

APPENDIX 4.3

Project Proposal for Walnut Avenue

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Project Proposal: Walnut Avenue
Salinas Valley Disadvantaged Community
Drinking Water and Wastewater Planning Project

Introduction

The Walnut Avenue Water System is a small mixed-use property near the City of Greenfield in southern Monterey County. A median household income (MHI) survey conducted in 2016 established that residents' incomes were below the severely disadvantaged community definition of 60 percent of statewide household median income. The residential portion of the property is served by a domestic well with a water storage tank and on-site septic systems. Water quality deficiencies include consistent very high nitrate concentrations at more than three times the maximum contaminant level (MCL) and detection of 1, 2, 3 tri-chloropropane (1,2,3-TCP) greater than the MCL. In addition, water supply samples reveal periodic total coliform findings.

The Community Engineering Corps (CECorps) selected Walnut Avenue as a participating project for evaluation of the drinking water supply system by a professional team with Tarrah Henrie of Corona Environmental Consulting as the Project Lead. A Design Report was submitted to the Environmental Justice Coalition for Water (EJCW) in October, 2016 and was reviewed by the Salinas Valley Disadvantaged Community Drinking Water and Wastewater Planning Project Team (Project Team) and Technical Advisory Committee (TAC). The CECorps Report has been submitted as a deliverable for this grant. In August 2017, the CECorps team prepared a report for the wastewater system. The findings from the Wastewater Evaluation Report are incorporated into this update.

The project proposal has also been updated to include additional comments from the Project Team and the outcome of consultations with the property owner, LAFCO, the City of Greenfield, Monterey County and other interested parties. The proposed solution for the community, preliminary scope of work, schedule and budget have been updated to reflect the circumstances as currently known.

Project: Walnut Avenue Water and Wastewater Systems

Physical address:

39568 Walnut Avenue, Greenfield CA 93727

General geographic location:

Unincorporated southern Monterey County, west of Greenfield

System name and number, type:

Water: Walnut Av #02;

WS ID 2702099

Local small water system

Wastewater: On-site septic system

Other:

APN: 109-281-002-000

Zoning Designation: F/40

Planning Area: Central Salinas Valley

Fire District: Greenfield Fire Protection District

County Use Permit: Employee Housing

1. Project Summary

Ownership:

Privately owned

Owner:

Privately owned, state small water system and septic system

39568 Walnut Ave. Greenfield CA 92727

Services:

Water and wastewater on site

Connections:

Six residential connections

Known violations or restrictions:

The Monterey County Environmental Health Bureau (EHB) records for the Walnut Avenue System reported nitrate contaminations above the MCL since 1988. The concentration is now at more than three times the MCL. The well also tests positive for coliform periodically. Recent sampling has produced positive results for 1,2,3-Trichloropropane (1,2,3-TCP) in amounts that are above the Notification Level. Dwelling units are posted with a Do Not Drink Water notice in English and Spanish.

The wastewater system serving residences on the western part of the property has evidenced capacity issues including ponding indicating the need for repair, replacement or consolidation to correct incipient health and safety violations.

2. Project Background

Walnut Avenue is a six-unit residential development that was identified as a high priority project by the Project Team and the TAC due to water quality concerns. The primary water quality issue is nitrate contamination. Routine water quality monitoring samples have also tested positive for coliform, and CECorps water sampling detected 1,2,3-TCP. Please refer to the CECorps Report dated October 3, 2016 (page 8, Table 2: Water Quality Data for Analytes of Interest and page 9, Figure 3: Historical trends in Nitrate Data) for selected water quality testing information. The Walnut Avenue property is located in an unincorporated area of southern Monterey County with surrounding agricultural land uses consisting primarily of row crops and alfalfa fields. Walnut Avenue is a Monterey County public roadway bordering the northern lot line. The domestic well and 5,000-gallon water storage tank are located on the northerly portion of the parcel.

