orally of water waste. If the Distict notices water waste a second time, then the District will give a written notice to the user and to the property owner stating that if water waste does not stop, the District will turn off the water. Furthermore, the notice will state that the water will not be turned on until a reconnection fee is paid and a water meter installed at the property owner's expense.
- 47. <u>Power to Inspect Premises</u>. The District staff and Board have the authority to enter upon private property for the purpose of inspection and maintenance of water facilities, including but not limited to, ascertaining the nature of such premises, the type of activities carried on therein, the number of plumbing fixtures, and any other facts or information reasonably necessary to ascertain the applicability of water charges to such premises.
- 48. Extending Piping to Serve Other Users. No user shall make or allow any other

person to make any connection to a user's water piping (hook-up) for the purpose of supplying any other person with water service, except with the written consent obtained from the District.

- 49. <u>User's Responsibility for Facilities</u>. All water users shall keep their water connections in good order at their own expense and shall be liable for any damages for failure to do so.
- 50. <u>Responsibility for Equipment on User's Premises</u>. All facilities installed by the District on private property for the purpose of rendering water service shall remain the property of the District and may be maintained, repaired or replaced by the District without consent or interference of the owner or occupant of the property. The property owner shall use reasonable care in the protection of the facilities. No payment shall be made for placing or maintaining said facilities on private property. No persons shall place or permit the placement of any object in a manner which will interfere with the free access to the District's facilities unless authorized by the District.
- 51. Damage to Water System Facilities. The property owner shall be liable for any damage to the District's water service facilities when such damage is from causes originating on the premises by an act of the property owner or tenahts, agents, employees, contractors, licensees or permittees of the property owner, including the breaking or destruction of locks. The District shall be reimbursed by the property owner for any such damage promptly upon presentation of a bill.
- 52. <u>Water Control Valve on User's Property</u>. The user shall provide a valve on the user's side of the water service installation as close as is practicable to the street, alley or easement in which the water main serving the user's property is located, to control the flow of water to the piping (hook-up) on the premises. The user shall not use the District's curb stop to turn water on and off for convenience.

8.

53. <u>Water - Cross-Connections</u>. The user must comply with the State and Federal laws governing the separation of dual water systems or installations of back flow protective devices to protect the public water supply from the danger of cross-connections. Plans for installation of back flow protective devices must be approved by the District prior to installation. In special circumstances, when the user is engaged in the handling of especially dangerous or corrosive liquids or industrial or process waters, the District may require the user to eliminate certain plumbing or piping connections as an additional precaution and as a protection of the back flow preventive devices.

As a protection to the user's plumbing system, a suitable pressure relief valve must be installed and maintained by the user, at the user's expense, when check valves or other protective devices are used. The relief valve shall be installed between the check valves and the water heater.

Whenever back flow protection has been found necessary on a water supply line entering a user's premises, then any and all water supply lines from the District's mains entering such premises, buildings or structures shall be protected by an approved back flow device, regardless of the use of the additional water supply lines.

Back flow protective devices must be installed as near to the service as possible. The approved devices must be inspected and tested annually for water tightness by an authorized or certified plumber or person. Property owners shall bear all costs for inspections. The devices shall be serviced, overhauled, or replaced whenever they are found defective and all costs of repair and maintenance shall be borne by the user.

The service of water to any premises may be immediately discontinued by

the District if any defect is found in the check value installation or other protective devices, or if it is found that dangerous unprotected crossconnections exist. Service will not be restored until such defects are corrected and the District receives official written certification.

Article VII. - Water Services and Connections

54. All premises and units within the District boundaries shall be required to connect to the District's water system, unless otherwise permitted by the District. Any person legally entitled to apply for and required to receive water service must make an application to the District.

Generally, there shall be a separate connection to the water system for each premises and/or unit served, except when otherwise authorized by the District. Fees for new water connections are set forth in resolutions by the District.

Article VIII. - Application for Regular Water Service

- 55. Water Service. The following rules are established for water service:
 - (a) <u>Applications</u>. Applications for regular water service shall be made upon forms provided by the District.
 - (b) <u>Undertaking of Applicant</u>. Such applications will signify the user's willingness and intention to comply with this Ordinance and other ordinances or regulations relating to the regular water service and to make payments for water service as required.
 - (c) <u>Payment for Previous Services</u>. Applications will not be honored unless payments in full have been made for water service previously rendered to the applicant by the District.
 - (d) <u>Time Constraints</u>. Once the District approves the application, the District will issue a permit with the stipulation that it is good for six months.
 - (e) Installation of Services. Regular water services may be installed by

the District at the locations determined by the District or may be installed by the applicant, whichever the District rules. The District will determine the size of the services. Service installations will be/ made only to property abutting on public streets or abutting on such water distribution mains as may be constructed in alleys or easements at the convenience of the District.

(f) Installation Charges.

Water: GeneralTy the District will install one inch. (1") water service connections and charge an approved applicant an amount set by the District plus all parts and labor installation costs. Whereupon the District rules that the applicant make the water installation, the District will charge a set rate plus an inspection fee.

When the applicant makes the service installations, the applicant shall be responsible for any damages and pay for any damages that may occur to District property and shall be responsible for any damages to other underground utilities.

For public, commercial or other entities requiring an extraordinary amount of water services, and requiring Targer connections, a special connection charge rate will be determined by the Board of Directors. Deposits: When the District installs connections, the District shall require the applicant to deposit an amount equal to the connection charges and parts and labor installation costs. Whereupon the District rules that the applicant shall install the connection, the District shall require the applicant to deposit an amount equal to the connection charges and parts and labor installation costs. Whereupon the District rules that the applicant shall install the connection, the District shall require the applicant to deposit an amount equal to the connection charge and the inspection fee.

If, after the installation, the amount of deposit is insufficient to pay all costs of connections, then the applicant shall advance a sum

sufficient to pay all such costs to the District prior to the rendering of water service.

If the applicant has overpaid the District, then the District will apply the overpayment to the applicant's service account or refund the overpayment to the applicant.

Abandonments. When a property owner requests the abandonment of one or more service connections, the cost of abandonment shall be paid by the property owner. The District will usually perform the abandonment.

Should a property owner desire to replace an old service connection with a new service connection, the property owner shall pay in addition to the abandonment, the costs of a new connection installation and/or inspection. (Generally, the regular set water connection fee will not be levied if the number of connections abandoned equals the number of new service installations and are located on the same property.)

Article IX. - Temporary Service Connection

56. <u>Connection Installation and Removal</u>, and <u>Charges and Deposits</u>. When a temporary service connection is approved, the District staff will install or the District will require the applicant to install a temporary service connection. When the District makes the installation, the applicant is required to make a deposit equalling the connection charge, plus the estimated cost for all parts and labor involving the installation and removal of the connection. Upon discontinuance of service, the actual labor costs, exclusive of salvageable material shall be determined, and an adjustment shall be made as an additional charge, refund or credit.

Whereupon the District requires the applicant to make the temporary installation, the District will require a deposit equalling the connection charge and the inspection fee.

The rates for temporary service shall be established by the Board of Directors at the time an application for such services are made.

Article X. - Temporary Large Water Use

57. When an abnormally large quantity of water is desired, such as filling a swimming pool or a tank, but a temporary service connection is not needed, arrangements must be made with the District prior to taking such water. Permission to take water in unusual quantities will be given only if it can be safely delivered through the District's facilities and if other District users are not inconvenienced.

The rate to be charged for such water shall be determined by the District in relation to the quantity of water desired.

