Demonstration Project for

Graton Community Services District

Technical Assistance for Economically Disadvantaged Water and Wastewater Providers

North Coast Resource Partnership

California Department of Water Resources

December 2014

North Coast Resource Partnership
California Department of Water Resources

Technical Assistance for Disadvantaged Water and Wastewater Providers

Demonstration Project for the

Graton Community Services District

November 2014

Prepared by

GHD
718 Third Street Eureka,
CA 95501

Author	Review by GHD	GHD Project Director Approval
Parastou Hooshialsadat	Matt Winkelman	Steve McHaney

Table of contents

Table index

Chart index

Appendices

1. Introduction

1.1 Purpose of this report

The purpose of this report is to identify the needs of Graton Community Services District (GCSD, District) in regards to wastewater collection system and wastewater capital improvement planning and budgeting. These needs will be identified in coordination with District staff and using elements from the Small Community Toolbox, which is a source of compiled information designed to assist small utility providers in all aspects of the Utility Management Cycle. Demonstration of these toolbox methodologies will serve as further guidance for small utilities that face similar issues. This report will result in a series of next steps, which will be chosen to further address and understand the District's issues.

1.2 Scope and limitations

This report has been prepared by GHD for the North Coast Resource Partnership. The District has signed a participation agreement relating to the demonstration project that is the subject of this report. It should be emphasized that this report is to be used as an example of how tools and processes can be used to help further infrastructure improvement projects for a variety of communities throughout the North Coast region. Further planning, analysis, engineering, and permitting will be required.

The opinions, conclusions, and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. This report has been prepared based on information provided by others, which has not been independently verified or checked.

Any cost estimates presented in this report or through related Toolbox elements are for conceptual purposes only. Actual prices, costs, and other variables may be different at the time of an actual project and so are those used to prepare the Cost Estimate and may change. Actual costs will depend on final project configuration and requirements. There is no warranty or guarantee that the projects as currently conceived in this report can or will be undertaken at a cost which is the same or less than costs that may be inferred from this report.

2. Use of the Small Community Toolbox

This Small Community Toolbox provides resources and references that allow small communities to approach the management of local water and wastewater infrastructure in a systematic fashion. The Toolbox is not a substitute for professional assistance with operations, management, engineering, and legal issues. Rather, it is intended to help small utilities develop a "first order" understanding of what their options are, how they should begin to budget, and how to get help.

The Small Community Toolbox is organized around the concept of the Utility Management Cycle illustrated in Chart 1.

Chart 1 - Utility Management Cycle

The Utility Management Cycle represents the continuous process of utility operation. Each stage in the process is subdivided into relevant tools which aid users in organizing the issues involved in utility operation and the order in which they are performed. The Individual tools have been prepared for each of the elements of the Utility Management Cycle which are summarized in Table 1. Toolbox elements that were considered in the development of this report are indicated by an asterisk in Table 1.

Table 1 - Small Community Toolbox Elements.

Utility Management Cycle Element	Toolbox Element	What it is and How it can be Used
Utility Management Cycle Element 1: ***Organize and Plan for Success***	***1.1:** Community Networking Directory:	A contacts list of water and wastewater providers who can be called upon.
	***1.2:** Governance Summaries:	An overview of options, benefits, and steps required to form various types of service entities
	***1.3:** GIS Maps:	Census, legislative, and other public data to help agencies access information needed for applications.
Utility Management Cycle Element 2: ***Match Needs to Economical Technologies***	***2.1:** Technology Overviews:	Overviews of common issues, technologies, and evaluation factors to help select alternatives
	***2.2:** General Cost Estimating Strategies:	Cost estimating charts to help develop order of magnitude estimates for various types and sizes of infrastructure to begin scoping overall funding strategies
Utility Management Cycle Element 3: ***Create Viable Financing Strategies***	***3.1:** Funding Program Summaries:	A one-stop information shop about funding programs suited to small community infrastructure projects
	3.2: Capital Recovery Tables:	Lookup tables to translate the portion of total project costs not paid by grant into annual debt service requirements met through a revenue mechanism
	3.3: Financing District Summaries:	Summary of strategy options for generating revenue to pay the annual debt service
	***3.4:** Cash Flow Considerations:	Assists entities in understanding the funds needed to move a project through planning, design, and construction
Utility Management Cycle Element 4: ***Prepare Preliminary Design, Studies, and Applications***	***4.1:** Consolidated Preliminary Engineering Report Template:	Consolidated report outline, with model tables that will meet the needs commonly used funding programs.
	4.2: CEQA/NEPA Exemptions and Checklists:	Summary of CEQA/NEPA exemptions and checklists to aid in meeting State and Federal environmental requirements and funding program requirements
	4.3: Common Permit Triggers:	Summary chart of typical project components that often trigger different types of permits
Utility Management Cycle Element 5: ***Complete Final Design and Construction***	**5.1:** Guidance for Hiring Professionals:	As a project moves from initial planning towards implementation, detailed, community-specific designs are required and communities will need to retain professional support
	5.2: Public Bidding Process Overview:	Understanding how the public bidding process works, how to set up a successful project bid, and how the low bid contractor is selected
Utility Management Cycle Element 6: ***Operate and Manage System***	**6.1:** Technical, Managerial, and Financial (TMF) Resources:	Tools to help agencies be organized and managed to improve overall operations and funding competitiveness
	***6.2**: Regulatory Resources:	Sources to provide information to the utility operator on various federal and state regulations
	6.3: Rate Setting Guidance:	Linking the costs of projects to the need to rate increases and methods to set and change rates
	6.4: Capital Improvement Planning Resources:	Part of the on-going Utility Management Cycle of planning for future system improvements

3. Model Project: Graton Community Services District

3.1 Project Location

Graton, California is an unincorporated town of approximately 1,710 residents, with 455 service connections spread out over about 300 acres. Graton is located at the southeastern end of Green Valley, on the east bank of the seasonally flooding Atascadero Creek in Sonoma County. The District location and service boundaries are presented in Figure 1, in Appendix A.. In addition to providing wastewater services, GCSD supplies reclaimed water for agricultural irrigation. GCSD does not provide potable water to Graton area residents, who solely utilize private wells for drinking water.

3.2 Background

GSCD is interested in performing an evaluation of their sewer network. The existing wastewater system for Graton is approximately 40 years old and consists of more than 6.5 miles of 6, 8 and 12 inches asbestos cement pipelines, two lift stations and one wastewater treatment facility (Plant). The Plant has an average dry weather flow design capacity of 0.14 million gallons per day (mgd) and can treat up to 0.85 mgd during the wet weather flow period.

This wastewater system evaluation includes assessing the wastewater system infrastructure and demonstrating any deficiencies that should be properly addressed through the District's Capital Improvement Program (CIP).

3.3 Information and Data Review

GHD undertook a review of existing information provided by GCSD to assess the conditions of the existing sanitary sewer collection system. Information reviewed in this report includes:

- GCSD Sewer System Management Plan (SSMP), November 2012;
- GCSD CCTV 4",6" and 12" Sanitary Sewer prepared by "Miksis Services Inc. (MSI)", May 2011;
- GCSD Sanitary Sewer Inspection prepared by "Specialized Pipeline Services (SPS)", August 2008 and January 2009; and
- GCSD Collection System Maintenance, Operations & Management prepared by "Lescure Engineers, Inc.", October 2006.

4. Sewer Evaluation

To determine a priority of rehabilitation needs for the sanitary sewer collection system, the pipe network was assessed in terms of its physical condition (i.e., structural integrity) and its ability to transport wastewater effectively (i.e., hydraulic performance). The following sections describe the analysis undertaken and the results obtained.

4.1 Physical Conditions

The primary means of establishing the physical condition of the sanitary sewer pipe network is through the Closed Circuit Television Inspection (CCTV) of the individual sewer mains. Not all sanitary sewer pipelines were CCTV inspected. Current industry best practice for pipeline condition assessment is to use Pipeline Assessment and Certification Program (PACP) standards developed by the National Association of Sewer Service Companies (NASSCO), which specifies observation codes and grades to be applied to all structural and maintenance-related defects. The District has adopted PACP standards and operator certification requirements for its CCTV video inspections. PACP deterioration factors are classified into categories of structural defects and operational and maintenance (O&M) defects. PACP defects are assigned a grade of 1 to 5 in order of increasing severity as described in Table 2.

Table 2 – PACP Condition Grading and Rating

Rating	Importance	Likelihood of Failure
5	Defect requires immediate action	Pipe has failed or will likely fail within the next 5 years
4	Severe defects	Pipe will probably fail in 5 to 10 years
3	Moderate defects that will continue to deteriorate	Pipe may fail in 10 to 20 years
2	Defects that have not begun to deteriorate	Pipe unlikely to fail for at least 20 years
1	Minor	Failure unlikely in the foreseeable future

The District had 6,788 ft, 18,249 ft, and 3,946 ft of its sanitary sewer network televised and cleaned respectively in 2008, 2009 and 2011 (this comprises approximately 84% of the District's total sanitary sewer collection system). The CCTV information is in the form of DVD and hard copy reports. Summary tables of the CCTV inspections are presented in Appendix B. Additional information pertaining to specific problematic areas was gathered from the District staff.

4.1.1 Physical Condition Assessment

The CCTV inspections recorded on hard copy reports were converted to an electronic database where the data could be manipulated and analyzed electronically, and ultimately prioritized. Specific deficiencies were identified for replacement of the sewer system. An analysis of condition assessment for each pipe segment is presented in Appendix B. A summary of pipelines with the most deficiencies (pipelines receiving a rating of 4 or 5) recognized in 2008 and 2009 CCTV assessments are presented in Table 3.

Table 3 – Sewer Pipes in Need of Rehabilitation

Inspection No.	Upstream Manhole	Downstream Manhole	Diameter (inch)	Televised Length (ft)	Overall Defect Rating
1	MH 05-12	MH 05-01	6	258.9	4
4	MH 05-02	MH 05-03	6	173.0	4
11	MH 05-04	MH 05-07	6	372.0	5
24	CO 05-02	MH 05-05	6	249.8	4
28	MH 10-05	MH 10-06	6	163.4	5
33	MH 10-01	MH 10-07	6	351.7	4
51	MH 07-12	MH 06-07	6	367.0	4
58	MH 07-09	MH 07-10	6	344.5	5
59	MH 07-10	MH 06-06	6	372.0	4
68	MH 06-08	MH 06-03	6	302.8	4
74	MH 07-06	MH 07-05	6	120.0	5
78A	MH 07-05	MH 07-07	6	364.5	4
79	CO 07-02	MH 06-01	6	252.2	4
87	MH 06-09	MH 05-07	12	191.3	4
92	MH 13-04	MH 12-07	6	239.0	5
98	MH 05-09	MH 05-10	12	117.5	5
100	MH 05-11	Lift Station 1	12	339.3	5
103	MH 12-06	MH 12-05	6	243.5	4
104	CO	MH 10-02	4	79.0	4

The analysis of the CCTV inspections has demonstrated that the majority of physical deficiencies in the televised pipelines appear to be structural defects (i.e., holes in the pipe, broken pipes, offset joints, and multiple cracks). The most severe O&M defect is root intrusion that is primarily due to the pipe material. The importance of each segment recommended for rehabilitation is based on the severity and the quantity of the defects.

The 2008 and 2009 CCTV assessment found deficiencies in the existing 12-inch diameter sewer pipeline located in Ross Road and the Ross Road easement, between MH 6-9 and MH 5-11 (inspection numbers 87, 98 and 99); however, since the 2011 CCTV assessment does not show

any indication of pipe damage in those pipes, it is assumed that the pipeline was rehabilitated between 2009 and 2011.

4.2 Hydraulic Assessment

4.2.1 SSO Analysis

The State Water Resources Control Board (State Water Board) adopted Statewide General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems, Water Quality Order No. 2006-0003 (Sanitary Sewer Systems WDR) on May 2, 2006 which requires enrollees to begin reporting all Sanitary Sewer Overflows (SSOs) to the SSO database.

The SSO report collects detailed information on a specific overflow event. Enrollees are required to report all SSOs that result from a failure in any portion of a sanitary sewer system under their management. For the purposes of reporting, SSOs fall into one of following three categories:

- *Category 1*

  Discharges of untreated or partially treated wastewater of any volume resulting from sanitary sewer system failure or flow condition that:

  1. Reach surface water and/or reach a drainage channel tributary to a surface water; or
  2. Reach a municipal separate storm sewer system and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly.

- *Category 2*

  Discharges of untreated or partially treated wastewater of 1,000 gallons or greater resulting from sanitary sewer system failure or flow condition that do not reach surface water, a drainage channel, or a municipal separate storm sewer system unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.

- *Category 3*

  Any discharge of sewage of less than 1000 gallons that does not reach surface water or a drainage channel.

Based on State Water Board records, there were two Sanitary Sewer Overflows (SSOs) that occurred in the Graton area since 2007 as follows:

- One Category 1 spill on 01/11/2011 due to a ¼-inch hole in a 1-inch copper line installed on the forcemain leading from lift station #1 to the downstream MH 03-02 on Ross Road. The estimated volume of the spill was 300 gallon of which 200 gallons were recovered. The spill reached the Atascadero Creek Watershed.

One Category 3 spill on 12/26/2008 due to a 6-inch sewer main blockage caused by root mass and grease near MH 10-05 on Oak Grove Avenue. The estimated volume of the spill was 250 gallon of which 50 gallons were recovered. An overall map with the locations of spill incidents is shown in Figure 2, in Appendix A. The complete report of each spill is presented in Appendix B.

4.2.2 Hydraulic Performance Assessment

The Collection System Maintenance, Operations & Management Study (CMOM Study; included in Appendix B) prepared by Lescure Engineers in 2006, included an analysis of sewer flow contributions from Equivalent Single Family Dwellings (ESD) which is by definition considered average dry weather flow (ADWF) from an average residential wastewater connection. No field measurements were made for inflow and infiltration (I&I); therefore a peaking factor of 4 was assumed based on common industry standards in the 2006 CMOM study to calculate the peak flow. The hydraulic model outputs highlighted significant capacity deficiencies in the 6-inch sewer pipelines along South Edison Street.

In order to further assess the results of probable hydraulic deficiencies within the system, GHD used a flow design factor to assess the adequate performance of the pipelines as described below.

- Pipelines that feature a Design Ratio in the range of 0.8 – 1.0 indicate the potential for surcharge. The Design Ratio (DR) is defined as the actual flow /design flow. In other words, it is an indication of the actual flow through a pipe as compared to the theoretical flow the pipe was designed to accommodate.

Review of the 2006 CMOM Study finds that the 12-inch pipeline located between MH 03-01 and MH 02-03 along Ross Road has a Design Ratio of more than 0.8, which may result in a capacity deficiency in the near future.

4.3 GSCD's Evaluation of the System

Based on the feedback from GCSD, the following items are needed to be address for current sewer system failures:

- Prioritize the rehabilitation of approximately 3,050 linear feet of 12-inch pipe from MH 03-02 to the wastewater treatment and storage facility (WWTP). The District had the section slip lined from MH 02-04 to 02-05, but the rest of that entire line is likely in extremely poor condition. The District considers this project as the most important project since it carries all of wastewater flow from the entire system. Also, MH 03-02 itself is in critically poor condition.
- Prioritize rehabilitation of 79 linear feet of 4-inch pipe from MH 10-02 to the cleanout at the corner of Graton Rd and Oak Grove Avenue. It has been a problem section in the past, and about 10 feet of that line has been replaced already.
- Prioritize rehabilitation of 164 linear feet of 6-inch pipe from MH 10-05 to MH 10-06. This section has sagged over time -where it passes over the creek - and caused a blockage in December of 2008.
- Perform a video monitoring of approximately 2,150 linear feet of 6-inch sewer line from MH 13-01 to MH 10-02 along Graton Road. The downstream of the line where it approaches Oak Grove Avenue is rather steep in gradient and flattens out at Oak Grove Avenue. This has been a problem historically as a few laterals feed in to that section. An emergency repair to replace a section of the main line was done at Graton Road about one year ago.

5. Alternatives Analysis

The purpose of this section of the report is to demonstrate several alternative solutions to the sewer system deficiencies identified in Section 4. It also presents opinions of probable costs associated with those alternatives. Sewer infrastructure projects are recommended based on assessment of system physical condition, hydraulic deficiencies and the feedback received from the District Operation and Maintenance staff described in Section 4.

5.1 Improvement Alternatives

Over the long-term, the condition of all sewers will degrade and eventually they will need to be renewed or replaced. The rate and extent of sewer degradation is dependent upon several factors including age, pipe material, soundness of original construction, concentration of wastewater constituents, type and duration of external loading, and types of surrounding soils. Highest priority is given to sewer segments determined to be the most severe with the greatest potential for failure.

In general, any pipe with structural defect should be replaced and pipes with operation and maintenance issues can be rehabilitated without new installation. The importance of each segment recommended for rehabilitation is based on the severity and the quantity of the defects. Sewer system alternatives resulting from assessments in Section 4 are presented in Table 4. The lengths provided in Table 4 are based on the CCTV surveyed lengths of the pipes. The location of each Alternative is shown in Figures 3 to 7, in Appendix A.

Table 4 - Sewer System Recommended Projects

Project ID	Sewer System Designation	Size (in)	Existing Condition	Proposed Improvement
Alternative 1	From MH 03-02 to the WWTP	12	Significant structural defects and moderate capacity issues	Replace existing pipes with 3,050 linear feet of new 15-inch diameter PVC
Alternative 2	From CO 08-03 to MH 06-09	6	Significant capacity deficiency	Replace existing pipes with 1,311 linear feet of new 8-inch diameter PVC
Alternative 3	- From MH 05-04 to MH 05-07 - From MH 10-05 to MH 10-06 - From MH 07-09 to MH 07-10 - From MH 07-06 to MH 07-05 - From MH 13-04 to MH 12-07 - From CO to MH 10-02	6 and 4	Moderate structural defects, infiltration, root intrusion, and grease accumulation	- Replace existing pipes with 1,239 linear feet of new 6-inch diameter PVC - Replace 79 linear feet of existing pipe with 79 linear feet of new 4-inch diameter PVC

Alternative 4	From MH 05-11 to Lift Station No. 1	12	Infiltration and root intrusion	CIPP lining of 340 linear feet of existing 12-inch diameter
Alternative 5	- From MH 05-12 to MH 05-01 - From MH 05-02 to MH 05-03 - From CO-05-02 to MH 05-05 - From MH 10-01 to MH 10-07 - From MH 07-12 to MH 06-07 - From MH 07-10 to MH 06-06 - From MH 06-08 to MH 06-03 - From MH 07-05 to MH 07-07 - From CO 07-02 to MH 06-01 - From MH 06-09 to MH 05-07 - From MH 12-06 to MH 12-05	12 and 6	Moderate structural defects, moderate infiltration, root intrusion and grease accumulation	- Replace 191 linear feet of existing pipes with new 12-inch diameter PVC - Replace 2,935 linear feet of existing pipes with new 6-inch diameter PVC
Alternative 6	- From MH 05-06 to MH 05-05 - From CO 08-02 to MH 08-02 - From MH 08-03 to MH 08-01 - From MH 07-02 to MH 07-03 - From CO 07-10 to MH 07-06 - From MH 07-07 to MH 07-08 - From MH 07-08 to MH 06-04 - From MH 05-04 to MH 05-07 - From CO 08-04 to MH 08-03	6	Minor structural defects, infiltration, root intrusion, and grease accumulation	Replace 2,154 linear feet of existing pipes with new 6-inch diameter PVC
Alternative 7	- From MH 05-01 to MH 05-02 - From MH 04-09 to MH 05-06 - From CO 03-01 to MH 03-03 - From MH 04-08 to MH 04-03 - From MH 10-07 to MH 10-06 - From MH 08-05 to MH 08-04 - From MH 08-04 to MH 08-02 - From MH 09-03 to MH 09-02 - From CO 06-01 to MH 06-07 - From MH 07-14 to MH 07-04 - From MH 07-04 to MH 07-05 - From CO 07-01 to MH 07-05	6	Minor structural defects	CIPP lining of 2,900 linear feet of existing 6-inch diameter ACP

5.2 Opinions of Probable Projects Costs

Opinions of probable costs associated with the alternatives identified in Section 5.1 are included below. The costs presented herein are Class 4 (study or feasibility level) estimates of probable costs as defined by the Association for the Advancement of Cost Engineering, International (AACE). AACE defines the "Class 4" estimate as follows:

> *Generally prepared on limited information and subsequently have fairly wide accuracy ranges. They are typically used for project screening, determination of feasibility, concept evaluation, and preliminary budget approval, and typically engineering is 1% to 15% complete. Some examples of estimating methods would include equipment factors, gross unit costs/ratios, and other parametric and modeling techniques. Typically, very little time is expended in the development of this estimate. The typical expected accuracy ranges for this class estimate are -15% to -30% on the low side and +20% to +50% on the high side.*

It is important to note that contingency is not directly related to the stated accuracy range for a Class 4 estimate. Determination of construction cost contingency is intended to cover unforeseen aspects of construction that are not evaluated during master planning-level analysis.

The opinions of probable cost include a 30% contingency on top of probable construction costs and also include estimated engineering and construction management costs. Construction costs are indexed to the Engineering News Record Construction Cost Index (ENR CCI) of 10,897.59, which is for heavy construction in the San Francisco area in August 2014. An evaluation of market trends should be considered for programming of project costs once the anticipated construction schedule is known.

Based on the results of the assessment and the deficiencies located, approximate costs for recommended projects were generated. These costs can vary widely based on factors such as soil conditions, pipe depth, site location, and design/engineering sophistication. In addition, there are many techniques to achieve the rehabilitation, ranging from complete replacement to a variety of "no-dig" techniques such as insitu-forming and pipe lining. These possible solutions should be reviewed at the design stage, and the most appropriate and cost-effective solution should be selected. Appendix C includes probable costs presented for each of the recommended alternatives identified in Section 5.1. Table 5 represents a summary of the costs for each recommended alternative.

Table 5 – Summary of Projects Costs

Project ID	Probable Construction Cost	Engineering/CM Cost	Total Project Cost
Sewer Project 1	$679,000	$258,000	$937,000
Sewer Project 2	$259,000	$98,000	$357,000
Sewer Project 3	$168,000	$64,000	$232,000
Sewer Project 4	$49,000	$19,000	$68,000
Sewer Project 5	$412,000	$157,000	$569,000
Sewer Project 6	$272,000	$103,000	$375,000
Sewer Project 7	$175,000	$67,000	$242,000
Total	$2,014,000	$766,000	$2,780,000

The construction cost for all the improvements is estimated to be $2,780,000 including costs for design and administration. It is recommended that GCSD undertake these improvements over a period of time not to exceed 10 years at $300,000 per year. A reasonable rate of inflation should be anticipated. Extending these improvements beyond 10 years is not advisable due to severity of the existing condition and the sanitary sewer pipeline network's continued degradation that could result in much higher costs to maintain and repair. The decision on whether to use lining, pipe bursting, or replacement for manhole-to-manhole projects should be based on site-specific conditions. In general, lining and pipe bursting will be more economical than replacement and may be chosen in most cases. If properly installed, CIPP lining should have a similar service life as replacement (or pipe bursting).

5.3 Project Funding Sources

Securing funding for infrastructure projects is an important step for most utilities. First, eligible funding programs need to be identified based on factors such as governance structure and project type. Graton operates as a Community Services District, which is public, independent type of governance structure. A median household income survey was conducted in 2009 (funded by RCAC and presented in Appendix D) and Graton was determined to have a Median Household Income (MHI) of $43,999 (75% of the statewide MHI), which meets the criteria of the disadvantaged community for most grant and loan programs, for which the threshold is 80% of the statewide MHI.

The population of Graton is 1,045, and average wastewater charge per ESD (Equivalent Single-Family Dwelling) is estimated at 1574.37 per year based on the 2014-15 CSD budget. Thus, the District's wastewater rates are 3.5% of the MHI, which may qualify the District for additional funding.

Using the Available Funding Summary Table from Toolbox Element 1.2 (Governance Summaries), and Toolbox Element 3.1 (Funding Program Summaries) the following agencies and programs were identified as potential project funders:

- State Water Resources Control Board (SWRCB) Clean Water State Revolving Fund (CWSRF) – Grant/ Loan
- California Infrastructure and Economic Development Bank (I-Bank) – Infrastructure State Revolving Fund (ISRF) – Loan Only
- United States Department of Agriculture (USDA) Water and Waste Disposal Program - Grant/ Loan
- North Coast Resource Partnership -Grant

The most likely programs would be the CWSRF, USDA Water Waste Disposal Program or possibly the NCRP, both of which offer significant grants. The ISRF program is loan only and may be hard for the District to secure given the existing high wastewater rates. Additional program details are presented below.

5.3.1 SWRCB CWSRF

The CWSRF program is a loan/ grant program operated by the SWRCB. Disadvantaged communities with a MHI less than 80% of the statewide MHI, a population less than 20,000, and wastewater rates greater than 1.5% of the community MHI, which Graton CSD meets, are typically eligible for significant amount of principal forgiveness. Principal forgiveness is similar to a grant where by a community does not pay out of pocket costs for the portion of the projected covered by the principal forgiveness. The amount of funds available in principal forgiveness is laid out each year in the SWRCB's Intended Use Plan. In fiscal year 2014, the Graton CSD could obtain up to

100% principal forgiveness for planning/ design financing and up to 75% principal forgiveness not to exceed $6,000,000 for the project as a whole.

If planning funds are obtained, once an agreement is in place reimbursements can be submitted on an approximately monthly basis. Similar if a design/ construction funding agreement is executed. The costs for planning and design are typically eligible for reimbursement as well. It is best to check with the SWRCB on project eligibility prior to assuming any costs are eligible for reimbursement under their program. The SWRCB commonly funds wastewater projects and has a supportive staff who is familiar with the funding process and can help applicants along the way.

5.3.2 USDA Water and Waste Disposal Program

The USDA Water and Waste Disposal Program can provide grants, typically up to $1 million depending on the community's economic status and need for the project. Projects must serve a population of less than 10,000. USDA can also provide loans for project costs above the grant funded amount. USDA loan terms are typically 40 years with interest rates between 3% and 5%. Under this program, costs for planning, environmental, permitting, and design are eligible for reimbursement, however, no funds are disbursed until the project is ready for construction and the project notice to proceed has been issued. In this case a bridge loan from an agency such as Rural Community Assistance Corporation is needed to cover costs until the project reaches construction.

5.3.3 North Coast Resource Partnership

The North Coast Resource Partnership receives funds from various state proposition bond funds, most recently Proposition 84. Proposition 1 passed in 2014 included $26.5 million for the North Coast Region. The NCRP's goals and objectives are laid out in the North Coast Integrated Regional Water Management Plan, which is available on the NCRP website and was last updated in April 2014. The NCRP supports projects like Graton's collection system repair project because it meets the plan's goals of ensuring the economic vitality of disadvantaged communities and protects water quality. The next round of funding through this program is anticipated in the Fall of 2015.

6. Implementation Strategy and Next Steps

Using Toolbox Elements from the Small Community Toolbox, deficiencies in the GCSD municipal wastewater infrastructure have been identified. To address some of these issues, a recommended project is proposed. Similar to this analysis, components of this project would involve using resources available in the Small Community Toolbox. Additionally, other recommendations are presented which help identify further issues which should be addressed by GCSD.

6.1 Recommended Project

The CCTV documentation reviewed for this report was prepared in 2008, 2009, and 2011. Sanitary sewer systems are dynamic and the inspected pipelines may have an accelerated rate of deterioration. It is possible that conditions may have worsened over the past few years. GHD recommends additional CCTV documentation of the sewer system to assess the possible changes in condition, and subsequently, updating of the results provided in this report. At the minimum, GHD recommends implementation of the first project listed in Table 5 since it has the highest priority.

6.2 Other Recommendations

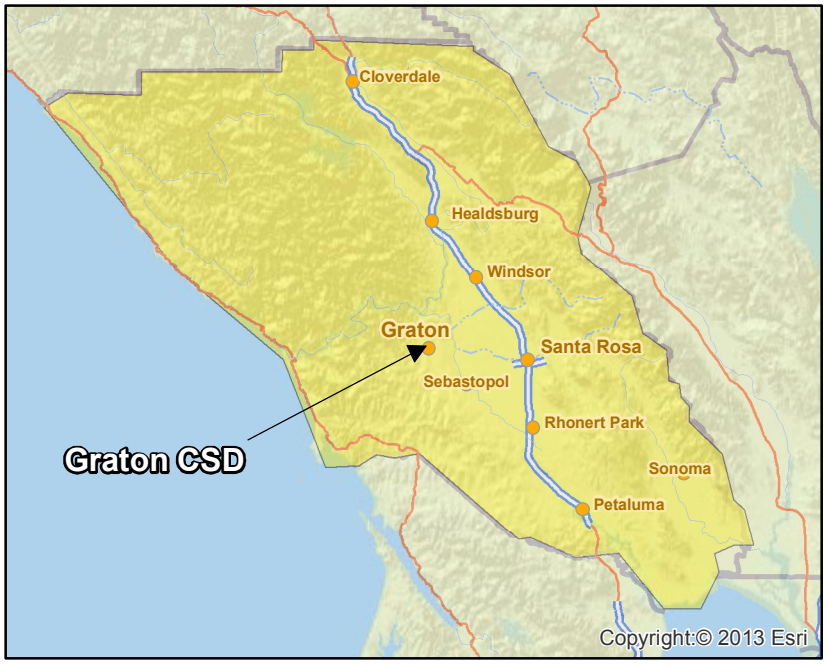
The following recommendations are presented in order to address the issues of sewer system for GCSD:

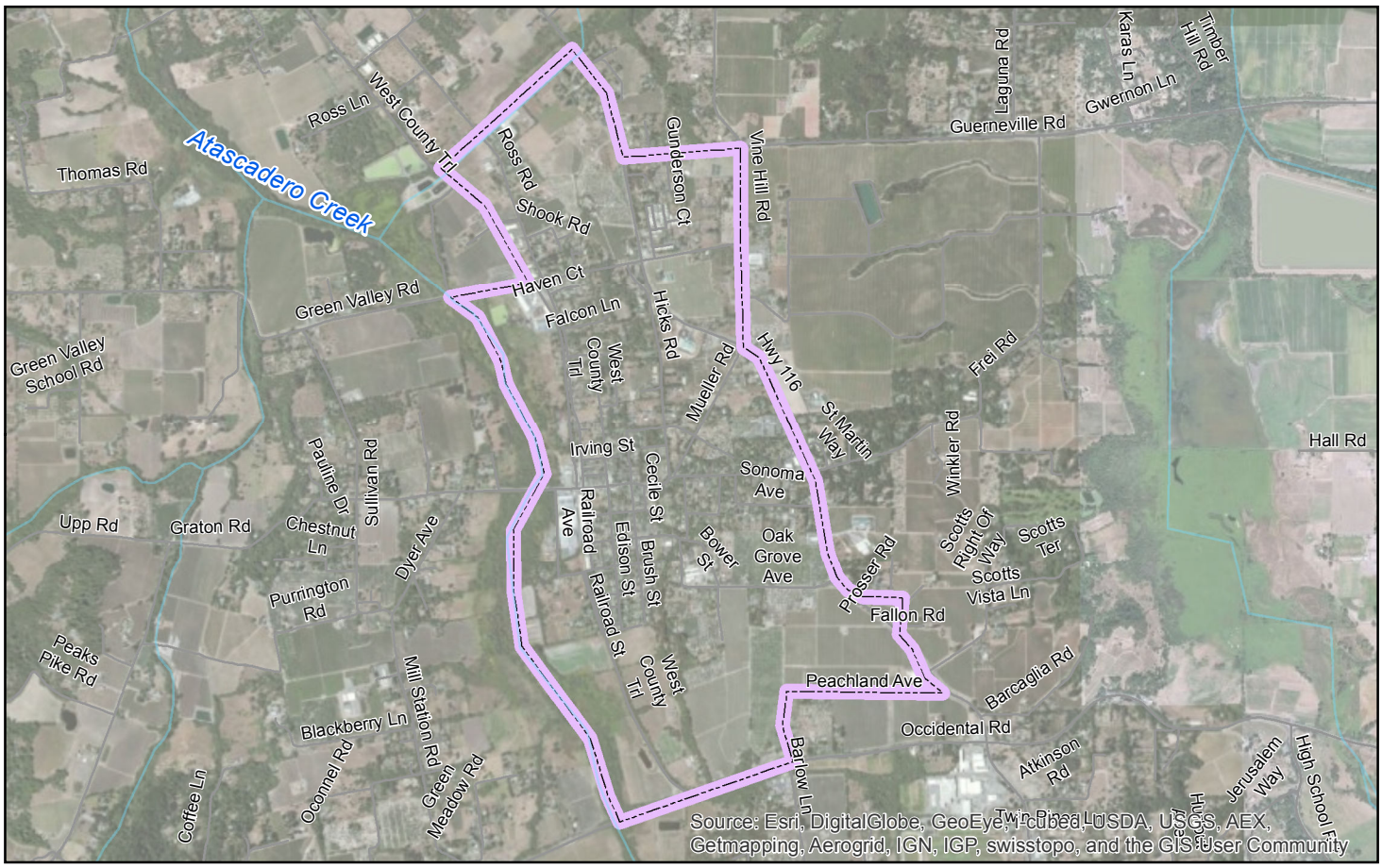
- Continue to identify and repair leaks within the sanitary sewer collection system;
- Perform wet weather flow analysis to identify potential future capacity deficiencies;
- Perform sewer manhole assessments;
- Consider the annual street improvement program to be sure and complete required sewer improvements prior to resurfacing streets; and

  Coordinate sewer work with any other planned utility improvements.