There are two septic systems on the property. The system located on the eastern side was upgraded in the past to include a second leach line and is functioning properly. The system on the western side has reportedly evidenced periodic ponding that may be attributed to inadequate capacity or saturation from overuse or soil conditions.

An MHI Survey conducted by EJCW in 2016 documented Severe Disadvantaged Community status (with an MHI of \$30,100). EJCW conducted a water and wastewater needs assessment in 2015, identifying water and wastewater concerns of residents in suspected disadvantaged community communities. Five out of six households in Walnut Avenue completed the water and wastewater assessment in 2015. Three rated their tap water quality as “moderate” while the other two rated their tap water as “poor.” All five reported using bottled water for drinking and three out of the five said they use tap water for cooking. Three out of the five households also reported yellow, red, or dirty water coming out of their taps.

Bottled water deliveries began in 2016 under the SWRCB Emergency Drinking Water Program to all six homes on the property including one occupied by the property owner. Responsibility for bottled water deliveries was recently transferred to the Coalition for Urban/Rural Environmental Stewardship (CURES), a project funded by Monterey County agricultural interests as part of a Settlement Agreement with the State Water Resources Control Board’s Office of Enforcement and the Central Coast Regional Water Quality Control Board (CCRWQCB).

The City of Greenfield’s Public Works Utility Supervisor verified that a metered potable water supply connection is available near the site for bulk purchase and delivery by a private water tanker. City-owned wells are continuing to produce at more than adequate levels to accommodate potential needs of the residents. The City is also able to provide sanitary sewer services to the property subject to approval by LAFCO and availability of non-City resources to pay for extending the sewer line to the property.

No applications for funding are currently in progress.

3. CECorps Recommendations

Water System

The CECorps team considered the feasibility of several alternatives to address water quality concerns and completed cost estimates for each. The preferred alternatives are to consolidate with the City of Greenfield's water system or to develop a new well on the property. The selections were based on likelihood of success, feasibility and cost.

The recommended alternatives are briefly summarized and CECorps report references are cited by page number.

Alternative 1: Consolidation with City of Greenfield water service:

This preferred alternative would connect the Walnut Avenue Water System to the City of Greenfield by a pipeline extension running approximately 4,510 feet to the nearest line terminus. The CECorps team also considered the option of incorporating one or both of the planned service extensions for two nearby Salinas Valley disadvantaged community projects: the Rocha Camp (Apple Avenue Water System #3) and Mittelsteadt properties (Apple Avenue Water Systems #1 and #4). Engineering design was completed through a State Revolving Fund (SRF) Planning Grant.

Reference: CECorps Water System Report pages 17-20

Alternative 2: Replacement well

A replacement well would be installed at a new, undetermined location at the Walnut Avenue property at probable depth of 800 feet, and sealed to a depth of at least 500 feet.

Reference: CECorps Water System Report page 20

Other Options

The CECorps team evaluated wellhead treatment options including reverse osmosis, biological denitrification, and electrodialysis. These options were not recommended due to high water waste and residue disposal challenges. Another treatment technology, strong base anion exchange (SBA-1X) would not remove the 1,2,3-TCP and would produce high chloride concentrations in the finished water. Additionally, wellhead treatment options would generally require increased operations and maintenance costs and operator certification in some circumstances.

Reference: CECorps Water System Report pages 12-17

Wastewater System

The CECorps team did not recommended a preferred option for the Walnut Avenue Wastewater system, instead offering two options for further consideration. The first option is consolidation with the City of Greenfield wastewater system either as a separate project or in conjunction with an extension to other disadvantaged communities along Apple Avenue. The second option is to upgrade the existing septic system through expansion of drain lines and leach field area.

Alternative 1 Consolidation With Greenfield

The CECorps team evaluated three potential consolidation alternatives:

Option 1: Walnut Ave. consolidation alone with a pipeline length of 4510 feet

Option 2: Walnut Ave. and Apple Avenue WS #3 (Rocha) also 4510 feet

Option 3: Walnut Ave., Apple Ave WS # 1, #3 and #4 with a pipeline of 5,260 feet

Individual lift stations would be installed at both septic tanks at Walnut Avenue and Apple Ave. WS # 1 and #4. According to the CECorps report, Apple Ave. WS # 3 would not require a lift station and would be a gravity feed connection directly into the City's sewer system.