Article XI. - Public Fire Protection

- 58. <u>Use of Fire Hydrants</u>. Fire hydrants are for use by the District or by organized fire protection agencies pursuant to contract with the District. Other parties desiring to use fire hydrants for any purpose must first obtain written permission from the District prior to use and shall operate the hydrant in accordance with instructions issued by the District. Unauthorized use of hydrants will be in violation.
- 59. <u>Moving of Fire Hydrants</u>. If a property owner or other party desires a change in the size, type or location of a fire hydrant, the property owner or other party shall bear all costs of such changes, without a refund. Any change in the location of a fire hydrant must first be approved by the District.

Article XII. - Water Service Charges

- 60. <u>Purpose and Basis</u>. Water service charges as set forth by the Board of Directors of the District are hereby established as a source of income for the District to provide the following:
 - (a) An adequate operation and maintenance program, including competent operating and maintenance personnel.

- (b) Reserves for necessary future replacements, improvements and expansions of the water facilities.
- (c) Financing debts for capital improvements.
- 61. <u>Rate Changes</u>. The rates for the District's services shall be fixed from time to time by resolution of the Board of Directors.

The charges shall be posted in at least three public places in the District during the 15-day period after passage.

- 62. <u>No Free Services</u>. <u>No facilities or services of the water system shall be</u> furnished to any premises or to any owner or other person free of charge, unless otherwise authorized by the District.
- 63. Where Bills Are Payable. All water service charges shall be payable Monterey Park Tract Community Services District, P.O. Box 1301 Ceres, CA 95307
- 64. <u>Responsibility of Bill Payments</u>. <u>Property owners shall be responsible for</u> payment of all water charges applicable to the premises owned by the owner. In the event that the property owner fails to receive any such service bills, the failure shall not excuse the owner of any premises from the

obligation of paying the service charges.

- 65. <u>Changes in Ownership</u>. In the event of changes in ownership of property, it shall be the duty of the seller or transferer to notify the District of said change and of the billing address of the new buyer or transferee. The District may request evidence of changes in ownership, such as a recordation of a deed.
- 66. <u>Billing</u>. Monthly rates will be charged according to a monthly billing perfod which will include the service charges of two months. The bills for the service charges shall be rendered at the middle of one month and include the charges for the following month.

In the cases of closing bills when services are to be discontinued, the bill will be due and payable on presentation.

- 67. <u>Delinquencies</u>. All bills are due and payable upon presentation. <u>All regular</u> bills not paid by the first day of the month following the month in which the bill was presented become delinquent.
- 68. <u>Penalties</u> The District shall charge a basic delinquent penalty of not more than 10 percent of the bill for non-payment of charges. In addition, another penalty may be levied of one-half of one percent (½ of 1%) per month for non-payment of charges and the basic penalty.
- 69. <u>Discontinuance of Service</u>. Services may be discontinued because of nonpayment of bills and penalties, for non-compliance of the regulations of the ordinance, for the presence of cross connections, or upon the vacating of premises. Refer to Sections 73 and 74 for details of charges that may apply.
- 70. <u>Disconnection for Non-Payment</u>. In the cases of discontinuing services for non-payment, the District will send the property owner a notice informing that the <u>water services</u> will be disconnected if payment is not made within the time specified in said notice. <u>The notice shall be sent by the District</u> a minimum of five days prior to the disconnection date specified in the notice. The failure of the resident and property owner to receive said notice shall not affect the District's power hereunder.
- 71. <u>Suit for Payments</u>. All unpaid rates, charges and penalties herein personal may be collected by suit. Defendants shall pay all costs of suit in any judgment rendered in favor of the District, together with a reasonable charge for the District's expenses, including time and mileage costs, etc.
- 72. <u>Reconnection Charges</u>. <u>A reconnection charge of Fifteen Collars (\$15) plus</u> penalties and unpaid bills, <u>if any</u>, <u>will be made and collected prior</u> to the renewing of service following a disconnection.
- 73. Upon Vacating Premises. Users desiring to discontinue services shall so

notify the District a minimum of seven (7) days prior to vacating the premises. In absence of such District notification, and where upon the District discovers the vacancy, no credit, adjustments, or refunds will be made to any user regardless that the water service was not utilized for a period of time.

- 74. <u>Refunds</u>. In the cases where property owners pay for services in advance, desire to sell the property, and have given a seven-day advance warning, then a refund may be given.
- 75. Deposits for Re-establishment of Credit. In the event that a bill paying performance record of a property owner is poor, and the water services have been disconnected because of delinquencies, the District may require a deposit from the property owner to show evidence of attempting to establish good credit. The amount of the deposit may equal six months of regular service bills. The deposit shall be paid to the District along with a reconnection fee and all delinquent bills.

The foregoing ordinance was introducted at a regular meeting of the Monterey Park Tract Community Services District held on the 25th day of January, 1988, by Director Brown, who moved for its adoption, and said motion being duly seconded by Director Warren, was passed and adopted on the above date by the following vote:

Ayes: Directors: S. Brown, E. Warren, and J. Simpson Noes: Directors: NONE Absent: Directors: G. Jordan, and P. Sanders

APPROVED:

President

ATTEST:

Secretary

APPENDIX D

US Census Bureau Data for Stanislaus County Census Tract 31, BG 1

U.S. Cen American Fa	sus Bureau	1 		10	Years on the We
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					*
keyword geograph	hy				
Choose a geography	selection method				
list name search	address search	map			
				. 4	
Census 2000	s, city and state, o <u>Quick tips</u>	r a street address	s and ZIP code	e. Click 'Go'	•
City	State	ZIP Code			
Ceres	California		Go		
Geographies Contain	ing 7725 Montere area and click 'Go'	y Ave , Ceres , C	California, 953	07:	

Search results for Block Group 1

Reference Maps

Block Group 1, Census Tract 31, Stanislaus County, California

Quick Tables and Demographic Profiles

Census 2000 Summary File 1 (SF 1) 100-Percent Data

DP-1. Profile of General Demographic Characteristics: 2000

QT-H1. General Housing Characteristics: 2000

QT-H2. Tenure, Household Size, and Age of Householder: 2000

More...

Census 2000 Summary File 3 (SF 3) - Sample Data

DP-2-PR. Profile of Selected Social Characteristics: 2000 (format for Puerto Rico)

DP-2. Profile of Selected Social Characteristics: 2000

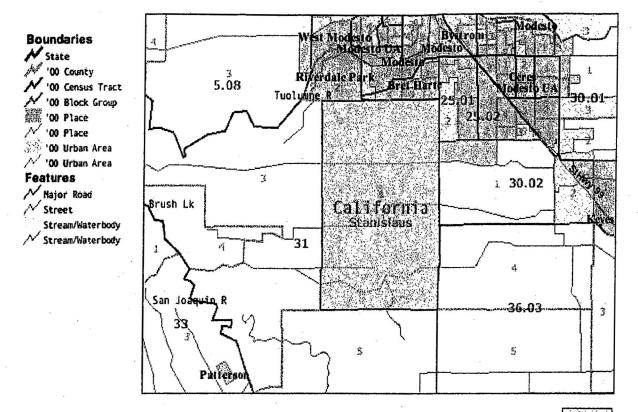
DP-3. Profile of Selected Economic Characteristics: 2000

More...