Appendices

Appendix A Supplemental Figures





U.S. Highway
Major Road
Local Roads
Stream
River
Graton Community Services District

Paper Size 8.5" x 11" (ANSI A)
0 500 1,000 1,500 2,000
Feet
Map Projection: Mercator Auxiliary Sphere
Horizontal Datum: WGS 1984
Grid: WGS 1984 Web Mercator Auxiliary Sphere

N

GHD

Graton Community Services District
Technical Assistance

Job Number 8410996
Revision A
Date 24 Sep 2014

Vicinity Map

Figure 1

718 Third Street Eureka CA 95501 USA T 707 443 8326 F 707 444 8330 E eureka@ghd.com W www.ghd.com

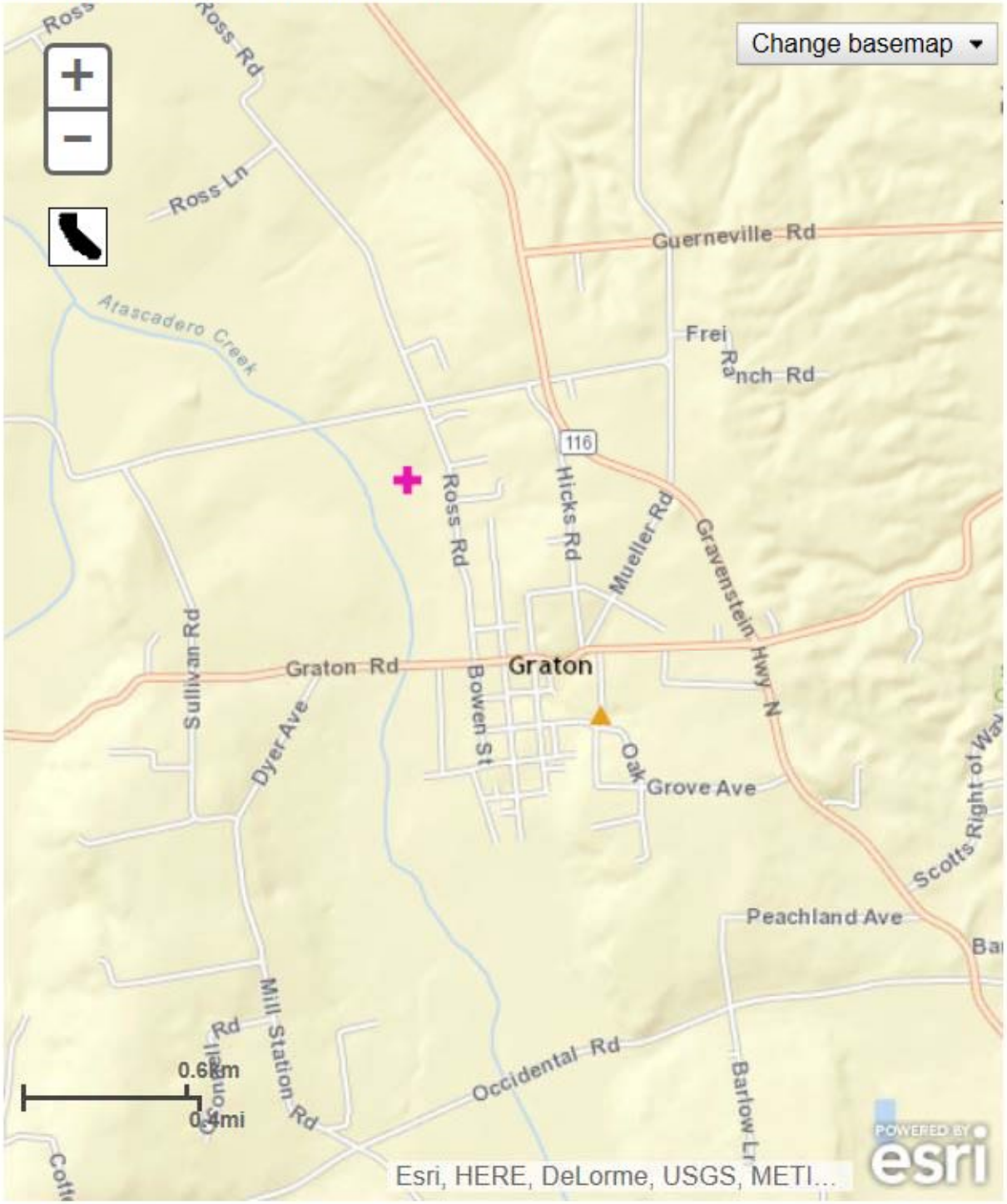
N:\US\Eureka\Projects\Legacy\Projects\01081 HumboldtCounty DPW\8410996 NCRP Water-WW Assistance\08-GIS\Maps\Figures\GHD_Originals\F1_Vicinity_Graton_CSD.mxd

Data source: ESRI Street Map; NAIP aerial 1m. Created by:porogers

SANITARY SEWER OVERFLOWS: *01/01/2007 - 07/16/2014*

Spill type: Category 1 Category 2 Category 3 More Info

Click on a map icon for incident information.



Note: Map does not include spills from sewage treatment plants.

Sites with invalid coordinates are shown in gray.

- (•) Show all incidents
- ( ) Show only incidents with valid GPS coordinates

Filter by volume (gallons):

0 - 1,000,000+ gal.

Minimum: 0

Maximum: 1,000,000+

Set Volume

Filter by date:

01/01/2007 - 07/16/2014

Start: Jan 01 2007

End: Jul 16 2014

Set Dates

Filter by Agency:

(All)

Set Agency Show All

Figure 2

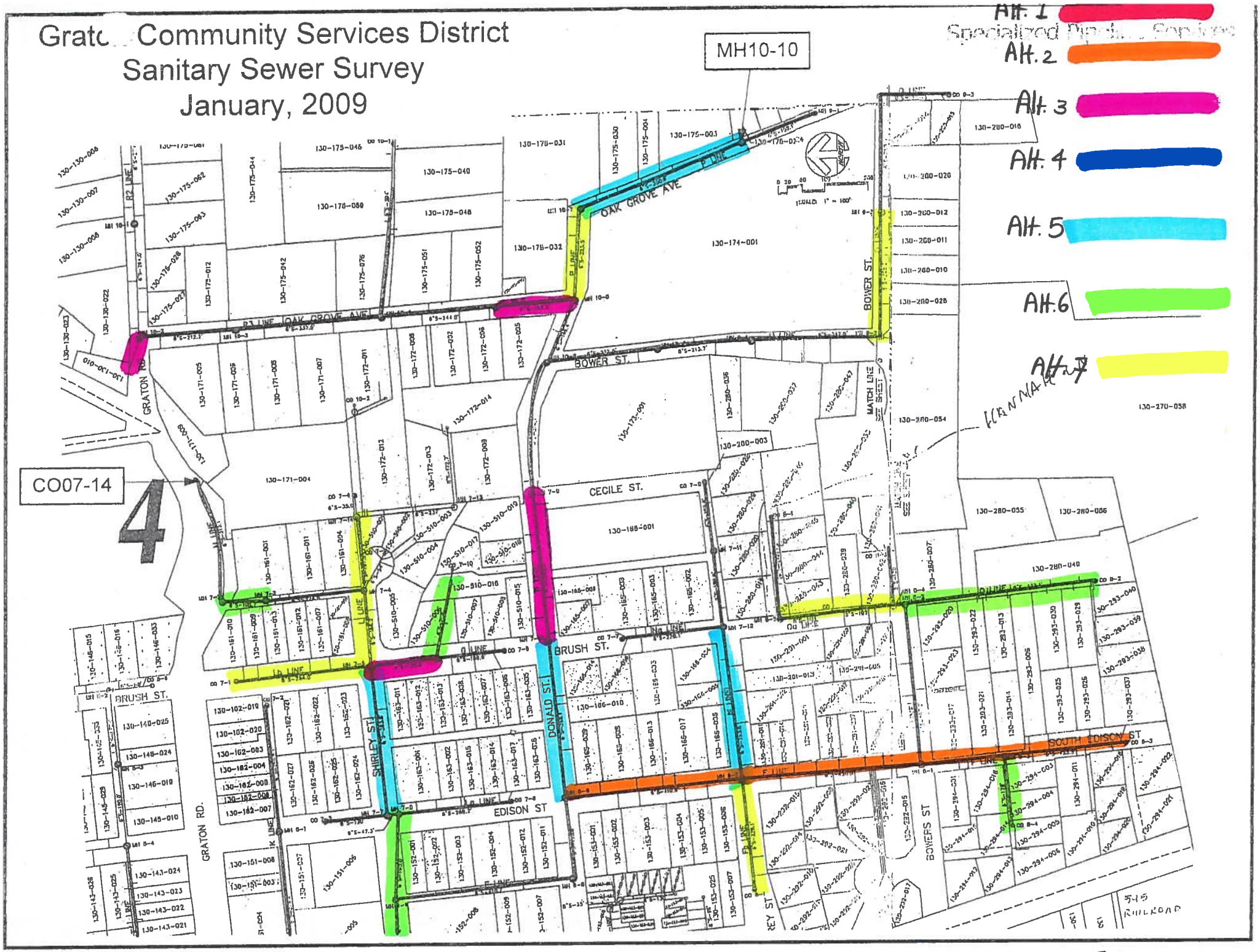

Grat[illegible] Community Services District
Sanitary Sewer Survey
January, 2009
MH10-10
CO07-14
4
Alt. 1
Specialized Manhole Services
Alt. 2
Alt. 3
Alt. 4
Alt. 5
Alt. 6
Alt. 7
OAK GROVE AVE
BOWER ST.
CECILE ST.
BRUSH ST.
DONALD ST.
SHIRLEY ST.
EDISON ST
SOUTH EDISON ST
GRATON RD.
BOWERS ST
MATCH LINE
SHEET 3
KEY ST
RAILROAD

Figure 3

Gratc Community Services District
Sanitary Sewer Survey
January, 2009

Alt. 2 Alt. 4 Alt. 6

Alt. 3 Alt. 5 Alt. 7

Figure 4

Grato[illegible] Community Services District
Sanitary Sewer Survey
August, 2008

Specialized Pipeli[illegible] Services

Alt. 3

Alt. 5

Alt. 6

Alt. 7

Figure 5

Grato.. Community Services District
Sanitary Sewer Survey
January, 2009

Specialized Pipeline Services

Alt. 3

Alt. 5

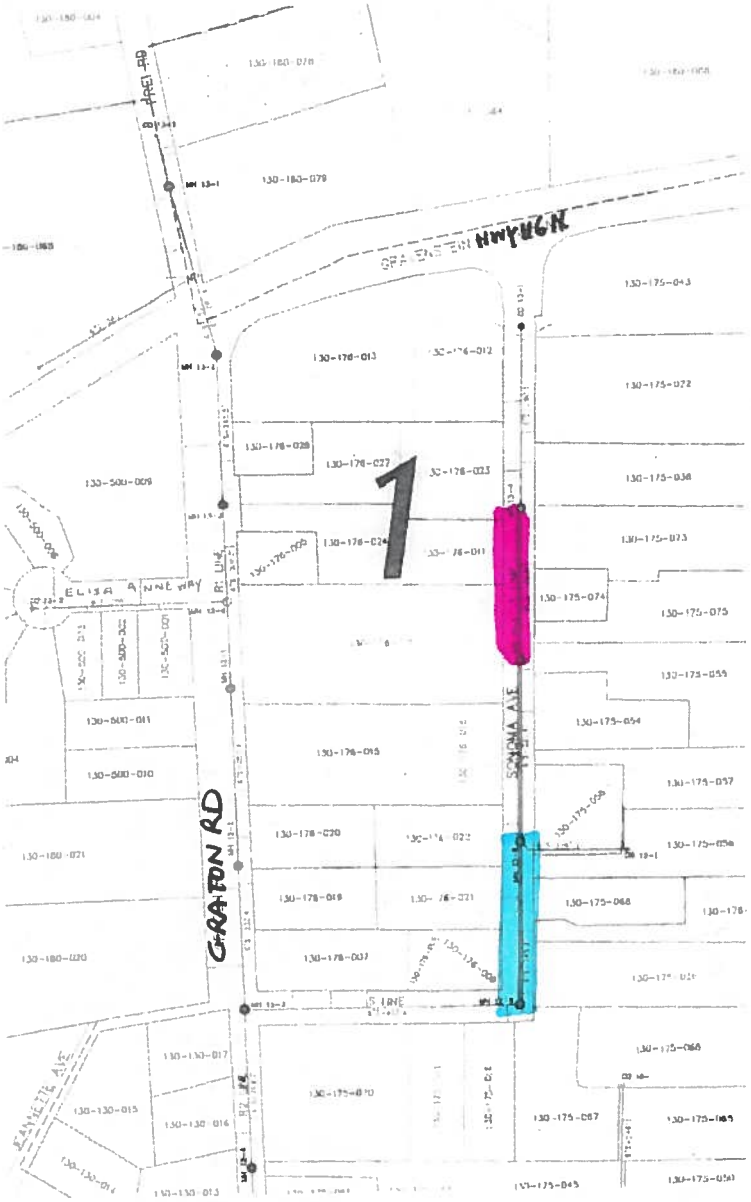


Figure 6

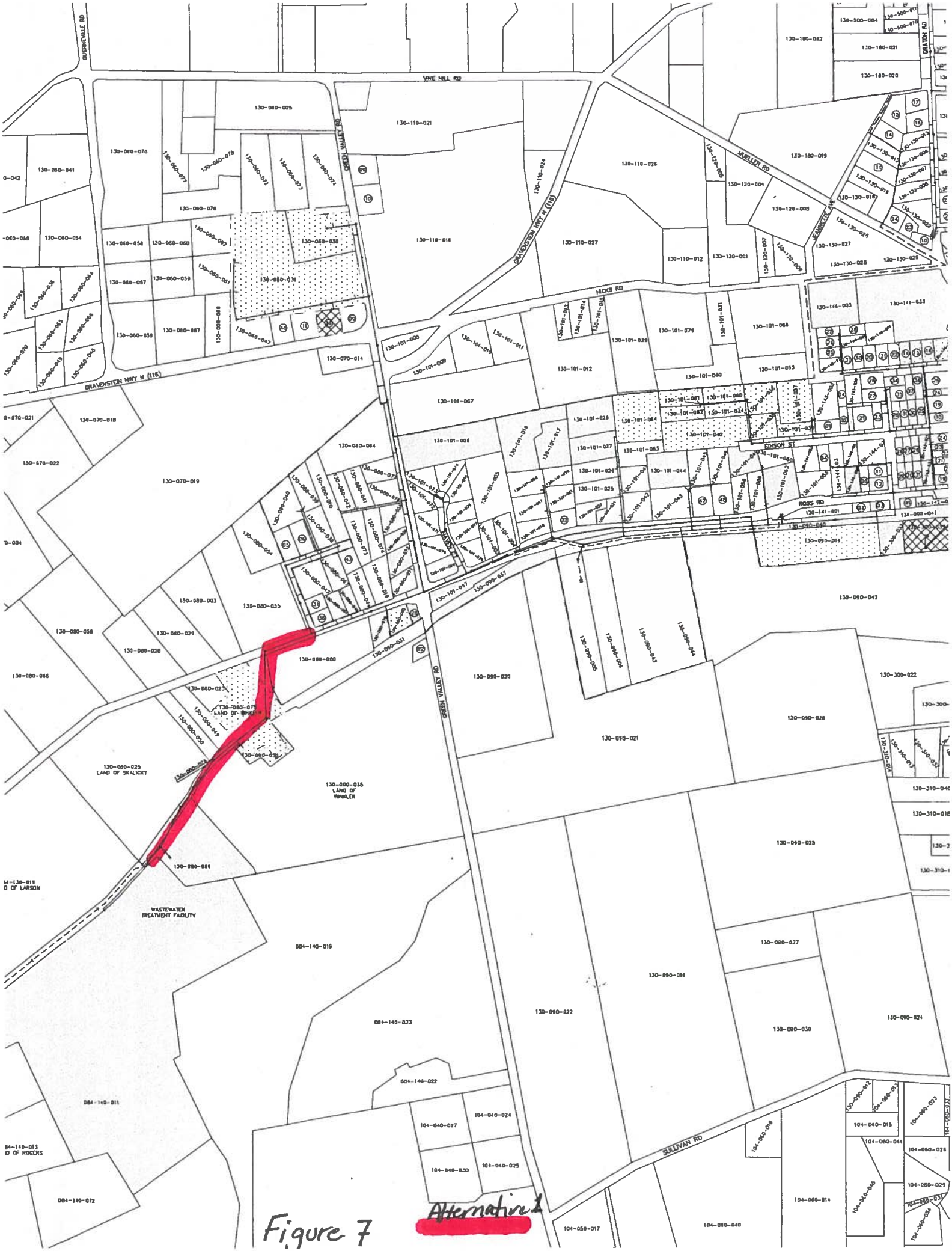

QUENEVILLE RD
VANE HILL RD
OLD ASTTVA ROAD
GRAVENSTEIN HWY N (116)
HICKS RD
MUELLER RD
GRAVENSTEIN HWY N (116)
GRATON RD
EARNEST LN
DIXON ST
ROSS RD
SULLIVAN RD
LAND OF SKALICKY
LAND OF WINKLER
WASTEWATER TREATMENT FACILITY
Alternative 1

Figure 7

Appendix B Sewer Assessment

Graton CSD - CCTV Inspection Summary

Inspection No.	Location	Upstream MH	Downstream MH	Length (ft)	Size (in)	Material	Defects			
							Structural	Infiltration	Root Intrusion	Grease
1	Brush St.	MH 05-12	MH 05-01	258.90	6	PVC	3		3	
3	Brush St.	MH 05-01	MH 05-02	213.10	6	ACP			2	
4	Brush St. easement	MH 05-02	MH 05-03	173.00	6	ACP	3		2	
8	Edison St.	MH 04-09	MH 05-06	387.00	6	ACP	2			
9	Edison St.	MH 05-06	MH 05-05	424.00	6	ACP			3	
11	Ross Rd. easement	MH 05-04	MH 05-07	372.00	6	ACP	5			3
16	Ross Rd.	CO 03-01	MH 03-03	210.20	6	ACP	2			
21	Kameula Rd.	MH 04-08	MH 04-03	387.90	6	ACP	2			
24	Irving St.	CO 05-02	MH 05-05	249.80	6	ACP			5	
28	Oak Grove Ave.	MH 10-05	MH 10-06	163.40	6	ACP	5			5
33	Oak Grove Ave.	MH 10-01	MH 10-07	351.70	6	ACP			5	
34	Oak Grove Ave.	MH 10-07	MH 10-06	229.00	6	ACP	2			
36	Brush St.	MH 08-05	MH 08-04	262.60	6	PVC	2			
38	Brush St.	MH 08-04	MH 08-02	26.00	6	ACP	2			
40	Brush St.	CO 08-02	MH 08-02	433.00	6	ACP	3			
41	S. Edison St.	CO 08-03	MH 08-03	270.20	6	ACP	2			
42	S. Edison St.	MH 08-03	MH 08-01	194.10	6	ACP	4			
50	Bower St.	MH 09-03	MH 09-02	303.58	6	ACP	2			
51	Grey St.	MH 07-12	MH 06-07	367.00	6	ACP	5			
52	Grey St.	CO 06-01	MH 06-07	229.70	6	ACP	2			
58	Donald St.	MH 07-09	MH 07-10	344.50	6	ACP	5			3
59	Donald St.	MH 07-10	MH 06-06	372.00	6	ACP			2	3
68	Bowen Ave.	MH 06-08	MH 06-03	302.80	6	PVC	5			
70	Shirley St.	MH 07-02	MH 07-03	108.80	6	ACP			4	
72	Shirley St. easement	MH 07-14	MH 07-04	201.20	6	ACP			2	
73	Shirley St.	MH 07-04	MH 07-05	166.00	6	ACP	2			
74	Brush St.	MH 07-06	MH 07-05	120.00	6	ACP	2	3		3
76	Brush St. easement	CO 07-10	MH 07-06	214.70	6	ACP	3			
77	Brush St.	CO 07-01	MH 07-05	284.00	6	ACP	2			
78A	Shirley St.	MH 07-05	MH 07-07	364.50	6	ACP	2	3		
79	Alley between Graton Rd. & Shirley St.	CO 07-02	MH 06-01	252.20	6	ACP			5	
82	S. Edison St.	MH 07-07	MH 07-08	47.70	6	ACP		4		
84	Shirley St.	MH 07-08	MH 06-04	191.20	6	ACP		4		
87	Bowen Ave.	MH 06-09	MH 05-07	191.30	12	ACP	5			
88	Ross Rd. easement	MH 05-04	MH 05-07	372.00	6	ACP				3
92	Sonoma Ave.	MH 13-04	MH 12-07	239.00	6	PVC	5		3	3
94	S. Edison St. easement	CO 08-04	MH 08-03	168.10	6	ACP	2	2		
97	Ross Rd.	MH 05-07	MH 05-09	262.10	12	ACP		3		
98	Ross Rd. easement	MH 05-09	MH 05-10	117.50	12	ACP	5	3		
99	Ross Rd. easement	MH 05-10	MH 05-11	306.20	12	ACP		3		
100	Ross Rd. easement	MH 05-11	Lift Station	337.10	12	ACP		3	4	
103	Sonoma Ave.	MH 12-06	MH 12-05	243.50	6	ACP			5	
104	Graton Rd.	CO	MH 10-2	79.00	4	ACP	5			

Specialized Pipeline Services
5688 Eagle Rock Court
Santa Rosa, CA 95409
707-537-6607 Office
707-539-0637 Fax

August, 2008

Graton Sanitary Sewer Survey
Inspection Log

Insp. #	Date	Street	From MH	To MH	Total Ftg.	Mainline Forward Ftg.	Mainline Rev Ftg.	No TV	Ftg. Cleaned	Remarks
001	8/19/08	Brush St.	MH05-12	MH05-01	258.90	251.40	7.50	0.00	258.90	Complete. Forward inspection stopped at 251.4' due to offset. Completed inspection from downstream manhole. Verified cap in place in Inlet pipe in manhole at 12 o'clock.
002	8/19/08	Brush St. easement	CO05-03	MH05-12	241.40	0.00	241.40	0.00	0.00	Complete. Did not clean as location of CO unknown. Steep slope. Pipe clean, does not need cleaning at this time.
003	8/19/08	Brush St.	MH05-01	MH05-02	213.10	213.10	0.00	0.00	213.10	Complete.
004	8/19/08	Brush St. easement	MH05-02	MH05-03	173.00	170.60	0.00	2.40	170.60	MH05-03 buried. Could not standard clean this segment before televising. Flushed pipe prior to inspection. Series of offsets before DI at manhole, camera could not pass. End manhole visible.
005	8/19/08	Brush St.	CO05-06	MH05-02	59.90	0.00	59.90	0.00	59.90	Complete. Cleanout cap partially buried under asphalt.
006	8/19/08	Brush St. easement	MH05-03	MH05-04	190.90	0.00	190.90	0.00	190.90	Complete. MH05-03 buried.
007	8/20/08	Edison St. easement	MH14.01	MH04.09	175.00	0.00	14.40	160.60	175.00	Can't load camera from upstream manhole, dropped invert obstructs manhole opening. Reverse inspection stopped at 14.4' from downstream manhole due to offset joints. MH14.01 buried under 1' of river rock (next to phone pole on side of road)

Insp. #	Date	Street	From MH	To MH	Total Ftg.	Forward Ftg.	Rev Ftg.	No TV	Ftg. Cleaned	Remarks
008	8/20/08	Edison St.	MH04-09	MH05-06	387.00	295.20	85.70	6.10	387.00	Forward inspection stopped at 295.2' due to offset joint. Reverse inspection stopped at 85.7' due to offset joint.
009	8/20/08	Edison St.	MH05-06	MH05-05	424.00	0.00	422.80	1.20	424.00	Complete. Cemented deposits at upstream invert prevented camera from proceeding. Reverse inspection stopped at 422.8' at obstruction.
010	8/20/08	Edison St.	MH05-05	MH05-04	247.70	247.70	0.00	0.00	247.70	Complete. Small cracking at irregularity in pipe surface.
011	8/20/08	Ross Rd. easement	MH05-04	MH05-07	372.00	372.00	0.00	0.00	372.00	Complete. Pipe flushed prior to inspection (restaurants connect to this pipe segment). Grease visible at laterals.
012	8/21/08	Irving St. easement	CO05-04	MH05-08	329.40	0.00	329.40	0.00	280.00	Complete. Cleaned up 280', nozzle stopped, did not force nozzle further with higher pressure (TV footage shows nozzle stopped at lateral). Location of cleanout unknown.
013	8/21/08	Irving St.	MH05-08	MH05-09	182.00	179.20	0.00	2.80	182.00	Complete. Video inspection stopped at dropped invert, end manhole visible.
014	8/21/08	Ross Rd.	CO05-05	MH05-13	159.00	0.00	159.00	0.00	159.00	Complete. MH05-13 is a new manhole, not on map.
015	8/21/08	Ross Rd.	MH05-13	MH05-09	337.00	331.50	0.00	5.50	337.00	Complete. Video inspection stopped at sag/offset at entrance to end manhole.
016	8/21/08	Ross Rd.	CO03-01	MH03-03	210.10	0.00	210.10	0.00	210.10	Complete.
017	8/21/08	Falcon Ln.	CO03-02	MH03-03	292.60	0.00	292.60	0.00	292.60	Complete. Cleanout cap closed tight, could not open.
018	8/21/08	Ross Rd.	MH03-03	MH04-02	196.50	196.50	0.00	0.00	196.50	Complete.
019	8/22/08	Ross Rd. easement	MH04-02	MH04-03	248.00	248.00	0.00	0.00	248.00	Complete.
020	8/22/08	Ross Rd. easement	MH04-03	MH04-04	396.00	396.00	0.00	0.00	396.00	Complete. Minor sags, staining.
021	8/22/08	Kameula Rd.	MH04-08	MH04-03	387.90	376.20	11.70	0.00	387.90	Reverse inspection stopped due to pipe deflection.
022	8/22/08	Ross Rd. easement	MH04-04	MH04-05	172.40	172.40	0.00	0.00	172.40	Complete.
023	8/22/08	Ross Rd. easement	CO04-01	MH04-04	243.90	0.00	243.90	0.00	243.90	Complete.
024	8/26/08	Irving St.	CO05-02	MH05-05	249.80	0.00	249.80	0.00	249.80	Complete. 90% root blockage near cleanout.

Insp. #	Date	Street	From MH	To MH	Total Ftg.	Forward Ftg.	Rev Ftg.	No TV	Ftg. Cleaned	Remarks
025	8/26/08	Edison St. easement	CO05-07	MH05-06	107.00	0.00	91.80	15.20	107.00	Forward inspection stopped at 376.2' due to pipe alignment change. Completed inspection with reverse inspection.
026	8/26/08	Kameula Rd.	MH14-02	MH04-08	152.70	0.00	152.70	0.00	102.00	Complete. Cleaning nozzle stopped at 102'. TV inspection complete.
027	8/26/08	Ross Rd. easement	MH04-05	MH04-07	380.30	0.00	380.30	0.00	380.30	Mid-manhole (MH04-06) located. Severe grease/debris blockage at DI in MH04-07 (removed).

6443.6 TOTAL FTG CLEANED

TOTAL FOOTAGE CLEANED AUGUST 2008 6443.6 ft

Specialized Pipeline Services
5688 Eagle Rock Court
Santa Rosa, CA 95409
707-537-6607 Office
707-539-0637 Fax

January, 2009

Graton Sanitary Sewer Survey
Inspection Log

Insp. #	Date	Street	From MH	To MH	Total Ftg.	Mainline Forward Ftg.	Mainline Rev Ftg.	No TV	Ftg. Cleaned	Remarks
028	1/12/09	Oak Grove Ave.	MH10-05	MH10-06		79.00	0.00	0.00	0.00	Severe grease/roots removed in December by others. Severe sag from 80' to 90'. Televised to 79', camera went underwater.
028R	1/12/09	Oak Grove Ave.	MH10-05	MH10-06	163.40	84.40		0.00	163.40	Continued above inspection from 35' following jet to evacuate sag. Inspection complete.
029	1/12/09	Oak Grove Ave.	MH10-02	MH10-03	212.90	0.00	212.90	0.00	212.90	Complete.
030	1/12/09	Oak Grove Ave.	MH10-03	MH10-04	338.90	338.90	0.00	0.00	338.90	Complete.
031	1/12/09	Oak Grove Ave.	MH10-04	MH10-05	246.30	246.30	0.00	0.00	246.30	Complete. Confirmed location of lateral at 8921 Oak Grove Ave. with dye.
032	1/12/09	Oak Grove Ave.	CO09-01	MH10-10	152.80	0.00	152.80	0.00	152.80	No label for MH10-10 on map. Complete.
033	1/12/09	Oak Grove Ave.	MH10-10	MH10-07	351.70	351.70	0.00	0.00	351.70	Roots in MH10-07. Complete.
034	1/12/09	Oak Grove Ave.	MH10-07	MH10-06	229.00	223.00	0.00	6.00	229.00	Severe offset near MH10-06.
035	1/12/09	Hannah Ln.	CO08-01	MH08-05	207.20	0.00	207.20	0.00	207.20	Complete.
036	1/12/09	Brush St.	MH08-05	MH08-04	262.50	262.50	0.00	0.00	262.50	Complete.
037	1/12/09	Bowers St.	CO09-04	MH08-04	142.20	0.00	142.20	0.00	0.00	Pipe not cleaned prior to inspection. No cleanout cap visible to vent.
038	1/12/09	Brush St.	MH08-04	MH08-02	26.00	6.00	1.80	18.20	26.00	Offset holding flow prevented downstream video inspection. Elbow in manhole bench prevented reverse inspection.
039	1/12/09	Bowers St.	MH08-02	MH08-01	373.30	4.00	369.30	0.00	373.30	1/12/09: Forward inspection stopped at 4' due to elbow in bench, could not load camera. 1/13/09: Completed inspection from downstream manhole.

Insp. #	Date	Street	From MH	To MH	Total Ftg.	Forward Ftg.	Rev Ftg.	No TV	Ftg. Cleaned	Remarks
040	1/12/09	Brush St.	CO08-02	MH08-02	433.00	0.00	424.50	8.50	0.00	Cleanout cap location unknown, could not vent line and did not clean. TV inspection stopped at 424' from downstream manhole due to offset at PVC/AC coupling. Total footage figure used from map.
041	1/14/09	S. Edison St.	CO08-03	MH08-03	270.20	0.00	270.20	0.00	270.20	Complete. Possibly flat line, septic staining.
042	1/14/09	S. Edison St.	MH08-03	MH08-01	194.10	142.20	51.90	0.00	194.10	Complete. Large offset stopped camera at 142'. Completed inspection at offset from reverse setup.
043	1/14/09	S. Edison St.	MH08-01	MH06-07	433.00	4.00	219.80	209.20	433.00	Can't load camera in upstream MH due to bench configuration. Reverse inspection stopped at 219' due to alignment/offset. Standing water at ~20% throughout inspected length of pipe, can't push due to water level.
044	1/14/09	Grey St.	CO07-08	MH07-11	169.20	0.00	169.20	0.00	169.20	Complete.
045	1/14/09	Grey St.	MH07-11	MH07-12	181.00	0.40	180.50	0.00	181.00	Forward inspection stopped due to sloped bench in upstream MH. Completed inspection from downstream manhole.
046	1/14/09	Brush St.	CO07-07	MH07-12	219.00	0.00	219.00	0.00	219.00	Complete.
047	1/15/09	Bower St.	MH09-02	MH09-01	349.00	0.00	349.00	0.00	349.00	MH09-01 buried, location unknown. Camera loaded at downstream manhole w/sonde to locate buried MH. Located and surface marked.
048A	2/19/09	Bower St.	MH09-04	MH09-03	261.30	0.00	261.30	0.00	261.30	1/15/09: MH09-03 buried. Used push camera from MH09-04, manhole appears to be in asphalted area under car at 261.8'. Surface marked. 2/19/09: Manhole uncovered. Cleaned and televised complete.
049	2/19/09	Bower St. easement	CO09-03	MH09-04	129.40	0.00	129.40	0.00	129.40	1/15/09: CO09-03 buried. Used push camera w/sonde to locate and dig up. Marked. 2/19/09: Cleaned.
050	2/19/09	Bower St.	MH09-03	MH09-02	306.00	306.00	0.00	0.00	306.00	1/15/09: MH09-03 buried. Attempted reverse inspection after cleaning. Large offset at pipe/DI connection stopped camera. Need access to MH09-03 to televise line. 2/19/09: Manhole uncovered (pipe cleaned on 1/15/09 prior to 1st attempt to TV). Completed video inspection.
051	1/15/09	Grey St.	MH07-12	MH06-07	367.00	367.00	0.00	0.00	367.00	Complete. Two holes forming, no soil visible.

Insp. #	Date	Street	From MH	To MH	Total Ftg.	Forward Ftg.	Rev Ftg.	No TV	Ftg. Cleaned	Remarks
052	1/16/09	Grey St.	CO06-01	MH06-07	228.00	226.70	3.00	0.00	228.00	1/16/09: Cleaned, Attempted reverse inspection to cleanout, large offset at PVC/AC transition. 2/20/09: Used push camera to complete video inspection.
053	1/16/09	Edison St.	MH06-07	MH06-06	413.30	413.30	0.00	0.00	413.30	Complete. Minor sags (not over 30%).
054	1/16/09	Bower St.	MH09-01	MH10-09	213.30	213.30	0.00	0.00	213.30	Complete.
055	1/16/09	Bower St.	MH10-09	MH10-08	220.80	220.80	0.00	0.00	220.80	Complete.
056	1/16/09	Oak Grove Ave.	MH10-06	MH10-08	146.50	0.00	146.50	0.00	146.50	Can't load camera in upstream MH. Completed inspection from downstream manhole.
057	2/19/09	Donald St.	MH10-08	MH07-09	321.90	0.00	321.90	0.00	285.00	1/16/09: Manhole buried. Located with camera & sonde at 321' under asphalt near water tank. 2/19/09: Manhole uncovered. Cleaned up 285', resident complained toilet bubbling. Stopped cleaning and televised.
058	1/16/09	Donald St.	MH07-09	MH07-10	344.50	0.00	344.50	0.00	344.50	Complete. Hole at top of pipe, no soil visible.
059	1/16/09	Donald St.	MH07-10	MH060-06	372.00	372.00	0.00	0.00	372.00	Complete. Remnants of grease at top of pipe.
060	2/9/09	Donald St.	MH06-06	MH06-05	191.70	191.70	0.00	0.00	191.70	Complete.
061	2/9/09	Donald/Shirley alley	MH06-05	MH06-04	411.70	0.00	411.70	0.00	411.70	Complete. Can't load camera in upstream MH due to bend in bench.
062	2/9/09	Shirley St.	MH06-04	3-Jun	179.30	179.30	0.00	0.00	179.30	Complete.
063	2/9/09	Bowen pkg. Lot	CO06-15	MH06-14	89.00	0.00	89.00	0.00	89.00	Complete.
064	2/9/09	Bowen Ave.	MH06-14	MH06-10	215.80	215.80	0.00	0.00	215.80	Complete.
065	2/9/09	Bowen Ave.	MH06-10	MH06-09	73.50	73.50	0.00	0.00	73.50	Complete.
066	2/9/09	Bowen pkg. Lot	MH06-11	MH06-10	102.00	0.00	102.00	0.00	102.00	Complete.
067	2/9/09	Bowen Ave.	MH06-09	MH06-08	130.10	130.10	0.00	0.00	130.10	Complete.
068	2/9/09	Bowen Ave.	MH06-08	MH06-03	302.80	302.80	0.00	0.00	302.80	Complete. Holes in manhole trough.
069	2/10/09	Graton Rd.	CO07-14	MH07-02	303.30	303.30	0.00	0.00	303.30	Complete. Can't load camera in downstream MH due to bend in bench. Used push camera to televise.
070	2/10/09	Shirley St.	MH07-02	MH07-03	108.80	108.80	0.00	0.00	108.80	Complete. Bend in upstream MH, pinched bench in downstream MH. Used push camera to televise. Roots in pipe near base of tree.
071	2/10/09	Shirley St.	MH07-03	MH07-04	226.40	226.40	0.00	0.00	226.40	Complete.
072	2/10/09	Shirley St. easement	MH07-14	MH07-04	201.20	0.00	201.20	0.00	201.20	Location of MH07-14 unk at time of inspection. Located with sonde. Minor roots in MH.
073	2/10/09	Shirley St.	MH07-04	MH07-05	166.00	164.90	0.00	1.10	166.00	Cleaning nozzle blocked at pipe entrance in downstream MH. Flushed pipe, televised. Severe offset at PVC coupling in MH.