Reference: CECorps Wastewater System Report pages 5-7

Alternative 2 Expansion of Wastewater System on Site

The CECorps team determined, based on a site visit and the owner's statement, that an upgrade similar to the system on the eastern side of the property would provide an adequate alternative for resolution of the wastewater system deficiency. Approximately 200 feet of secondary drainage pipe would be added to the existing system, expanding the land area for this purpose.

Reference: CECorps Wastewater system Report pages 7-8

4. CECorps Cost Estimates

Water System

A summary of the CECorps team capital and annual operations and maintenance cost analysis for each of the three consolidation options is shown in Table 5 of the CECorps Water System Report, page 20.

Alternative 1: Consolidation range: \$.87M to \$1.07M

Annual operations and maintenance included in City utility rates and estimated at \$2,500.
Refer to CECorps Water System Report page 20 for detail

Alternative 2: New Well estimate \$480,000

Annual operations and maintenance \$3,900
Refer to CECorps Water System Report page 21 for detail

Note: The Engineer's Memorandum (see Appendix 4.14) regarding operating and maintenance costs associated with implementation of an ion exchange treatment system would not apply to the Walnut Avenue system due to the presence of 1,2,3-TCP.

Wastewater System

Consolidation:

A summary of the cost analysis for the wastewater system consolidation is shown on page 7 of the CECorps Wastewater System Report. The range is between \$880,000 and \$1,090,000 with the highest cost representing the inclusion of Apple Ave. WS # 1, #3 and #4. Operations and maintenance costs would be included in the City's sewer rates, currently under \$40 per month.

Leach Field Expansion:

The estimate for leach field expansion is substantially lower, at \$41,400. See pages 7- 8 of the CECorps Wastewater System Report for additional details. The property owner would be responsible for operations and maintenance of the septic system.

5. Community Involvement

Approval of Alternative

The property owner's preference is to consolidate with the City of Greenfield's water and sewer systems. Tenants in two households also expressed a preference to connect to the City of Greenfield's water system; tenants in the three other households did not express a preference for a long-term solution.

Willingness to Proceed

The property owner is evaluating options for the property that may postpone a decision on the course of action to correct water system deficiencies for the near term. EJCW will continue a dialogue with the owner concerning future development constraints that should be considered in the decision process.

The City of Greenfield is willing to proceed with an application to LAFCO for a service extension upon request. The City has been discouraged by LAFCO from pursuing annexation of the property due to potential growth inducing factors.

Financial Participation

It is unclear whether any financial contribution would be available from the owner towards the cost of a potential project. The owner's ability and willingness to apply for conventional or below-market rate financing will need to be explored further.

Tenants are charged for water services currently. Future charges would depend upon the alternative selected. Depending on the alternative selected and the amount and type of funding requested, a rate study may be necessary.

City of Greenfield is unable to fund the project, as it is located outside of the current City limits. However, the City may be able to assist with the development of replacement water and wastewater infrastructure through facilitation of funding applications and the Local Agency Formation process, acting as the project sponsor or fiscal agent and performing or contracting for construction management services. With the exception of the application to LAFCO for an extra territorial service agreement, there would be an expectation of cost recovery for City staff time and other expenses as eligible project management budget categories.

The residents would be charged the City's water and wastewater service rates in effect at the time of connection if the consolidation alternative were approved. Multifamily residential water is currently charged at \$1.73 per thousand gallons in addition to a meter charge based on the size of the service connection. Wastewater rates are slightly under \$40 per household per month.

6. Capacity

The owner manages the existing water and wastewater systems. As a state small water system, a state certified operator is not required with the current number of connections.