Population and Housing Detailed Tables

Census 2000 Summary File 1 (SF 1) 100-Percent Data 286 Detailed Tables Census 2000 Summary File 3 (SF 3) - Sample Data 813 Detailed Tables

Block Group 1, Census Tract 31, Stanislaus County, California



12 miles across

Close

MILENYX

U.S. Census Bureau



Vears on the We

P1. TOTAL POPULATION [1] - Universe: Total population Data Set: Census 2000 Summary File 3 (SF 3) - Sample Data

NOTE: Data based on a sample except in P3, P4, H3, and H4. For information on confidentiality protection, sampling error, nonsampling error, and definitions see http://factfinder.census.gov/home/en/datanotes/exps3.htm.

Block Group 1, Census Tract 31, Stanish	aus County, California
Total	1,239

U.S. Census Bureau Census 2000

P53. MEDIAN HOUSEHOLD INCOME IN 1999 (DOLLARS) [1] - Universe: Households Data Set: Census 2000 Summary File 3 (SF 3) - Sample Data

NOTE: Data based on a sample except in P3, P4, H3, and H4. For information on confidentiality protection, sampling error, nonsampling error, and definitions see http://factfinder.census.gov/home/en/datanotes/expsi3.htm.

	Block Group 1	Census	Tract 31,	Stanislaus	County,	California
Median household income in 1999	·		2		-	27,468
U.S. Census Bureau						

Census 2000

Standard Error/Variance documentation for this dataset:

Accuracy of the Data: Census 2000 Summary File 3 (SF 3) - Sample Data (PDF 141.5KB)

APPENDIX E

Groundwater Level Measurements from Water Wells in Area



Query Results for 04S09E31C001M

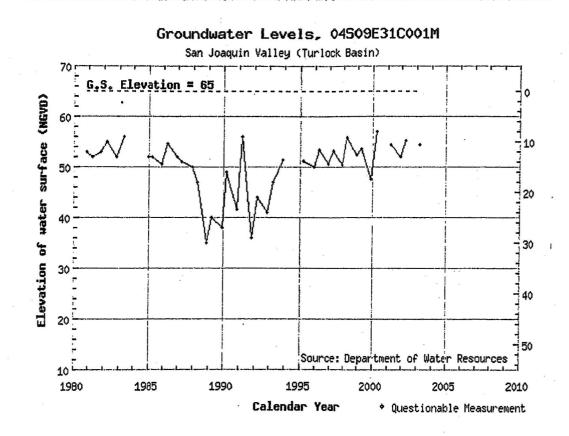
DPLA Home

WDL Home

Water Quality

Groundwater

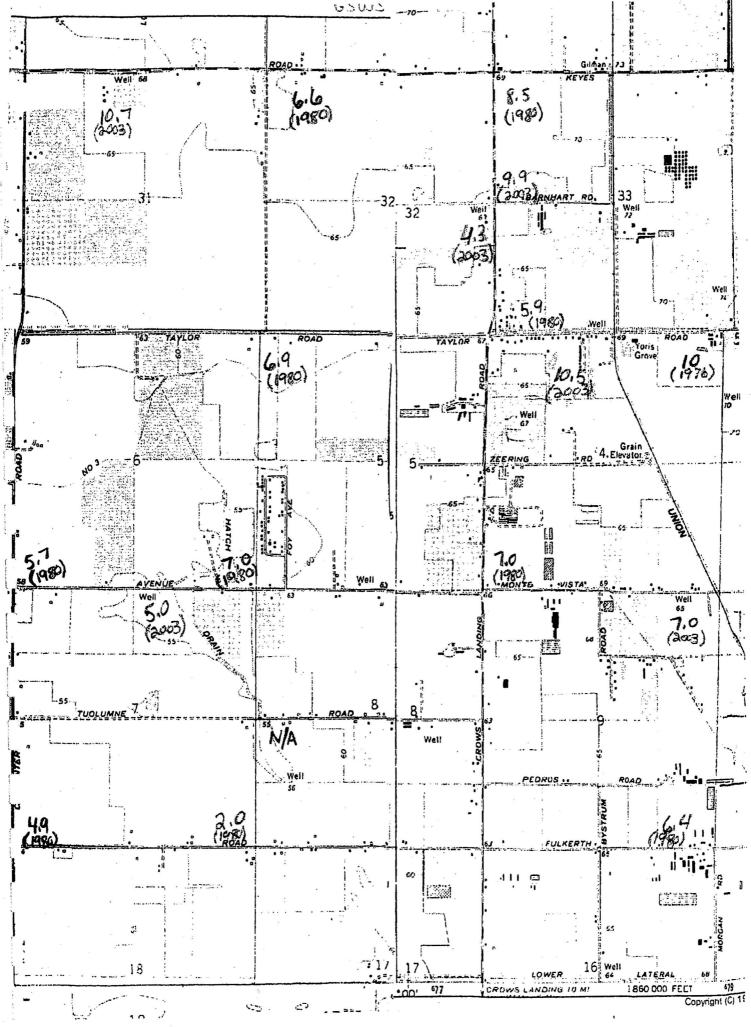
Your selection returned a total of 42 records. Wells in the Department of Water Resources monitoring network are identified by a <u>State Well Number</u>, which is based on the Public Land Grid System. The table headings and records contain several <u>codes and abbreviations</u>. Press the *New Search* or *Nearby Search* buttons or at the bottom of the page to begin a new data retrieval. Data for this well can also be downloaded in <u>MS Excel</u> or text delimited format.