Insp. #	Date	Street	From MH	To MH	Total Ftg.	Forward Ftg.	Rev Ftg.	No TV	Ftg. Cleaned	Remarks
074	2/12/09	Brush St.	MH07-06	MH07-05	120.00	120.00	0.00	0.00	120.00	Complete. Active I/I and grease residue at top of pipe.
075	2/12/09	Brush St.	CO07-05	MH07-06	178.90	0.00	178.90	0.00	178.90	Complete. Attempted to clean, nozzle stopped ~30' from manhole. TV'd to locate problem. Slightly sunken PVC segment. Completed cleaning.
076	2/12/09	Brush St. easement	CO07-10	MH07-06	214.70	0.00	214.70	0.00	214.70	Complete. Pipe runs through easement, location of CO07-10 unknown. TV'd pipe first, then cleaned.
077	2/12/09	Brush St.	CO07-01	MH07-05	284.00	0.00	280.60	3.40	260.00	Complete. Cleanout buried. Attempted to TV first using mainline camera. Offset at PVC/AC junction blocked camera. Cleaned up ~260' and TV'd using push camera. Stopped at 280', end cleanout visible.
078A	2/12/09	Shirley St.	MH07-05	MH07-07	365.10	365.10	0.00	0.00	365.10	Complete. I/I at radial crack 4' from MH07-05.
079	2/12/09	Alley betw Graton Rd. & Shirley St.	CO07-02	MH06-01	252.20	0.00	252.20	0.00	252.20	Complete. Roots at various joints and severe roots in lateral.
080	2/12/09	Alley betw Graton Rd. & Shirley St.	MH06-01	MH06-02	375.90	375.90	0.00	0.00	375.90	Complete. Unusual surface wear/staining throughout length of pipe.
081	2/18/09	S. Edison St.	CO07-03	MH07-07	124.40	0.00	124.40	0.00	124.40	Complete. Cleaned up 80' from manhole, stopped due to excessive pressure at cleanout. TV'd, no problems noted. Cleaned to cleanout after TV.
082	2/18/09	S. Edison St.	MH07-07	MH07-08	47.70	47.70	0.00	0.00	47.70	Complete. Infiltration noted.
083	2/18/09	S. Edison St.	CO07-06	MH07-08	268.50	0.00	268.50	0.00	268.50	Complete.
084	2/18/09	Shirley St.	MH07-08	MH06-04	191.20	191.20	0.00	0.00	191.20	Complete. Infiltration in MH06-04.
085	2/18/09	Bowen Ave.	MH06-03	MH06-02	231.60	231.60	0.00	0.00	231.60	Complete. Vac'd MH06-02, silt.
086	2/18/09	Bowen Ave.	MH06-02	MH06-09	168.40	168.40	0.00	0.00	168.40	Complete.
087	2/18/09	Bowen Ave.	MH06-09	MH05-07	191.30	191.30	0.00	0.00	191.30	Complete.
088	2/18/09	Ross Rd. easement	MH05-04	MH05-07	372.00	372.00	0.00	0.00	372.00	Complete. Last cleaned 8/20/08. Grease noted at flow line (not obstructing flow) and in most laterals, none severe. Paper towels blocked DI in MH05-07. Pipe cleaned after inspection, towels removed.
089	2/18/09	Sonoma Wine Co. parking lot	CO06-03	MH06-12	217.10	0.00	217.10	0.00	217.10	Complete. Location of cleanout unknown. Many small sags.
090	2/18/09	Sonoma Wine Co. parking lot	MH06-12	MH06-11a	349.60	349.60	0.00	0.00	349.60	Complete. Many small sags. Interim pipe segment of unknown material, badly stained.

Insp. #	Date	Street	From MH	To MH	Total Ftg.	Forward Ftg.	Rev Ftg.	No TV	Ftg. Cleaned	Remarks
091	2/18/09	Sonoma Wine Co. parking lot	MH06-11a	MH06-10a	344.90	344.90	0.00	0.00	344.90	Complete. Stained pipe, many small sags.
092	2/19/09	Sonoma Ave.	MH13.04	MH12-07	239.00	55.00	137.30	46.70	239.00	2/19/09: Downstream inspection stopped at 55' due to series of offsets. 2/25/09: Attempted reverse to complete inspection, stopped at 137.3 due to offset.
093	2/19/09	Sonoma Ave.	CO13-01	MH13.04	290.00	0.00	290.00	0.00	290.00	Complete.
094	2/20/09	S. Edison St. easement	CO08-04	MH08-03	168.10	0.00	168.10	0.00	168.10	1/14/09: Estimated footage. Cleaned pipe. Camera could not be loaded into downstream manhole due to bad bench. 2/20/09: Used push camera to complete video inspection.
095	2/20/09	Green Valley Townhomes easement	CO06-13	MH06-11	165.40	0.00	163.40	2.00	0.00	Middle MH and end cleanout location unknown. Used sonde on push camera to locate. Manhole found in yard of unit 2849 near walkway/fence. Cleanout located in yard by fence at unit 2839.
096	2/20/09	Oak Grove Ave. easement	CO10-01	MH10-04	394.00	0.00	274.30	119.70	0.00	Bench in MH prevents loading camera. Used push camera to 274.3', stopped due to slope.
097	2/24/09	Ross Rd.	MH05-07	MH05-09	262.10	262.10	0.00	0.00	262.10	I/I in MH05-09 (incoming pipe), possible infiltration from lateral with heavy flow coming from vacant lot next to fire station.
098	2/24/09	Ross Rd. easement	MH05-09	MH05-10	117.50	117.50	0.00	0.00	117.50	I/I in MH05-09, outflowing pipe. Sags.
099	2/24/09	Ross Rd. easement	MH05-10	MH05-11	306.20	306.20	0.00	0.00	306.20	MH05-11 lid and collar level with ground surface. Standing water from rain event can enter manhole through lid. Heavy overgrowth & tree next to MH makes vacuuming difficult.
100	2/24/09	Ross Rd. easement	MH05-11	Lift Station Manhole	337.10	337.10	0.00	0.00	337.10	I/I noted, 10% root mass at PVC pipe segment.
101	2/24/09	Graton Rd.	MH06-10	MH06-09	122.30	122.30	0.00	0.00	122.30	Complete. Stained pipe.
102	2/25/09	Sonoma Ave.	MH12-07	MH12-06	325.80	325.80	0.00	0.00	325.80	Complete.
103	2/25/09	Sonoma Ave.	MH12-06	MH12-05	245.30	245.30	0.00	0.00	245.30	Complete. Two substantial root masses, camera passed thru both. 90% root mass near lateral.

Specialized Pipeline Services
5688 Eagle Rock Court
Santa Rosa, CA 95409
707-537-6607 Office
707-539-0637 Fax

Project: Graton CSD
Sanitary Sewer Inspection

January, 2009

Structural Defect Summary

Inspection Number	*Street*	*Holes*	*Broken Pipe*	*Long. Cracks*	*Multiple Cracks*	*Radial Cracks*	*Offset Joints*	*Open Joints*
001	Brush St.						3	
008	Edison St.						1	
016	Ross Rd.						1	
021	Kameula Rd.					1		
034	Oak Grove Ave.						1	
036	Brush St.						1	
038	Brush St.						1	
040	Brush St.				1		1	
041	S. Edison St.						1	
042	S. Edison St.				1		2	1
050	Bower St.						1	

Inspection Number	Street	Holes	Broken Pipe	Long. Cracks	Multiple Cracks	Radial Cracks	Offset Joints	Open Joints
051	Grey St.	2						
052	Grey St.						1	
058	Donald St.	1						
068	Bowen Ave.	1						
073	Shirley St.						2	
074	Brush St.					1		
076	Brush St. easement				1			
077	Brush St.						1	
078A	Shirley St.					1		
092	Sonoma Ave.		1				1	
094	S. Edison St. easement						1	

Specialized Pipeline Services
5688 Eagle Rock Court
Santa Rosa, CA 95409
707-537-6607 Office
707-539-0637 Fax

Project: Graton CSD
Sanitary Sewer Inspection

January, 2009

Sag Summary

	Street	*Manhole to Manhole*		*Footage*	*Remarks*
028	Oak Grove Ave.	MH10-05	MH10-06	71.70 ft	Water level 40 % height/diameter. Grease at top of pipe, start of severe sag
				74.50 ft	Water level 50 % height/diameter
				77.90 ft	Water level 60 % height/diameter
087	Bowen Ave.	MH06-09	MH05-07	174.20 ft	Water level 45 % height/diameter
098	Ross Rd. easement	MH05-09	MH05-10	67.50 ft	Water level 40 % height/diameter

Specialized Pipeline Services
5688 Eagle Rock Court
Santa Rosa, CA 95409
707-537-6607 Office
707-539-0637 Fax

Project: Graton CSD
Sanitary Sewer Inspection

January, 2009

Infiltration Summary

Inspection Number	*Street*	*Seeper*	*Gusher*	*Runner*	*Weeper*
074	Brush St.			1	
078A	Shirley St.	1		1	
082	S. Edison St.		1		
084	Shirley St.		1		
094	S. Edison St. easement	1			
097	Ross Rd.			1	
098	Ross Rd. easement			1	
099	Ross Rd. easement			1	
100	Ross Rd. easement			1	

Specialized Pipeline Services
5688 Eagle Rock Court
Santa Rosa, CA 95409
707-537-6607 Office
707-539-0637 Fax

Project: Graton CSD
Sanitary Sewer Inspection

January, 2009

Root Intrusion Summary

Inspection Number	*Street*	*Fine Roots*	*Fine Roots at Joint*	*Root Mass*	*Root Mass at Joint*	*Tap Root at Joint*
001	Brush St.		3			1
003	Brush St.		1			
004	Brush St. easement		1			
009	Edison St.					1
024	Irving St.		2	1		
033	Oak Grove Ave.			1		
059	Donald St.		1			
070	Shirley St.				1	
072	Shirley St. easement	1				
079	Alley betw Graton Rd. &		3	1	1	
092	Sonoma Ave.		3			
100	Ross Rd. easement		1		1	
103	Sonoma Ave.		1		3	

Specialized Pipeline Services
5688 Eagle Rock Court
Santa Rosa, CA 95409
707-537-6607 Office
707-539-0637 Fax

Project: Graton CSD
Sanitary Sewer Inspection

January, 2009

Grease Summary

	Street	*Manhole to Manhole*		*Footage*	*Remarks*
011	Ross Rd. easement	MH05-04	MH05-07	235.00 ft	Debris grease % cross-sectional area loss. Minor grease buildup at flow line
028	Oak Grove Ave.	MH10-05	MH10-06	62.60 ft	Debris grease % cross-sectional area loss
				54.40 ft	Debris grease % cross-sectional area loss. top of pipe
				44.20 ft	Debris grease % cross-sectional area loss. top of pipe
058	Donald St.	MH07-09	MH07-10	135.79 ft	Debris grease % cross-sectional area loss. Top of pipe
059	Donald St.	MH07-10	MH06-06	209.70 ft	Debris grease % cross-sectional area loss. top of pipe
074	Brush St.	MH07-06	MH07-05	99.20 ft	Debris grease % cross-sectional area loss. Top of pipe
				86.50 ft	Debris grease % cross-sectional area loss. Remnants of grease at top of pipe
088	Ross Rd. easement	MH05-04	MH05-07	241.60 ft	Debris grease % cross-sectional area loss. at flow line
092	Sonoma Ave.	MH13-04	MH12-07	28.90 ft	Debris grease % cross-sectional area loss. Remnants of grease at top of pipe

Sanitary Sewer Video Log

High Pressure Water Jetting
WET/DRY Material Evacuation
Infrastructure Video Inspection
Trenched "NO-DIG" Rehab

MIKSIS SERVICES INC.

Lic. #544530 A, C-36, HAZ

Project: CCTV –Graton Community Services District

Date: May 10,2011

Title & Location: Graton

	Map Page	Date	Start Node	End Node	Size (in.)	Length Viewed (ft.)	Severity of Line (1,2,3,4,)
	4	5-10-11	MH 5-2	MH 5-3	6	175.0	1-Small crack at top of pipe.
	4	5-10-11	MH 5-4	MH 5-3	6	191.5	1-Line good.
	4	5-10-11	MH 5-4	MH 5-7	6	371.1	1-Two small holes.
	4	5-10-11	MH 10-3	MH 10-2	6	214.3	1-Sags in line,Camera underwater.
	4	5-10-11	MH 10-3	MH 10-4	6	340.0	1-Sags in line.
	4	5-10-11	MH 10-4	MH 10-5	6	245.7	1-Line good.
	4	5-10-11	MH 10-5	MH 10-6	6	73.2	4-Line plugged with grease,need to reclean and resurvey.
	4	5-10-11	MH 10-5	MH 10-6	6	161.3	2-Large sag in line,grease buildup.

P.O. Box 591-I, Healdsburg, CA 95448 1-888-UNPLUGU TEL(707) 433-8053 FAX(707) 433-8085 www.unplugu.com

Sanitary Sewer Video Log

High Pressure Water Jetting
WET/DRY Material Evacuation
Infrastructure Video Inspection
Trenched "NO-DIG" Rehab

MIKSIS SERVICES INC.

Lic. #544530 A, C-36, HAZ

Project: CCTV –Graton Community Services District

Date: May 11,2011

Title & Location: Graton

	Map Page	Date	Start Node	End Node	Size (in.)	Length Viewed (ft.)	Severity of Line (1,2,3,4,)
	4	5-11-11	C.O. No #	MH 10-2	4	79.0	2-Sag in line,Grease.
	4	5-11-11	C.O. No #	MH 10-2	4	78.4	2- Sags in line,Grease.
	4	5-11-11	MH 6-1	CO 7-2	6	253.9	1- Roots in line.
	4	5-11-11	MH 6-1	MH 6-2	6	377.2	1-Line good.
	10	5-11-11	MH 6-2	MH 6-9	12	167.6	1-Line good.
	10	5-11-11	MH 6-9	MH 5-7	12	193.6	1-Line good.
	10	5-11-11	MH 5-7	MH 5-9	12	261.8	1-Line good.
	10	5-11-11	MH 5-10	MH 5-9	12	117.4	1-Line good.
	10	5-11-11	MH 5-10	MH 5-11	12	308.8	1-Line good.
	10	5-11-11	MH 5-11	MH lift station #1	12	339.3	2-Root ball at P.V.C. patch.

P.O. Box 591-I, Healdsburg, CA 95448 1-888-UNPLUGU TEL(707) 433-8053 FAX(707) 433-8085 www.unplugu.com

Specialized Pipeline Services

707-537-6607 Office 707-539-0637 Fax

Inspection 028

MH10-05 to H10-06

Oak Grove Ave.

Project: Graton Community Services District

Remnants of grease at top of pipe beginning at 44' from upstream manhole.

Photo 290

More severe grease deposits further down the pipe at 62'.

Photo 293

Start of a sag, water level is at 50%, continuing grease deposits at 74'. Camera was under water at 78'.

Photo 295

Followed jet nozzle to inspect the remainder of the pipe. Note at 124' grease residue continues at top of pipe.

Photo 298

Specialized Pipeline Services

707-537-6607 Office 707-539-0637 Fax

Inspection 011

MH05-04 to MH05-07

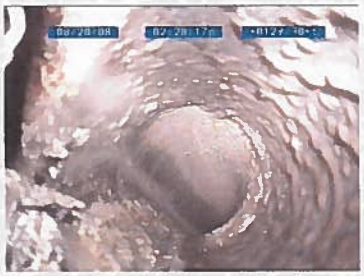
Project: Graton Community Services District

Location: Easement between Edison St. & Ross Rd.

Pipe segment was not cleaned prior to video inspection. Minor to moderate grease was noted in the following lateral connections to the sewer main. Pipe was subsequently cleaned.

The photo on left is the inside of the lateral connection coated with grease. Photo on right shows the grease deposited in the sewer main from the lateral.

9 o'clock lateral, 129', photos 132 a&b



The photo on left is the inside of the lateral connection with grease at the bottom of the lateral. Photo on right shows the grease deposited in the sewer main from the lateral.

9 o'clock lateral, 202', photos 138 a&b

Plan View Report

MH MH 5-4 to MH 5-7

Downstream Inspection

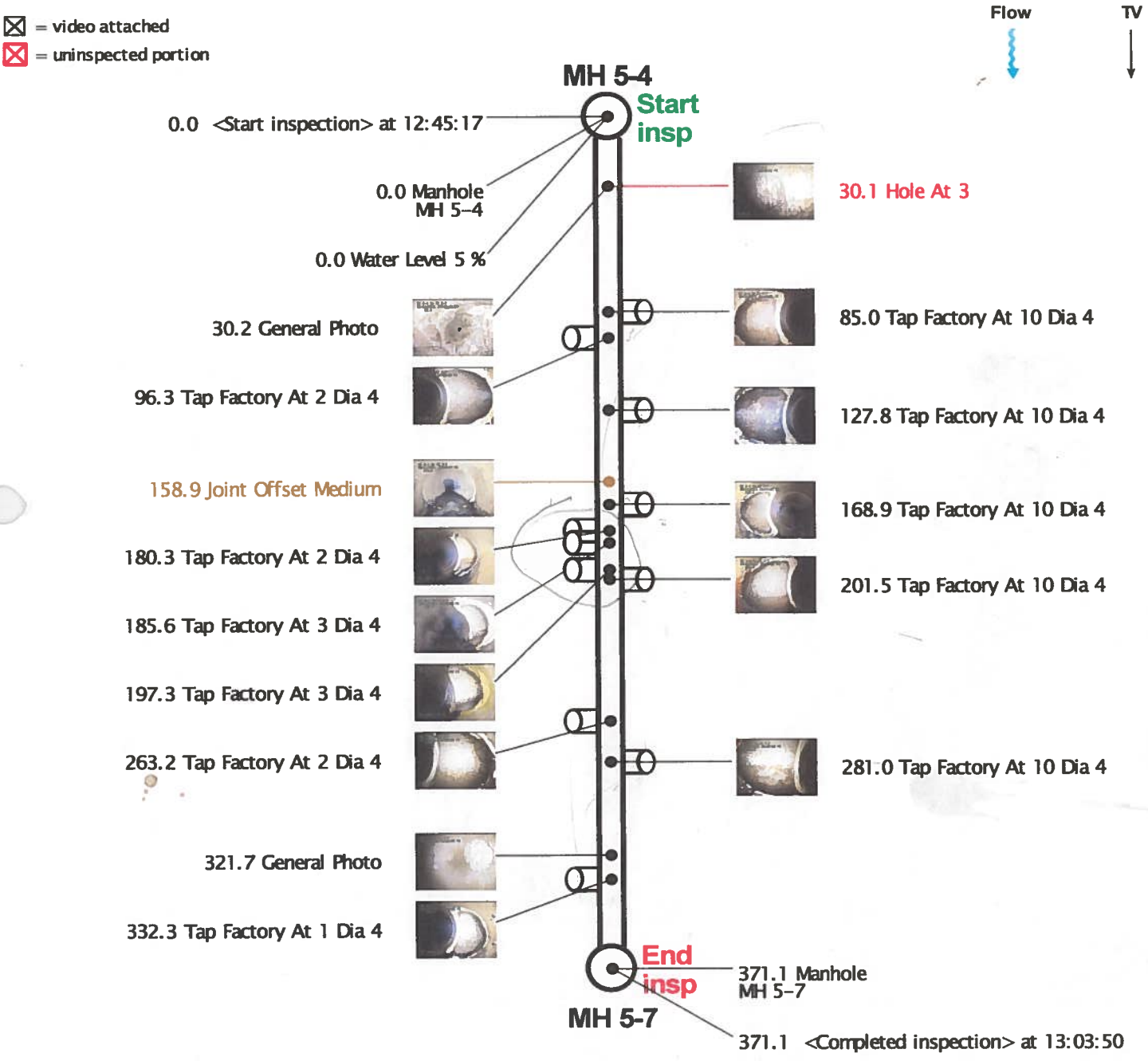
PSR	Street	City
MH 5-4-MH 5-7	Edison St	Graton

Date	Time	Weather	Ht/Dia	Width	Shape	Material	Length Surveyed	Total Length	Status
05/10/2011	12:45:17	Dry	6	0	Circular	AC	371.1		Completed

Video Name	Additional Info	Purpose	Sheet
MH 5-4-MH 5-7_3_5102011.mp4 ☒		Routine Assessment	1

☒ = video attached

☒ = uninspected portion



Images Report

MH MH 5-4 to MH 5-7

PSR	Street	City
MH 5-4-MH 5-7	Edison St	Graton

Date	Time	Weather	Ht/Dia	Width	Shape	Material	Length Surveyed	Total Length	Status
05/10/2011	12:45:17	Dry	6	0	Circular	Asbes...	371.1		Completed

Video Name	Additional Info	Purpose	Sheet
MH 5-4-MH 5-7_3_5102011.mp4		Routine Assessment	1

Distance	Counter	Code
30.1	170	H

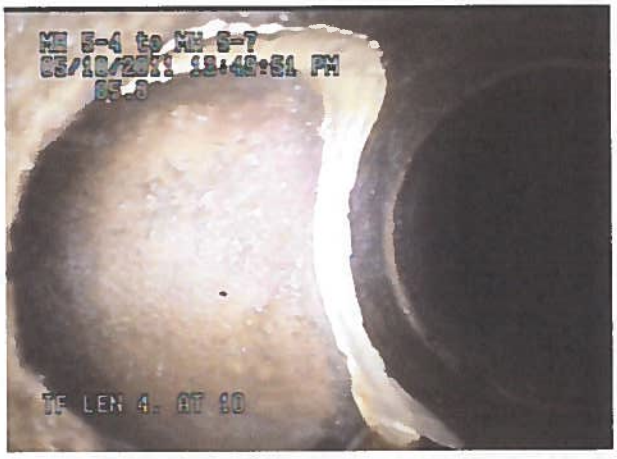
Hole

MH 5-4-MH 5-7_3_5102011_000.jpg

Distance	Counter	Code
30.2	182	MGP

General Photo

MH 5-4-MH 5-7_3_5102011_001.jpg



Distance	Counter	Code
85.0	274	TF

Tap Factory

MH 5-4-MH 5-7_3_5102011_002.jpg

Distance	Counter	Code
96.3	339	TF

Tap Factory

MH 5-4-MH 5-7_3_5102011_003.jpg

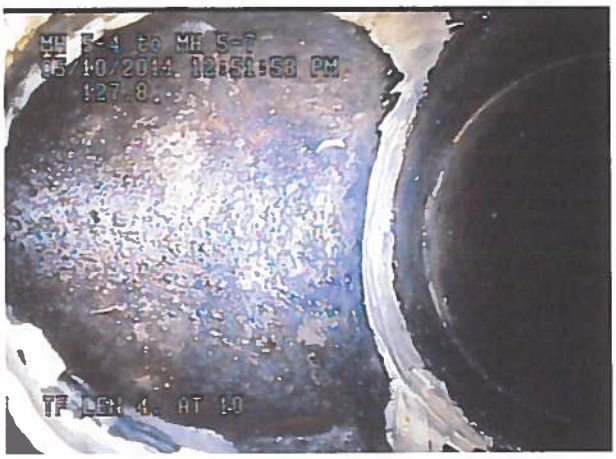
Images Report

MH MH 5-4 to MH 5-7

PSR	Street	City
MH 5-4-MH 5-7	Edison St	Graton

Date	Time	Weather	Ht/Dia	Width	Shape	Material	Length Surveyed	Total Length	Status
05/10/2011	12:45:17	Dry	6	0	Circular	Asbes...	371.1		Completed

Video Name	Additional Info	Purpose	Sheet
MH 5-4-MH 5-7_3_5102011.mp4		Routine Assessment	2



Distance	Counter	Code
127.8	401	TF

Tap Factory

MH 5-4-MH 5-7_3_5102011_004.jpg

Distance	Counter	Code
158.9	509	JOM

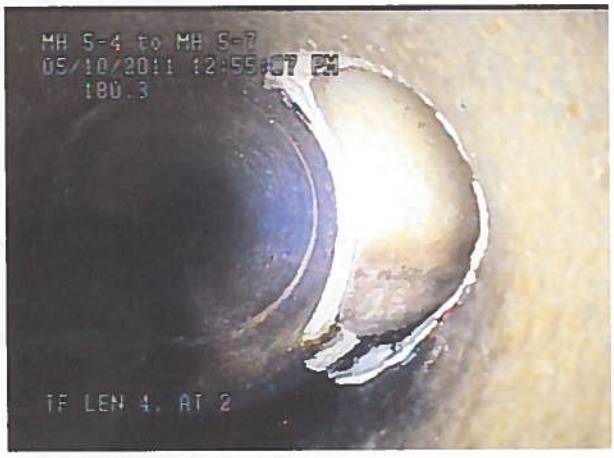
Joint Offset Medium

MH 5-4-MH 5-7_3_5102011_005.jpg

Distance	Counter	Code
168.9	544	TF

Tap Factory

MH 5-4-MH 5-7_3_5102011_006.jpg



Distance	Counter	Code
180.3	589	TF

Tap Factory

MH 5-4-MH 5-7_3_5102011_007.jpg

Images Report

MH MH 5-4 to MH 5-7

PSR	Street	City
MH 5-4-MH 5-7	Edison St	Graton

Date	Time	Weather	Ht/Dia	Width	Shape	Material	Length Surveyed	Total Length	Status
05/10/2011	12:45:17	Dry	6	0	Circular	Asbes...	371.1		Completed

Video Name	Additional Info	Purpose	Sheet
MH 5-4-MH 5-7_3_5102011.mp4		Routine Assessment	3

Distance	Counter	Code
185.6	622	TF

Tap Factory

MH 5-4-MH 5-7_3_5102011_008.jpg

Distance	Counter	Code
197.3	672	TF

Tap Factory

MH 5-4-MH 5-7_3_5102011_009.jpg

Distance	Counter	Code
201.5	706	TF

Tap Factory

MH 5-4-MH 5-7_3_5102011_010.jpg

Distance	Counter	Code
263.2	823	TF

Tap Factory

MH 5-4-MH 5-7_3_5102011_011.jpg

Images Report

MH MH 5-4 to MH 5-7

PSR	Street	City
MH 5-4-MH 5-7	Edison St	Graton

Date	Time	Weather	Ht/Dia	Width	Shape	Material	Length Surveyed	Total Length	Status
05/10/2011	12:45:17	Dry	6	0	Circular	Asbes...	371.1		Completed

Video Name	Additional Info	Purpose	Sheet
MH 5-4-MH 5-7_3_5102011.mp4		Routine Assessment	4

Distance	Counter	Code
281.0	881	TF

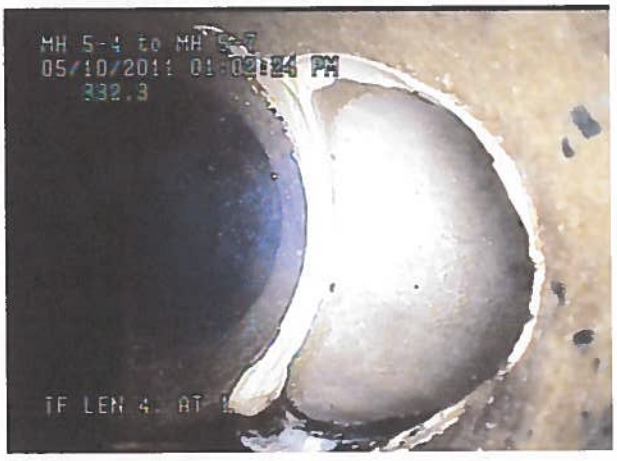
Tap Factory

MH 5-4-MH 5-7_3_5102011_012.jpg

Distance	Counter	Code
321.7	966	MGP

General Photo

MH 5-4-MH 5-7_3_5102011_013.jpg



Distance	Counter	Code
332.3	994	TF

Tap Factory

MH 5-4-MH 5-7_3_5102011_014.jpg

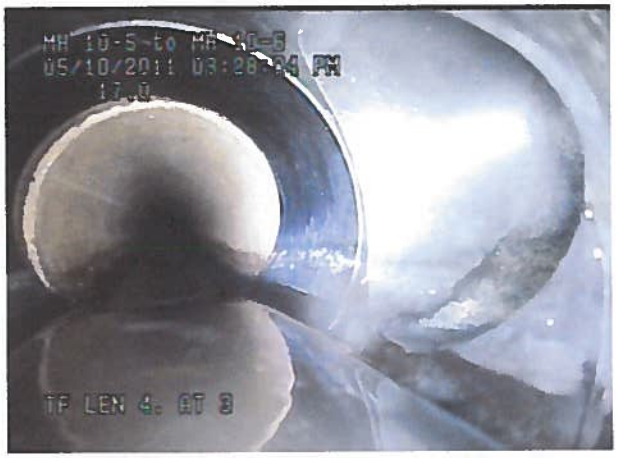
Images Report

MH MH 10-5 to MH 10-6

PSR	Street	City
MH 10-5-MH 10-6	Oak Grove Ave	Graton

Date	Time	Weather	Ht/Dia	Width	Shape	Material	Length Surveyed	Total Length	Status
05/10/2011	15:24:43	Dry	6	0	Circular	Asbes...	161.3		Completed

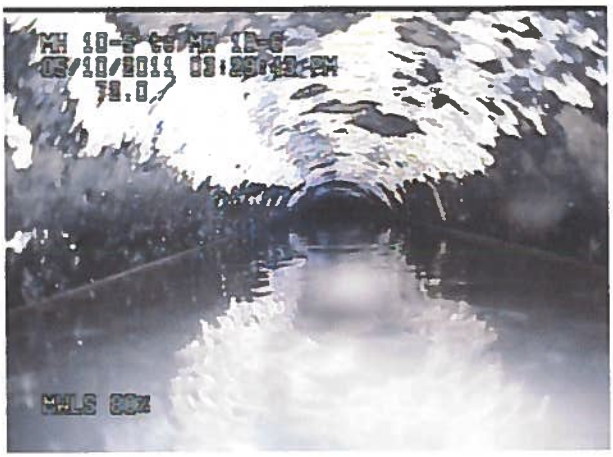
Video Name	Additional Info	Purpose	Sheet
MH 10-5-MH 10-6_8_5102011.mp4		Routine Assessment	1



Distance	Counter	Code
17.0	201	TF

Tap Factory

MH 10-5-MH 10-6_8_5102011_000.jpg



Distance	Counter	Code
72.0	300	MWLS

Water Level Sag

MH 10-5-MH 10-6_8_5102011_001.jpg

Distance	Counter	Code
90.6	383	MWL

Water Level

MH 10-5-MH 10-6_8_5102011_002.jpg

You are logged-in as: PUBLIC.

SSO - General Information

SSO Event ID:	761402	**Regional Water Board:**	1
Spill Location Name:	3820 Ross Road	**Agency:**	Graton CSD
WDID:	1SSO10033	**Sanitary Sewer System:**	Graton CSD Graton CSA No. 2 CS

General Info

Glossary of Terms

Locate the spill on map

Certified by Brian Kelly on 2011-01-19 00:00:00.0

1 - Spill Type: Category 1

2 - Estimate Spill Volumes

a) Estimated spill volume that reached a separate storm drain that flows to a surface water body?	0
b) Estimated spill volume recovered from the separate storm drain that flows to a surface water body? (Do not include water used for clean-up)	0
c) Estimated spill volume that reached a drainage channel that flows to a surface water body?	0
d) Estimated spill volume recovered from a drainage channel that flows to a surface water body?	0
e) Estimated spill volume discharged directly to a surface water body?	0
f) Estimated spill volume recovered from surface water body?	0
g) Estimated spill volume discharged to land? (Includes discharges directly to land, and discharges to a storm drain system or drainage channel that flows to a storm water infiltration/retention structure, field, or other non-surface water location.)	0
h) Estimated spill volume recovered from the discharge to land? (Do not include water used for clean-up)	0

Estimated Total spill volume Reach Surface Water (a-b+c+e)	Estimated Total spill volume Reach Land (g)	Estimated Total spill volume Recovered (b+d+f+h)	Estimated Total spill volume (a+c+e+g)
100	0	200	300

3 - Did the spill discharge to a drainage channel and/or surface water? Yes

4 - Did the spill reach a separate (i.e.,not combined) storm drainpipe? No

5 - If spill reached to a separate storm drainpipe, was all of the wastewater fully captured from the separate storm drain and returned to the sanitary sewer system?	Not Applicable - Spill did not reach a separate storm drainpipe

Physical Location Details

6 - Spill location name:	3820 Ross Road
7 - Latitude of spill location:	38.4424
8 - Longitude of spill location:	-122.87259
9 - County:	Sonoma
10 - Regional Water Quality Control Board:	1
11 - Spill location description:	In front of the residence at 3820 Ross Rd on the western side of the roadway. Between the property line leading to Atascadero Creek.