The City of Greenfield has experience managing its public water system and wastewater treatment facility. The LAFCO Municipal Service Area Report for the City of Greenfield notes

additional capacity for both water supply and wastewater treatment. Total water supply capacity, through a combination of drinking water production wells and water recycling, is sufficient for planned developments, consolidation with Walnut Avenue and future growth. City Public Works- Utility Division staff hold state water and wastewater and plant operator certifications and there are experienced management staff for the Division and Department. There are no known violations.

7. TAC Recommendation

The TAC reviewed and approved the recommendation to designate Walnut Avenue as a high priority community. At a December 2016 meeting, TAC members expressed support for the CECorps recommendations of either a waterline extension from the City of Greenfield or a deeper well on the Walnut Avenue property. The TAC reviewed and commented on the draft Salinas Valley Water and Wastewater Pilot Plan prior to its adoption by the Greater Monterey County Regional Water Management Group.

8. Institutional Barriers

Local Agency Formation Commission (LAFCO)

There have been a series of discussions with LAFCO staff regarding several alternatives that would allow consolidation with services from the City of Greenfield: annexation, extension of the sphere of influence and an extraterritorial agreement. On December 22, 2016, LAFCO analyst Darren McBain confirmed that, in general, processing a request from Greenfield for a sphere of influence or annexation request would take one to two years, depending on the need for environmental review. However, staff would be unlikely to recommend another annexation because of a recent expansion of the sphere of influence and anticipated growth within a previously annexed area of the city. Further, annexation or expansion of the sphere of influence would likely be in conflict with the provisions of a recently negotiated Memorandum of Agreement between the City and County restricting future growth into agricultural zoned lands.

LAFCO would be open to an extraterritorial extension of service application from the City of Greenfield with under circumstances where an extension would alleviate a critical public health concern or provide compelling reasons for utilizing this method to resolve drinking water and sanitation system deficiencies over other options.

Sponsorship

The City of Greenfield is willing to act as the applicant to LAFCO for approval of an Out of Service Area Agreement. The Director of Community Services Mic Steinmann has indicated that it is likely that staff would consider assisting with an application for funding subject to review and approval of the terms by the City Council. A similar approach is in process for

two other disadvantaged community projects: one is located within the city limits and the other is adjacent to the city boundary.

Potential funding under Integrated Regional Water Management (IRWM), Community Development Block Grant (CDBG) and other programs is restricted to eligible project applicants such as non-profit organizations or governmental agency. Although County sponsorship has been discussed in general terms with individual members of the Board of Supervisors and County staff, this particular project has not been specifically referenced.

Monterey County Environmental Health Bureau (EHB)

EHB staff has expressed interest in seeing the project configured as a consolidation with City of Greenfield services. Adding a sanitary sewer connection to Greenfield's wastewater treatment infrastructure would resolve an ongoing drain field ponding issue.

The property is regulated as Employee Housing by the County and State Housing and Community Development. The Employee Housing designation applies primarily to farmworker housing but may also pertain to other employer supplied housing.

The EHB would also need to review and approve any well drilling or well abandonment permit requests and review and approve any changes to existing County water system or wastewater system permits for the property and connecting properties, in the case of Apple Ave. consolidations.

County Resource Management Agency (RMA)-Planning Department and Public Works

The County of Monterey may allow Greenfield to act as lead agency for NEPA and CEQA determinations for Walnut Avenue, as they have agreed to defer to the City on Apple Avenue, a similar project. However, due to its location in the unincorporated area of the County, a request for delegation of lead agency authority would be required. Environmental Health Bureau staff has been supportive of an early determination of categorical exemption under CEQA based on Public Health and could, potentially, take responsibility for preparing or facilitating the necessary environmental determination documents. Planning Department staff would be responsible for circulating documents, notifying the State Clearinghouse and working with the Recorder's Office to record the Notice of Determination.

RMA-Planning would also be the lead agency for any proposed amendments to the existing Use Permit for the property or applications for increased density of development.