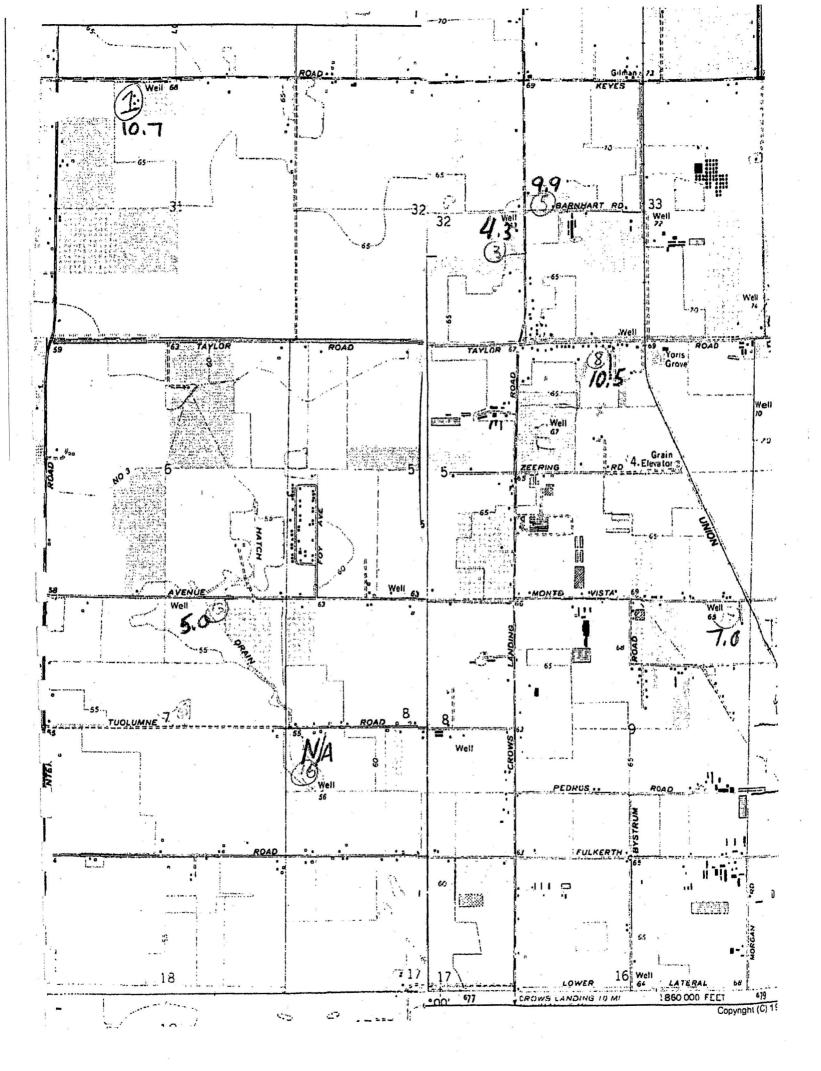


Groundwater Level Readings

Meas. Date	R.P. Elev.	G.S. Elev.	RPWS	WSE	GSWS	QMC	NMC	Agei
10-15-1980	66.0	65.0	13.0	53.0	12.0			50
03-10-1981	66.0	65.0	14.0	52.0	13.0			50
10-07-1981	66.0	65.0	13.0	53.0	12.0			50
03-02-1982	66.0	65.0	11.0	55.0	10.0			50
10-12-1982	66.0	65.0	14.0	52.0	13.0			50
04-11-1983	66.0	65.0	10.0	56.0	9.0			50
11-08-1984	66.0	65.0	14.0	52.0	13.0			50
03-13-1985	66.0	65.0	14.0	52.0	13.0			50
11-07-1985	66.0	65.0	15.5	50.5	14.5			50
03-20-1986	66.0	65.0	11.5	54.5	10.5	,		50
11-06-1986	66.0	65.0	14.0	52.0	13.0			50
03-11-1987	66.0	65.0	15.0	51.0	14.0			50
11-13-1987	66.0	65.0	16.0	50.0	15.0			50