Spill Details

12 - Number Of appearance points:	null
13 - Spill appearance point:	Force main or pressure sewer
14 - Spill appearance point explanation:	Surfaced on the western roadway edge when the pumps came on at the lift station #1.
15 - Final spill destination:	Surface water
16 - Explanation of final spill destination:	The spill made its way along the property line to the Atascadero Creek Watershed.
17 - Estimated spill start date/time:	2011-01-11 00:00:00.0
18 - Date and time sanitary sewer system agency was notified of or discovered spill:	2011-01-11 09:30:00.0
19 - Estimated Operator arrival date/time:	2011-01-11 09:45:00.0
20 - Estimated spill end date/time:	2011-01-11 16:30:00.0
21 - Spill cause:	Pipe structural problem/failure
22 - Spill cause explanation:	The spill originated from a small hole approximately 1/4 inch in a 1 inch copper line that was installed on the force main.
23 - Where did failure occur?	Main
24 - Explanation of Where failure occured:	The failure occurred on a 1/4 inch hole that materialized on a copper line that was installed on the force main leading from lift station #1 to the downstream manhole #3-2
25 - Was this spill associcated with a storm event?	null
26 - Diameter of sewer pipe at the point of blockage or failure:	8
27 - Material of sewer pipe at the point of blockage or failure:	A.C.

28 - Estimated age of sewer asset at the point of blockage or failure:	1975
29 - Spill response activities:	Returned all or portion of spill to sanitary sewer system
30 - Explanation of spill response activities:	Recieved phone call of a possible leak along the western roadway in front of the residence at 3820 Ross Rd. Responded to location and found a leak in the roadway.
31 - Spill response completion date:	2011-01-11 16:30:00.0
32 - Spill corrective action taken:	Plan rehabilitation or replacement of sewer;Repaired sewer
33 - Explanation of spill corrective action taken:	NA
34a - Is there an ongoing investigation?	No
34b - Reason for ongoing investigation?	
35 - Visual inspection results from impacted receiving water:	None
36 - Health warnings posted?	No
37 - Did the spill result in a beach closure (If YES, answer questions 38)?	null
38 - Name of impacted beach(es) (enter NA if not applicable):	None
39 - Name of impacted surface water(s) (enter NA if not applicable):	Atascadero Creek
40 - Water quality samples analyzed for:	Other chemical indicator(s) - specify below
41 - Explanation of water quality samples analyzed for:	Coliform, ammonia, nitrate, BOD, TSS
42 - Water quality sample results reported to:	County Health Agency;Regional Water Quality Control Board
43 - Explanation of water quality sample results reported to:	
44 - Explanation of volume estimation method used:	null

Notification Details

45 - Cal OES Control Number	110207
46 - Cal OES Called Date/Time	2011-01-11 17:00:00.0
47(a) - Name and Tittle (Contact person who can answer specific questions about this SSO)	null
47(b) - Contact Person Phone Numner	null

You are logged-in as: PUBLIC.

SSO - General Information

SSO Event ID:	731161	**Regional Water Board:**	1
Spill Location Name:	Oak Grove Avenue - Manhole 10-5	**Agency:**	Graton CSD
WDID:	1SSO10033	**Sanitary Sewer System:**	Graton CSD Graton CSA No. 2 CS

General Info

Glossary of Terms

Locate the spill on map

Certified by Robert W. Rawson on 2008-12-30 00:00:00.0

1 - Spill Type: Category 3

2 - Estimate Spill Volumes

a) Estimated spill volume that reached a separate storm drain that flows to a surface water body?	0
b) Estimated spill volume recovered from the separate storm drain that flows to a surface water body? (Do not include water used for clean-up)	0
c) Estimated spill volume that reached a drainage channel that flows to a surface water body?	0
d) Estimated spill volume recovered from a drainage channel that flows to a surface water body?	0
e) Estimated spill volume discharged directly to a surface water body?	0
f) Estimated spill volume recovered from surface water body?	0
g) Estimated spill volume discharged to land? (Includes discharges directly to land, and discharges to a storm drain system or drainage channel that flows to a storm water infiltration/retention structure, field, or other non-surface water location.)	0
h) Estimated spill volume recovered from the discharge to land? (Do not include water used for clean-up)	0

Estimated Total spill volume Reach Surface Water (a-b+c+e)	Estimated Total spill volume Reach Land (g)	Estimated Total spill volume Recovered (b+d+f+h)	Estimated Total spill volume (a+c+e+g)
0	0	50	250

3 - Did the spill discharge to a drainage channel and/or surface water? Yes

4 - Did the spill reach a separate (i.e.,not combined) storm drainpipe? No

5 - If spill reached to a separate storm drainpipe, was all of the wastewater fully captured from the separate storm drain and returned to the sanitary sewer system?	Not Applicable - Spill did not reach storm drainpipe

Physical Location Details

6 - Spill location name:	Oak Grove Avenue - Manhole 10-5
7 - Latitude of spill location:	38.434481
8 - Longitude of spill location:	122.8643
9 - County:	Sonoma
10 - Regional Water Quality Control Board:	1
11 - Spill location description:	

Spill Details

12 - Number Of appearance points:	null
13 - Spill appearance point:	Manhole
14 - Spill appearance point explanation:	
15 - Final spill destination:	Surface water;Unpaved surface;Other (specify below)
16 - Explanation of final spill destination:	Spill followed road surface to vegetated embankment. It could not be determined whether stream was impacted due to vegetation and porous soil. Samples of Phosphorous and Coliform were collected up and down stream.
17 - Estimated spill start date/time:	2008-12-26 12:00:00.0
18 - Date and time sanitary sewer system agency was notified of or discovered spill:	2008-12-26 12:30:00.0
19 - Estimated Operator arrival date/time:	2008-12-26 12:30:00.0
20 - Estimated	2008-12-26 14:00:00.0

spill end date/time:	
21 - Spill cause:	Other (specify below)
22 - Spill cause explanation:	Sewer main blockage caused by root mass and grease.
23 - Where did failure occur?	Main
24 - Explanation of Where failure occured:	
25 - Was this spill associcated with a storm event?	null
26 - Diameter of sewer pipe at the point of blockage or failure:	6
27 - Material of sewer pipe at the point of blockage or failure:	Asbestos Concrete
28 - Estimated age of sewer asset at the point of blockage or failure:	33
29 - Spill response activities:	Cleaned-up (mitigated effects of spill);Contained all or portion of spill;Restored flow;Returned all or portion of spill to sanitary sewer system;Other (specify below)
30 - Explanation of spill response activities:	Sewage backed up and was contained in the shower pan at 8921 Oak Grove Avenue. Vendors were called to unblock the line, and manhole 10-5 was opened to keep the sewage from rising above the level of the shower pan. The roadway and ground the sewage overflowed on to was vacuumed and then spayed with a bleach solution for disinfection. The drainage ditch that the overflow possibly impacted is silted in at a culvert downstream of the overflow, and is not flowing past this point. Puddles of standing water in the drainage ditch were pumped back into the sewer system. Estimate 150 to 200 gallons of water returned to sewer system.
31 - Spill response completion date:	2008-12-29 17:22:00.0
32 - Spill corrective action taken:	Other (specify below)

33 - Explanation of spill corrective action taken:	Vendor contacted to clean entire line. Determination of preventive maintenance interval to be determined after CCTV inspection of line, but expect to clean twice a year at minimum.
34a - Is there an ongoing investigation?	Yes
34b - Reason for ongoing investigation?	
35 - Visual inspection results from impacted receiving water:	Puddles of water in drainage appear muddy. No floating sewage observed. No odor or foam observed.
36 - Health warnings posted?	No
37 - Did the spill result in a beach closure (If YES, answer questions 38)?	null
38 - Name of impacted beach(es) (enter NA if not applicable):	NA
39 - Name of impacted surface water(s) (enter NA if not applicable):	Unnamed open drainage ditch
40 - Water quality samples analyzed for:	Other (specify below)
41 - Explanation of water quality samples analyzed for:	Coliform and Phosphorous
42 - Water quality sample results reported to:	Regional Water Quality Control Board

43 - Explanation of water quality sample results reported to:	Water Quality Sample test data not received as of 12/30/2008
44 - Explanation of volume estimation method used:	null

Notification Details

45 - Cal OES Control Number	089220
46 - Cal OES Called Date/Time	2008-12-29 14:02:00.0
47(a) - Name and Tittle (Contact person who can answer specific questions about this SSO)	null
47(b) - Contact Person Phone Numner	null

LESCURE ENGINEERS, INC.

Telephone: (707) 575-3427
Facsimile: (707) 542-2353
le@lescure-engineers.com
4635 Old Redwood Highway
Santa Rosa, California 95403

October 20, 2006

707-823-1542 O
707-823-1542 F

RECEIVED
OCT 2 5 2006

Graton Community Services District
PO Box 534
Graton CA 95444

Attn: Bob Rawson
General Manager

Subject: Graton Community Services District
COLLECTION SYSTEM MAINTENANCE, OPERATIONS & MANAGEMENT

Bob;

We are pleased to deliver these tools to assist the District in its daily operations, its CMOM Program, and its Recycled Water User Program. At this time we are furnishing only one reduced scale paper copy in appropriate binders including:

1. District Maps in half-size reduced scale (11x17 format). We can also provide a full-scale set (22x34 format).
   a. Sphere of influence (1 sheet) at scale of 1"=500' with key to sub-area maps
   b. Sub-area maps (21 Sheets) at scale of 1"=100'
2. Collection System Capacity Analysis - Spreadsheets
   a. Flow Routing
   b. Line Capacity Analysis
   c. Parcel ESD Inventory

The attached Exhibits describe the development and application for each of these tools (maps and spreadsheets). My purpose in providing these descriptions is two-fold:

1. To disclose their development origins so you may better understand the quality of the data and to perhaps provide more suitable information if available,
2. To provide some instruction for their employment and describe how I see these assisting your daily operations.

We have developed these tools by updating the District boundary and collection system maps as provided by the Sonoma County Water Agency and Sonoma County Permit & Resource Management Department. These tools will need to be maintained either by District staff or Lescure Engineers as developments occur within the District and as District staff and Lescure Engineers staff discover discrepancies in the record. We have been very diligent in updating the records and maps, but given the lack of recent maintenance by SCWA and PRMD as well as the complexity and history of the system there are undoubtedly errors to be unwound. Please keep track of your findings right on the paper copy maps so that we may update them and provide you with fresh copies on a regular basis – say monthly for starters. When they have matured they can be updated on an annual basis in sync with your billing lists.

It is important to recognize that these analyses make no account for Inflow and Infiltration (I&I) because they account only for flow contributions from connected ESD's. This is by definition average dry weather flow (ADWF). The only accurate method to determine wet weather flows is by field measurement. These analyses of ADWF by segment provide a basis for judging the severity of I&I by comparing the measured wet weather flows.

Please proceed immediately to use these tools in your daily operations and provide us feedback on their content and form so we may continue to improve them to benefit your operations. We also need to discuss the establishment of a formal program (policies and procedures) for their maintenance. We must also discuss whether you want to deploy these maps and spreadsheets as digital files on the District's computers and in which software file format.

Sincerely,

Peter J. Lescure, PE
Principal Civil Engineer
RCE 28044

Encl as noted

cc Job #97023 GCSD RWQR 102006 rpt.doc
GCSD Board, Directors (no encl)

EXHIBIT A
DEVELOPMENT OF THE COLLECTION SYSTEM ANALYSES

ORIGINAL DATA SOURCES

Mapping data stems from five sources.

1. The base mapping including parcel and street lines is downloaded from the Sonoma County GIS site. It thus shares all the qualities, good and bad of that source which we judged to be perfectly adequate for these purposes.
2. District Boundaries and connection status of individual parcels was initially established from the District map provided by the Sonoma County PRMD.
3. Collection system data was initially derived from the original 1979 construction documents provided by the SCWA.
4. Recycled Water User data was derived from the District files provided by the SCWA.
5. The Graton-Forestville transfer pipeline and irrigation turnouts data is derived from the original 1999 construction documents provided by the SCWA.

UPDATING THE DATA

We have updated the data on the basis of these sources:

1. Spreadsheet of connected parcels provided by the District, now labeled "Parcel Inventory" provides the most current listing of all connected parcels. We believe this listing is used for the District's billing purposes. This inventory also includes the number of ESD's per parcel.
2. Development plans on file with the PRMD provided data on collection system extensions which became apparent from mapping the "Parcel Inventory" data as revealed by gaps in the collection system piping.
3. Development plans on file with the SCWA to complete the picture as responsibility for WOD maps moved over the years from County Public Works to SCWA to PRMD.

DATA COMPILATION

We have aggregated the connections data contained in the Excel spreadsheets onto the District Maps using AutoCAD software to provide geographic reference. Each parcel is identified by its Assessors Parcel Number (APN) and street address. Street addresses are derived from the original 1979 construction documents provided by the SCWA. All noted APN's (which may have changed since 1979) are current to be consistent with the District's billing and taxing identification.

There are still some discrepancies and conflicts in the records and maps stemming from such circumstances as:

1. Connection points of some parcels are unknown, or not known exactly. These are identified in Parcel Inventory by the symbol "A" in column J. We are currently seeking additional connection data from SCWA to answer these questions. ? where is "column J." ? status of Inh.
2. Data highlighted in the pale blue shade indicates parcels which have 1 or 2 connections from Phase 1 drawings and need to be checked. ? where is "pale blue shade"
3. Data highlighted in the tan shade indicates parcels which have improvements on the property but GCSD does not charge for using collection lines. Needs to be checked. ? where is "tan shade"
4. Data highlighted in the rose shade indicates monitoring manhole connection to GCSD collection line. Needs to be checked. ? where is "rose shade"

These discrepancies and conflicts will have to be reconciled through field employment of these data tools and observation of conditions on the ground. The maps and spreadsheets must be regularly updated to retain their validity.

GCSD COLLECTIONS SYSTEM FOOTAGE.XLS(GCSD / COLLECTIONS SYSTEM/)

	Pipe Diameter				
Sewer Lines	1.5"	6"	8"	12"	
A			73	2975.2	
B		736.5			
C		766.7			
Ca		376.1			
D		1592	1580		
Da		290.5			
Db		386.8			
Dc		244.7			
Dd	125	60			
F		853.5		2792.7	
Fa		340.9			
Fb		228.1			
G		300			
K		630.2			
H		513			
I		1120.8			
J		774.4			
Ja		250			
L		1000.1			
La		268.2			
Lb		284			
M		646.6			
N		714.5			
Na		220.1			
O		800.3			
Oa		181.9			
Q		1476.4			
P		1897.7			
R		3084.6			
S		1518.7			
Pipe Dia.	1.5"	6"	8"	12"	Total Feet
Length - feet	125	21557.3	1653	5767.9	29103.2

?

EXHIBIT A

EMPLOYMENT OF THE COLLECTION SYSTEM ANALYSES

The maps identify some properties inside the APN Boundary as "Outside Service Area Agreement", eg. maps 1, 3, 4 and 10.

MAPS

As the maps cover the District's entire geographic sphere of influence they will be useful for both the Collection System management and the Recycled Water User Program management.

The collection system maps will be utilized to map incidents; blockages, overflows, and repairs. Incident mapping over time will highlight problem areas requiring maintenance or repairs and can thus serve as an early warning device. They can be used to monitor the regular maintenance program progress and locate problems or other findings noted during the program. They must be used if the District chooses to conduct a smoke testing program, and they will be essential to logging flow data if such a monitoring program is conducted.

Appropriate map sheets are included in the District's Recycled Water Use Program Report (Title 22) to the North Coast Regional Water Quality Control Board. These are required by State Title 22 regulations for monitoring the use of recycled water. They are also useful in planning connections for new users and identifying potential sites which have not requested use of recycled water. The Board has authorized Lescure Engineers to identify potential users along the existing pipeline. These maps will also be useful in planning extension of recycled water use to new areas as has already occurred with the Dutton FLP properties identified on the maps as "Potential" users.

SPREADSHEETS

The spreadsheets are the key to the raw data maintenance.

- The Parcel Inventory must be updated annually or more often in synchronization with the District's billing cycle.
  - At this time Parcel Inventory does not feed the ESD data directly into the individual collection line analyses (A, Aa, B, C, Ca, etc.). With additional programming it could be made to do so. At this time both Parcel Inventory and tabs for individual collection lines must be updated manually.
  - It was necessary to disaggregate the Parcel Inventory data by collection line segment to sum the total ESD's.
  - Parcels are disaggregated and ESD's summed by land use; Single Family (1.00 ESD), Single Family with Second Dwelling Unit (1.80 ESD), and Other (greater than 1.80 ESD). Some parcels have between 1.00 and 1.80 ESD's for unexplained reasons, and were assumed to be SFD's. This indicates a need for either field verification of land use, or checking whether some data entry errors have occurred in the billing records. Those land uses were readily identified by using Conditional Formatting on the ESD column with appropriate value ranges.
  - Data highlighted in the pale blue shade indicates parcels which have 1 or 2 connections from Phase 1 drawings and need to be checked.
- Individual collection line analyses (A, Aa, B, C, Ca, etc.) sum the ESD flow contributions from individual parcels to their respective collection lines.
- Flow Routing performs three functions:
  - Takes total ESD data from the tabs for individual collection lines and computes flows based on the estimated gallons per day per ESD, currently set at 150 GPD/ESD.
  - Collects (sums) flows from each tributary collection line into downstream lines.

- Reports for ready reference, the "Peak Flow" as percent of design capacity as computed in Collection System Capacity Summary. Flow Routing is very useful for analysis of the effects of new connection requests on the collection system. It readily allows checking not only on the line directly connected, but also on all downstream lines by tracing the complete path of flow across the spreadsheet line all the way to the treatment plant.
- Lift Station No. 1 poses a different peaking scenario than do the individual parcels, because resulting flows are a function of the pumps' response to a mechanical system of float switches, their pumping capacity, lift station storage capacity, and incoming flow rates to the station rather than habitual human water use patterns. We determined the instantaneous flow (cfs) in line A by dividing the maximum daily capacity of Lift Station No. 1. It may be worthwhile and prudent to field check the actual maximum pumping rate.

- Collection System Capacity Summary performs three functions:
  - Calculates capacity of every line segment between manholes, or cleanouts using the pipe type, diameter, and slope data provided on the maps.
  - Receives collected (summed) flows from Flow Routing.
  - Applies the Peak Factor and computes "Peak Flow" expressed as percent of capacity. Peak flows are assumed to be 4 times the average hourly flow based on common industry standards. This peak factor could be verified by actual field flow monitoring.

Most lines have quite sufficient capacity at present, but the analysis has already identified the 6 inch diameter F line on South Edison as being potentially over capacity in peak hours. The District is now aware that some flow monitoring should be conducted on these lines to check whether the capacity model is correct. It would not be wise to allow new connections on the South F line until the facts are field verified.

The Flow Routing Analysis also provides a means of checking on the model itself. Where the Daily Flow per ESD is an estimated number, the results of the Flow Routing Analysis can be calibrated against actual low flow (ADWF) data entering the treatment plant to adjust the Daily Flow per ESD up or down to match real conditions. This method can provide a means of checking on changing water use patterns in the District. Lower Daily Flow per ESD achieved by a water conservation program could be verified by this means. Better knowledge of actual flows should result in a more fair allocation of ESD's to non-residential users; whether increasing or decreasing their User Charges.

COLLECTION SYSTEM CAPACITY SUMMARY

Phase 1 MH #	SCWA WOD Map MH#	D Pipe Diameter (inches)	Pipe Invert El In (feet)	Pipe Invert El Out (feet)	L Pipe Length (feet)	S Slope (ft/ft)	Qc Design Capacity (cfs)	Q Flow Routing (cfs)	Peak Factor	Peak Flow % Capacity	
Line A											
A-1	700-1		92.25	92.12							
		12			346.0	0.002	1.59	1.3477		85%	
A-2	700-2		93.05	92.94							
		12			346.0	0.019	4.89	1.3477		28%	
A-3	700-3		99.58	99.58							
		12			213.8	0.027	5.85	1.3477		23%	
A-4	701-1		105.35	105.35							
		12			217.3	0.006	2.75	1.3477		49%	
A-5	701-2		106.75	106.65							
		12			388.3	0.002	1.60	1.3477		84%	
A-6	701-3		107.63	107.53							
		12			269.6	0.010	3.55	1.3477		38%	
A-7	702-3		110.31	110.31							
		12			350.5	0.002	1.59	1.3477		85%	
A-8	702-4		111.01	111.01							
		12			332.8	0.002	1.59	1.3477		85%	
A-9A	702-5		111.67	111.67							
		12			297.0	0.002	1.60	1.3477		84%	
A-10	703-1		112.27	112.27							
		12			230.0	0.002	1.59	1.3477		85%	
A-11	703-2		112.73	112.73							
					2,991.3						
Line Aa											
A-10	703-1		112.27	112.27							
		8			262.0	0.030	2.09	0.0023	4	0%	0.1
	703-5		120.2	120.1							
		8			200.0	0.055	2.83	0.0023	4	0%	0.1
	CO703-3			131.2							
					462						
Line B											
A-7	702-3		110.81	110.31							
		6			196.8	0.048	1.23	0.0028	4	1%	
B-1	702-2		120.26	120.26							
		6			217.5	0.070	1.48	0.0028	4	1%	
B-2	702-1		136.5	135.45							
		6			322.2	0.011	0.59	0.0028	4	2%	
CO-1	CO702-1			140.04							
					736.5						
Line C											
C-1	702-6		121.05	121.05							
		6			259.1	0.060	1.37	0.0244	4	7%	
C-2	702-7		136.60	136.60							
		6			259.6	0.081	1.60	0.0244	4	6%	
CO-3	CO702-3		157.74	157.74							
		6			350.0	0.081	1.60	0.0244	4	6%	
	702-8		186.09	186.09							
		6			317.0	0.068	1.46	0.0244	4	7%	
	715-1		207.50	207.50							
		6			301.0	0.022	0.83	0.0244	4	12%	
	715-2		214.18	214.02							
		8			220.0	0.048	2.64	0.0244	4	4%	
	715-6		224.80	224.70							
		8			201.0	0.039	2.39	0.0244	4	4%	
	715-7		232.80	232.70							
		8			167.0	0.013	1.39	0.0244	4	7%	
	CO715-2			235.00							
					2,074.7						

LESCURE ENGINEERS
Santa Rosa, California
707-575-3427

COLLECTION SYSTEM CAPACITY SUMMARY

Phase 1 MH #	SCWA WOD Map MH#	D Pipe Diameter (inches)	Pipe Invert El In (feet)	Pipe Invert El Out (feet)	L Pipe Length (feet)	S Slope (ft/ft)	Qc Design Capacity (cfs)	Q Flow Routing (cfs)	Peak Factor	Peak Flow % Capacity
Line Ca										
C-2	702-7		137.1	136.6						
		6			376.1	0.046	1.20	0.0013	4	0%
CO-2A	CO702-2			154.4						
					376.1					
Line D										
F-3			96.98							
		6			374.5	0.005	0.40	0.0055	4	6%
D-1	704-5		98.85	98.85						
		6			167.5	0.005	0.40	0.0055	4	6%
D-2	704-4		99.69	99.69						
		6			395.2	0.005	0.40	0.0055	4	6%
D-3	704-3		101.67	101.67						
		6			245.3	0.005	0.40	0.0055	4	6%
D-4	704-2		102.9	102.9						
		6			197.7	0.005	0.40	0.0055	4	6%
D-5	703-3		103.89	103.89						
			106.35							
		6			211.8	0.010	0.56	0.0055	4	4%
CO-4	CO703-1			108.47						
					1,592					
Line Da										
D-5	703-3		105.59	103.89						
		6			290.5	0.047	1.21	0.0014	4	0%
CO-5	CO703-2			119.15						
					290.5					
Line Db										
D-3	704-3		108.5	101.67						
		6			386.8	0.050	1.25	0.0016	4	1%
CO-6	CO714-2			127.84						
					386.8					
Line Dc										
D-2	704-4		100.5	99.69						
		6			244.7	0.055	1.32	0.0009	4	0%
CO-7	CO704-1			113.96						
					244.7					
Line F										
F-3			94.20	94.00						
		12			335.1	0.002	1.59	0.1154	4	29%
F-4	705-11		94.87	94.87						
		12			303.6	0.002	1.60	0.1154	4	29%
F-5A	705-10		95.68	95.48						
		12			116.5	0.002	1.58	0.1154	4	29%
F-6	705-9		96.11	95.91						
		12			258.9	0.002	1.60	0.1154	4	29%
F-7	705-7		96.63	96.63						
		12			358.5	0.002	1.58	0.1154	4	29%
F-8	706-2		97.34	97.34						
		12			229.4	0.002	1.59	0.1154	4	29%
F-9	706-3		98.50	97.80						
		8			178.4	0.018	1.62	0.1154	4	28%
F-10	706-4		101.81	101.71						
		8			410.7	0.010	1.21	0.1154	4	38%
F-11	706-5		106.02	105.92						
		8			190.8	0.015	1.48	0.1154	4	31%
F-12	706-6		109.05	108.88						
		6			410.8	0.005	0.40	0.1154	4	117%
F-13	706-7		111.10	111.10						
		6			430.0	0.005	0.40	0.1154	4	116%
F-14	708-1		114.50	113.25						
		6			423.5	0.005	0.40	0.1154	4	116%
CO-21	CO708-3			116.62	3,646.2					

? Where is line Dd for map 9

LESCURE ENGINEERS
Santa Rosa, California
707-575-3427

COLLECTION SYSTEM CAPACITY SUMMARY

Phase 1 MH #	SCWA WOD Map MH#	D Pipe Diameter (inches)	Pipe Invert El In (feet)	Pipe Invert El Out (feet)	L Pipe Length (feet)	S Slope (ft/ft)	Qc Design Capacity (cfs)	Q Flow Routing (cfs)	Peak Factor	Peak Flow % Capacity
Line Fa										
F-6	705-9		101.00	95.91						
		6			340.9	0.010	0.56	0.0005	4	0%
CO-8	CO705-5			104.41						
					340.9					
Line Fb										
F-13	706-7		118.00	111.10						
		6			228.1	0.005	0.40	0.0009	4	1%
CO-20	CO706-1			119.14						
					228.1					
Line Fc										
	706-9		97.33	97.00						
		8			120.0	0.002	0.54	0.0101	4	7%
	706-10		97.67	97.57						
		8			342.0	0.002	0.53	0.0101	4	8%
	706-11		98.33	98.33						
		8			339.0	0.002	0.55	0.0101	4	7%
	706-12		99.03	99.03						
		8			220.0	0.002	0.54	0.0101	4	7%
	CO706-3			99.47						
					1,021					
Line Fd										
F-9	706-3		98.50	97.80						
		8			300.0	0.008	1.07	0.0057	4	2%
	706-8		100.87	100.87						
		8			140.0	0.012	1.33	0.0057	4	2%
	MH#1		102.67	102.57						
		8			75.0	0.015	1.48	0.0057	4	2%
	MH#2		103.89	103.79						
		8			213.0	0.026	1.95	0.0057	4	1%
	MH#3		109.52	109.42						
					728					
Line G										
L-3A	707-5		115.64	115.54						
		6			120	0.005	0.40	0.0023	4	2%
G-1	707-6		116.24	116.24						
		6			180	0.050	1.25	0.0023	4	1%
CO-26	CO707-5			125.24						
					300					
Line H										
F-6	705-9		101.00	96.01						
		6			178.4	0.060	1.37	0.0016	4	0%
H-1	705-8		111.80	111.70						
		6			334.6	0.012	0.61		4	0%
CO-9	CO705-4			115.82						
					513					
Line I										
F-7	705-7		99.50	96.63						
		6			366.8	0.045	1.19	0.0166	4	6%
I-1	705-4		116.01	116.01						
		6			190	0.045	1.19	0.0166	4	6%
I-2A	705-3		127.00	124.56						
		6			172	0.084	1.63	0.0166	4	4%
I-3	702-2		141.55	141.45						
		6			217	0.096	1.74	0.0166	4	4%
I-4	705-1		163.00	162.38						
		6			175	0.068	1.46	0.0166	4	5%
CO-14A	MH705-12			174.90						
					1,120.8					

LESCURE ENGINEERS
Santa Rosa, California
707-575-3427

COLLECTION SYSTEM CAPACITY SUMMARY

Phase 1 MH #	SCWA WOD Map MH#	D Pipe Diameter (inches)	Pipe Invert El In (feet)	Pipe Invert El Out (feet)	L Pipe Length (feet)	S Slope (ft/ft)	Qc Design Capacity (cfs)	Q Flow Routing (cfs)	Peak Factor	Peak Flow % Capacity
Line J										
I-1	705-4		116.01	116.01						
		6			245.7	0.025	0.89	0.0074	4	3%
J-1	705-5		122.25	122.25						
		6			421.5	0.025	0.89	0.0074	4	3%
J-2	705-6		132.89	132.79						
		6			382.0	0.005	0.41	0.0074	4	7%
	704-9		135.00	134.92						
		6			171.0	0.090	1.69	0.0074	4	2%
	714-1		156.30	150.47						
		6			91.0	0.205	2.54	0.0074	4	1%
	CO714-1			174.96						
					1,311.2					
Line Ja										
J-1	705-5		122.25	122.25						
		6			250.0	0.080	1.59	0.0012	4	0%
CO-12A	CO705-2			142.35						
					250					
Line K										
F-8	706-2		98.20	97.34						
		6			374.4	0.035	1.05	0.0030	4	1%
K-1	706-1		111.29	111.29						
		6			255.8	0.035	1.05	0.0030	4	1%
CO-15	CO707-2			120.24						
					630.2					
Line L										
F-10			101.97	101.71						
		6			190	0.020	0.79	0.0075	4	4%
L-1B	707-8		105.87	105.77						
		6			47.3	0.010	0.56	0.0075	4	5%
L-2A	707-7		106.44	106.34						
		6			363.8	0.025	0.89	0.0075	4	3%
L-3A	707-5		120.75	115.54						
		6			166.2	0.039	1.11	0.0075	4	3%
L-4	707-4		127.23	127.23						
		6			197.8	0.039	1.11	0.0075	4	3%
L-5A	707-14		136.50	134.94						
		6			35	0.075	1.54	0.0075	4	2%
CO-18	CO707-4			139.13						
					1,000.1					
Line La										
L-1B	707-8		107.00	105.77						
		6			268.2	0.020	0.79	0.0012	4	1%
CO-16	CO708-6			112.36						
					268.2					
Line Lb										
L-3A	707-5		120.25	115.54						
		6			284.0	0.015	0.69	0.0009	4	1%
CO-17	CO707-1			124.51						
					284					
Line M										
L-4	707-4		127.33	127.23						
		6			224.8	0.025	0.89	0.0018	4	1%
M-1	707-3		132.95	132.95						
		6			108.7	0.100	1.77	0.0018	4	0%
M-2	707-2		144.50	143.84						
		6			313.1	0.057	1.34	0.0018	4	1%
CO-19				162.35						

646.6

COLLECTION SYSTEM CAPACITY SUMMARY

Phase 1 MH #	SCWA WOD Map MH#	D Pipe Diameter (inches)	Pipe Invert El In (feet)	Pipe Invert El Out (feet)	L Pipe Length (feet)	S Slope (ft/ft)	Qc Design Capacity (cfs)	Q Flow Routing (cfs)	Peak Factor	Peak Flow % Capacity
Line N										
F-13	706-7		115.80	111.10						
		6			363.8	0.024	0.87	0.0042	4	2%
N-1	707-12		124.53	124.53						
		6			180.9	0.024	0.87	0.0042	4	2%
N-2	707-11		129.70	128.87						
		6			169.8	0.070	1.48	0.0042	4	1%
CO-25	CO707-8			141.59						
					714.5					
Line Na										
N-1	707-12		124.63	124.53						
		6			220.1	0.010	0.56	0.0016	4	1%
CO-24	CO707-7			126.83						
					220.1					
Line O										
F-14	708-1		115.38	113.25						
		6			367.2	0.010	0.56	0.0082	4	6%
O-1	708-2		121.50	119.05						
		6			433.1	0.005	0.40	0.0082	4	8%
CO-22	CO708-2			123.67						
					800.3					
Line Oa										
O-1	708-2		119.50	119.05						
		6			181.9	0.005	0.40	0.0026	4	3%
CO-23			120.41	120.41						
		6			104.0	0.005	0.40	0.0026	4	3%
	MH708-5		121.03	120.93						
		6			212.0	0.057	1.34	0.0026	4	1%
	CO708-1			133.11						
					497.9					
Line P										
F-12	706-6		113.00	108.88						
		6			368.1	0.041	1.14	0.0424	4	15%
P-1A	707-10		128.09	128.09						
		6			340.9	0.021	0.81	0.0424	4	21%
P-2A	707-9		135.25	135.25						
		6			314.7	0.060	1.37	0.0424	4	12%
P-3	710-8		154.13	154.13						
		6			146.4	0.060	1.37	0.0424	4	12%
P-4	710-6		168.00	162.91						
		6			225.5	0.070	1.48	0.0424	4	11%
P-5	710-7		183.89	183.79						
		6			350.0	0.040	1.12	0.0424	4	15%
P-6A			197.89	197.89						
		6			152.1	0.029	0.95	0.0424	4	18%
CO-27	CO709-1			202.30						
					1,897.7					
Line Q										
P-3	710-8		154.13	154.13						
		6			217.9	0.109	1.85	0.0053	4	1%
Q-1	710-9		178.50	177.79						
		6			213.7	0.062	1.40	0.0053	4	2%
Q-2A	709-1		191.75	191.75						
		6			347.0	0.021	0.81	0.0053	4	3%
Q-3A	709-2		205.00	199.04						
		6			305.0	0.005	0.40	0.0053	4	5%
Q-4	709-3		206.53	206.53						
		6			259.0	0.007	0.47	0.0053	4	5%
Q-5A	709-4		208.44	208.34						
		6			133.8	0.007	0.47	0.0053	4	4%
CO29-A	CO709-3			209.38						
					1,476.4					

Where is 181.9 ft on map? Ref. Map 4, south end of Brush Street, reads "182'"