An application to Public Works for an Encroachment Permit would be necessary to install the new connecting pipelines and other improvements in the County's Road Right of Way to facilitate the consolidation. According to Public Works engineering staff, a complete set of plans with proposed trenching details would be needed. Typically, right of way easements would need to be in place prior to final approval of installation of a service line extension and connection to city services.

The Planning and Building Departments would need to review and approve any grading, water efficiency improvements, electrical, plumbing and structural modifications or new construction permit requests. Sign-offs from other County departments are coordinated by the RMA.

The County development review process would be employed if there is a proposed use permit amendment, increase in density or other land use or development proposal. The interdepartmental review would, for example, be triggered should the owner propose to develop a non-exempt dwelling unit, other growth inducing improvements or a change of use. Water and wastewater system compliance would be reviewed during the interdepartmental process and correction of deficiencies including nitrate and TCP drinking water contamination and the failed septic drain field would be requirements imposed in the conditions for the applicable permit.

City of Greenfield

There are several potential barriers to consolidation of the Walnut Avenue Water System with the Greenfield water and sewer systems that would need to be resolved: obtaining staff recommendations for City Council approval of an application to LAFCO for an Out of Service Area Agreement, completing applications for any proposed project financing, and identifying and reimbursing associated City costs.

Greenfield Fire District

Fire protection services for the Walnut Avenue area and City of Greenfield are provided by the Greenfield Fire Protection District. Early consultation between the plans examiner, the City of Greenfield and the engineer selected for the project will be necessary to resolve issues around water storage, adequacy of existing fire hydrants, and the proposed diameter of transmission lines to resolve any confusion or inconsistencies that have occurred. Compliance with the District's specific fire protection requirements will be a condition of approval.

9. Other Barriers

Language / Cultural

Some residents have limited English language skills and are primarily Spanish or other language speakers. Outreach and needs assessment efforts to date have been conducted by bilingual staff with EJCW. Consumer health advisories relating to drinking water are provided in English and Spanish.

Technical Managerial Financial (TMF) Issues

To date, the water and wastewater systems at Walnut Avenue have been operated and maintained by the property owner. Water treatment has been limited to application of chlorine when the County Environmental Health Bureau issues a non-compliance letter. The County does not require a certified water or wastewater operator under the current permit.

With consolidation, the City of Greenfield would assume responsibility for maintenance and operations to the meter. Consolidation would offer the best potential to meet TMF of the alternatives considered. To better assess the owner's ability to meet TMF, the owner would need to review the criteria and complete the TMF checklist. It is assumed that a Prop 1 Technical Assistance (TA) request would need to be submitted to assist with TMF and other technical issues around the development of the project.

A 5,000-gallon water storage tank is installed and water could be trucked in as needed to ensure temporary potable water supply. However, it is likely that any upgrade to the water system other than consolidation would necessitate a larger storage tank for fire flows.

Wastewater system management and maintenance has been an issue for the property. Monterey County is planning to implement a program for septic systems that apply for permits for repairs or upgrades. For Walnut Avenue, the County would be likely to require soils tests and leach field expansion at a minimum. If adopted, the Local Agency Management Program (LAMP), as described in *Chapter 5 Other Related Efforts and Considerations* chapter of the Salinas Valley Disadvantaged Community Water and Wastewater Plan would impose additional testing and design measures for septic systems that were not included in the CECorps report for this system.

Other: Not applicable

10. Potential Funding Sources

The Walnut Avenue project would be considered potentially eligible as a consolidation under State Revolving Fund/Proposition 1 Guidelines as it meets the Severely Disadvantaged Community criteria, would result in safe drinking water and potentially resolve incipient wastewater system deficiencies. The project would be assigned to Category A-Immediate Health Risk for nitrate in excess of MCL and Categories C and D for coliform/disinfection reliability and secondary notification (1,2,3-TCP) issues. Additionally, the project would meet two other factors for priority over other projects in the same category: Severely Disadvantaged Community status and resulting in consolidation or extension of service to a Severely Disadvantaged Community not served by a public water system. The cost per connection may be the primary consideration for potential funding.