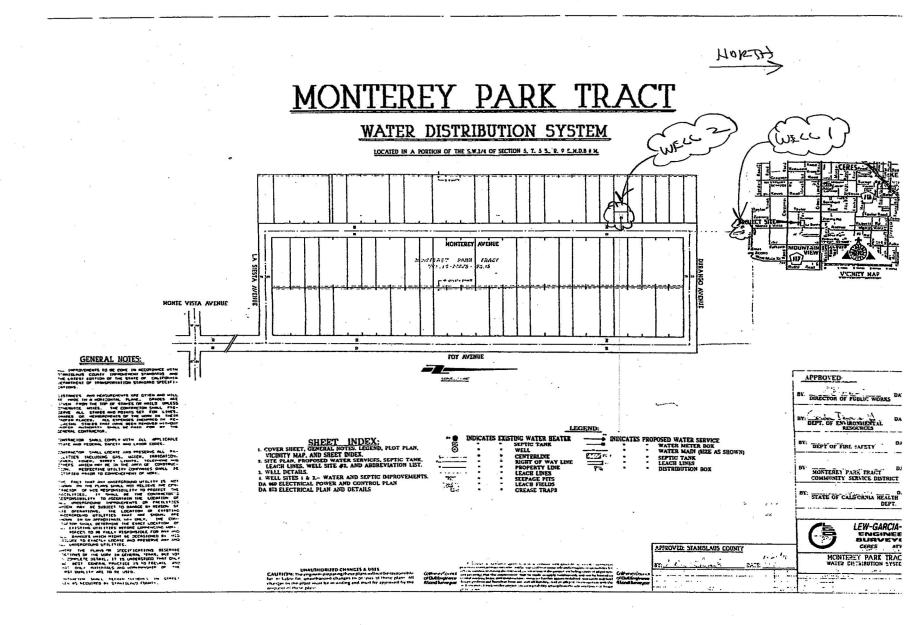
12/4/2003

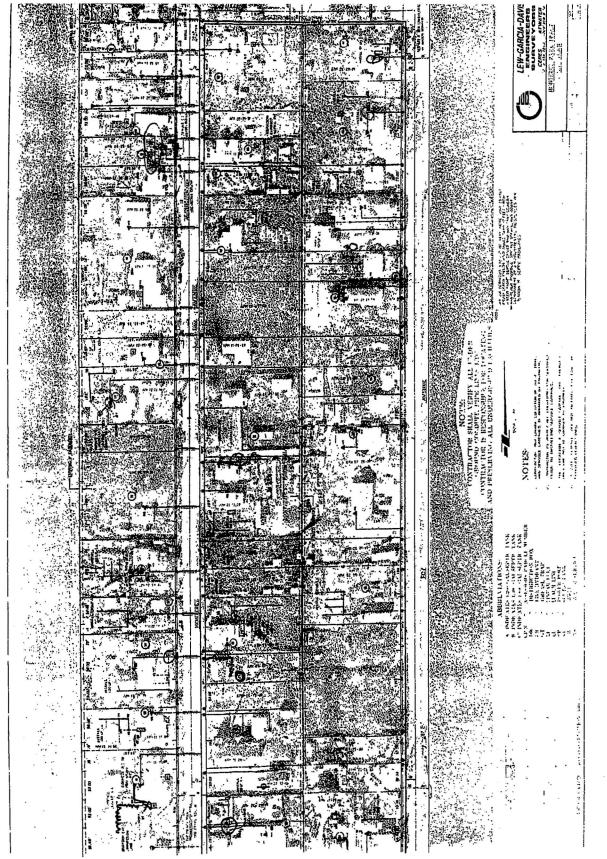


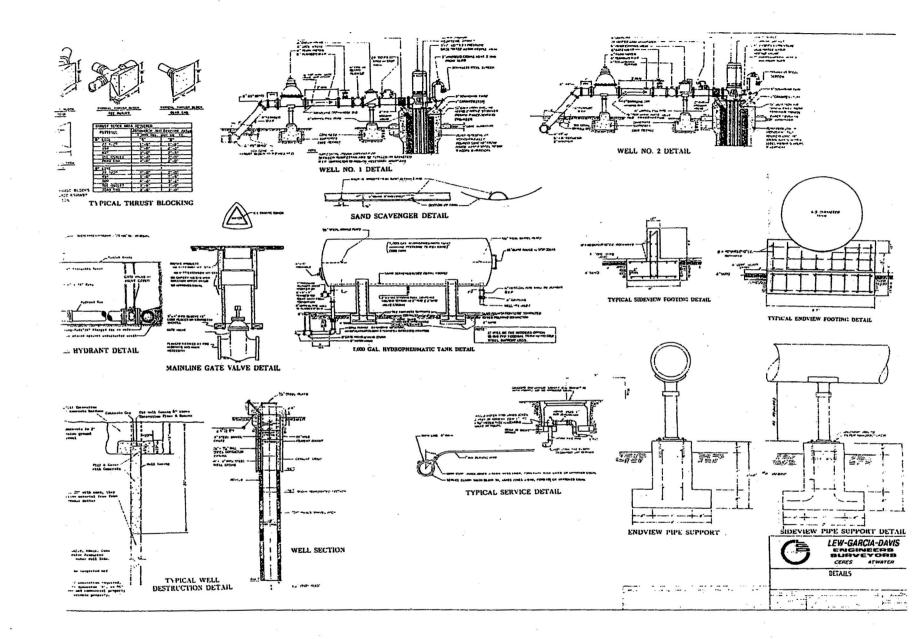


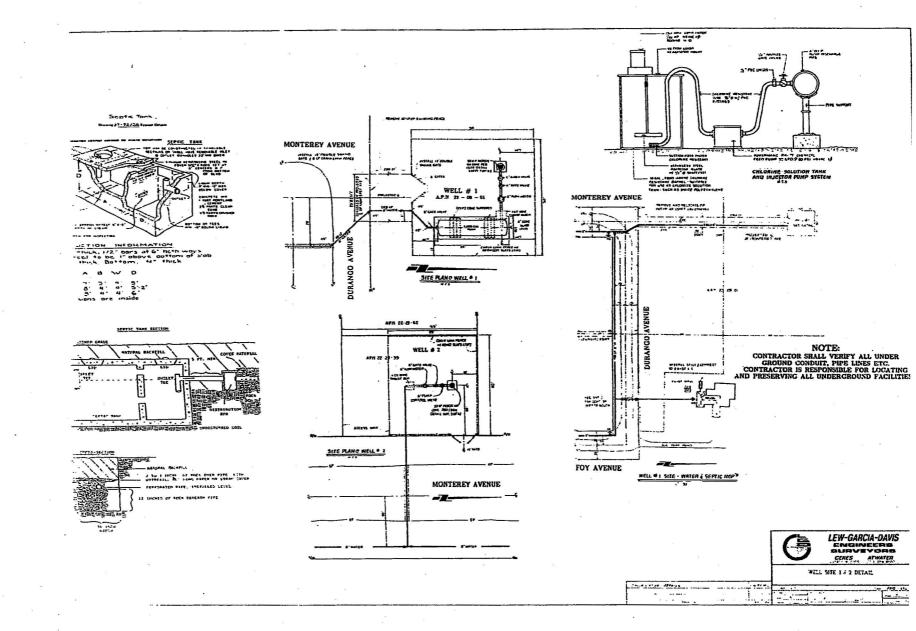
APPENDIX F

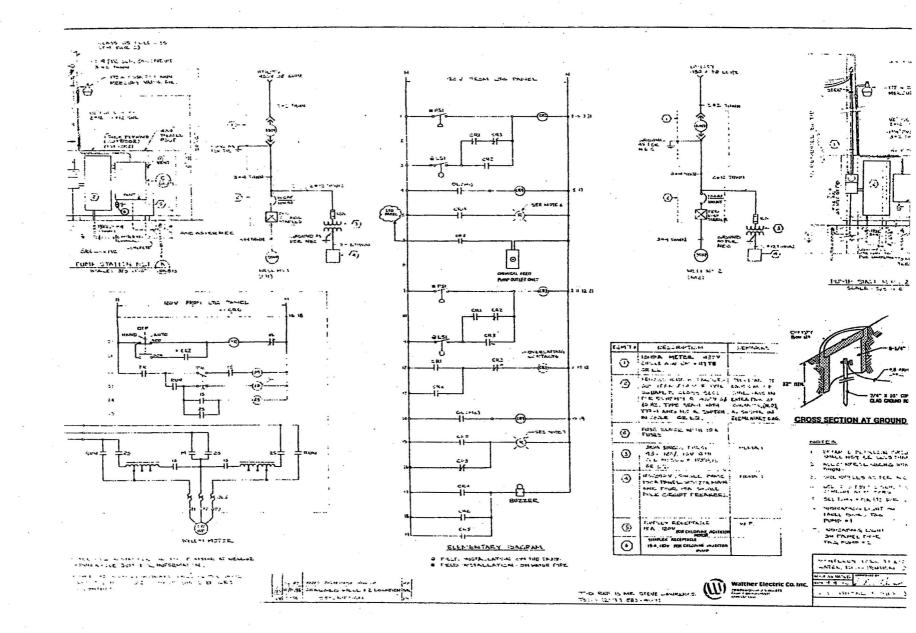
As-bid Plans for MPTCSD Water System, 1986

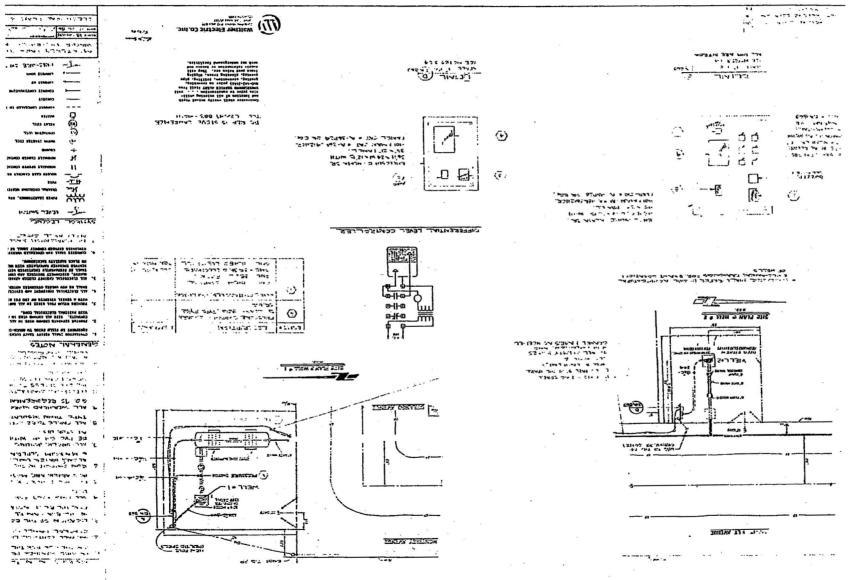














APPENDIX G Well Flow Data

Lee Fremming

From: Sent: To: Subject: Francisco Diaz [diaz_f4@hotmail.com] Tuesday, August 09, 2011 3:42 PM Lee Freeming RE: Well Meter Readings

Hi, Lee

Please see the attached.

Monterey Park Tract Community Services District											
Well Head Water Meter Readings											
Meter Reading Date	Well #1	Well #2	Usage since previous Meter Reading	Days since previous Meter Reading	Average Daily Usage	Average Daily Usage per Connection					
	(gallons)	(gallons)	(gallons)	(days)	(gallons)	(gallons)					
13-May-11	0	0		1.5							
13-Jun-11	8,600	951,200	959,800	31	30,961	774					
7-Jul-11	78,600	2,073,800	1,192,600	24	49,692	1,242					
8-Jul-11	78,600	2,115,400	41,600	1	41,600	1,040					
31-Jul-11	1,203,800	2,256,100	1,265,900	23	55,039	1,376					
8-Aug-11	1,402,800	2,586,800	529,700	8	66,213	1,655					

If you have any questions, please let me know.

Thanks,

Francisco

From: <u>lfremming@fppeng.com</u> To: <u>diaz_f4@hotmail.com</u> Subject: RE: Well Meter Readings Date: Tue, 9 Aug 2011 14:33:44 -0700

Francisco-

Are there any other readings since July 7th other than today's reading?

I will be contacting you in the near future to schedule a meeting to go over the alternative sites for the storage tank and treatment equipment. I need to meet with County Planning first.

1

Lee

From: Francisco Diaz [mailto:diaz_f4@hotmail.com] Sent: Tuesday, August 09, 2011 11:40 AM

APPENDIX H

Fire Flow and Fire Storage Requirements

Lee Fremming

From: Sent: To: Cc: Subject: Ken Slamon [kslamon@stanoes.com] Thursday, August 18, 2011 9:41 AM Lee Fremming onesstbl@aol.com Re: Monterey Park Tract CSD

Mr. Fremming:

I have done the calculations for the required fire flow. Based on NFPA 1142 Suburban and Rural Fire Fighting with out a municipal system the fire flow is 35,000 gallons. This is based on the Church at 7812 Monterey Avenue being the largest structure.

The calculations were done based on the following:

Cubic footage = 88,300 Type of Construction VB Exposure within 50 feet

Therefore a supply of water above the normal domestic usage of 35,000 gallons is required. This supply must be able to be delivered at 1,000 gallons per minute for 35 minutes. Please note this may not get the property owners insurance credit for a fire protection water supply.