CAPACITY SUMMARY

COLLECTION SYSTEM CAPACITY SUMMARY

Phase 1 MH #	SCWA WOD Map MH#	D Pipe Diameter (inches)	Pipe Invert El In (feet)	Pipe Invert El Out (feet)	L Pipe Length (feet)	S Slope (ft/ft)	Qc Design Capacity (cfs)	Q Flow Routing (cfs)	Peak Factor	Peak Flow % Capacity
Line R3										
P-4	710-6		163.01	162.91						
		6			162.2	0.005	0.40	0.0321	4	32%
R-1	710-5		163.82	163.82						
		6			244.0	0.044	1.18	0.0321	4	11%
R-2	710-4		176.00	174.55						
		6			337.0	0.005	0.40	0.0321	4	32%
R-3	710-3		177.69	177.69						
		6			212.2	0.005	0.40	0.0321	4	32%
R-4	710-2		178.85	178.75						
					955.4					
Line R2										
R-4	710-2		178.85	178.75						
		6			264.0	0.046	1.20	0.0268	4	9%
R-5	710-1		190.99	190.99						
		6			274.0	0.010	0.56	0.0268	4	19%
R-6	712-4		193.73	193.73						
		6			264.7	0.005	0.40	0.0268	4	27%
R-7	712-3		204.5	195.05						
					802.7					
Line R1										
R-7	712-3		204.5	195.05						
		6			232.4	0.029	0.95	0.0156	4	7%
R-8	712-2		211.24	211.24						
		6			287.4	0.029	0.95	0.0156	4	7%
R-9	712-1		219.57	219.57						
		6			300.0	0.005	0.40	0.0156	4	16%
R-10	713-3		221.07	221.07						
		6			245.5	0.009	0.53	0.0156	4	12%
R-11	713-2		224.35	223.28						
		6			281.4	0.010	0.56	0.0156	4	11%
R-12A	713-1		227.16	227.16						
					1,346.7					
Line S										
R-7	712-3		195.15	195.05						
		6			422.4	0.005	0.40	0.0080	4	8%
S-1	712-5		197.36	197.26						
		6			245.2	0.025	0.89	0.0080	4	4%
S-2	712-6		204.0	203.49						
		6			321.4	0.038	1.09	0.0080	4	3%
S-3	712-7		216.21	216.21						
		6			239.6	0.005	0.40	0.0080	4	8%
S-4	713-4		217.41	217.41						
					1,228.6					

Appendix C Planning Level Opinions of Probable Cost

01081 - 8410996

Demonstration Project for GCSD
Sewer Project No. 1

ENR CCI 10,897.59 August-14

	QUANTITY		COST			
ITEM DESCRIPTION	**No.**	**Unit**	**Material**	**Labor**	**Total**	**TOTAL COST**
General						
Temporary Traffic Controls Systems	1	LS			$6,000	$6,000
Pavement Removal and Disposal	85	CY		$10	$10	$847
Trench Shoring	1	LS			$13,000	$13,000
Sawcut (initial and final)	6,100	LF		$3	$3	$18,300
Trench Excavation	1,398	CY		$5	$5	$6,990
Disposal of Excess Material	1,398	CY		$10	$10	$13,979
Remove Existing 12" ACP and Disposal	3,050	LF		$10	$10	$30,500
15-inch PVC	3,050	LF	$30	$20	$50	$152,500
Trench Bedding and Backfill	1,334	CY	$25	$10	$35	$46,703
Backfill Compaction	1,334	CY		$15	$15	$20,016
Manholes and Covers	8	EA	$7,000	$3,000	$10,000	$80,000
Asphalt Concrete Pavement	155	TON	$50	$50	$100	$15,500
Traffic Stripping and Pavement Markings	3,050	LF	$2	$1	$3	$9,150
Subtotal Materials	--	--	$194,709	--		
9% Sales Tax Materials						$17,524
Construction Subtotal						$431,009
Mobilization/Demobilization (4%)						$16,539
Contractor's Bonds and Insurance (3%)						$12,405
Contractor's Overhead and Profit (15%)						$62,023
Estimated Bid Price						$521,975
Construction Contingency (30%)						$156,593
Total Estimate of Probable Construction Cost (Rounded)						$679,000
Engineering/CM						
- Pre-Design (6%)	1	LS				$40,740
- Contract Documents (14%)	1	LS				$95,060
- Engineering Support During Construction - Office (4%)	1	LS				$27,160
- Construction Management - Field (14%)	1	LS				$95,060
Total Engineering/CM Cost (Rounded)						$258,000
Total Project Cost (Rounded)						**$937,000**

01081 - 8410996

Demonstration Project for GCSD
Sewer Project No. 2

ENR CCI 10,897.59 August-14

	QUANTITY		COST			
ITEM DESCRIPTION	**No.**	**Unit**	**Material**	**Labor**	**Total**	**TOTAL COST**
General						
Temporary Traffic Controls Systems	1	LS			$6,000	$6,000
Pavement Removal and Disposal	54	CY		$10	$10	$540
Trench Shoring	1	LS			$13,000	$13,000
Sawcut (initial and final)	2,622	LF		$3	$3	$7,866
Trench Excavation	445	CY		$5	$5	$2,225
Disposal of Excess Material	445	CY		$10	$10	$4,450
Remove Existing 6" ACP and Disposal	1,311	LF		$10	$10	$13,110
8-inch PVC	1,311	LF	$20	$10	$30	$39,330
Trench Bedding and Backfill	428	CY	$25	$10	$35	$14,980
Backfill Compaction	428	CY		$15	$15	$6,420
Manholes and Covers	4	EA	$7,000	$3,000	$10,000	$36,220
Asphalt Concrete Pavement	98	TON	$50	$50	$100	$9,842
Traffic Stripping and Pavement Markings	1,311	LF	$2	$1	$3	$3,933
Subtotal Materials	--	--	$69,817	--		
9% Sales Tax Materials						$6,284
Construction Subtotal						$164,199
Mobilization/Demobilization (4%)						$6,317
Contractor's Bonds and Insurance (3%)						$4,737
Contractor's Overhead and Profit (15%)						$23,687
Estimated Bid Price						$198,940
Construction Contingency (30%)						$59,682
Total Estimate of Probable Construction Cost (Rounded)						$259,000
Engineering/CM						
- Pre-Design (6%)	1	LS				$15,540
- Contract Documents (14%)	1	LS				$36,260
- Engineering Support During Construction - Office (4%)	1	LS				$10,360
- Construction Management - Field (14%)	1	LS				$36,260
Total Engineering/CM Cost (Rounded)						$98,000
Total Project Cost (Rounded)						**$357,000**

Demonstration Project for GCSD
Sewer Project No. 3

ENR CCI 10,897.59 August-14

ITEM DESCRIPTION	QUANTITY No.	QUANTITY Unit	COST Material	COST Labor	COST Total	TOTAL COST
General						
Temporary Traffic Controls Systems	1	LS			$5,000	$5,000
Pavement Removal and Disposal	24	CY		$10	$10	$242
Trench Shoring	1	LS			$13,000	$13,000
Sawcut (initial and final)	2,636	LF		$3	$3	$7,908
Trench Excavation	400	CY		$5	$5	$2,000
Disposal of Excess Material	400	CY		$10	$10	$4,000
Remove Existing 6" ACP and Disposal	1,239	LF		$10	$10	$12,390
6-inch PVC	1,239	LF	$15	$8	$23	$28,497
Remove Existing 4" ACP and Disposal	79	LF		$10	$10	$790
4-inch PVC	79	LF	$15	$8	$23	$1,817
Trench Bedding and Backfill	391	CY	$25	$10	$35	$13,677
Backfill Compaction	391	CY		$15	$15	$5,862
Asphalt Concrete Pavement	44	TON	$50	$50	$100	$4,419
Traffic Stripping and Pavement Markings	1,318	LF	$2	$1	$3	$3,954
Total Estimate of Probable Construction Cost (Rounded)	--	--	$34,385	--		
9% Sales Tax Materials						$3,095
Construction Subtotal						$106,651
Mobilization/Demobilization (4%)						$4,142
Contractor's Bonds and Insurance (3%)						$3,107
Contractor's Overhead and Profit (15%)						$15,533
Estimated Bid Price						$129,433
Construction Contingency (30%)						$38,830
Total Estimate of Probable Construction Cost (Rounded)						$168,000
Engineering/CM						
- Pre-Design (6%)	1	LS				$10,080
- Contract Documents (14%)	1	LS				$23,520
- Engineering Support During Construction - Office (4%)	1	LS				$6,720
- Construction Management - Field (14%)	1	LS				$23,520
Total Engineering/CM Cost (Rounded)						$64,000
Total Project Cost (Rounded)						**$232,000**

01081 - 8410996

Demonstration Project for GCSD
Sewer Project No. 4

ENR CCI 10,897.59 August-14

	QUANTITY		COST			
ITEM DESCRIPTION	**No.**	**Unit**	**Material**	**Labor**	**Total**	**TOTAL COST**
General						
Temporary Traffic Controls Systems	1	LS			$5,000	$5,000
Pre-Rehabilitation CCTV Inspection and Pipe Cleaning	340	LF		$7	$7	$2,380
Rehabilitation of 12-inch Sewer Main using CIPP	340	LF	$40	$25	$65	$22,100
Post-Rehabilitation CCTV Inspection	340	LF		$2	$2	$680
Subtotal Materials	--	--	$13,600	--		
9% Sales Tax Materials						$1,224
Construction Subtotal						$31,384
Mobilization/Demobilization (4%)						$1,206
Contractor's Bonds and Insurance (3%)						$905
Contractor's Overhead and Profit (15%)						$4,524
Estimated Bid Price						$38,019
Construction Contingency (30%)						$11,406
Total Estimate of Probable Construction Cost (Rounded)						$49,000
Engineering/CM						
- Pre-Design (6%)	1	LS				$2,940
- Contract Documents (14%)	1	LS				$6,860
- Engineering Support During Construction - Office (4%)	1	LS				$1,960
- Construction Management - Field (14%)	1	LS				$6,860
Total Engineering/CM Cost (Rounded)						$19,000
Total Project Cost (Rounded)						**$68,000**

01081 - 8410996

Demonstration Project for GCSD
Sewer Project No. 5

ENR CCI 10,897.59 August-14

ITEM DESCRIPTION	QUANTITY No.	QUANTITY Unit	COST Material	COST Labor	COST Total	TOTAL COST
General						
Temporary Traffic Controls Systems	1	LS			$15,000	$15,000
Pavement Removal and Disposal	59	CY		$10	$10	$591
Trench Shoring	1	LS			$30,000	$30,000
Sawcut (initial and final)	6,252	LF		$3	$3	$18,756
Trench Excavation	975	CY		$5	$5	$4,873
Disposal of Excess Material	975	CY		$10	$10	$9,746
Remove Existing 12" ACP and Disposal	191	LF		$10	$10	$1,910
12-inch PVC	191	LF	$25	$15	$40	$7,640
Remove Existing 6" ACP and Disposal	2,935	LF		$10	$10	$29,350
6-inch PVC	2,935	LF	$15	$8	$23	$67,505
Trench Bedding and Backfill	948	CY	$25	$10	$35	$33,170
Backfill Compaction	948	CY		$15	$15	$14,216
Asphalt Concrete Pavement	115	TON	$50	$50	$100	$11,500
Traffic Stripping and Pavement Markings	3,126	LF	$2	$1	$3	$9,378
Subtotal Materials	--	--	$84,495	--		
9% Sales Tax Materials						$7,605
Construction Subtotal						$261,240
Mobilization/Demobilization (4%)						$10,145
Contractor's Bonds and Insurance (3%)						$7,609
Total Estimate of Probable Construction Cost						$38,045
Estimated Bid Price						$317,039
Construction Contingency (30%)						$95,112
Total Estimate of Probable Construction Cost (Rounded)						$412,000
Engineering/CM						
- Pre-Design (6%)	1	LS				$24,720
- Contract Documents (14%)	1	LS				$57,680
- Engineering Support During Construction - Office (4%	1	LS				$16,480
- Construction Management - Field (14%)	1	LS				$57,680
Total Engineering/CM Cost (Rounded)						$157,000
Total Project Cost (Rounded)						**$569,000**

01081 - 8410996

Demonstration Project for GCSD
Sewer Project No. 6

ENR CCI 10,897.59 August-14

ITEM DESCRIPTION	QUANTITY No.	QUANTITY Unit	COST Material	COST Labor	COST Total	TOTAL COST
General						
Temporary Traffic Controls Systems	1	LS			$9,000	$9,000
Pavement Removal and Disposal	40	CY		$10	$10	$400
Trench Shoring	1	LS			$18,000	$18,000
Sawcut (initial and final)	4,308	LF		$3	$3	$12,924
Trench Excavation	658	CY		$5	$5	$3,290
Disposal of Excess Material	658	CY		$10	$10	$6,580
Remove Existing 6" ACP and Disposal	2,154	LF		$10	$10	$21,540
6-inch PVC	2,154	LF	$15	$8	$23	$49,542
Trench Bedding and Backfill	642	CY	$25	$10	$35	$22,470
Backfill Compaction	642	CY		$15	$15	$9,630
Asphalt Concrete Pavement	73	TON	$50	$50	$100	$7,290
Traffic Stripping and Pavement Markings	2,154	LF	$2	$1	$3	$6,462
Subtotal Materials	--	--	$56,313	--		
9% Sales Tax Materials						$5,068
Construction Subtotal						$172,196
Mobilization/Demobilization (4%)						$6,685
Contractor's Bonds and Insurance (3%)						$5,014
Contractor's Overhead and Profit (15%)						$25,069
Estimated Bid Price						$208,964
Construction Contingency (30%)						$62,689
Total Estimate of Probable Construction Cost (Rounded)						$272,000
Engineering/CM						
- Pre-Design (6%)	1	LS				$16,320
- Contract Documents (14%)	1	LS				$38,080
- Engineering Support During Construction - Office (4%	1	LS				$10,880
- Construction Management - Field (14%)	1	LS				$38,080
Total Engineering/CM Cost (Rounded)						$103,000
Total Project Cost (Rounded)						**$375,000**

01081 - 8410996

Demonstration Project for GCSD
Sewer Project No. 7

ENR CCI 10,897.59 August-14

ITEM DESCRIPTION	QUANTITY No.	QUANTITY Unit	COST Material	COST Labor	COST Total	TOTAL COST
General						
Temporary Traffic Controls Systems	1	LS			$12,000	$12,000
Pre-Rehabilitation CCTV Inspection and Pipe Cleaning	2,900	LF		$7	$7	$20,300
Rehabilitation of 6-inch Sewer Main using CIPP	2,900	LF	$12	$12	$24	$69,600
Post-Rehabilitation CCTV Inspection	2,900	LF		$2	$2	$5,800
Subtotal Materials	--	--	$34,800	--		
9% Sales Tax Materials						$3,132
Construction Subtotal						$110,832
Mobilization/Demobilization (4%)						$4,308
Contractor's Bonds and Insurance (3%)						$3,231
Contractor's Overhead and Profit (15%)						$16,155
Estimated Bid Price						$134,526
Construction Contingency (30%)						$40,358
Total Estimate of Probable Construction Cost (Rounded)						$175,000
Engineering/CM						
- Pre-Design (6%)	1	LS				$10,500
- Contract Documents (14%)	1	LS				$24,500
- Engineering Support During Construction - Office (4%	1	LS				$7,000
- Construction Management - Field (14%)	1	LS				$24,500
Total Engineering/CM Cost (Rounded)						$67,000
Total Project Cost (Rounded)						**$242,000**

Appendix D GCSD Median Household Income Survey

Graton Community Service District
Median Household Income Survey
Final Report
June 30, 2009

Conducted and prepared by:

RCAC
www.rcac.org

RCAP *RCAC is the Western RCAP*

Funded by:

USDA Rural Development

please return to:

Rural Community Assistance Corporation

Graton CSD
PO Box 534
Graton, CA 95444

June 1, 2009

Graton Community Services District
Bob Rawson, General Manager
P.O. Box 534
Graton, CA 95444

Subject: **Graton Community Services District Median Household Income Survey Results**

Dear Mr. Rawson:

The Graton CSD requested that Rural Community Assistance Corporation perform an income survey of the Graton Community Services District (CSD) in Graton, California. The purpose of this survey is to establish a median household income (MHI) level for grant and loan funding programs and sources.

The MHI for Graton CSD is **$43,999** with a response rate of **75.47 percent**.

The survey was designed and conducted per State and Federal guidelines established for the USDA - RD, the California statewide MHI is determined to be $58,414. Disadvantaged households are set at 80 percent of the statewide MHI (80% of $58,414 = $46,731); severely disadvantaged households are set at 60 percent of the statewide MHI (60% of $58,414 = $35,048).

According to the State CDBG's and HOME's table of 2009 income limits effective April 27, 2009 for Sonoma County **76 percent of the households responses are within the Target Income Group (TIG)**.

Please free feel to contact me if you have additional questions or need further assistance. I can be reached at phone: 916/207-8814, e-mail: jthompson@rcac.org.

Yours truly,

Jean A. Thompson-Ibbeson

Jean A.Thompson-Ibbeson
Rural Development Specialist-Environmental

Enclosure: Graton CSD Median Household Income Survey Final Report: MHI Data
Brian Phillips, RCAC, Regional Environmental Manager
Abigail Myers, Nonprofits' Support Services

GRATON COMMUNITY SERVICE DISTRICT MEDIAN HOUSEHOLD INCOME SURVEY FINAL REPORT

Prepared by: Rural Community Assistance Corporation
June 2009
Funded by: United States Department of Agriculture – Rural Development

This project and materials were funded and/or carried out as part of the RCAP/USDA Technitrain Program, an RCAP network project. This material is based upon work supported under a grant by the Utilities Program, United States Department of Agriculture. Any opinions, findings, and conclusions or recommendations expressed in this material are solely the responsibility of the authors and do not necessarily represent the official views of the Rural Utilities Programs.

Graton Community Services District
Income Survey

Introduction

The Graton Community Services District (CSD) is located in Sonoma County, California, 17 miles west of Santa Rosa off State Highway 12 and Gravenstein Highway.

The Graton CSD needs to upgrade the county's existing wastewater treatment plant system (through the use of federal and state funds) in order to serve the Graton CSD service area. Graton CSD is applying to the United States Department of Agriculture – Rural Development (USDA-RD) grant/loan program. USDA-RD requires the area Target Income Group (TIG) level, in order to determine funding eligibility. There are 435 parcels in the Graton CSD service area, three commercial parcels, twelve vacant parcels, and 420 parcels that are occupied.

The Graton CSD submitted an application for funding of project to Department of Water Resources and USDA-RD and the Community Development Block Grant (CDBG) program. Both require the area's Target Income Group (TIG) level. Graton CSD requested that Rural Community Assistance Corporation (RCAC), a private nonprofit organization, perform a Median Household Income (MHI) survey to determine if Graton CSD meets the funding qualifications for either funder. Based on the USDA-RD request, RCAC completed the MHI.

Survey Area

The current census data measured a larger area than the proposed Graton CSD project boundaries. The Graton CSD Board felt that the census numbers did not reflect adequately the Graton CSD service area customers' household income level. Maps of the area (see Exhibit B, pages 8-12) and the Graton CSD addresses, if available, are included in this report (see Exhibit C, pages 13-24).

Scope of Work

The area of consideration identified in the median household income analysis includes all residents and tenants that are connected to the wastewater collection system. RCAC was to complete the following tasks:

- Conduct an income survey of the required sampling ratio identified by the State of California Housing and Community Development (HCD) CDBG and USDA-RD survey requirements
- Aggregate data received
- Prepare a final report of findings

Methodology

The survey process incorporated the use of a base numbering system assigned to each address as the identification for each specific household receiving a survey questionnaire. The customer's personal information (name, address,

phone, etc.) is considered confidential and is only provided to the owner of that specific information (Government Code Section 6250 and 6254, et seq.). The base numbering system is already in place and will ensure the confidentiality of the respondent's information relative to household income. The USDA-RD MHI protocol was followed (see Exhibit A, pages 6-7).

The Graton CSD provided RCAC with the addresses for the parcels used to conduct the survey. A letter of explanation in English and Spanish was mailed April 18, 2008 (see Exhibit D, pages 25-35) and delivered in advanced to all households within the survey area. The first survey letter, survey form and corresponding, postage-paid reply envelope were mailed and/or delivered to each household on or about April 25, 2008 (see Exhibit D, pages 25-35). A second, follow-up letter was sent on or about May 12, 2008 to those households that did not respond to the first letter. The Graton CSD staff followed up with phone calls to the service area customers that encouraged full participation. The surveys were mailed back to RCAC to maintain customer privacy.

A door-to-door survey was performed on May 30-31, 2008 at the residences that did not respond and in the survey area.

The income survey form listed income categories and requested respondents to check a box closest to their previous year's income. It also asked if the customer had lived in the residence more than six months out of the year; if the residence was a vacation home, rental or commercial property; and how many people reside at the residence more than six months out of the year.

Funding agency guidelines require that an impartial agency conduct the income survey using an approved format. The median household incomes for the project service area was calculated by RCAC from the survey as follows:

Median Household Income = Number of income levels in each group, plus 1 divided by 2

The MHI is determined as the income that falls at the midpoint of the range. Median is the middle number in a given sequence of numbers [e.g., 4 is the median of 1, 3, 4, 9, 15].

The definition of household income is the total gross income in the previous calendar, in this case calendar year 2007, from all sources, by all members of one single residence. The final results of the survey will be used by USDA-RD and Department of Water Resources to measure the community's ability to finance the project and to determine whether or not assistance, in the form of a special low interest loan rate or grant, is needed.

Upon receiving the completed surveys, RCAC calculated the MHI for the Graton CSD project service area.

According to the CDBG program and USDA-RD survey requirements, a set number of households must be surveyed depending on the size of the given area. The Graton CSD has a total of 420 households occupied by owners/ tenants. The response requirements are summarized in the following table:

Number of Households	Required Responses
420	CDBG: 250
420	USDA-RD: 315

The CDBG guidelines outlined above, along with USDA-RD's, require a minimum response rate of 75 percent from the Graton CSD service area to constitute a complete survey. The response rate from the Graton CSD MHI was 75.4 percent.

Income Definitions

When defining groups of households, government agencies use the same definition for income, which is typically expressed as a percentage of median income for the State of California. Both CDBG and USDA-RD use the following definitions:

Very-low income (LTIG) = below 50% of median income

Low-income (TIG) = 50%-80% of median income

Moderate income (non-TIG) = 80%-120% of median income

Above moderate income (non-TIG) = over 120% of the median income

California Statewide Median Household Income= $58,414

***Severely Disadvantaged* is 65% of the state's MHI**

65% of $58,414 = $37,969

***Disadvantaged* is 80% of the state's MHI**

80% of $58,414 = $46,731

Income Survey Results for USDA-RD

A summary of the Graton CSD MHI is shown below, with more detailed information in the exhibits. The MHI only counted residences occupied for more than six months of the year.

The MHI for Graton CSD Service Area is $43,999.

There are a total of 435 residential parcels within the project area. There are 420 *occupied* parcels and of those, 317 responded to the survey. The remaining parcels were vacant or did not respond to the survey. The 317 responses account for a 75.47 percent response rate.

Total number of residential parcels	435
Total number of vacant or commercial parcels	15
Total number of residential parcels surveyed	420
Total number of surveys returned	317
Total number of non-responses	103
Response rate calculation	317 ÷ 420 = 75.47%

The MHI for Graton CSD service area is household number 159, survey number GR-124 in ascending order, with an income of $43,999 (see Exhibit E, pages 36-44).

Total Units in Survey Area	420
Total Responses (one refused to provide income)	316
Sample Size Required	315
Graton CSD MHI	**$43,999**
Total TIG Units	316
% of Households TIG	76%

Income Survey Results for CDBG

A summary of the Graton CSD MHI is shown below, with more detailed information in the exhibits. The MHI only counted residences occupied for more than six months of the year.

The MHI for Graton CSD Service Area is $43,999. To qualify for CDBG funding, 51 percent of the community's MHI needs to be at least 80 percent of Sonoma County's MHI of $53,076 (2000 census). The MHI showed that 76 percent of the community's MHI sampled meets the 80 percent requirement.

There are a total of 435 residential parcels within the project area. There are 420 *occupied* parcels and of those, 317 responded to the survey. The remaining parcels were vacant or did not respond to the survey. The 317 responses account for a 75.47 percent response rate.

Total number of residential parcels	435
Total number of vacant or commercial parcels	15
Total number of residential parcels surveyed	420
Total number of surveys returned	317
Total number of non-responses	103
Response rate calculation	317 ÷ 420 = 75.47%

The MHI for Graton CSD is household number 159, survey number GR-124 ascending order, with an income of $43,999.

Total Units in Survey Area	435
Total Reponses	317
Sample size required	250
Graton MHI	**$43,999**
Total TIG Units	242
% Households in TIG	76%

Exhibit A

Income Survey Guidelines

GUIDELINES FOR AN INCOME SURVEY

1. Survey is to be conducted by a reliable, impartial source.

2. All households in the project area must be contacted. Each residence occupant needs to complete the survey and return it, even if they rent the property. Residents must live in their home at least six months out of the year. Conduct the survey with client confidentiality.

3. Survey form and a letter explaining the need and instructions on how to complete the survey will be mailed to each home within the district boundary. Survey may be returned by mail. It may be necessary to go door-to-door if the occupant does not return a completed form.

4. Communities up to 50 households must have 100 percent response. Communities over 50 households must have at least 75 percent response.

5. In order to determine the income, you must use the total gross verifiable household income for the last 12 months, or the gross income claimed in the most recent federal income tax filing. This includes gross wages from all sources including: public assistance, social security benefits, child support, unemployment benefits, pensions, alimony, interest income, dividend and rental income, or any other source of income received regularly. If they own a business, they should use net income from their tax return.

6. Give the date the survey was taken.

7. Use a map showing the boundary of the service area all improved and unimproved parcels, vacant homes, business and residents that responded to the survey. This will allow the agency to verify the results and spot check the surveys.

8. $1,000 increments may be used if MHI is computed. The MHI is determined as the income which falls at the mid-point of the range.

9. If an existing survey meet these "guidelines," it may be acceptable to the funding agency if it were taken after the most recent decennial census.

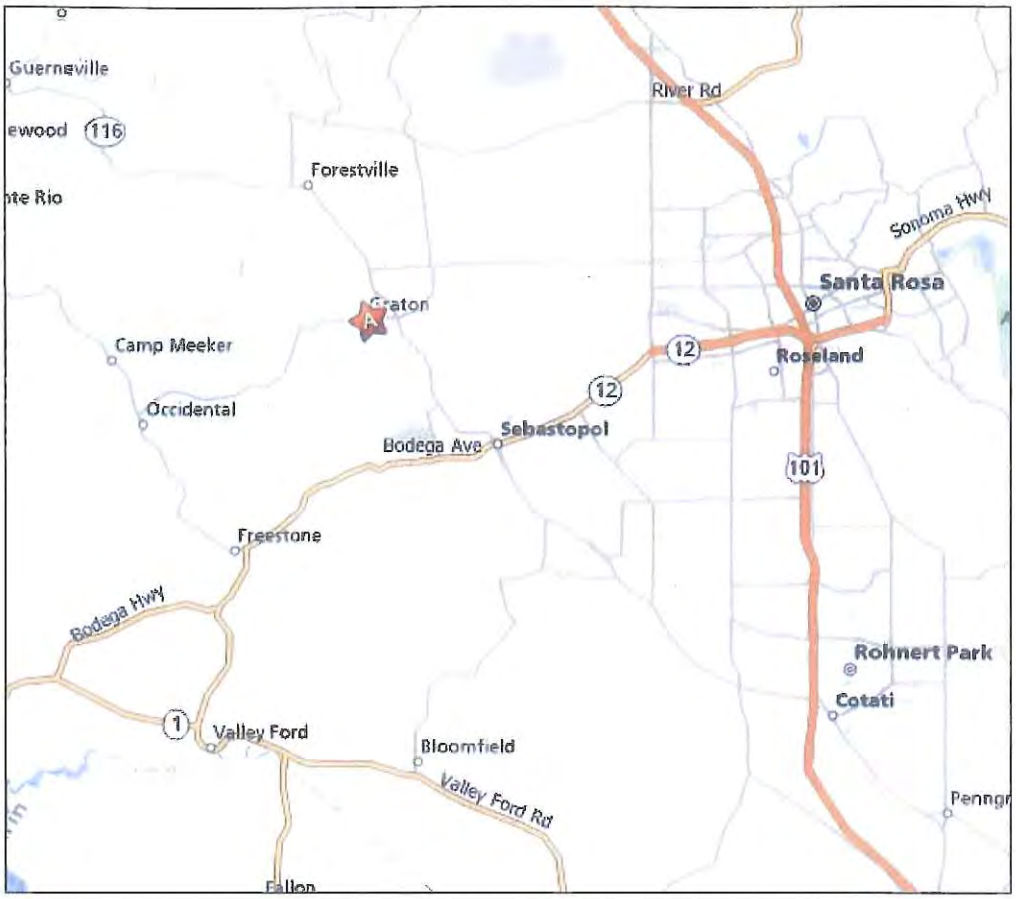
10. Funding agency must approve the letter explaining the need and survey methodology before the survey is started.

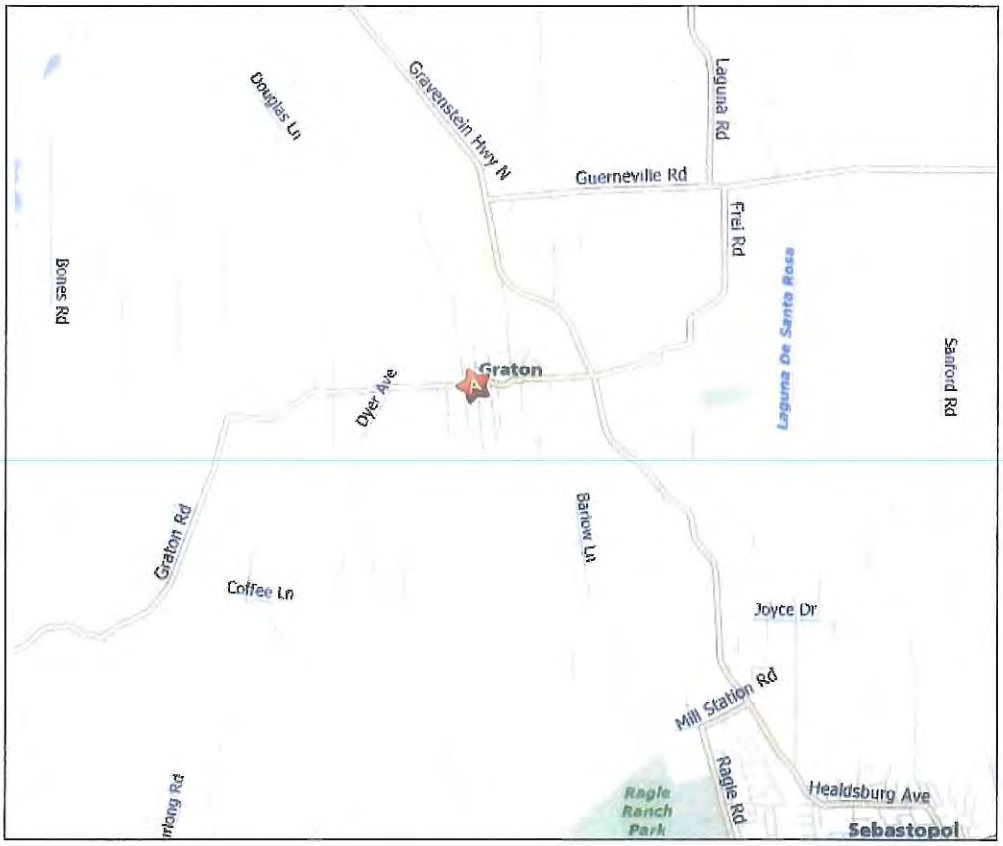
REVISED 11 / 16 / 04

Exhibit B

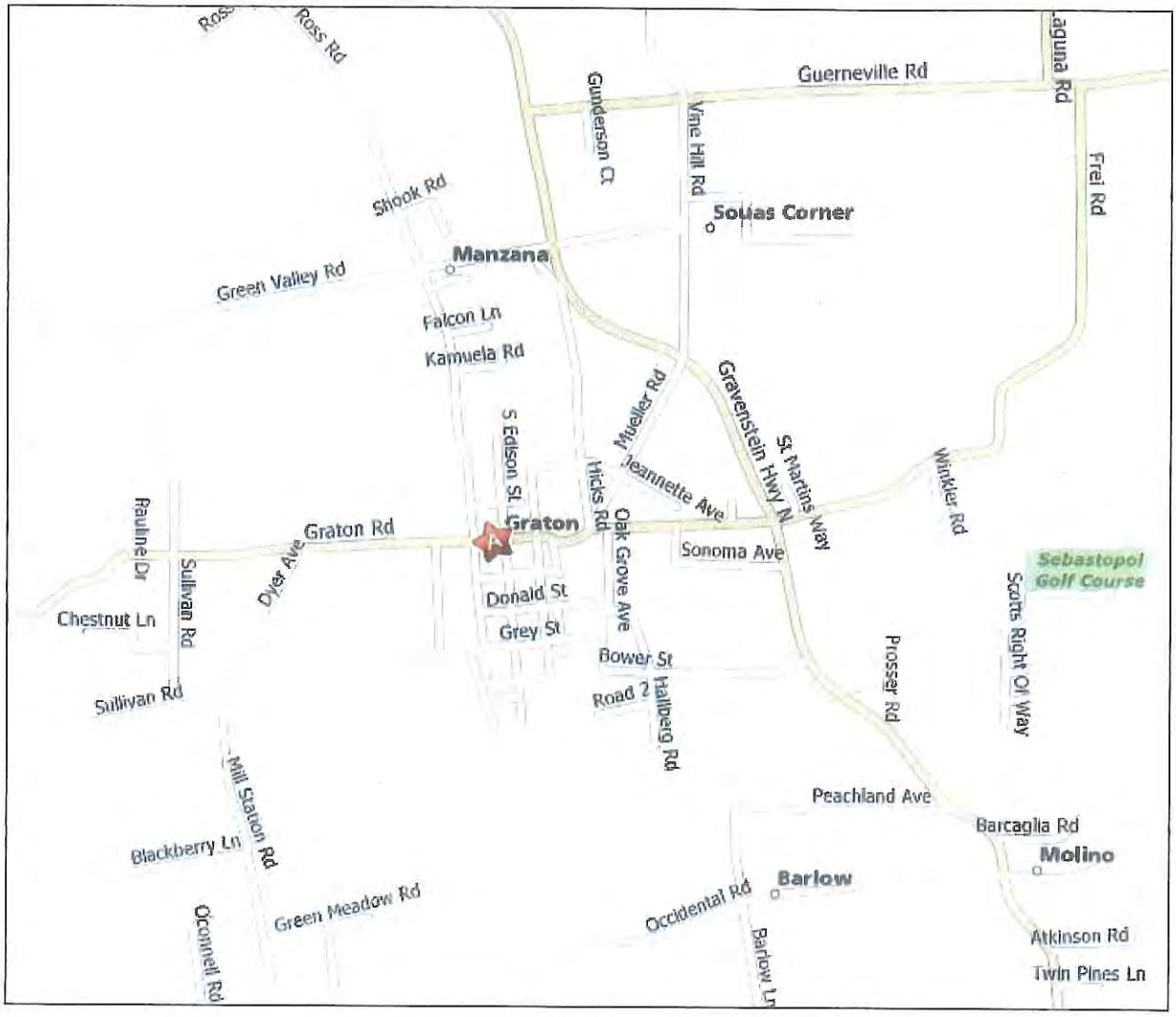
Area and Location Maps

Graton Area Maps


Guerneville
River Rd
Forestville
Sonoma Hwy
Santa Rosa
Graton
Camp Meeker
12
Roseland
Occidental
Sebastopol
Bodega Ave
101
Freestone
Bodega Hwy
Rohnert Park
Cotati
1
Valley Ford
Bloomfield
Valley Ford Rd