This project is a potential candidate for Prop 1 TA funding for pre-development activities. Separate applications would be required for the technical assistance under the Clean Water SRF for wastewater improvements and Drinking Water SRF program for water system upgrades. Note: Under current guidelines, the project(s) would only qualify under the consolidation alternative unless additional connections are added through agreements with neighboring systems.

The Greater Monterey County IRWM Regional Water Management Group is applying for IRWM Disadvantaged Community Involvement grant funding in conjunction with the other Central Coast IRWM Regions. The Greater Monterey County IRWM Region portion of the application includes project development assistance for a limited number of disadvantaged community projects that are not receiving or are not eligible for Prop 1 Technical Assistance. If the application is successful, the Regional Water Management Group and Project Team will evaluate and select individual projects for participation. The Walnut Avenue Water System is not currently included in the IRWM Plan as a disadvantaged community project that meets water supply and water quality objectives. However, the Regional Water Management Group has adopted a process for adding projects to the plan. Future IRWM project review would occur during each application cycle using the rating and ranking criteria established by the Regional Water Management Group for the next IRWM Implementation grant. As the project is under private ownership, an agency sponsor and program proponent would be needed in order for this project to qualify.

11. Project Team Recommendations

The Project Team considered Walnut Avenue to be a high priority project and selected it for referral to the CECorps for an engineering evaluation. If the Walnut Avenue property owner continues to express interest in increasing the number of dwellings on property, the Project Team recommends that the owner consider the drilling of a deeper well and possibly forming a public water system. LAFCO has made it clear that they will not permit an extension from the City of Greenfield for more than the existing dwellings onsite unless an exemption were to be approved. An example of a possible exemption would be an Accessory Dwelling Unit as allowed under County and State guidelines. Improvements to the wastewater system would need to add capacity and address current deficiencies under this scenario.

In consultation with the Monterey County EHB and Housing Department, the project team will determine if and how to support the property owner in submitting the applications required to operate and maintain a safe water system with a new, deeper well and improved wastewater system should consolidation not be deemed possible.

12. Action Plan

As described previously, EJCW will continue a dialogue with the owner concerning future development constraints that should be considered in the decision process. See below.

Engineering - On hold

LAFCO - On hold

Consolidation - On hold

Permitting - On hold

Referral to Potential Partners - On hold

Other:

The Project Team will continue a dialogue with the owner and the County EHB regarding options for the next few months. Based on the outcome of discussions, the project will either be tabled or the project will go forward with either Prop 1 TA or IRWM

Disadvantaged Community Involvement assistance towards a goal of applying for Prop 1/SRF or IRWM construction funding. The owner has contacted adjacent property owners and is in discussions regarding the consolidation option.

13. Schedule:

TAC review of draft Plan	October 2017
Determine neighbors' interest in joining a potential consolidation project. Determine project boundary.	Nov. 2017-Feb. 2018
Community and property owners decide whether to move forward with consolidation based on dialogue with the County and LAFCO	Jan. 2018
Prop 1 TA or DAC Involvement Workplan begins	Jan.-Feb. 2018
FAAST application submitted	2018

14. Budget

The development budget estimates range from a low of approximately \$500,000 for development of a new well to a range of \$870,000 - \$1,070,000 for the consolidation with the City of Greenfield based on CECorps estimates. The Apple Avenue Water System consolidation project is on a separate development timeline at present and costs associated with the extension to those properties as outlined in the CECorps Water System Report would not be included in an estimate for Walnut Avenue as an independent consolidation project.

Wastewater system estimated costs range from a low of \$41,000 for leach field expansion to a high of \$ \$1,090,000 for consolidation of the Walnut Avenue system with others along Apple Avenue.

At such time as the project becomes active and the owner and the community choose a solution, the budget projection will be refined. Consolidation cost estimates will depend upon a number of factors that have not been fully defined at this time. For example, if the project were to be designed and advanced in the development timeframe to align with the bid process for the Apple Avenue water line extension project, costs would be expected to be somewhat less than if developed as an entirely separate project.