If you have any questions please let me know.

Ken

Ken Slamon Deputy Fire Marshal Modesto Regional Fire Authority (Serving Modesto, Salida and Stanislaus County) 1010 Tenth Street 3rd Floor, Suite 3200 Modesto, CA 95354 (209) 652-1214 <u>kslamon@modestofire.com</u> kslamon@stanoes.com

>>> "Lee Fremming" < Ifremming@fppeng.com> 8/17/2011 9:27 PM >>>

Ken-

You indicated on the phone that In order to determine the fire flow required for the Monterey Park Tract Community Services District you would need to know the volume of the largest building in the Monterey Park Tract CSD. We have determined that a church located at 7812 Monterey Avenue is the largest building. We estimate its volume, including attic and crawl spaces, at about 88,300 cubic feet. Please provide us with the required fire flow and the length of time that this fire flow must be available.

1

Feel free to call if you have any questions.

Lee Fremming

Fremming, Parson & Pecchenino, Inc.

2816 Park Avenue

Merced, CA 95348-3375

(209) 723-2066

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APPENDIX I

Water Quality Results for Existing Wells Northeast of District

Well Designation	Well B1	Well H	<u>Well I</u>
Date Sampled	1-20-11	1-24-11	1-24-11
		ă ă	r.
Arsenic (ug/l)	2	4	3
Iron (ug/l)	40	100	ND
Manganese (ug/l)	ND	1.2	1.1
Conductivity (umhos/cm)	1200	694	911
Nitrate (as NO ₃) (mg/l)	86.7	43.3	127
PH	7.5	7.7	7.8
Total Dissolved Solids (mg/l)	770	440	600
1, 2, 3 TCP* (ug/l)	ND	ND	ND
DBCP* (ug/l)	ND	ND	· ND
EDB* (ug/l)	ND	ND	ND
Hexavalent Chromium (ug/l)	1.9	ND	1.0
Gross Alpha (pCi/l)	76.1 ± 8.17	25.2 ± 3.88	41.0 ± 5.17
· · · · · · · · · · · · · · · · · · ·			

Water Quality Results for Existing Wells Northeast of District

*Detection limit is 0.02 ug/l

*Detection limit is 0.50 ug/l

APPENDIX J

Casing Hammer Test Well Information

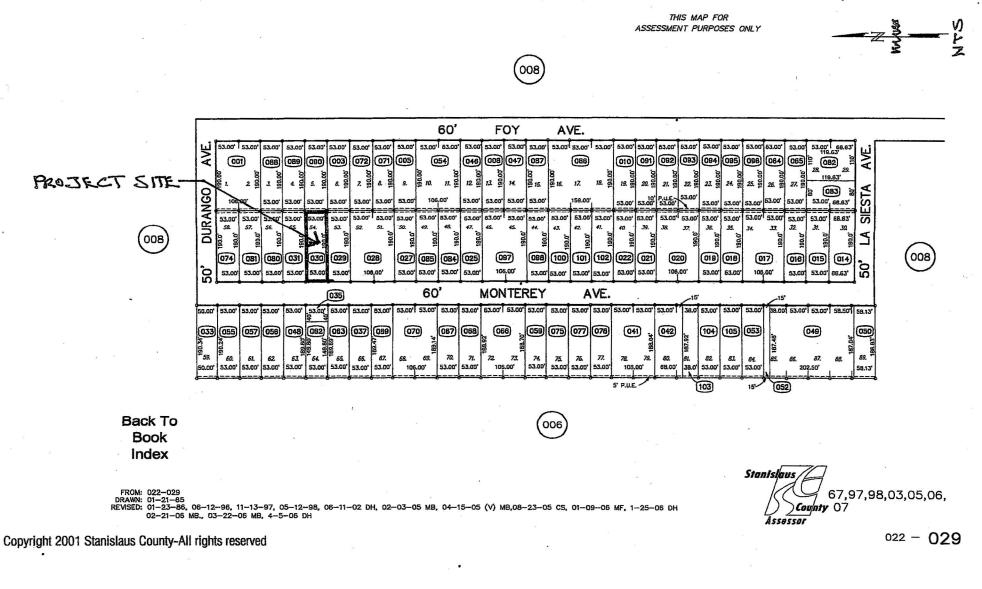
PORTION SW. 1/4 SECTION 5 T.5S. R.9E. M.D.B.& M.

MONTEREY PARK TRACT (14M15)