Douglas Ln
Gravenstein Hwy N
Laguna Rd
Guerneville Rd
Frei Rd
Bones Rd
Laguna De Santa Rosa
Graton
Dyer Ave
Sanford Rd
Graton Rd
Barlow Ln
Coffee Ln
Joyce Dr
Mill Station Rd
Ragle Ranch Park
Ragle Rd
Healdsburg Ave
Sebastopol

Graton Street Map



Graton Satellite Maps

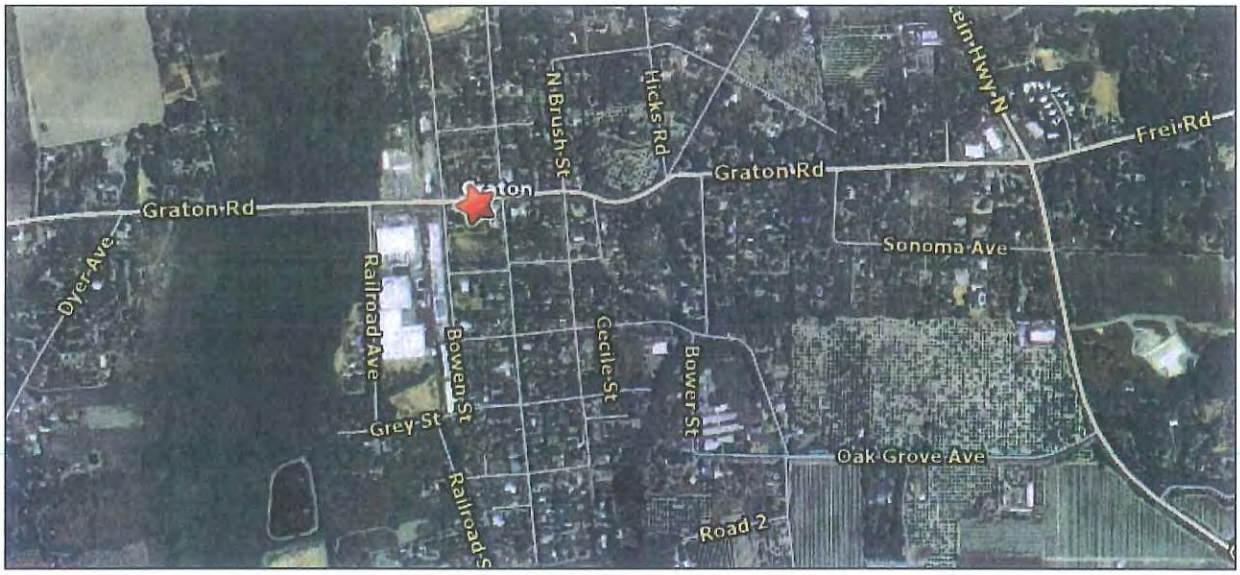


Exhibit C

Residents List for

Graton Community Service District

RESIDENTS LIST FOR GRATON CSD

Permanent Resident/Responded

AP#: Parcel Address	Property Address, if available	City	State	Zip
130-292-023	2726 EDISON	GRATON	CA	95444
130-101-021	3845 ROSS	GRATON	CA	95444
130-291-008	2735 EDISON	GRATON	CA	95444
130-280-039	430 BRUSH	GRATON	CA	95444
130-293-017	2689 EDISON	GRATON	CA	95444
130-153-021	2853 BOWEN	GRATON	CA	95444
130-101-071	4021 HAVEN	GRATON	CA	95444
130-172-005	8885 OAK GROVE	GRATON	CA	95444
130-176-005	8549 GRATON	GRATON	CA	95444
130-101-020	3815 ROSS	GRATON	CA	95444
130-175-027	8725 GRATON	GRATON	CA	95444
130-280-047	8801 BOWER	GRATON	CA	95444
130-080-073	9070B GREEN VALLEY RD	GRATON	CA	95444
130-152-002	2970 EDISON	GRATON	CA	95444
130-176-009	8622 SONOMA	GRATON	CA	95444
130-280-040	2705 BRUSH	GRATON	CA	95444
130-293-014	518 EDISON	GRATON	CA	95444
130-171-008	8967 OAK GROVE	GRATON	CA	95444
130-280-054	8769 BOWER	GRATON	CA	95444
130-162-021	3060BRUSH	GRATON	CA	95444
130-175-068	8615 SONOMA	GRATON	CA	95444
130-090-005	3820 ROSS	GRATON	CA	95444
130-145-037	3112 BRUSH	GRATON	CA	95444
130-146-025	8901 JEANNETTE	GRATON	CA	95444
130-153-015	2841 BOWEN	GRATON	CA	95444
130-101-005	3901 ROSS	GRATON	CA	95444
130-101-047	3585 ROSS	GRATON	CA	95444
130-153-001	3880 EDISON	GRATON	CA	95444
130-175-030	8790 OAK GROVE	GRATON	CA	95444
130-161-005	318 SHIRLEY	GRATON	CA	95444
130-143-027	3160 EDISON	GRATON	CA	95444
130-280-049	2601A BRUSH	GRATON	CA	95444
130-153-007	8998 GREY	GRATON	CA	95444
130-292-021	423 BOWERS	GRATON	CA	95444
130-166-016	311 BRUSH	GRATON	CA	95444
130-175-026	8619 SONOMA	GRATON	CA	95444
130-171-009	8801 GRATON	GRATON	CA	95444
130-153-017	2837 BOWEN	GRATON	CA	95444
130-143-029	3171 ROSS	GRATON	CA	95444
130-180-068	3195 ST MARTIN	GRATON	CA	95444

UNKNOWN	3242 ROSS	GRATON	CA	95444
UNKNOWN	2613 SO. BRUSH ST	GRATON	CA	95444
130-500-009	3100 GRAVENSTEIN HWY	GRATON	CA	95444
130-143-019	9060 GRATON	GRATON	CA	95444
130-163-014	220 EDISON	GRATON	CA	95444
130-130-013	8670 GRATON	GRATON	CA	95444
130-152-003	215 EDISON	GRATON	CA	95444
130-294-001	2698 EDISON	GRATON	CA	95444
130-293-023	500 BRUSH	GRATON	CA	95444
130-180-078	3157 FREI	GRATON	CA	95444
130-145-031	3161 EDISON	GRATON	CA	95444
130-175-056	8577 SONOMA	GRATON	CA	95444
130-162-025	3031 EDISON	GRATON	CA	95444
130-161-011	124 CECILE	GRATON	CA	95444
130-280-012	8747 BOWER	GRATON	CA	95444
130-153-002	311 EDISON	GRATON	CA	95444
130-144-011	9050 IRVING	GRATON	CA	95444
130-175-069	8617 SONOMA	GRATON	CA	95444
130-171-007	8961 OAK GROVE	GRATON	CA	95444
130-294-005	2654 EDISON	GRATON	CA	95444
130-153-012	2847 BOWEN	GRATON	CA	95444
130-163-006	223 BRUSH	GRATON	CA	95444
130-175-022	8455 SONOMA	GRATON	CA	95444
130-166-008	314 EDISON	GRATON	CA	95444
130-293-022	515 BRUSH	GRATON	CA	95444
130-175-004	8784 OAK GROVE	GRATON	CA	95444
130-291-018	8940 BOWER	GRATON	CA	95444
130-175-002	8740 OAK GROVE	GRATON	CA	95444
130-510-016	8832 DONALD	GRATON	CA	95444
130-080-006	4157 SHOOK	GRATON	CA	95444
130-280-037	8813 BOWER	GRATON	CA	95444
130-166-003	2828 BRUSH	GRATON	CA	95444
130-143-026	3156 EDISON	GRATON	CA	95444
130-101-040	3235 EDISON	GRATON	CA	95444
130-143-020	9050 GRATON	GRATON	CA	95444
130-080-042	9036 GREEN VALLEY	GRATON	CA	95444
130-145-019	8988 GRATON	GRATON	CA	95444
130-175-031	8800 OAK GROVE	GRATON	CA	95444
130-080-064	8876 GREEN VALLEY	GRATON	CA	95444
130-280-044	2765 HANNAH	GRATON	CA	95444
130-280-007	2695 BRUSH	GRATON	CA	95444
130-510-018	8868 DONALD	GRATON	CA	95444
130-145-003	222 BRUSH	GRATON	CA	95444
130-166-009	203 DONALD	GRATON	CA	95444
130-145-027	8940 IRVING	GRATON	CA	95444

130-101-025	9050 KAMUELA	GRATON		95444
130-293-025	2524 EDISON	GRATON	CA	95444
130-280-036	8821 BOWER	GRATON	CA	95444
130-171-006	8971 OAK GROVE	GRATON	CA	95444
130-172-008	8903 OAK GROVE	GRATON	CA	95444
130-130-016	8616 GRATON	GRATON	CA	95444
130-143-022	9030 GRATON	GRATON	CA	95444
130-172-009	8944 DONALD	GRATON		95444
130-163-002	216 EDISON	GRATON	CA	95444
130-172-011	OAK GROVE	GRATON	CA	95444
130-145-010	8996 GRATON	GRATON	CA	95444
130-146-026	8897 JEANNETTE	GRATON	CA	95444
130-060-010	4167 GRAVENSTEIN HWY	GRATON	CA	95444
130-146-015	3111 BRUSH	GRATON	CA	95444
130-291-017	8944 BOWER	GRATON	CA	95444
130-161-004	3000 CECILE	GRATON	CA	95444
130-101-054	306 EDISON	GRATON	CA	95444
130-175-065	8631 SONOMA	GRATON	CA	95444
130-146-022	3119 BRUSH	GRATON	CA	95444
130-175-032	8822 OAK GROVE	GRATON	CA	95444
130-146-014	3117 BRUSH	GRATON	CA	95444
130-163-011	8921 SHIRLEY	GRATON	CA	95444
130-162-024	3011 EDISON	GRATON	CA	95444
130-291-003	2736 BRUSH	GRATON	CA	95444
130-145-001	3215 EDISON	GRATON	CA	95444
130-293-020	501 BUSH	GRATON	CA	95444
130-163-005	229 BRUSH	GRATON	CA	95444
130-163-001	2995 EDISON	GRATON	CA	95444
130-080-031	4203 SHOOK	GRATON	CA	95444
130-175-055	8531 SONOMA	GRATON	CA	95444
130-293-026	2625 EDISON	GRATON	CA	95444
130-510-002	3039 ARROYO	GRATON	CA	95444
130-166-017	320 EDISON	GRATON	CA	95444
130-294-013	432 BOWERS	GRATON	CA	95444
130-172-002	8895 OAK GROVE	GRATON	CA	95444
130-101-036	3231 EDISON	GRATON	CA	95444
130-163-017	2925 EDISON	GRATON	CA	95444
130-161-001	8851 GRATON	GRATON	CA	95444
130-176-008	8670 SONOMA	GRATON	CA	95444
130-162-004	8659 GRATON	GRATON	CA	95444
130-294-018	2620 EDISON	GRATON	CA	95444
130-280-049	2601C BRUSH	GRATON	CA	95444
130-510-008	2915 BRUSH	GRATON	CA	95444
130-291-015	414 EDISON	GRATON	CA	95444
UNKNOWN	3229 N. EDISON ST	GRATON	CA	95444

130-080-051	4147 ROSS	GRATON	CA	95444
130-101-004	3911 ROSS	GRATON	CA	95444
130-101-060	3239 EDISON	GRATON	CA	95444
130-280-049	2601B BRUSH	GRATON	CA	95444
130-162-005	9001 GRATON	GRATON	CA	95444
130-146-029	3230 HICKS	GRATON	CA	95444
130-294-014	428 BOWERS	GRATON	CA	95444
130-145-035	8939 IRVING	GRATON	CA	95444
130-101-003	4015 ROSS	GRATON	CA	95444
130-101-046	3240 EDISON	GRATON	CA	95444
130-146-021	3121 BRUSH	GRATON	CA	95444
130-143-030	3165 ROSS	GRATON	CA	95444
130-080-067	4146 SHOOK	GRATON	CA	95444
130-166-018	211 DONALD	GRATON	CA	95444
130-292-018	429 BOWERS	GRATON	CA	95444
130-291-004	433 BRUSH	GRATON	CA	95444
130-080-040	4163 SHOOK	GRATON	CA	95444
130-153-014	2843 BOWEN	GRATON	CA	95444
130-293-037	528 EDISON	GRATON	CA	95444
130-280-020	8857 GREY	GRATON	CA	95444
130-101-038	3227 EDISON	GRATON	CA	95444
130-175-048	8928 OAK GROVE	GRATON	CA	95444
130-176-019	8585 GRATON	GRATON	CA	95444
130-175-043	8400 GRAVENSTEIN HWY	GRATON	CA	95444
130-294-015	424 BOWERS	GRATON	CA	95444
130-280-028	321 GREY	GRATON	CA	95444
130-080-035	9068 GREEN VALLEY	GRATON	CA	95444
130-165-008	318 BRUSH	GRATON	CA	95444
130-294-016	2690 EDISON	GRATON	CA	95444
130-080-071	9090 GREEN VALLEY	GRATON	CA	95444
130-293-040	2613 EDISON	GRATON	CA	95444
130-162-003	8967 GRATON	GRATON	CA	95444
130-146-028	3220 HICKS	GRATON	CA	95444
130-500-002	3144 ELISA ANNE	GRATON	CA	95444
130-175-052	8920 OAK GROVE	GRATON	CA	95444
130-510-003	3027 ARROYO	GRATON	CA	95444
130-166-004	329 BRUSH	GRATON	CA	95444
130-163-015	218 EDISON	GRATON	CA	95444
130-080-016	4115 ROSS	GRATON	CA	95444
130-175-049	8930 OAK GROVE	GRATON	CA	95444
130-080-073	9070 GREEN VALLEY	GRATON	CA	95444
130-143-030	3165 ROSS	GRATON	CA	95444
130-145-026	3120 BRUSH	GRATON	CA	95444
130-080-010	4151 SHOOK	GRATON	CA	95444
130-500-001	3140 ELISA ANNE	GRATON	CA	95444

130-294-011	2636 EDISON	GRATON	CA	95444
130-500-008	3151 ELISA ANNE	GRATON	CA	95444
130-143-031	3167 ROSS	GRATON	CA	95444
130-080-047	4152 SHOOK	GRATON	CA	95444
130-163-008	2940 BRUSH	GRATON	CA	95444
130-292-014	9011 GREY	GRATON	CA	95444
130-291-001	401 BRUSH	GRATON	CA	95444
130-175-051	8926 OAK GROVE	GRATON	CA	95444
130-145-008	3165 EDISON	GRATON	CA	95444
130-280-015	8693 OAK GROVE	GRATON	CA	95444
130-080-043	4140 SHOOK	GRATON	CA	95444
130-175-024	8765 OAK GROVE	GRATON	CA	95444
130-292-015	407 EDISON	GRATON	CA	95444
130-500-005	3162 ELISA ANNE	GRATON	CA	95444
130-163-007	2920 BRUSH	GRATON	CA	95444
130-176-026	8541 GRATON	GRATON	CA	95444
130-293-021	2675 EDISON	GRATON	CA	95444
130-080-041	8920 GREEN VALLEY	GRATON	CA	95444
130-294-004	2650 EDISON	GRATON	CA	95444
130-293-013	517 BRUSH	GRATON	CA	95444
130-161-013	3045 BRUSH	GRATON	CA	95444
130-146-033	3101 BRUSH	GRATON	CA	95444
130-130-023	3145 MUELLER	GRATON	CA	95444
130-101-026	9040 KAMUELA	GRATON	CA	95444
130-294-020	200 TINA	GRATON	CA	95444
130-060-030	8710 GREEN VALLEY	GRATON	CA	95444
130-175-058	8569 SONOMA	GRATON	CA	95444
130-280-003	335 GREY	GRATON	CA	95444
130-163-013	2948 BRUSH	GRATON	CA	95444
130-130-006	8690 GRATON	GRATON	CA	95444
130-101-023	3761 ROSS	GRATON	CA	95444
130-101-058	3501 ROSS	GRATON	CA	95444
130-175-016	8645 SONOMA	GRATON	CA	95444
130-101-062	3247 EDISON	GRATON	CA	95444
130-176-021	8570 SONOMA	GRATON	CA	95444
130-162-019	8929 GRATON	GRATON	CA	95444
130-175-044	8671 GRATON	GRATON	CA	95444
130-101-034	3237 EDISON	GRATON	CA	95444
130-153-006	8940 GREY	GRATON	CA	95444
130-510-018	8868 DONALD	GRATON	CA	95444
130-280-026	8733 BOWER	GRATON	CA	95444
130-280-029	8845 GREY	GRATON	CA	95444
130-130-017	8610 GRATON	GRATON	CA	95444
130-080-077	8910 GREEN VALLEY	GRATON	CA	95444
130-175-070	8617 GRATON	GRATON	CA	95444

130-280-045	2775 HANNAH	GRATON	CA	95444
130-175-057	8559 SONOMA	GRATON	CA	95444
130-175-063	8707 GRATON	GRATON	CA	95444
130-130-008	8736 GRATON	GRATON	CA	95444
130-145-034	3116 BRUSH	GRATON	CA	95444
130-101-069	4041 HAVEN	GRATON	CA	95444
130-291-011	2789 EDISON	GRATON	CA	95444
130-090-006	3870 ROSS	GRATON	CA	95444
130-292-020	425 BOWERS	GRATON	CA	95444
130-080-038	4141 SHOOK	GRATON	CA	95444
130-101-061	3243 EDISON	GRATON	CA	95444
130-101-042	3697 ROSS	GRATON	CA	95444
130-510-006	2959 BRUSH	GRATON	CA	95444
130-153-005	327 EDISON	GRATON	CA	95444
130-101-039	3225 EDISON	GRATON	CA	95444
130-172-014	DONALD	GRATON	CA	95444
130-145-038	3110 BRUSH	GRATON	CA	95444
130-175-074	8515 SONOMA	GRATON	CA	95444
130-292-012	9091 GREY	GRATON	CA	95444
130-175-059	8934 OAK GROVE	GRATON	CA	95444
130-293-029	2629 EDISON	GRATON	CA	95444
130-145-029	3147 EDISON	GRATON	CA	95444
130-175-028	8747 GRATON	GRATON	CA	95444
130-294-022	2618 EDISON	GRATON	CA	95444
130-153-003	313 EDISON	GRATON	CA	95444
130-175-045	8938 OAK GROVE	GRATON	CA	95444
130-162-027	3071 EDISON	GRATON	CA	95444
130-101-076	3971 HAVEN	GRATON	CA	95444
130-101-043	3610 ROSS	GRATON	CA	95444
130-130-022	8760 GRATON	GRATON	CA	95444
130-145-002	225 EDISON	GRATON	CA	95444
130-294-021	145 TINA	GRATON	CA	95444
130-153-004	321 EDISON	GRATON	CA	95444
130-293-030	2631 EDISON	GRATON	CA	95444
130-280-014	8699 OAK GROVE	GRATON	CA	95444
130-510-005	8845 SHIRLEY	GRATON	CA	95444
130-101-018	3875 ROSS	GRATON	CA	95444
130-161-012	124 BRUSH	GRATON	CA	95444
130-500-006	3157 ELISA ANNE	GRATON	CA	95444
130-175-054	8555 SONOMA	GRATON	CA	95444
130-294-012	436 BOWERS	GRATON	CA	95444
130-176-022	8574 SONOMA	GRATON	CA	95444
130-291-016	2719 EDISON	GRATON	CA	95444
130-176-012	8440 SONOMA	GRATON	CA	95444
130-145-023	8998 IRVING	GRATON	CA	95444

130-153-011	2849 BOWEN	GRATON	CA	95444
130-152-012	2910 EDISON	GRATON	CA	95444
130-500-010	8560 GRATON	GRATON	CA	95444
130-293-039	2607 EDISON	GRATON	CA	95444
130-280-025	8763 BOWER	GRATON	CA	95444
130-291-007	420 EDISON	GRATON	CA	95444
130-161-009	114 BRUSH	GRATON	CA	95444
130-166-013	316 EDISON	GRATON	CA	95444
130-280-041	2715 BRUSH	GRATON	CA	95444
130-176-024	8547 PEPPER RD	GRATON	CA	95444
130-101-070	4031 HAVEN	GRATON	CA	95444
130-145-025	8916 GRATON	GRATON	CA	95444
130-176-020	8577 GRATON	GRATON	CA	95444
130-176-015	8575 GRATON	GRATON	CA	95444
130-166-014	223 DONALD	GRATON	CA	95444
130-145-004	3140 BRUSH	GRATON	CA	95444
130-291-014	2771 EDISON	GRATON	CA	95444
130-080-005	4165 SHOOK	GRATON	CA	95444
130-176-011	8474 SONOMA	GRATON	CA	95444
130-080-076	9000 GREEN VALLEY	GRATON	CA	95444
130-280-043	2755 HANNAH	GRATON	CA	95444
130-175-076	8940 OAK GROVE	GRATON	CA	95444
130-101-068	3859 ROSS	GRATON	CA	95444
130-162-023	3000 BRUSH	GRATON	CA	95444
130-510-007	2927 BRUSH	GRATON	CA	95444
130-500-003	3148 ELISA ANNE	GRATON	CA	95444
130-292-011	9077 GREY	GRATON	CA	95444
130-175-067	8635 SONOMA	GRATON	CA	95444
130-101-063	8970 KAMUELA	GRATON	CA	95444
130-172-012	8937 OAK GROVE	GRATON	CA	95444
130-294-006	2658 EDISON	GRATON	CA	95444
130-175-038	8507 SONOMA	GRATON	CA	95444
130-101-050	3487 ROSS	GRATON	CA	95444
130-163-012	2966 BRUSH	GRATON	CA	95444
130-101-077	3961 HAVEN	GRATON	CA	95444
130-153-013	2845 BOWEN	GRATON	CA	95444
130-280-046	2785 HANNAH	GRATON	CA	95444
130-101-072	4011 HAVEN	GRATON	CA	95444
130-080-048	4145 ROSS	GRATON	CA	95444
130-292-019	427 BOWERS	GRATON	CA	95444
130-143-025	3150 EDISON	GRATON	CA	95444
130-146-027	8893 JEANNETTE	GRATON	CA	95444
130-175-071	8665 SONOMA	GRATON	CA	95444
130-130-014	8633 JEANNETTE	GRATON	CA	95444
130-144-007	3180 EDISON	GRATON	CA	95444

130-101-045	3244 EDISON	GRATON	CA	95444
130-293-038	2601 EDISON	GRATON	CA	95444
130-101-022	3825 ROSS	GRATON	CA	95444
130-080-075	4300 ROSS	GRATON	CA	95444
130-291-012	8949 GREY	GRATON	CA	95444
130-143-032	3161 ROSS	GRATON	CA	95444
130-500-007	3153 ELISA ANNE	GRATON	CA	95444

Permanent Residence/No Response

AP#: Parcel Address	Property Address, if available	City	State	Zip
130-175-062	8693 GRATON	GRATON	CA	95444
130-080-065	4114 ROSS	GRATON	CA	95444
130-510-017	8846 DONALD	GRATON	CA	95444
130-154-004	2860 BOWEN	GRATON	CA	95444
130-292-010	115 GREY	GRATON	CA	95444
130-280-055	2675 BRUSH	GRATON	CA	95444
130-175-003	8772 OAK GROVE	GRATON	CA	95444
130-101-078	3951 HAVEN	GRATON	CA	95444
130-163-016	2915 EDISON	GRATON	CA	95444
130-143-024	3140 EDISON	GRATON	CA	95444
130-510-004	3015 ARROYO	GRATON	CA	95444
130-175-061	8687 GRATON	GRATON	CA	95444
130-130-010	8790 GRATON	GRATON	CA	95444
130-101-075	3981 HAVEN	GRATON	CA	95444
130-143-028	3170 EDISON	GRATON	CA	95444
130-090-007	3700 ROSS	GRATON	CA	95444
130-291-005	258 BOWER ST.	GRATON	CA	95444
130-175-042	8960 OAK GROVE	GRATON	CA	95444
130-153-023	9011 DONALD	GRATON	CA	95444
130-280-011	8751 BOWER	GRATON	CA	95444
130-153-024	9013 DONALD	GRATON	CA	95444
130-294-003	521 EDISON	GRATON	CA	95444
130-152-007	9000 DONALD	GRATON	CA	95444
130-080-074	9050 GREEN VALLEY	GRATON	CA	95444
130-144-008	3186 ROSS	GRATON	CA	95444
130-101-055	3255 ROSS	GRATON	CA	95444
130-101-041	9051 KAMUELA	GRATON	CA	95444
130-175-050	8932 OAK GROVE	GRATON	CA	95444
130-101-064	8976 KAMUELA	GRATON	CA	95444
130-180-079	3155 FREI	GRATON	CA	95444
130-176-027	8543 WINFIELD LN	GRATON	CA	95444
130-153-016	2839 BOWEN	GRATON	CA	95444

130-172-006	8921 OAK GROVE	GRATON	CA	95444
130-175-012	8970 OAK GROVE	GRATON	CA	95444
130-175-066	8625 SONOMA	GRATON	CA	95444
130-101-059	3495 ROSS	GRATON	CA	95444
130-162-007	8989 GRATON	GRATON	CA	95444
130-294-019	100 TINA	GRATON	CA	95444
130-143-023	9020 GRATON	GRATON	CA	95444
130-151-008	9113 GRATON	GRATON	CA	95444
130-292-008	2734 EDISON	GRATON	CA	95444
130-510-004	3015 ARROYO	GRATON	CA	95444
130-152-011	2900 EDISON	GRATON	CA	95444
130-172-013	8930 DONALD	GRATON	CA	95444
130-153-022	2851 BOWEN	GRATON	CA	95444
130-162-020	8955 GRATON	GRATON	CA	95444
130-175-075	8521 SONOMA	GRATON	CA	95444
130-294-010	2630 EDISON	GRATON	CA	95444
130-280-042	2725 BRUSH	GRATON	CA	95444
130-176-023	8470 SONOMA	GRATON	CA	95444
130-165-003	322 BRUSH	GRATON	CA	95444
130-101-067	3855 ROSS	GRATON	CA	95444
130-165-002	328 BRUSH	GRATON	CA	95444
130-144-006	3190 EDISON	GRATON	CA	95444
130-180-021	8580 GRATON	GRATON	CA	95444
130-180-020	8590 GRATON	GRATON	CA	95444
130-146-019	3160 HICKS	GRATON	CA	95444
130-145-024	8950 GRATON	GRATON	CA	95444
130-152-004	2930 EDISON	GRATON	CA	95444
130-280-019	2795 BRUSH	GRATON	CA	95444
130-146-020	3129 BRUSH	GRATON	CA	95444
130-161-007	126 BRUSH	GRATON	CA	95444
130-161-006	128 BRUSH	GRATON	CA	95444
130-161-010	3093 BRUSH	GRATON	CA	95444
130-144-003	3200 EDISON	GRATON	CA	95444
130-146-030	3135 BRUSH	GRATON	CA	95444
130-500-004	3152 ELISA ANNE	GRATON	CA	95444
130-130-007	8710 GRATON	GRATON	CA	95444
130-291-013	221 GREY	GRATON	CA	95444
130-101-073	4001 HAVEN	GRATON	CA	95444
130-080-034	9060 GREEN VALLEY	GRATON	CA	95444
130-280-056	2679 BRUSH	GRATON	CA	95444
130-101-053	3212 EDISON	GRATON	CA	95444
130-176-007	8595 GRATON	GRATON	CA	95444
130-293-006	2645 EDISON	GRATON	CA	95444
130-292-016	2710 EDISON	GRATON	CA	95444
130-101-074	3991 HAVEN	GRATON	CA	95444

130-162-026	3051 EDISON	GRATON	CA	95444
130-146-031	3139 BRUSH	GRATON	CA	95444
130-080-039	4163 SHOOK	GRATON	CA	95444
130-510-001	3043 ARROYO	GRATON	CA	95444
130-292-017	431 BOWERS	GRATON	CA	95444
130-176-013	3022 HWY 116	GRATON	CA	95444
130-145-030	3155 EDISON	GRATON	CA	95444
130-145-021	3185 EDISON	GRATON	CA	95444
130-080-078	9100 GREEN VALLEY	GRATON	CA	95444
130-146-016	3103 BRUSH	GRATON	CA	95444
130-143-021	9040 GRATON	GRATON	CA	95444
130-166-005	8950 GREY	GRATON	CA	95444
130-510-019	8880 DONALD	GRATON	CA	95444
130-060-031	8800GREEN VALLEY	GRATON	CA	95444
130-152-008	2999 BOWEN	GRATON	CA	95444
130-145-028	3130 BRUSH	GRATON	CA	95444
130-175-001	8732 OAK GROVE	GRATON	CA	95444
130-130-024	3137 MUELLER	GRATON	CA	95444
130-130-015	8601 JEANNETTE	GRATON	CA	95444
130-292-022	421 BOWERS	GRATON	CA	95444
130-153-020	2855 BOWEN	GRATON	CA	95444
130-500-011	8540 GRATON	GRATON	CA	95444
130-146-024	8805 JEANNETTE	GRATON	CA	95444
130-101-037	230 N. BRUSH ST	GRATON	CA	95444
130-300-033	9100 GRATON	GRATON	CA	95444
130-101-048	3565 ROSS	GRATON	CA	95444

Vacant Property/No Response

AP#: Parcel Address	Property Address, if available	City	State	Zip
130-280-010	8755 BOWER	GRATON	CA	95444
130-151-003	9135 GRATON	GRATON	CA	95444
130-151-004	9155 GRATON	GRATON	CA	95444
130-153-018	2835 BOWEN	GRATON	CA	95444
130-165-009	8869 DONALD	GRATON	CA	95444
130-153-019	2833 BOWEN	GRATON	CA	95444
130-291-002	429 BRUSH	GRATON	CA	95444
130-300-029	9119 GRATON	GRATON	CA	95444
130-300-030	2890 RAILROAD	GRATON	CA	95444
130-175-073	8511 SONOMA	GRATON	CA	95444
130-080-036	4201SHOOK	GRATON	CA	95444
130-141-001	3420 ROSS	GRATON	CA	95444
130-280-010	8755 BOWER	GRATON	CA	95444

Commercial Property

AP#: Parcel Address	Property Address, if available	City	State	Zip
130-165-007	8897 BRUSH	GRATON	CA	95444
130-510-015	2297 BRUSH	GRATON	CA	95444
130-080-044	4123 ROSS	GRATON	CA	95444

Exhibit D

Explanation Letters (English & Spanish)

Survey Letters (English & Spanish)

Survey Form (English & Spanish)

Rural Community Assistance Corporation

April 18, 2008

Dear Resident or Rate Payer of the Graton Community Services District,

Graton Community Services District submitted an application to obtain funding from the California Small Community Wastewater Grant Program for wastewater system improvements and upgrades. The Graton Community Services District is trying to get grants and loans for a wastewater improvement project to provide:

- The necessary elements to comply with mandated wastewater treatment upgrades.

These improvements will help with system reliability, and allow the system to meet water quality requirements mandated by the State Water Quality Control Board.

As part of the grant application process, Graton Community Services District must perform a focused household income survey of their customers. This income survey is necessary to determine if the District Service Area qualifies for low interest loans and grants available to disadvantaged communities.

Graton Community Services District has requested a non-profit corporation called the Rural Community Assistance Corporation (RCAC) for assistance. An income survey will be mailed to you in the next few days. Please complete the information and return it to RCAC in the postage-paid envelope that will be included. Graton Community Services District needs a high response rate to be considered for optimal funding alternatives. No identifying information will be kept with the questionnaires. Responses to this survey are confidential.

Your help is very important for the Graton Community Services District to receive low interest loans and grants from various state funding sources, and enable GCSD to complete the needed improvements to your wastewater system. Please provide the information requested to the RCAC. For more information please feel free to contact:

Robert Rawson, General Manager, Graton Community Services District, PO 534, Graton, CA 95444. Phone: 707-874-1542.

Jean A. Thompson, RD Specialist – Environmental, Rural Community Assistance Corporation, 1320 Freeboard Dr., Ste. 201, W. Sacramento, CA 95691, Phone # 916/447-9832 Ext. 1016 (office), 916/207-8814 (cell), jthompson@rcac.org

Thank you for your help,

Jean A. Thompson
RD Specialist – Environmental, RCAC

Rural Community Assistance Corporation

18 de abril de 2008

Estimado Cliente,

La Comunidad del Distrito de Servicios de Graton (GCSD) ha remitido una aplicación para obtener financiación de varios programas para las mejoras y la modernización de sistemas de agua del Programa de Subvenciones de Saneamiento de Pequeñas Comunidades de California. El Distrito de Servicios de la comunidad de Graton intenta obtener una subvención y préstamo para un proyecto de mejora de agua para proporcionar;

- Los elementos necesarios para cumplir con los mandatos de mejoras para el tratamiento de saneamiento.