054 020

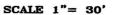
054 021

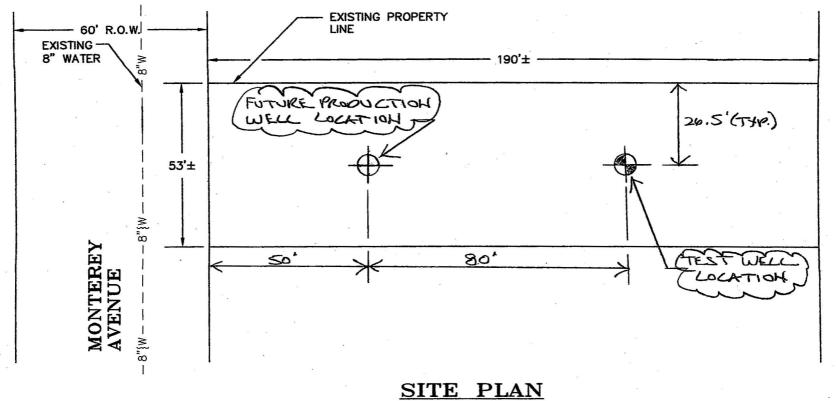
022 - 029



VICINITY MAP







TRIPLICATI		STATE OF CALIF		DWR U	SE UNLY -	
Owner's Co	ру	WELL COMPLETIO	ON REPOR			
Page 1 of 1		Refer to Instruction		l	STATE WELL N	O./ STATION NO.
Owner's We		<u>1</u>	28676			
		6/13/2011 , Ended6/18/2011		LATITUD	<u> </u>	LONGHUDE
		gency Stanislaus County		╶╴╽└└└└	APN/TRS	
Permit N	10.	GEOLOGIC LOG Date				
					OWNER -	
ORIENTATION	۹ (⊻)	VERTICAL		y Park Tract CSD		
DEPTH FRO		DRILLING CASING HAMMER FLUID		ss 2816 Park Aven	ue	CA 95348
SURFACE Ft. to F		DESCRIPTION Describe material, grain, size, color, etc.	Merced	· · ·		
0		Brown sandy silt	76241	Monterey Avenue	OCATION-	
4		Brown sandy clay	City Ceres CA	05307		
13		Brown fine to coarse sand			·······	
38		Brown clay	County Stanisla		n 1 020	
40		Brown fine to medium sand		Page 029		
42		Brown clay		Range9 E	Section 5	
43		Brown fine to medium sand	Latitude	MIN. SEC.	-	DEG. MIN. SEC.
45		Brown clay		CATION SKETCH		ACTIVITY (1) -
57		Brown fine to medium sand		NORTH		VEW WELL
77		Brown clay with coarse to very coarse sand				MODIFICATION/REPAIR
80		Brown medium to very coarse sand				Other (Specify)
83		Brown sandy clay				
86		Brown medium to very coarse sand and gravel	2			DESTROY (Describe Procedures and Materials
95		Brown silty fine sand				Under "GEOLOGIC LOG
110	113	Brown silty fine to medium sand				PLANNED USES(∠) WATER SUPPLY
113	115	Brown sandy clay	WEST		ST	Domestic Public Irrigation Industrial
115	122	Brown silty fine sand	ž		EA	
122	129	Brown silty fine to medium sand	τ			
129	137	Brown sandy clay	÷		2 H	CATHODIC PROTECTION
137	145	Brown silty fine to coarse sand				HEAT EXCHANGE
145	150	Brown fine to coarse sand and gravel				DIRECT PUSH
150	152	Brown clay				INJECTION
152	154	Brown fine to coarse sand and gravel				SPARGING
154	170	Red-brown clay		SOUTH	n. :/.::	REMEDIATION
		Red-brown fine to very coarse sand and gravel	Fences, Rivers, etc. and	Distance of Well from Roads, attach a map. Use additiona E ACCURATE & COMB	al paper if	OTHER (SPECIFY)
203	262	Corcoran Clay	necessary. PLEASE B	E ACCURATE & COM	LETE.	
262	267	Green-blue fine sand	WATE	R LEVEL & YIELD	OF COMPL	ETED WELL
267	280	Blue clay	DEPTH TO FIRST V	WATER (Ft.) BE	LOW SURFACE	E .
			DEPTH OF STATIC		MEADUDED	A.
				• (GPM) & 1		
TOTAL DEPTH	H OF E	BORING 280 (Feet)		(Hrs.) TOTAL DRAW		
		COMPLETED WELL 280 (Feet)	11 - 111 - 111	esentative of a well's l		
DEDTU		CASING (S)			ANNI	JLAR MATERIAL
FROM SURFA	CE	BORE - TYPE (1)		DEPTH FROM SURFACE	ANNU	TYPE
· · ·		DIA. X H CH MATERIAL / INTERNAL GAUGE (Inches) CH CH CH GRADE CHARTER OR WALL CH CH CH CH CHARTER OR WALL			CE- BEN-	
Ft. to Ft	ι.	DIA. Image: Constraint of the second secon		Ft. to Ft.	MENT TONITE	FILL FILTER PACK (TYPE/SIZE)

Ft. to	Ft.	(Inches)	BLAN	SCREE	CON	FILL PI	GRADE	DIAMETER (Inches)	OR WALL THICKNESS	IF ANY (Inches)	Ft	to	Ft.	MENT		FILL (⊻)	FILTER PACK (TYPE/SIZE)
+3	50	12-3/4	1				STEEL	6.125	.250			0	50		\checkmark		
50	216	6-5/8	1				STEEL	6.125	.250								
									1. A.			1					
:												-					
												:					
ATTACHMENTS (∠) Geologic Log Well Construction Diagram Geonomic Log(2) Beologic Log Well Construction Diagram Geonomic Log(2) (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED) (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)																	
Geophysical Log(s) Soll/Water Chemical Analysis Other							ADDRESS	ast Kings C	anyon	RADON	114 T E D J	Re	CITY	7/27/1		CA STATE	93654-9760 ZIP 245802
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.							WE	LL DRILLER/A	UTHORIZED RE	PRESENTATIVE	2		DA	TE SIG	NED	-	C-57 LICENSE NUMBER

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

wner's Copy gelof1						WELL		PLETIC				 STATE	WELL N	IO./ STA	TION NO.
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APPENDIX K

Letter from Hydrogeologist Regarding Well 1

KENNETH D. SCHMIDT AND ASSOCIATES GROUNDWATER QUALITY CONSULTANTS 600 WEST SHAW SUITE 250 FRESNO, CALIFORNIA 93704 TELEPHONE (559) 224-4412

July 13, 2011

Mr. Lee Fremming Fremming, Parson, and Pecchenino 2816 Park Avenue Merced, CA 95348

Re: Monterey Park Tract Testwell

Dear Lee,

During June 15-16, 2011, Johnson Drilling Co., Inc. completed a casing hammer test well to a depth of 300 feet. We logged the drill cuttings and a geologic log is attached. The deposits above a depth of 203 feet were primarily brown or red-brown. Deposits below that depth were blue or green-blue. The Corcoran Clay was indicated to extend from 203 to 262 feet in depth. Depth to water above the Corcoran Clay was about 11 feet at the time of drilling.

Water samples were collected by air-lifting from 5 different depth intervals. At one of these intervals (156 to 180 feet) water samples were also collected after pumping for about one and a half hours. APPL, Inc. of Clovis analyzed the water samples for DBCP, EDB, and 1,2,3 TCP. FGL Environmental of Santa Paula analyzed the samples for inorganic chemical constituents and alpha activity. The attached table summarizes the results.

Total dissolved solids (TDS) concentrations in samples from above a depth of 180 feet ranged from 500 to 720 mg/1, and decreased with increasing depth. Below the Corcoran Clay, the TDS concentration was 2,090 mg/1. Nitrate concentrations ranged from 2 to 177 mg/l. Nitrate concentrations above a depth of 155 feet ranged from 161 to 177 mg/1, exceeding the MCL of 45 mg/1. The nitrate concentration in the pumped sample was 45 mg/1, equal to the MCL. The lowest nitrate concentration was in the sample from below the Corcoran Clay. A chloride concentration of 1,050 mg/l was found in the sample from below the Corcoran Clay. Iron concentrations in all of the samples were less than 0.1 mg/1, less than the recommended MCL of 0.3 mg/l. Manganese concentrations were below the recommended MCL of 0.05 mg/l in samples from above a depth of 155 feet. Manganese concentrations exceeded the MCL in all of the samples below a depth of 155 feet. The arsenic concen-

KENNETH D. SCHMIDT AND ASSOCIATES GROUNDWATER QUALITY CONSULTANTS

trations in the samples from above a depth of 155 feet were 5 ppb or less, below the MCL of 10 ppb. Arsenic concentrations in the samples from below a depth of 155 feet ranged from 13 to 44 ppb, and exceeded the MCL. The alpha activity in the pumped sample was 6 picocouries per liter, below the MCL of 15 picocuries per liter. DBCP, EDB, and 1,2,3-TCP were not detected in any of the samples.

I do not recommend completing a well at the site, unless the water would be treated.