Estas mejoras ayudarán con la fiabilidad del sistema, y permitirán a que el sistema reúna los requisitos de calidad de agua indicados por la junta de control de la calidad del agua del estado.

Como parte del proceso de aplicación para subvenciones, la comunidad de Graton necesitará efectuar una encuesta de ingresos domésticos de sus clientes. Esta encuesta de ingresos es necesaria para determinar si el área de servicio del distrito califica para préstamos y subvenciones disponibles para comunidades en desventaja.

El Distrito de Servicios de Grant ha pedido que Rural Community Assistance Corporation (RCAC) una entidad sin fines de lucro proporcione la ayuda. Muy pronto, recibirán por correo postal una encuesta de ingresos. Por favor completarla y regresarla en el sobre con porte prepagado que será incluido. Para ser considerado para alternativas de financiación optimas, se necesita una alta proporción de respuestas. Ningún dato identificativo se adjuntara con las encuestas. Las respuestas a esta encuesta son confidenciales.

Su ayuda es muy importante para que el distrito reciba préstamos y subvenciones de bajo interés de varias fuentes de financiamiento del estado, y permitirá a que GCSD complete las mejoras necesarias para su sistema de agua. Para más información por favor no dude en comunicarse con las personas que aparecen a continuación.

Robert Rawson, Gerente General, Graton Community Services District, PO 534, Graton, CA 95444. Telefono: 707-874-1542.

Jean A. Thompson, Especialista de Desarrollo Rural, Rural Community Assistance Corporation, 3120 Freeboard Dr., Ste. 201, W. Sacramento, CA 95691, Teléfono: 916/447-9832 Ext. 1016 (office), 916/207-8814 (cell), jthompson@rcac.org

Gracias de antemano por su ayuda,

Jean À. Thompson
Especialista de Desarrollo Rural – Programas Medioambientales, RCAC

Rural Community Assistance Corporation

April 25, 2008

ATTENTION: RESIDENTS OF GRATON COMMUNITY SERVICES DISTRICT

The Graton Community Services District has authorized Rural Community Assistance Corporation to conduct a confidential income survey in your neighborhood. Attached is the survey form that will be utilized to obtain the needed information. Please complete the survey to the best of your ability.

The information on this survey is necessary to assist the wastewater system obtains funding from California Small Community Wastewater Grant Program for wastewater funding programs. The funding will be used to make improvements that will help with system reliability, and allow the system to meet water quality requirements mandated by the State Water Quality Control Board.
This survey is being conducted to establish an accurate Median Household Income (MHI) of the water service area. The current MHI for the water service area was established using census data and estimates based on census data. The census data reflects an area much larger than the actual water service area. This survey is being conducted to provide an accurate MHI for the existing water service area.

This information will not be made public. It is important that the information you provided is an accurate representation of the questions asked. Please take the minute or two that it takes to complete the survey now. The Rural Community Assistance Corporation has enclosed self addressed postage paid envelop for you to return the completed survey form. If you request it, assistance can be arranged to help you fill it out. The envelopes are provided to maintain confidentiality of your information. The envelopes are numbered to keep track of who has turned in completed survey forms. If a response is not received within 10 days, you may receive a call and/or additional notice with a second copy of the form for your response. The District needs a high response rate to be considered for optimal funding alternatives. No identifying information will be kept with the questionnaires.

Once the completed surveys have been received, the Rural Community Assistance Corporation will analyze the responses, determine the Median Household Income for your community, and report the results to the California Small Community Wastewater Grant Program that disburses the loans and grants. **Responses to this survey form are confidential.**

If you would like more information about the survey and how the information will be utilized to assist the residents of Graton Community Services District please feel free to contact:

Robert Rawson, General Manager, Graton Community Services District, PO 534, Graton, CA 95444. Phone: 707-874-1542.

Jean Thompson, Rural Community Assistance Corporation, RD Specialist-Environment, 3120 Freeboard Dr., Ste. 201, W. Sacramento, CA 95691, (916) 447-9832 ext. 1016

Rural Community Assistance Corporation

April 25, 2008

ATENCIÓN: RESIDENTES DEL DISTRITO DE SERVICIOS COMUNITARIOS DE GRATON

El distrito de Servicios Comunitarios de Graton (MHP) ha autorizado a RCAC (Rural Community Assistance Corporation) a realizar una encuesta confidencial sobre los ingresos promedio por familia en su comunidad. El formulario adjunto sera utilizado para obtener la información solicitada. Por favor llénelo lo mejor posible.

La información contenida en esta encuesta es necesaria para documentar la solicitud de fondos del programa de donaciones California Small Community Wastewater. Los fondos serán utilizados para que la comunidad pueda reunir los requisitos mínimos de calidad del agua potable, establecidos por el estado a través del State Water Quality Control Board y al mismo tiempo, hacer las mejoras necesarias para mantenerse de acuerdo a los códigos establecidos en cuanto a mejoras y tratamiento de aguas de desecho. Esta encuesta sera también utilizada para tener una idea actualizada del Ingreso Promedio por Familia (MHI) del area de servicio. Los datos actuales para el area de servicio de agua de desechos, fue establecida en base a los datos estadísticos mas recientes y estimados de acuerdo a la información obtenida en el último censo de población. Según estas estadísticas, el area cubierta por el censo es mayor que la que el distrito atiende en la actualidad.

Esta información no será de dominio público. Es muy importante que la información proporcionada refleje fielmente la realidad en base a las preguntas formuladas. Por favor tómese el corto tiempo (uno o dos minutos) que se require para responder esta encuesta. RCAC (Rural Community Assistance Corporation) está adjuntando un sobre con nuestra dirección y servicio postal prepagado para que usted ponga la encuesta dentro del sobre. Si necesita ayuda adicional para llenar esta encuesta, la puede solicitar por anticipado. Los sobres individuales están numerados para determinar la participación en la encuesta y al mismo tiempo garantizar la confidencialidad de la información solicitada. Si en un plazo de 10 días no hemos recibido respuesta de su parte, un representante de nuestra organización se estará comunicando con usted por teléfono o por correo con una segunda notificación por escrito. El Distrito necesita la mayor cantidad de encuestas posibles para poder justificar la cantidad de personas que se beneficiarían al momento de recibir estos fondos. Su información personal estará protegida y solo se limita a lo que dice la encuesta.

Al completar la información, Rural Community Assistance Corporation tabulará y analizará los resultados, determinando los Ingresos Promedio por Familia en la comunidad y reportará esta información inmediatamente a California Small Community Wastewater Grant Program. **Todas las respuestas de esta encuesta son estrictamente confidenciales.**

Si desea mayor información sobre esta encuesta y como serán utilizados los resultados de la misma para beneficio de los residentes de la comunidad de Graton, SD favor de comunicarse con:

Robert Rawson, Gerente General, Graton Community Services District,
P.O. Box 534, Graton, CA 95444. Teléfono: 707-874-1542.

Jean Thompson, Rural Community Assistance Corporation, Especialista en Desarrollo Rural del Medio Ambiente, 3120 Freeboard Dr., Ste. 201, W. Sacramento, CA 95691, (916) 208-8814

Rural Community Assistance Corporation

May 12, 2008

ATTENTION: RESIDENTS OF GRATON COMMUNITY SERVICES DISTRICT

The Graton Community Services District (MHP) has authorized Rural Community Assistance Corporation to conduct a confidential income survey in your neighborhood. Attached is the survey form that will be utilized to obtain the needed information. Please complete the survey to the best of your ability.

The information on this survey is necessary to assist the community obtain funding from California Small Community Wastewater Grant Program. The funding will be used to meet water quality requirements mandated by the State Water Quality Control Board and upgrade necessary elements to comply with mandated wastewater treatment upgrades. This survey is being conducted to establish an accurate Median Household Income (MHI) of the water service area. The current MHI for the wastewater service area was established using census data and estimates based on census data. The census data reflects an area much larger than the actual District's service area. This survey is being conducted to provide an accurate MHI for the existing District's service area.

This information will not be made public. It is important that the information you provided is an accurate representation of the questions asked. Please take the minute or two that it takes to complete the survey now. The Rural Community Assistance Corporation has enclosed self addressed postage paid envelop for you to return the completed survey form. If you request it, assistance can be arranged to help you fill it out. The envelopes are provided to maintain confidentiality of your information. The envelopes are numbered to keep track of who has turned in completed survey forms. **We did not receive a response from you, so we are sending a second survey form. If a response is not received within 10 days, you may receive a call and/or an additional door to door survey for your response.** The District needs a high response rate to be considered for optimal funding alternatives. No identifying information will be kept with the questionnaires.

Once the completed surveys have been received, the Rural Community Assistance Corporation will analyze the responses, determine the Median Household Income for your community, and report the results to the California Small Community Wastewater Grant Program. **Responses to this survey form are confidential.**

If you would like more information about the survey and how the information will be utilized to assist the residents of Graton Community SD please feel free to contact:

Robert Rawson, General Manager, Graton Community Services District, P.O. Box 534, Graton, CA 95444. Phone: 707-874-1542.

Jean Thompson, Rural Community Assistance Corporation, RD Specialist-Environment, 3120 Freeboard Dr., Ste. 201, W. Sacramento, CA 95691, (916) 207-8814

Sacramento office: 3120 Freeboard Drive, Suite 201 West Sacramento, California 95691 916/447-2854 FAX: 916/447-2878 Website: *www.rcac.org*
Field offices: Alaska Arizona California Colorado Hawaii Idaho Montana Nevada New Mexico Oregon Utah Washington Wyoming

Rural Community Assistance Corporation

Mayo 12, 2008

ATENCIÓN: RESIDENTES DEL DISTRITO DE SERVICIOS COMUNITARIOS DE GRATON

El distrito de Servicios Comunitarios de Graton (MHP) ha autorizado a RCAC (Rural Community Assistance Corporation) a realizar una encuesta confidencial sobre los ingresos promedio por familia en su comunidad. El formulario adjunto sera utilizado para obtener la información solicitada. Por favor llénelo lo mejor posible.

La información contenida en esta encuesta es necesaria para documentar la solicitud de fondos del programa de donaciones California Small Community Wastewater. Los fondos serán utilizados para que la comunidad pueda reunir los requisitos mínimos de calidad del agua potable, establecidos por el estado a través del State Water Quality Control Board y al mismo tiempo, hacer las mejoras necesarias para mantenerse de acuerdo a los códigos establecidos en cuanto a mejoras y tratamiento de aguas de desecho. Esta encuesta sera también utilizada para tener una idea actualizada del Ingreso Promedio por Familia (MHI) del area de servicio. Los datos actuales para el area de servicio de agua de desechos, fue establecida en base a los datos estadísticos mas recientes y estimados de acuerdo a la información obtenida en el último censo de población. Según estas estadísticas, el area cubierta por el censo es mayor que la que el distrito atiende en la actualidad.

Esta información no será de dominio público. Es muy importante que la información proporcionada refleje fielmente la realidad en base a las preguntas formuladas. Por favor tómese el corto tiempo (uno o dos minutos) que se require para responder esta encuesta. Le estamos enviando un nuevo formulario de encuesta ya que no recibimos respuesta al formulario anterior, si no recibimos respuesta en 10 días, usted puede recibir una llamada telefónica o un encuestador le puede visitar en su domicilio para obtener la información requerida por escrito.

RCAC (Rural Community Assistance Corporation) está adjuntando un sobre con nuestra dirección y servicio postal prepagado para que usted ponga la encuesta dentro del sobre. Si necesita ayuda adicional para llenar esta encuesta, la puede solicitar por anticipado. Los sobres individuales están numerados para determinar la participación en la encuesta y al mismo tiempo garantizar la confidencialidad de la información solicitada. Si en un plazo de 10 días no hemos recibido respuesta de su parte, un representante de nuestra organización se estará comunicando con usted por teléfono o por correo con una segunda notificación por escrito. El Distrito necesita la mayor cantidad de encuestas posibles para poder justificar la cantidad de personas que se beneficiarían al momento de recibir estos fondos. Su información personal estará protegida y solo se limita a lo que dice la encuesta.

Al completar la información, Rural Community Assistance Corporation tabulará y analizará los resultados, determinando los Ingresos Promedio por Familia en la comunidad y reportará esta información inmediatamente a California Small Community Wastewater Grant Program. **Todas las respuestas de esta encuesta son estrictamente confidenciales**.

Si desea mayor información sobre esta encuesta y como serán utilizados los resultados de la misma para beneficio de los residentes de la comunidad de Graton, SD favor de comunicarse con:

Robert Rawson, Gerente General, Graton Community Services District,
P.O. Box 534, Graton, CA 95444. Teléfono: 707-874-1542.

Jean Thompson, Rural Community Assistance Corporation, Especialista en Desarrollo Rural del Medio Ambiente, 3120 Freeboard Dr., Ste. 201, W. Sacramento, CA 95691, (916) 207-8814

(portal office) 3120 Freeboard Drive, Suite 201 West Sacramento, California 95691 916/447-2854 FAX 916/447-2878 Website: *www.rcac.org*
Field offices Alaska Arizona California Colorado Hawaii Idaho Montana Nevada New Mexico Oregon Utah Washington Wyoming

INCOME SURVEY

TO BE COMPLETED BY RESIDENTIAL USERS ONLY: Survey Number_____

1. Was this survey sent to a commercial business? Yes ☐ Stop and return the survey in the envelope provided.
   No ☐ Complete the survey.

2. Is this your primary residence? If not, please indicate the type of property: vacation home, rental property, etc._____

   a. If the property is a **rental,** please write "rental" on the Question 2 line. Then complete the information on the back of this form and return the survey in the envelope provided.

   b. If the property is a **vacation home,** please write "vacation home" on the Question 2 line. Then complete the rest of the survey below and return it in the envelope provided.

3. How many people reside at this household including children and adults? _____

4. What is the total annual income of **all** persons who live in this household? Include wages before deductions, public assistance, unemployment benefits, disability, Social Security, pensions, alimony, child support, net income from owning or operating a farm or business, earned and unearned income, and any other source of income received regularly. **Check one line only.**

Under $10,000	___	$20,000 - $20,999	___	$30,000 - $30,999	___	$40,000 - $40,999	___
$10,000 - $10,999	___	$21,000 - $21,999	___	$31,000 - $31,999	___	$41,000 - $41,999	___
$11,000 - $11,999	___	$22,000 - $22,999	___	$32,000 - $32,999	___	$42,000 - $42,999	___
$12,000 - $12,999	___	$23,000 - $23,999	___	$33,000 - $33,999	___	$43,000 - $43,999	___
$13,000 - $13,999	___	$24,000 - $24,999	___	$34,000 - $34,999	___	$44,000 - $44,670	___
$14,000 - $14,999	___	$25,000 - $25,999	___	$35,000 - $35,999	___	$44,671 - $45,999	___
$15,000 - $15,999	___	$26,000 - $26,999	___	$36,000 - $36,294	___	$46,000 - $46,999	___
$16,000 - $16,999	___	$27,000 - $27,999	___	$36,295 - $37,999	___	$47,000 - $47,999	___
$17,000 - $17,999	___	$28,000 - $28,999	___	$38,000 - $38,999	___	$48,000 - $48,999	___
$18,000 - $18,999	___	$29,000 - $29,999	___	$39,000 - $39,999	___	$49,000 - $55,837	___
$19,000 - $19,999	___					$55,838 - or more	___

5. Date of Survey _____

Please return this survey to RCAC in the enclosed postage-paid envelope.

2c. (*Continued from front page*) If property is a rental, please complete the information below:

Revised 2/20/07

Property Rental Information

Renters Name:	_____
Mailing Address:	_____ _____ _____
Service Address:	_____ _____ _____

ENCUESTA DE INGRESOS

*SOLAMENTE USUARIOS RESIDENCIALES DEBEN COMPLETAR ESTA ENCUESTA

Número de Encuesta: _____

1. Esta encuesta fue enviada a un establecimiento comercial. [Si] Por favor no complete la encuesta y devolver en el adjunto.
   [No] Complete la encuesta

2. ¿Es este su domicilio principal? Sí _____ No _____
   Si no lo es, por favor explique (casa vacacional, propiedad de alquiler, etc.)
   _____
   _____

   a. Si la propiedad esta de **alquiler**, por favor escribe 'alquiler' en la línea por pregunta #2. Por favor completar la información al otro lado de este formulario y regrese esta encuesta usando el sobre se incluye.
   b. Si la propiedad esta una casa vacacional, por favor escribe 'casa vacacional' en la línea por pregunta #2. Por favor completa la encuesta abajo y regrese esta encuesta usando el sobre que se incluye.

3. ¿Cuántas personas viven en este domicilio? (incluyendo niños y adultos) _____

4. ¿Cuál fué el ingreso total anual de **todas** las personas que habitan este domicilio? (Incluya: sueldos antes de las deducciones, asistencia pública, beneficios de desempleo, incapacidad, Seguro Social, pensiones, manutención, apoyo financiero de menores, ingreso neto por operar o ser propietario de grania o negocio, cualquier otra fuente de ingresos, ganados o no, obtenidos regularmente). **Solamente marque una categoría.**

Menos de $10,000 ____	$20,000 - $20,999 ____	$30,000 - $30,999 ____	$40,000 - $40,999 ____
$10,000 - $10,999 ____	$21,000 - $21,999 ____	$31,000 - $31,999 ____	$41,000 - $41,999 ____
$11,000 - $11,999 ____	$22,000 - $22,999 ____	$32,000 - $32,999 ____	$42,000 - $42,999 ____
$12,000 - $12,999 ____	$23,000 - $23,999 ____	$33,000 - $33,999 ____	$43,000 - $43,999 ____
$13,000 - $13,999 ____	$24,000 - $24,999 ____	$34,000 - $34,999 ____	$44,000 - $44,670 ____
$14,000 - $14,999 ____	$25,000 - $25,999 ____	$35,000 - $35,999 ____	$44,671 - $45,999 ____
$15,000 - $15,999 ____	$26,000 - $26,999 ____	$36,000 - $36,294 ____	$46,000 - $46,999 ____
$16,000 - $16,999 ____	$27,000 - $27,999 ____	$36,295 - $37,999 ____	$47,000 - $47,999 ____
$17,000 - $17,999 ____	$28,000 - $28,999 ____	$38,000 - $38,999 ____	$48,000 - $48,999 ____
$18,000 - $18,999 ____	$29,000 - $29,999 ____	$39,000 - $39,999 ____	$49,000 - $55,837 ____
$19,000 - $19,999 ____			$55,838 - o mas ____

Fecha de la Encuesta _____

Income Survey, Spanish *Nov 2007*

2a. (*Continua de la página anterior*) Si la propiedad es de alquiler, por favor complete la información abajo:

Informacion de Propriedad de Alquiler

Nombre de inquilino:	_____
Dirección de correo:	_____ _____ _____
Dirección física de la vivienda:	_____ _____ _____

Exhibit E

Median Household Income Data

For Graton Community Services District

Graton Community Services District Responses						
Ascending Order	Survey Number	Response Date	Number in Household	Income Level	Primary Residence	Percentage of TIG
1	GR-025	4/13/2009	1	$10,000	Yes	30%
2	GR-040	5/21/2008	1	$10,000	Yes	30%
3	GR-074	5/6/2008	1	$10,000	Yes	30%
4	GR-102	5/12/2008	1	$10,000	Yes	30%
5	GR-147	5/8/2008	2	$10,000	Yes	30%
6	GR-154	5/27/2008	2	$10,000	Yes	30%
7	GR-158	3/28/2009	1	$10,000	Yes	30%
8	GR-168	5/10/2008	1	$10,000	Yes	30%
9	GR-182	5/31/2008	2	$10,000	Yes	30%
10	GR-262	5/21/2008	1	$10,000	Yes	30%
11	GR-297	5/7/2008	10	$10,000	Yes	30%
12	GR-307/B	5/31/2008	1	$10,000	Yes	30%
13	GR-358	5/31/2008	1	$10,000	Yes	30%
14	GR-365	5/18/2008	4	$10,000	Yes	30%
15	GR-035	5/31/2008	2	$10,999	Yes	30%
16	GR-212	5/7/2008	2	$10,999	Yes	30%
17	GR-241	3/9/2009	2	$10,999	Yes	30%
18	GR-383	3/9/2009	1	$10,999	Yes	30%
19	GR-050	5/5/2008	1	$12,999	Yes	30%
20	GR-092	5/10/2008	1	$12,999	Yes	30%
21	GR-099	5/27/2008	2	$12,999	Yes	30%
22	GR-237	5/8/2008	1	$12,999	Yes	30%
23	GR-300	3/28/2009	3	$12,999	Yes	30%
24	GR-342	3/7/2009	1	$12,999	Yes	30%
25	GR-377	5/31/2008	2	$12,999	Yes	30%
26	GR-427	4/4/2009	3	$12,999	Yes	30%
27	GR-070	2/12/2009	1	$13,999	Yes	30%
28	GR-169	6/13/2008	2	$13,999	Yes	30%
29	GR-173	5/19/2008	3	$13,999	Yes	30%
30	GR-363	5/18/2008	3	$13,999	Yes	30%
31	GR-094/A	5/31/2008	3	$15,999	Yes	30%
32	GR-111	5/31/2008	4	$15,999	Yes	30%
33	GR-232	5/28/2008	2	$15,999	Yes	30%
34	GR-252	5/30/2008	1	$15,999	Yes	30%
35	GR-273	5/31/2008	2	$15,999	Yes	30%
36	GR-333	5/11/2008	2	$15,999	Yes	30%
37	GR-316	5/8/2008	1	$16,999	Yes	50%
38	GR-337	5/31/2008	1	$16,999	Yes	50%
39	GR-361	5/23/2008	2	$16,999	Yes	30%
40	GR-429	3/28/2009	1	$16,999	Yes	50%

80

41	**GR-430**	3/28/2009	1	$16,999	Yes	50%
42	**GR-100**	6/20/2008	3	$17,999	Yes	30%
43	**GR-006**	5/30/2008	1	$18,999	Yes	50%
44	**GR-029**	5/8/2008	1	$18,999	Yes	50%
45	**GR-048**	3/9/2009	1	$18,999	Yes	50%
46	**GR-101**	5/8/2008	3	$18,999	Yes	30%
47	**GR-130**	5/7/2008	1	$18,999	Yes	50%
48	**GR-251**	5/8/2008	2	$18,999	Yes	30%
49	**GR-390**	5/27/2008	2	$18,999	Yes	30%
50	**GR-028**	5/5/2008	1	$19,999	Yes	50%
51	**GR-129**	5/31/2008	2	$19,999	Yes	50%
52	**GR-134**	5/12/2008	1	$19,999	Yes	50%
53	**GR-170**	5/31/2008	4	$19,999	Yes	30%
54	**GR-263**	5/15/2008	2	$19,999	Yes	50%
55	**GR-285**	5/30/2008	4	$19,999	Yes	30%
56	**GR-076**	3/28/2009	2	$20,999	Yes	50%
57	**GR-091**	5/21/2008	2	$20,999	Yes	50%
58	**GR-104**	3/28/2009	2	$20,999	Yes	50%
59	**GR-136**	3/9/2009	1	$20,999	Yes	50%
60	**GR-221**	6/15/2008	3	$20,999	Yes	30%
61	**GR-229**	5/8/2008	1	$20,999	Yes	50%
62	**GR-231**	5/12/2008	1	$20,999	Yes	50%
63	**GR-233**	5/30/2008	5	$20,999	Yes	30%
64	**GR-351**	5/31/2008	4	$20,999	Yes	30%
65	**GR-125**	5/14/2008	2	$21,999	Yes	50%
66	**GR-416**	5/29/2008	5	$21,999	Yes	30%
67	**GR-058**	5/7/2008	2	$22,999	Yes	50%
68	**GR-082**	5/7/2008	3	$22,999	Yes	50%
69	**GR-200**	5/31/2008	3	$22,999	Yes	50%
70	**GR-211**	5/24/2008	2	$22,999	Yes	50%
71	**GR-343**	5/12/2008	2	$22,999	Yes	50%
72	**GR-106**	5/31/2008	2	$23,999	Yes	50%
73	**GR-181**	5/11/2008	1	$23,999	Yes	50%
74	**GR-272**	5/22/2008	2	$23,999	Yes	50%
75	**GR-292**	5/7/2008	3	$23,999	Yes	50%
76	**GR-322**	5/27/2008	2	$23,999	Yes	50%
77	**GR-373**	5/7/2008	2	$23,999	Yes	50%
78	**GR-098**	5/29/2008	2	$24,999	Yes	50%
79	**GR-105**	5/12/2008	1	$24,999	Yes	50%
80	**GR-116**	5/8/2008	2	$24,999	Yes	50%
81	**GR-119**	5/31/2008	3	$24,999	Yes	50%
82	**GR-141**	5/19/2008	2	$24,999	Yes	50%
83	**GR-205**	5/15/2008	1	$24,999	Yes	50%
84	**GR-352**	5/8/2008	2	$24,999	Yes	50%
85	**GR-376**	5/8/2008	2	$24,999	Yes	50%

86	GR-411	5/19/2008	4	$24,999	Yes	50%
87	GR-001	5/8/2008	4	$25,999	Yes	50%
88	GR-137	5/21/2008	2	$25,999	Yes	50%
89	GR-226	5/31/2008	1	$25,999	Yes	50%
90	GR-245	3/9/2009	1	$25,999	Yes	50%
91	GR-304	5/7/2008	3	$25,999	Yes	50%
92	GR-346	5/19/2008	2	$25,999	Yes	50%
93	GR-375	5/8/2008	3	$25,999	Yes	50%
94	GR-081	5/14/2008	3	$26,999	Yes	50%
95	GR-140	5/27/2008	1	$26,999	Yes	50%
96	GR-258	5/29/2008	2	$26,999	Yes	50%
97	GR-286	4/4/2009	8	$26,999	Yes	30%
98	GR-319	3/28/2009	1	$26,999	Yes	50%
99	GR-382	6/1/2008	2	$26,999	Yes	50%
100	GR-393	5/31/2008	3	$26,999	Yes	50%
101	GR-402	3/28/2009	4	$26,999	Yes	50%
102	GR-075	5/5/2008	3	$27,999	Yes	50%
103	GR-218	5/31/2008	2	$27,999	Yes	50%
104	GR-282	5/11/2008	2	$27,999	Yes	50%
105	GR-329	5/8/2008	2	$27,999	Yes	50%
106	GR-356	3/18/2009	2	$27,999	Yes	50%
107	GR-401	5/15/2008	5	$27,999	Yes	50%
108	GR-021	5/5/2008	4	$28,999	Yes	50%
109	GR-115	5/27/2008	1	$28,999	Yes	60%
110	GR-142	5/30/2008	4	$28,999	Yes	50%
111	GR-384	5/28/2008	3	$28,999	Yes	50%
112	GR-396	5/13/2008	2	$28,999	Yes	50%
113	GR-204	5/7/2008	2	$29,999	Yes	50%
114	GR-274	5/12/2008	2	$29,999	Yes	50%
115	GR-309	5/14/2008	4	$29,999	Yes	50%
116	GR-323	5/31/2008	8	$29,999	Yes	30%
117	GR-374	5/30/2008	1	$29,999	Yes	60%
118	GR-162	5/6/2008	1	$30,999	Yes	60%
119	GR-191	5/31/2008	2	$30,999	Yes	50%
120	GR-194	3/7/2009	2	$30,999	Yes	50%
121	GR-276	5/31/2008	1	$30,999	Yes	60%
122	GR-288	5/19/2008	2	$30,999	Yes	50%
123	GR-289	5/24/2008	1	$30,999	Yes	60%
124	GR-392	5/8/2008	3	$30,999	Yes	50%
125	GR-069	5/5/2008	1	$31,999	Yes	60%
126	GR-094/C	5/31/2008	3	$31,999	Yes	50%
127	GR-357	5/21/2008	2	$31,999	Yes	50%
128	GR-360	5/8/2008	3	$31,999	Yes	50%
129	GR-431	3/7/2009	2	$31,999	Yes	50%
130	GR-013	5/5/2008	3	$32,999	Yes	50%

1/7

131	GR-077	4/4/2009	2	$32,999	Yes	60%
132	GR-387	4/4/2009	5	$32,999	Yes	50%
133	GR-094/B	5/31/2008	3	$33,999	Yes	50%
134	GR-391	5/29/2008	3	$33,999	Yes	50%
135	GR-422	3/28/2009	4	$33,999	Yes	50%
136	GR-213	5/12/2008	2	$34,999	Yes	60%
60% of California Statewide Median Household Income is $35,048 (60% of $58,414 = $35,048)						
137	GR-143	3/28/2009	2	$35,999	Yes	60%
138	GR-228	4/4/2009	1	$35,999	Yes	80%
139	GR-380	5/12/2008	1	$36,294	Yes	80%
140	GR-005	5/8/2008	1	$37,999	Yes	80%
141	GR-079/B	5/30/2008	3	$37,999	Yes	60%
142	GR-189	5/7/2008	1	$37,999	Yes	80%
143	GR-027	5/30/2008	2	$38,999	Yes	80%
144	GR-179	5/7/2008	3	$38,999	Yes	60%
145	GR-279	5/8/2008	2	$38,999	Yes	80%
146	GR-326	5/12/2008	2	$38,999	Yes	80%
147	GR-038	5/8/2008	4	$39,999	Yes	50%
148	GR-243	5/13/2008	4	$39,999	Yes	50%
149	GR-020	5/31/2008	3	$40,999	Yes	60%
150	GR-063	3/28/2009	2	$40,999	Yes	80%
151	GR-306	5/6/2008	1	$40,999	Yes	80%
152	GR-404	5/27/2008	2	$40,999	Yes	80%
153	GR-045	5/8/2008	2	$41,999	Yes	80%
154	GR-298	5/8/2008	2	$41,999	Yes	80%
155	GR-312	3/7/2009	3	$41,999	Yes	60%
156	GR-203	5/22/2008	2	$42,999	Yes	80%
157	GR-210	6/15/2008	3	$42,999	Yes	60%
158	GR-321	5/31/2008	2	$42,999	Yes	80%
159	**GR-124**	**6/1/2008**	**5**	**$43,999**	**Yes**	**60%**
160	GR-133	5/8/2008	4	$43,999	Yes	60%
161	GR-183	5/7/2008	4	$44,670	Yes	60%
162	GR-277	5/18/2008	4	$44,670	Yes	60%
163	GR-281	5/31/2008	3	$44,670	Yes	80%
164	GR-412	5/25/2008	2	$44,670	Yes	80%
165	GR-096	2/8/2008	2	$45,000	Yes	80%
166	GR-389	5/30/2008	2	$45,999	Yes	80%
167	GR-420	5/26/2008	2	$45,999	Yes	80%
80% of California Statewide Median Household Income is $46,731 (80% of $58,414 = $46,731)						
168	GR-039	5/5/2008	3	$46,999	Yes	80%
169	GR-208	5/31/2008	2	$46,999	Yes	80%
170	GR-307/A	5/31/2008	5	$46,999	Yes	60%
171	GR-079/A	5/30/2008	2	$47,999	Yes	80%
172	GR-152	5/9/2008	2	$47,999	Yes	80%
173	GR-042	5/27/2008	4	$48,999	Yes	80%

174	**GR-334**	5/21/2008	2	$49,999	Yes	80%
175	**GR-340**	5/7/2008	3	$49,999	Yes	80%
176	**GR-403**	5/31/2008	3	$49,999	Yes	80%
177	**GR-032**	5/4/2008	2	$50,999	Yes	80%
178	**GR-153**	5/19/2008	4	$50,999	Yes	80%
179	**GR-155**	5/7/2008	2	$50,999	Yes	80%
180	**GR-186**	5/19/2008	2	$50,999	Yes	80%
181	**GR-225**	5/21/2008	2	$50,999	Yes	80%
182	**GR-348**	5/8/2008	2	$50,999	Yes	80%
183	**GR-407**	5/30/2008	3	$50,999	Yes	80%
184	**GR-095**	5/5/2008	3	$52,999	Yes	80%
185	**GR-406**	5/21/2008	1	$52,999	Yes	>80%
186	**GR-425**	5/31/2008	1	$52,999	Yes	>80%
187	**GR-408**	5/30/2008	2	$53,999	Yes	>80%
188	**GR-135**	5/29/2008	1	$54,999	Yes	>80%
189	**GR-255**	5/28/2008	1	$54,999	Yes	>80%
190	**GR-161**	5/7/2008	5	$55,837	Yes	80%
191	**GR-268**	5/8/2008	2	$55,837	Yes	>80%
192	**GR-278**	5/8/2008	4	$55,837	Yes	80%
193	**GR-284**	3/7/2009	3	$55,837	Yes	80%
194	**GR-002**	3/7/2009	4	>$55,838	Yes	80%
195	**GR-004**	5/6/2008	1	>$55,838	Yes	>80%
196	**GR-007**	5/30/2008	4	>$55,838	Yes	80%
197	**GR-009**	5/21/2008	2	>$55,838	Yes	>80%
198	**GR-018**	5/11/2008	3	>$55,838	Yes	80%
199	**GR-019**	5/31/2008	1	>$55,838	Yes	>80%
200	**GR-023**	5/29/2008	1	>$55,838	Yes	>80%
201	**GR-024**	5/7/2008	3	>$55,838	Yes	80%
202	**GR-026**	5/5/2008	2	>$55,838	Yes	>80%
203	**GR-031**	5/10/2008	2	>$55,838	Yes	>80%
204	**GR-033**	5/8/2008	2	>$55,838	Yes	>80%
205	**GR-034**	5/7/2008	2	>$55,838	Yes	>80%
206	**GR-036**	6/3/2008	3	>$55,838	Yes	80%
207	**GR-046**	5/5/2008	1	>$55,838	Yes	>80%
208	**GR-052**	5/5/2008	2	>$55,838	Yes	>80%
209	**GR-055**	5/17/2008	2	>$55,838	Yes	>80%
210	**GR-057**	5/8/2008	2	>$55,838	Yes	>80%
211	**GR-062**	5/27/2008	2	>$55,838	Yes	>80%
212	**GR-078**	6/9/2008	3	>$55,838	Yes	80%
213	**GR-080**	5/24/2008	1	>$55,838	Yes	>80%
214	**GR-083**	5/8/2008	3	>$55,838	Yes	80%
215	**GR-084**	5/5/2008	2	>$55,838	Yes	>80%
216	**GR-085**	5/31/2008	2	>$55,838	Yes	>80%
217	**GR-088**	5/17/2008	4	>$55,838	Yes	80%
218	**GR-093**	5/31/2008	7	>$55,838	Yes	80%