Sincerely yours, moto

Kenneth D. Schmidt

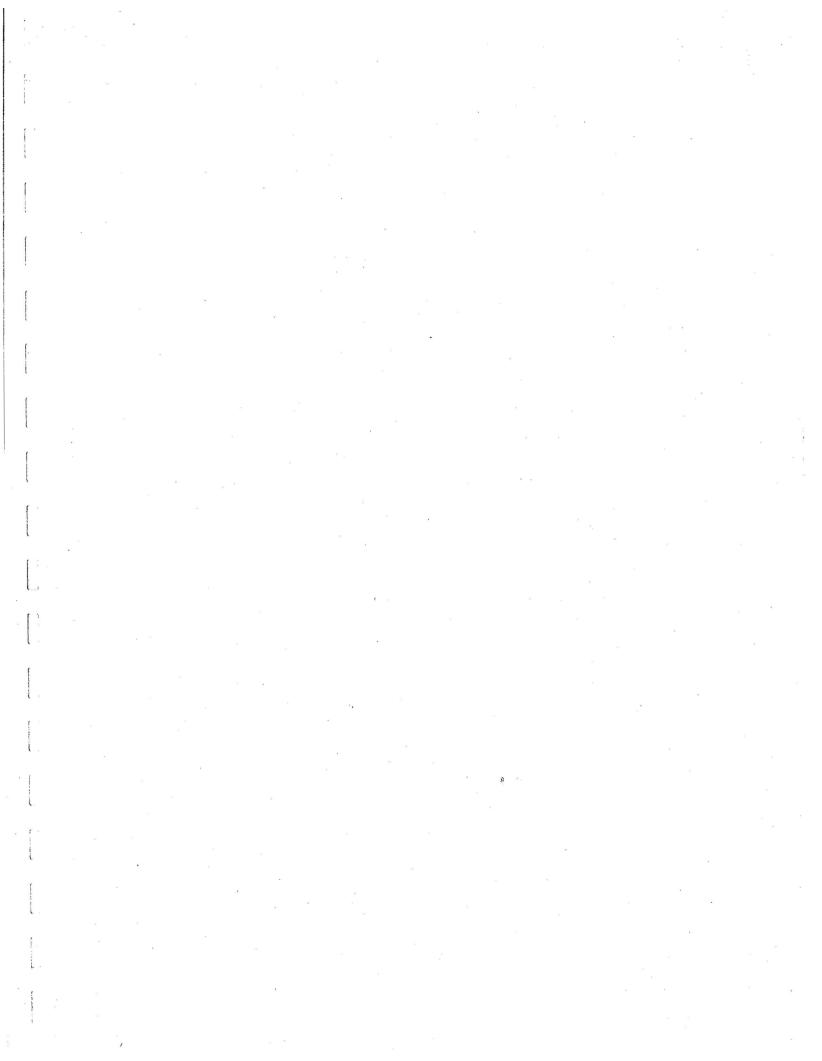
KDS/cl

Depth Interval (feet)	Fe (mg/l)	Mn (mg/l)	As (ppb)	NO ₃ (mg/l)	Cl (mg/l)	EC (umhos/cm)	TDS (mg/l)	pН	DBCP (ppb)	EDB (ppb)	1,2,3 TCP (ppb)	Gross Alpha (pci/l)
	(mgn)		(660)	(ingri)		·			(ppp)		(php)	(pen)
78-82 A	0.06	0.032	<2	161	45	1,060	720	7.0	<0.01	<0.01	<0.01	
115-120 A	0.06	0.015	5	176	67	1,030	700	7.3	<0.01	<0.01	<0.01	
152-154 A	0.06	0.034	4	177	82	1,110	760	7.6	<0.01	<0.01	<0.01	
156-180 A	<0.05	0.062	44	28	163	922	520	8.2	<0.01	<0.01	<0.01	
							,					
156-180 P	<0.05	0.058	44	45	105	820	500	8.2	<0.01	<0.01	<0.01	6
262-267 A	0.07	0.302	13	2	1,050	3,300	2,090	7.8	<0.01	<0.01	<0.01	
202-201 A	0.07	0.302		2	1,000	3,500	2,080	1.0	-0.01	-0.01	~0.01	

MONTEREY PARK TRACT TESTWELL

GEOLOGIC LOG FOR MONTEREY PARK TRACT TESTWELL

Depth (feet)	Description
0 - 4	Brown sandy silt
4 - 13	Brown sandy clay
13 - 38	Brown fine to coarse sand
38 - 40	Brown clay
40 - 42	Brown fine to medium sand
42 - 43	Brown clay
43 - 45	Brown fine to medium sand
45 - 57	Brown clay
57 - 77	Brown fine to medium sand
77 - 80	Brown clay with coarse to very coarse sand
80 - 83	Brown medium to very coarse sand
83 - 86	Brown sandy clay
86 - 95	Brown medium to very coarse sand and gravel
95 - 110	Brown silty fine sand
110 - 113	Brown silty fine to medium sand
113 - 115	Brown sandy clay
115 - 122	Brown silty fine sand
122 - 129	Brown silty fine to medium sand
129 - 137	Brown sandy clay
137 - 145	Brown silty fine to coarse sand
145 - 150	Brown fine to coarse sand and gravel
150 - 152	Brown clay
152 - 154	Brown fine to coarse sand and gravel
154 - 170	Red-brown clay
170 - 203	Red-brown fine to very coarse sand and gravel
203 - 262	Corcoran Clay
262 - 267	Green-blue fine sand
267 - 300	Blue clay



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Requesting Department	CEO	Data Entry	Audito	rs Office Only
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Prepared by	Supervisor's Approval	Keyed by	Prepared By	Approved By
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State of California—Health and Human Services Agency California Department of Public Health



RON CHAPMAN, MD, MPH Director & State Health Officer EDMUND G. BROWN JR: Governor

APR 2 7 2012

Mr. Francisco Diaz Board President Monterey Park Tract Community Services District 7711 Monterey Avenue Ceres, CA 95307

Dear Mr. Diaz:

SAFE DRINKING WATER, WATER QUALITY AND SUPPLY, FLOOD CONTROL, RIVER AND COASTAL PROTECTION BOND ACT OF 2006, PUBLIC RESOURCES CODE COMMENCING WITH SECTION 75001 (PROPOSITION 84) FOR MONTEREY PARK TRACT COMMUNITY SERVICES DISTRICT, PROJECT NO. P84C-5000389-002C

Your application for funding under Proposition 84, Section 75022, has been reviewed by the California Department of Public Health (CDPH). We have determined that project number **P84C-5000389-002C**, as proposed by **Monterey Park Tract Community Services District (MPT)**, is eligible to receive a grant.

This letter serves as our Letter of Commitment (LOC). Funds in the amount of **\$2,220,269** have been reserved for the project provided the terms and conditions as set forth herein are met. This reservation is subject to the availability of funds.

Funding is contingent upon your timely compliance with all terms and conditions of this LOC, including those set forth in the "Monterey Park Tract Community Services District, Project No. P84C-5000389-002C PROPOSITION 84, SECTION 75022, LETTER OF COMMITMENT TERMS AND CONDITIONS" (Terms and Conditions) attached hereto and incorporated herein by this reference. Compliance shall be determined at the sole discretion of CDPH or its authorized representative.

This LOC is <u>not</u> an authorization to begin construction. Unless prior written approval from CDPH is received, initiation of construction of the project prior to the execution of a funding agreement may result in the project being ineligible for Proposition 84 funding. Commencement of any project construction activity prior to completion of all environmental reviews may result in the project being deemed ineligible, withdrawal of this LOC, and bypass of the project for funding. Therefore, if Mr. Francisco Diaz Page 2 of 3

you plan to start construction prior to the execution of a Proposition 84 funding agreement, you should immediately contact your CDPH District Office.

In order to maintain the reservation of funds in the Proposition 84 account for the project, **MPT** must sign the Terms and Conditions at the space provided and return it **within thirty (30) calendar days** of receipt. We have provided two (2) originals. Please sign and return one original including this cover letter to:

California Department of Public Health Division of Drinking Water and Environmental Management Proposition 84 Program Attention: Lance Reese Pipeline Coordinator Unit 1616 Capitol Avenue, MS 7418 Post Office Box 997377 Sacramento, California 95899-7377

Your signature will indicate your acceptance of the Terms and Conditions and your intention to proceed with the project, but does not constitute any obligation to enter into a funding agreement. Failure to sign and return the attachment to this LOC within the time period specified above will result in the withdrawal of the LOC and the bypassing of the project.

CDPH commends **MPT** for taking steps to enhance the provision and protection of the drinking water supplied to your consumers. If you have any questions regarding this LOC, please contact either your CDPH Regional Funding Coordinator, **Joel Greathouse (559) 447-3481,** or Proposition 84 Pipeline Coordinator Dev Patel at (916) 449-5640 or at <u>dwpfunds@cdph.ca.gov</u>.

Sincerely,

f Leah Godsey Walker, P.E., Chief Division of Drinking Water and Environmental Management