109

219	**GR-112**	6/1/2008	1	>$55,838	Yes	>80%
220	**GR-113**	5/23/2008	2	>$55,838	Yes	>80%
221	**GR-114**	5/7/2008	2	>$55,838	Yes	>80%
222	**GR-117**	5/7/2008	1	>$55,838	Yes	>80%
223	**GR-118**	5/21/2008	6	>$55,838	Yes	80%
224	**GR-120**	5/31/2008	4	>$55,838	Yes	80%
225	**GR-121**	5/31/2008	6	>$55,838	Yes	80%
226	**GR-122**	5/31/2008	6	>$55,838	Yes	80%
227	**GR-123**	5/8/2008	3	>$55,838	Yes	80%
228	**GR-128**	5/12/2008	4	>$55,838	Yes	80%
229	**GR-138**	5/7/2008	2	>$55,838	Yes	>80%
230	**GR-139**	5/22/2008	5	>$55,838	Yes	80%
231	**GR-146**	5/31/2008	3	>$55,838	Yes	80%
232	**GR-150**	5/12/2008	5	>$55,838	Yes	80%
233	**GR-151**	5/21/2008	2	>$55,838	Yes	>80%
234	**GR-156**	5/31/2008	5	>$55,838	Yes	80%
235	**GR-160**	5/21/2008	1	>$55,838	Yes	>80%
236	**GR-165**	5/19/2008	2	>$55,838	Yes	>80%
237	**GR-166**	5/20/2008	2	>$55,838	Yes	>80%
238	**GR-172**	5/21/2008	2	>$55,838	Yes	>80%
239	**GR-174**	5/12/2008	3	>$55,838	Yes	80%
240	**GR-175**	5/27/2008	3	>$55,838	Yes	80%
241	**GR-177**	6/18/2008	2	>$55,838	Yes	>80%
242	**GR-178**	5/9/2008	2	>$55,838	Yes	>80%
243	**GR-180**	5/30/2008	2	>$55,838	Yes	>80%
244	**GR-184**	5/30/2008	5	>$55,838	Yes	80%
245	**GR-187**	6/1/2008	3	>$55,838	Yes	80%
246	**GR-188**	5/27/2008	2	>$55,838	Yes	>80%
247	**GR-190**	5/8/2008	5	>$55,838	Yes	80%
248	**GR-192**	5/29/2008	2	>$55,838	Yes	>80%
249	**GR-193**	6/3/2008	2	>$55,838	Yes	>80%
250	**GR-195**	5/15/2008	2	>$55,838	Yes	>80%
251	**GR-196**	5/27/2008	4	>$55,838	Yes	80%
252	**GR-197**	5/22/2008	3	>$55,838	Yes	80%
253	**GR-198**	5/21/2008	2	>$55,838	Yes	>80%
254	**GR-199**	5/10/2008	3	>$55,838	Yes	80%
255	**GR-201**	5/28/2008	2	>$55,838	Yes	>80%
256	**GR-202**	5/8/2008	2	>$55,838	Yes	>80%
257	**GR-206**	5/6/2008	2	>$55,838	Yes	>80%
258	**GR-207**	5/6/2008	2	>$55,838	Yes	>80%
259	**GR-214**	5/7/2008	2	>$55,838	Yes	>80%
260	**GR-216**	5/16/2008	2	>$55,838	Yes	>80%
261	**GR-222**	5/14/2008	3	>$55,838	Yes	80%
262	**GR-223**	3/7/2009	5	>$55,838	Yes	80%
263	**GR-227**	5/27/2008	2	>$55,838	Yes	>80%

264	**GR-230**	5/25/2008	2	>$55,838	Yes	>80%
265	**GR-234**	5/26/2008	3	>$55,838	Yes	80%
266	**GR-235**	5/8/2008	2	>$55,838	Yes	>80%
267	**GR-239**	5/31/2008	5	>$55,838	Yes	80%
268	**GR-240**	5/12/2008	1	>$55,838	Yes	>80%
269	**GR-242**	5/12/2008	3	>$55,838	Yes	80%
270	**GR-244**	5/8/2008	3	>$55,838	Yes	80%
271	**GR-246**	5/10/2008	1	>$55,838	Yes	>80%
272	**GR-250**	5/30/2008	2	>$55,838	Yes	>80%
273	**GR-253**	5/22/2008	2	>$55,838	Yes	>80%
274	**GR-254**	5/31/2008	3	>$55,838	Yes	80%
275	**GR-257**	6/3/2008	4	>$55,838	Yes	80%
276	**GR-267**	5/29/2008	1	>$55,838	Yes	>80%
277	**GR-270**	5/7/2008	2	>$55,838	Yes	>80%
278	**GR-271**	6/1/2008	2	>$55,838	Yes	>80%
279	**GR-283**	5/21/2008	9	>$55,838	Yes	60%
280	**GR-287**	5/30/2008	2	>$55,838	Yes	>80%
281	**GR-291**	5/7/2008	3	>$55,838	Yes	80%
282	**GR-295**	5/8/2008	1	>$55,838	Yes	>80%
283	**GR-296**	5/9/2008	3	>$55,838	Yes	80%
284	**GR-299**	5/31/2008	2	>$55,838	Yes	>80%
285	**GR-303**	5/31/2008	5	>$55,838	Yes	80%
286	**GR-305**	5/8/2008	4	>$55,838	Yes	80%
287	**GR-310**	5/15/2008	3	>$55,838	Yes	80%
288	**GR-324**	5/30/2008	6	>$55,838	Yes	80%
289	**GR-327**	5/27/2008	2	>$55,838	Yes	>80%
290	**GR-330**	5/19/2008	1	>$55,838	Yes	>80%
291	**GR-332**	3/16/2009	1	>$55,838	Yes	>80%
292	**GR-335**	5/8/2008	2	>$55,838	Yes	>80%
293	**GR-336**	5/31/2008	3	>$55,838	Yes	80%
294	**GR-338**	5/31/2008	4	>$55,838	Yes	80%
295	**GR-339**	5/7/2008	4	>$55,838	Yes	80%
296	**GR-341**	5/7/2008	6	>$55,838	Yes	80%
297	**GR-344**	5/21/2008	1	>$55,838	Yes	>80%
298	**GR-345**	5/12/2008	2	>$55,838	Yes	>80%
299	**GR-347**	5/26/2008	2	>$55,838	Yes	>80%
300	**GR-350**	5/11/2008	2	>$55,838	Yes	>80%
301	**GR-353**	5/8/2008	4	>$55,838	Yes	80%
302	**GR-354**	5/21/2008	3	>$55,838	Yes	80%
303	**GR-362**	4/4/2009	2	>$55,838	Yes	>80%
304	**GR-367**	6/1/2008	3	>$55,838	Yes	80%
305	**GR-369**	5/30/2008	2	>$55,838	Yes	>80%
306	**GR-371**	5/9/2008	1	>$55,838	Yes	>80%
307	**GR-381**	5/12/2008	4	>$55,838	Yes	>80%
308	**GR-385**	5/7/2008	5	>$55,838	Yes	80%

309	**GR-394**	5/31/2008	2	>$55,838	Yes	>80%
310	**GR-405**	5/10/2008	2	>$55,838	Yes	>80%
311	**GR-409**	5/13/2008	4	>$55,838	Yes	80%
312	**GR-410**	6/4/2008	4	>$55,838	Yes	80%
313	**GR-414**	5/31/2008	3	>$55,838	Yes	80%
314	**GR-417**	5/24/2008	5	>$55,838	Yes	80%
315	**GR-419**	5/31/2008	1	>$55,838	Yes	>80%
316	**GR-426**	5/18/2008	4	>$55,838	Yes	80%
317	**GR-424**	5/18/2008		Refused Information	Yes	
Number 159, survey number GR-124 = the Median Household Income of $42,999						

25

76% of Population Responded

794 People = .76 X

Total Population = 1,045 People

Per R Calculation

Exhibit F

State CDBG and HOME Table of 2009 Income Limits

State CDBG's and HOME's Table of 2009 Income Limits
Effective April 27, 2009

County	INCOME * CATEGORY	NUMBER OF PERSONS IN HOUSEHOLD 1	2	3	4	5	6	7	8
Alameda County	"30%" Limit	18,750	21,450	24,100	26,800	28,950	31,100	33,250	35,400
	"50%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950
	"60%" Limit	37,500	42,840	48,240	53,580	57,840	62,160	66,420	70,740
	"80%" Limit	46,350	53,000	59,600	66,250	71,550	76,850	82,150	87,450
Alpine County	"30%" Limit	14,550	16,650	18,700	20,800	22,450	24,150	25,800	27,450
	"50%" Limit	24,300	27,750	31,250	34,700	37,500	40,250	43,050	45,800
	"60%" Limit	29,160	33,300	37,500	41,640	45,000	48,300	51,660	54,960
	"80%" Limit	38,850	44,400	49,950	55,500	59,950	64,400	68,800	73,250
Amador County	"30%" Limit	14,300	16,300	18,350	20,400	22,050	23,650	25,300	26,950
	"50%" Limit	23,800	27,200	30,600	34,000	36,700	39,450	42,150	44,900
	"60%" Limit	28,560	32,640	36,720	40,800	44,040	47,340	50,580	53,880
	"80%" Limit	38,100	43,500	48,950	54,400	58,750	63,100	67,450	71,800
Butte County	"30%" Limit	11,750	13,400	15,100	16,750	18,100	19,450	20,750	22,100
	"50%" Limit	19,550	22,300	25,100	27,900	30,150	32,350	34,600	36,850
	"60%" Limit	23,460	26,760	30,120	33,480	36,180	38,820	41,520	44,220
	"80%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950
Calaveras County	"30%" Limit	13,250	15,150	17,050	18,950	20,450	22,000	23,500	25,000
	"50%" Limit	22,100	25,250	28,400	31,550	34,050	36,600	39,100	41,650
	"60%" Limit	26,520	30,300	34,080	37,860	40,860	43,920	46,920	49,980
	"80%" Limit	35,350	40,400	45,450	50,500	54,550	58,600	62,600	66,650
Colusa County	"30%" Limit	11,750	13,400	15,100	16,750	18,100	19,450	20,750	22,100
	"50%" Limit	19,550	22,300	25,100	27,900	30,150	32,350	34,600	36,850
	"60%" Limit	23,460	26,760	30,120	33,480	36,180	38,820	41,520	44,220
	"80%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950
Contra Costa County	"30%" Limit	18,750	21,450	24,100	26,800	28,950	31,100	33,250	35,400
	"50%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950
	"60%" Limit	37,500	42,840	48,240	53,580	57,840	62,160	66,420	70,740
	"80%" Limit	46,350	53,000	59,600	66,250	71,550	76,850	82,150	87,450
Del Norte County	"30%" Limit	11,750	13,400	15,100	16,750	18,100	19,450	20,750	22,100
	"50%" Limit	19,550	22,300	25,100	27,900	30,150	32,350	34,600	36,850
	"60%" Limit	23,460	26,760	30,120	33,480	36,180	38,820	41,520	44,220
	"80%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950
El Dorado County	"30%" Limit	15,300	17,500	19,650	21,850	23,600	25,350	27,100	28,850
	"50%" Limit	25,500	29,100	32,750	36,400	39,300	42,200	45,150	48,050
	"60%" Limit	30,600	34,920	39,300	43,680	47,160	50,640	54,180	57,660
	"80%" Limit	40,800	46,600	52,450	58,250	62,900	67,550	72,250	76,900
Fresno County	"30%" Limit	11,750	13,400	15,100	16,750	18,100	19,450	20,750	22,100
	"50%" Limit	19,550	22,300	25,100	27,900	30,150	32,350	34,600	36,850
	"60%" Limit	23,460	26,760	30,120	33,480	36,180	38,820	41,520	44,220
	"80%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950

* Percentages may not be mathematically related to each other. Percents are used as names for the categories because programs' actual names for limits differ.

State CDBG's and HOME's Table of 2009 Income Limits
Effective April 27, 2009

County	INCOME * CATEGORY	NUMBER OF PERSONS IN HOUSEHOLD 1	2	3	4	5	6	7	8
Glenn County	"30%" Limit	11,750	13,400	15,100	16,750	18,100	19,450	20,750	22,100
	"50%" Limit	19,550	22,300	25,100	27,900	30,150	32,350	34,600	36,850
	"60%" Limit	23,460	26,760	30,120	33,480	36,180	38,820	41,520	44,220
	"80%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950
Humboldt County	"30%" Limit	11,750	13,400	15,100	16,750	18,100	19,450	20,750	22,100
	"50%" Limit	19,550	22,300	25,100	27,900	30,150	32,350	34,600	36,850
	"60%" Limit	23,460	26,760	30,120	33,480	36,180	38,820	41,520	44,220
	"80%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950
Imperial County	"30%" Limit	11,750	13,400	15,100	16,750	18,100	19,450	20,750	22,100
	"50%" Limit	19,550	22,300	25,100	27,900	30,150	32,350	34,600	36,850
	"60%" Limit	23,460	26,760	30,120	33,480	36,180	38,820	41,520	44,220
	"80%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950
Inyo County	"30%" Limit	12,550	14,300	16,100	17,900	19,350	20,750	22,200	23,650
	"50%" Limit	20,900	23,900	26,850	29,850	32,250	34,650	37,000	39,400
	"60%" Limit	25,080	28,680	32,220	35,820	38,700	41,580	44,400	47,280
	"80%" Limit	33,450	38,200	43,000	47,750	51,550	55,400	59,200	63,050
Kern County	"30%" Limit	11,750	13,400	15,100	16,750	18,100	19,450	20,750	22,100
	"50%" Limit	19,550	22,300	25,100	27,900	30,150	32,350	34,600	36,850
	"60%" Limit	23,460	26,760	30,120	33,480	36,180	38,820	41,520	44,220
	"80%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950
Kings County	"30%" Limit	11,750	13,400	15,100	16,750	18,100	19,450	20,750	22,100
	"50%" Limit	19,550	22,300	25,100	27,900	30,150	32,350	34,600	36,850
	"60%" Limit	23,460	26,760	30,120	33,480	36,180	38,820	41,520	44,220
	"80%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950
Lake County	"30%" Limit	11,750	13,400	15,100	16,750	18,100	19,450	20,750	22,100
	"50%" Limit	19,550	22,300	25,100	27,900	30,150	32,350	34,600	36,850
	"60%" Limit	23,460	26,760	30,120	33,480	36,180	38,820	41,520	44,220
	"80%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950
Lassen County	"30%" Limit	12,100	13,850	15,550	17,300	18,700	20,050	21,450	22,850
	"50%" Limit	20,150	23,050	25,900	28,800	31,100	33,400	35,700	38,000
	"60%" Limit	24,180	27,660	31,080	34,560	37,320	40,080	42,840	45,600
	"80%" Limit	32,250	36,900	41,500	46,100	49,800	53,500	57,150	60,850
Los Angeles County	"30%" Limit	16,650	19,050	21,400	23,800	25,700	27,600	29,500	31,400
	"50%" Limit	27,750	31,700	35,700	39,650	42,800	46,000	49,150	52,350
	"60%" Limit	33,300	38,040	42,840	47,580	51,360	55,200	58,980	62,820
	"80%" Limit	44,400	50,750	57,100	63,450	68,550	73,600	78,700	83,750
Madera County	"30%" Limit	11,750	13,400	15,100	16,750	18,100	19,450	20,750	22,100
	"50%" Limit	19,550	22,300	25,100	27,900	30,150	32,350	34,600	36,850
	"60%" Limit	23,460	26,760	30,120	33,480	36,180	38,820	41,520	44,220
	"80%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950

* Percentages may not be mathematically related to each other. Percents are used as names for the categories because programs' actual names for limits differ.

State CDBG's and HOME's Table of 2009 Income Limits
Effective April 27, 2009

County	INCOME * CATEGORY	NUMBER OF PERSONS IN HOUSEHOLD 1	2	3	4	5	6	7	8
Marin County	"30%" Limit	23,750	27,150	30,550	33,950	36,650	39,400	42,100	44,800
	"50%" Limit	39,600	45,250	50,900	56,550	61,050	65,600	70,100	74,650
	"60%" Limit	47,520	54,300	61,080	67,860	73,260	78,720	84,120	89,580
	"80%" Limit	63,350	72,400	81,450	90,500	97,700	104,950	112,200	119,450
Mariposa County	"30%" Limit	11,900	13,600	15,300	17,000	18,350	19,700	21,100	22,450
	"50%" Limit	19,800	22,650	25,450	28,300	30,550	32,850	35,100	37,350
	"60%" Limit	23,760	27,180	30,540	33,960	36,660	39,420	42,120	44,820
	"80%" Limit	31,700	36,250	40,750	45,300	48,900	52,550	56,150	59,800
Mendocino County	"30%" Limit	11,750	13,400	15,100	16,750	18,100	19,450	20,750	22,100
	"50%" Limit	19,550	22,300	25,100	27,900	30,150	32,350	34,600	36,850
	"60%" Limit	23,460	26,760	30,120	33,480	36,180	38,820	41,520	44,220
	"80%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950
Merced County	"30%" Limit	11,750	13,400	15,100	16,750	18,100	19,450	20,750	22,100
	"50%" Limit	19,550	22,300	25,100	27,900	30,150	32,350	34,600	36,850
	"60%" Limit	23,460	26,760	30,120	33,480	36,180	38,820	41,520	44,220
	"80%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950
Modoc County	"30%" Limit	11,750	13,400	15,100	16,750	18,100	19,450	20,750	22,100
	"50%" Limit	19,550	22,300	25,100	27,900	30,150	32,350	34,600	36,850
	"60%" Limit	23,460	26,760	30,120	33,480	36,180	38,820	41,520	44,220
	"80%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950
Mono County	"30%" Limit	14,050	16,100	18,100	20,100	21,700	23,300	24,900	26,550
	"50%" Limit	23,450	26,800	30,150	33,500	36,200	38,850	41,550	44,200
	"60%" Limit	28,140	32,160	36,180	40,200	43,440	46,620	49,860	53,040
	"80%" Limit	37,500	42,900	48,250	53,600	57,900	62,200	66,450	70,750
Monterey County	"30%" Limit	14,150	16,150	18,200	20,200	21,800	23,450	25,050	26,650
	"50%" Limit	23,550	26,900	30,300	33,650	36,350	39,050	41,750	44,400
	"60%" Limit	28,260	32,280	36,360	40,380	43,620	46,860	50,100	53,280
	"80%" Limit	37,700	43,100	48,450	53,850	58,150	62,450	66,750	71,100
Napa County	"30%" Limit	17,200	19,650	22,100	24,550	26,500	28,500	30,450	32,400
	"50%" Limit	28,650	32,700	36,800	40,900	44,150	47,450	50,700	54,000
	"60%" Limit	34,380	39,240	44,160	49,080	52,980	56,940	60,840	64,800
	"80%" Limit	44,800	51,200	57,600	64,000	69,100	74,250	79,350	84,500
Nevada County	"30%" Limit	14,550	16,600	18,700	20,750	22,400	24,050	25,750	27,400
	"50%" Limit	24,200	27,650	31,100	34,550	37,300	40,100	42,850	45,600
	"60%" Limit	29,040	33,180	37,320	41,460	44,760	48,120	51,420	54,720
	"80%" Limit	38,700	44,250	49,750	55,300	59,700	64,150	68,550	73,000
Orange County	"30%" Limit	19,550	22,300	25,100	27,900	30,150	32,350	34,600	36,850
	"50%" Limit	32,550	37,200	41,850	46,500	50,200	53,950	57,650	61,400
	"60%" Limit	39,060	44,640	50,220	55,800	60,240	64,740	69,180	73,680
	"80%" Limit	52,100	59,500	66,950	74,400	80,350	86,300	92,250	98,200

* Percentages may not be mathematically related to each other. Percents are used as names for the categories because programs' actual names for limits differ.

State CDBG's and HOME's Table of 2009 Income Limits
Effective April 27, 2009

County	INCOME * CATEGORY	NUMBER OF PERSONS IN HOUSEHOLD 1	2	3	4	5	6	7	8
Placer County	"30%" Limit	15,300	17,500	19,650	21,850	23,600	25,350	27,100	28,850
	"50%" Limit	25,500	29,100	32,750	36,400	39,300	42,200	45,150	48,050
	"60%" Limit	30,600	34,920	39,300	43,680	47,160	50,640	54,180	57,660
	"80%" Limit	40,800	46,600	52,450	58,250	62,900	67,550	72,250	76,900
Plumas County	"30%" Limit	12,850	14,700	16,500	18,350	19,800	21,300	22,750	24,200
	"50%" Limit	21,400	24,500	27,550	30,600	33,050	35,500	37,950	40,400
	"60%" Limit	25,680	29,400	33,060	36,720	39,660	42,600	45,540	48,480
	"80%" Limit	34,250	39,150	44,050	48,950	52,850	56,800	60,700	64,600
Riverside County	"30%" Limit	14,000	16,000	18,000	20,000	21,600	23,200	24,800	26,400
	"50%" Limit	23,300	26,650	29,950	33,300	35,950	38,650	41,300	43,950
	"60%" Limit	27,960	31,980	35,940	39,960	43,140	46,380	49,560	52,740
	"80%" Limit	37,300	42,650	47,950	53,300	57,550	61,850	66,100	70,350
Sacramento County	"30%" Limit	15,300	17,500	19,650	21,850	23,600	25,350	27,100	28,850
	"50%" Limit	25,500	29,100	32,750	36,400	39,300	42,200	45,150	48,050
	"60%" Limit	30,600	34,920	39,300	43,680	47,160	50,640	54,180	57,660
	"80%" Limit	40,800	46,600	52,450	58,250	62,900	67,550	72,250	76,900
San Benito County	"30%" Limit	16,850	19,300	21,700	24,100	26,050	27,950	29,900	31,800
	"50%" Limit	28,150	32,150	36,200	40,200	43,400	46,650	49,850	53,050
	"60%" Limit	33,780	38,580	43,440	48,240	52,080	55,980	59,820	63,660
	"80%" Limit	44,800	51,200	57,600	64,000	69,100	74,250	79,350	84,500
San Bernardino County	"30%" Limit	14,000	16,000	18,000	20,000	21,600	23,200	24,800	26,400
	"50%" Limit	23,300	26,650	29,950	33,300	35,950	38,650	41,300	43,950
	"60%" Limit	27,960	31,980	35,940	39,960	43,140	46,380	49,560	52,740
	"80%" Limit	37,300	42,650	47,950	53,300	57,550	61,850	66,100	70,350
San Diego County	"30%" Limit	17,350	19,850	22,300	24,800	26,800	28,750	30,750	32,750
	"50%" Limit	28,900	33,050	37,150	41,300	44,600	47,900	51,200	54,500
	"60%" Limit	34,680	39,660	44,580	49,560	53,520	57,480	61,440	65,400
	"80%" Limit	46,250	52,900	59,500	66,100	71,400	76,700	81,950	87,250
San Francisco County	"30%" Limit	23,750	27,150	30,550	33,950	36,650	39,400	42,100	44,800
	"50%" Limit	39,600	45,250	50,900	56,550	61,050	65,600	70,100	74,650
	"60%" Limit	47,520	54,300	61,080	67,860	73,260	78,720	84,120	89,580
	"80%" Limit	63,350	72,400	81,450	90,500	97,700	104,950	112,200	119,450
San Joaquin County	"30%" Limit	13,350	15,300	17,200	19,100	20,650	22,150	23,700	25,200
	"50%" Limit	22,250	25,450	28,600	31,800	34,350	36,900	39,450	42,000
	"60%" Limit	26,700	30,540	34,320	38,160	41,220	44,280	47,340	50,400
	"80%" Limit	35,650	40,700	45,800	50,900	54,950	59,050	63,100	67,200
San Luis Obispo County	"30%" Limit	14,900	17,000	19,150	21,250	22,950	24,650	26,350	28,050
	"50%" Limit	24,800	28,300	31,850	35,400	38,250	41,050	43,900	46,750
	"60%" Limit	29,760	33,960	38,220	42,480	45,900	49,260	52,680	56,100
	"80%" Limit	39,650	45,300	51,000	56,650	61,200	65,700	70,250	74,800

* Percentages may not be mathematically related to each other. Percents are used as names for the categories because programs' actual names for limits differ.

State CDBG's and HOME's Table of 2009 Income Limits
Effective April 27, 2009

County	INCOME * CATEGORY	NUMBER OF PERSONS IN HOUSEHOLD 1	2	3	4	5	6	7	8
San Mateo County	"30%" Limit	23,750	27,150	30,550	33,950	36,650	39,400	42,100	44,800
	"50%" Limit	39,600	45,250	50,900	56,550	61,050	65,600	70,100	74,650
	"60%" Limit	47,520	54,300	61,080	67,860	73,260	78,720	84,120	89,580
	"80%" Limit	63,350	72,400	81,450	90,500	97,700	104,950	112,200	119,450
Santa Barbara County	"30%" Limit	16,350	18,700	21,000	23,350	25,200	27,100	28,950	30,800
	"50%" Limit	27,250	31,100	35,000	38,900	42,000	45,100	48,250	51,350
	"60%" Limit	32,700	37,320	42,000	46,680	50,400	54,120	57,900	61,620
	"80%" Limit	43,600	49,800	56,050	62,250	67,250	72,200	77,200	82,150
Santa Clara County	"30%" Limit	22,300	25,500	28,650	31,850	34,400	36,950	39,500	42,050
	"50%" Limit	37,150	42,450	47,750	53,050	57,300	61,550	65,800	70,050
	"60%" Limit	44,580	50,940	57,300	63,660	68,760	73,860	78,960	84,060
	"80%" Limit	59,400	67,900	76,400	84,900	91,650	98,450	105,250	112,050
Santa Cruz County	"30%" Limit	19,450	22,250	25,000	27,800	30,000	32,250	34,450	36,700
	"50%" Limit	32,450	37,100	41,700	46,350	50,050	53,750	57,450	61,200
	"60%" Limit	38,940	44,520	50,040	55,620	60,060	64,500	68,940	73,440
	"80%" Limit	51,900	59,300	66,750	74,150	80,100	86,000	91,950	97,900
Shasta County	"30%" Limit	11,750	13,400	15,100	16,750	18,100	19,450	20,750	22,100
	"50%" Limit	19,550	22,300	25,100	27,900	30,150	32,350	34,600	36,850
	"60%" Limit	23,460	26,760	30,120	33,480	36,180	38,820	41,520	44,220
	"80%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950
Sierra County	"30%" Limit	12,400	14,150	15,950	17,700	19,100	20,550	21,950	23,350
	"50%" Limit	20,650	23,600	26,550	29,500	31,850	34,200	36,600	38,950
	"60%" Limit	24,780	28,320	31,860	35,400	38,220	41,040	43,920	46,740
	"80%" Limit	33,050	37,750	42,500	47,200	51,000	54,750	58,550	62,300
Siskiyou County	"30%" Limit	11,750	13,400	15,100	16,750	18,100	19,450	20,750	22,100
	"50%" Limit	19,550	22,300	25,100	27,900	30,150	32,350	34,600	36,850
	"60%" Limit	23,460	26,760	30,120	33,480	36,180	38,820	41,520	44,220
	"80%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950
Solano County	"30%" Limit	16,650	19,050	21,400	23,800	25,700	27,600	29,500	31,400
	"50%" Limit	27,800	31,750	35,750	39,700	42,900	46,050	49,250	52,400
	"60%" Limit	33,360	38,100	42,900	47,640	51,480	55,260	59,100	62,880
	"80%" Limit	44,450	50,800	57,150	63,500	68,600	73,650	78,750	83,800
Sonoma County	"30%" Limit	16,850	19,250	21,650	24,050	25,950	27,900	29,800	31,750
	"50%" Limit	28,050	32,100	36,100	40,100	43,300	46,500	49,700	52,950
	"60%" Limit	33,660	38,520	43,320	48,120	51,960	55,800	59,640	63,540
	"80%" Limit	44,800	51,200	57,600	64,000	69,100	74,250	79,350	84,500
Stanislaus County	"30%" Limit	12,550	14,300	16,100	17,900	19,350	20,750	22,200	23,650
	"50%" Limit	20,850	23,850	26,800	29,800	32,200	34,550	36,950	39,350
	"60%" Limit	25,020	28,620	32,160	35,760	38,640	41,460	44,340	47,220
	"80%" Limit	33,400	38,150	42,950	47,700	51,500	55,350	59,150	62,950

* Percentages may not be mathematically related to each other. Percents are used as names for the categories because programs' actual names for limits differ.

State CDBG's and HOME's Table of 2009 Income Limits
Effective April 27, 2009

County	INCOME * CATEGORY	NUMBER OF PERSONS IN HOUSEHOLD 1	2	3	4	5	6	7	8
Sutter County	"30%" Limit	11,750	13,400	15,100	16,750	18,100	19,450	20,750	22,100
	"50%" Limit	19,550	22,300	25,100	27,900	30,150	32,350	34,600	36,850
	"60%" Limit	23,460	26,760	30,120	33,480	36,180	38,820	41,520	44,220
	"80%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950
Tehama County	"30%" Limit	11,750	13,400	15,100	16,750	18,100	19,450	20,750	22,100
	"50%" Limit	19,550	22,300	25,100	27,900	30,150	32,350	34,600	36,850
	"60%" Limit	23,460	26,760	30,120	33,480	36,180	38,820	41,520	44,220
	"80%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950
Trinity County	"30%" Limit	11,750	13,400	15,100	16,750	18,100	19,450	20,750	22,100
	"50%" Limit	19,550	22,300	25,100	27,900	30,150	32,350	34,600	36,850
	"60%" Limit	23,460	26,760	30,120	33,480	36,180	38,820	41,520	44,220
	"80%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950
Tulare County	"30%" Limit	11,750	13,400	15,100	16,750	18,100	19,450	20,750	22,100
	"50%" Limit	19,550	22,300	25,100	27,900	30,150	32,350	34,600	36,850
	"60%" Limit	23,460	26,760	30,120	33,480	36,180	38,820	41,520	44,220
	"80%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950
Tuolumne County	"30%" Limit	12,250	14,000	15,750	17,500	18,900	20,300	21,700	23,100
	"50%" Limit	20,400	23,300	26,250	29,150	31,500	33,800	36,150	38,500
	"60%" Limit	24,480	27,960	31,500	34,980	37,800	40,560	43,380	46,200
	"80%" Limit	32,650	37,300	42,000	46,650	50,400	54,100	57,850	61,600
Ventura County	"30%" Limit	18,400	21,000	23,650	26,250	28,350	30,450	32,550	34,650
	"50%" Limit	30,650	35,000	39,400	43,750	47,250	50,750	54,250	57,750
	"60%" Limit	36,780	42,000	47,280	52,500	56,700	60,900	65,100	69,300
	"80%" Limit	49,000	56,000	63,000	70,000	75,600	81,200	86,800	92,400
Yolo County	"30%" Limit	15,250	17,450	19,600	21,800	23,550	25,300	27,050	28,800
	"50%" Limit	25,400	29,050	32,650	36,300	39,200	42,100	45,000	47,900
	"60%" Limit	30,480	34,860	39,180	43,560	47,040	50,520	54,000	57,480
	"80%" Limit	40,650	46,500	52,300	58,100	62,750	67,400	72,050	76,700
Yuba County	"30%" Limit	11,750	13,400	15,100	16,750	18,100	19,450	20,750	22,100
	"50%" Limit	19,550	22,300	25,100	27,900	30,150	32,350	34,600	36,850
	"60%" Limit	23,460	26,760	30,120	33,480	36,180	38,820	41,520	44,220
	"80%" Limit	31,250	35,700	40,200	44,650	48,200	51,800	55,350	58,950

References:

The federal Consolidated Plan regulations Section 91.305 Subpart D refer to the extremely low-income target group, the 30 percent level, used in both HOME and CDBG programs. For CDBG, 24 CFR 570.3 describes that HUD's income limits for the 50 percent and the 80 percent income levels are CDBG's Low- and Moderate-income limits, respectively. For HOME, 24 CFR 92.216 establishes what is called the "60% limit". HOME's income limits for the 50 percent and 80 percent levels are called Very Low- and Low-income, respectively.

For all income categories, the income limits for households larger than eight persons are determined as follows: for each person in excess of eight, add eight percent of the four-person "50%" limit to the "50%" limit for eight persons and round the answer to the nearest $50. For example, the nine-person "50"% limit for for Alameda County equals $62,500 ($44,650 * .08 = $ 3,572 added to $ 58,950 = $ 62,522 rounded to $62,500)

* Percentages may not be mathematically related to each other. Percents are used as names for the categories because programs' actual names for limits differ.

Exhibit G

Additional MHI Request Letter from Graton CSD

GRATONCOMMUNITY SERVICES DISTRICT

250 ROSS LANE • MAIL: PO BOX 534, GRATON, CALIFORNIA 95444 • 707/823-1542 • FAX 707/823-3713

GRATON CSD
WASTEWATER
PARKS & RECREATION

April 10, 2009

Jean A. Thompson, Rural Development Specialist - Environmental
Rural Community Assistance Corporation
3120 Freeboard Drive, Suite 201
Sacramento, CA 95691

RE: Graton Community Services District Household Income Survey

Dear Jean:

Enclosed please find results from our recent effort to provide additional coverage of our service district area residents. We hope that the enclosed returns will bring the response rate to an acceptable level, and that the returns validate our belief that the household income of the GCSD is indeed at a disadvantaged level. We regret that a few of the returns were opened by staff who were unaware of our desire to keep the results sealed.

For more information please feel free to contact me at 707-876-3093 or Robert Rawson, General Manager, Graton Community Services District, PO 534, Graton, CA 95444. Phone: 707-874-1542.

Thank you very much for your patience and for your help.

Sincerely

Abigail Myers for
Graton Community Services District

Exhibit H

Glossary of Acronyms

CDBG: Community Development Block Grant

GRATON (CSD): Graton Community Services District

HCD: State of California, Department of Housing and Community Development

MHI: Median Household Income

RCAC: Rural Community Assistance Corporation

TIG: Target Income Group

USDA-RD: United States Department of Agriculture – Rural Development