

Proposal Details

This page displays the details of the proposal/application as submitted by the applicant. The information displayed below is the read only view of the proposal/application and no details can be modified.

PIN# 14855 - SAM Sewer Overflow Prevention Project
GRANT AGREEMENT#

Application Details

General Details

RFP Title: Clean Beaches Initiative Grant Program 2008-2010 Solicitation

Submitting Organization: SRT Consultants

Organization:

Project Title: PIN# 14855 - SAM Sewer Overflow Prevention Project

Project Description: The SAM Sewer Overflow Prevention Project (Project) is an implementation project designed to reduce the bacterial contamination at three San Mateo County Beaches: James V. Fitzgerald Marine Reserve, Pillar Point Harbor Beach, and Venice Beach at Frenchman's Creek. These beaches have a history of demonstrated bacterial contamination problems. The Project will upgrade the current SAM infrastructure, increasing the storage and treatment capacity to prevent sanitary sewage overflows. The Project includes a new 200,000-gallon stormwater storage facility to retain the excess sewage and a lateral replacement pilot program.

Applicant Details

Applicant Organization: Sewer Authority Mid-Coastside

Applicant Address: 1000 North Cabrillo Highway
Half Moon Bay, CA - 94019

Project Budget

Funds Requested: \$ 875,000

Cost Matching Funds: \$ 2,625,000

Total Budget Funds: \$ 3,500,000

Project Location

Latitude & Longitude: 37.5019 ; -122.47238

Watershed: San Mateo Coastal

County: San Mateo

Responsible RWQCB: 2 San Francisco Bay RWQCB

Funding Program

Implementation Projects
Research Projects

Applied

Yes
No

Legislative District Primary Additional

Senate District 08
Assembly District 19
US Congressional District 14

Contact Agency

San Mateo County Environmental Health Division

Contact Name

Dean Peterson

Cooperating Entity

Role on Project

Contact Name

Q# Application Question

1. Identify the AB 411 monitoring location(s) closest to the proposed Project site, and provide approximate distance from monitoring location(s) to Project site.

Answer: James V. Fitzgerald Marine Reserve - 2.8 miles, Pillar Point Harbor Beach - Adjacent, and Venice Beach at Frenchman's Creek - 1.5 miles.

2. How does the beach affected by the Project meet the criteria in Section IV.D.i?

Answer: The SAM Sewer Overflow Prevention Project (Project) is an implementation project designed to reduce the bacterial contamination at 3 of the 4 CBTF Priority Beaches in San Mateo County: James V. Fitzgerald Marine Reserve, Pillar Point Harbor Beach, and Venice Beach at Frenchman's Creek. These beaches have a history of demonstrated bacterial contamination problems (see water quality data and beach report card grades for 2000 through 2006 shown in Attachment 5). The applicant, SAM, collects and treats sewage for the California Mid-Coast region, including the City of Half Moon Bay, Montara, El Granada, and other small communities. The population served by SAM is approximately 25,000 people. In addition, over 200,000 people visit the listed beaches each year. SAM's wastewater conveyance and treatment facilities, including its piping, treatment plant, and the ocean outfall, are in close proximity to the 3 CBTF priority beaches.

3. Provide data on the number of postings by year for at least three years.

Answer: According to US Environmental Protection Agency (US EPA) the three beaches were either under contamination advisory postings or closed for a total of 747 days (30 percent of the time) between 2000 and 2006. 628 Days of posting were reported during this period. Almost all incidents were caused by elevated bacterial levels associated with sewage spills and stormwater runoff. Attachment 5, 'Water Quality Data', provides a summary of the posting and closure incidents of each beach.

4. Provide data on the number of closures by year for at least three years. Identify the cause for the closures.

Answer: According to US Environmental Protection Agency (US EPA) the three beaches were either under contamination advisory postings or closed for a total of 747 days (30 percent of the time) between 2000 and 2006. 119 days of closure were reported during this same period. Almost all incidents were caused by elevated bacterial levels associated with sewage spills and stormwater runoff. Attachment 5, 'Water Quality Data', provides a summary of the posting and closure incidents of each beach.

5. What is the estimated annual population that recreates at the affected beach?

Answer: The Fitzgerald State Marine Park ranked among the highest visited areas among popular intertidal sites in California. Studies show that annual attendance at the Park exceeds 130,000 people annually. Over 20 percent of the Park visitors are school children and school groups. Annual attendance at the three beaches is estimated to be over 200,000 people. Closure and posting incidents have affected over 0.6 million visitors in total, not including the impact on local commercial ventures.

6. Identify the water quality problem(s) the Project is proposing to solve.

Answer: The proposed Project focuses on the prevention of stormwater runoff and sewer overflows (SSOs) and SSO-induced fecal contamination at the three CBTF priority beaches. These beaches are in close proximity to SAM's sewer facilities. Evidence suggests that leaky or aged sewer laterals provide the most contribution to the infiltration of stormwater into sanitary sewers that leads manholes to overflow. SAM has had numerous incidents of manholes in the beach vicinity overflowing during wet weather and causing beach contamination and subsequent closures. SAM's Portola Pump Station, located in the Pillar Point Harbor Beach proximity, does not have the capability to process the excess stormwater received during wet weather. Excess inflows often force the wastewater treatment plant to shut down, greatly increasing the potential of raw sewage discharge into the Pacific Coast.

7. Briefly describe the Project.

Answer: The SAM Sewer Overflow Prevention Project (Project) is an implementation project designed to reduce the bacterial contamination at three San Mateo County Beaches: James V. Fitzgerald Marine Reserve, Pillar Point Harbor Beach, and Venice Beach at Frenchman's Creek. These beaches have a history of demonstrated bacterial contamination problems. The applicant, SAM, is a joint powers authority that collects and treats sewage for the California Mid-Coast region, which includes the City of Half Moon Bay, Montara, El Granada, and other neighboring small communities. SAM's wastewater conveyance and treatment facilities, including its wastewater treatment plant, piping, and the outfall, are in close proximity to the aforementioned beaches. The Project will upgrade the current SAM infrastructure, increasing the system's storage capacity, and therefore preventing sanitary sewage overflows. The Project proposes a 200,000-gallon stormwater storage piping system to retain the excess sewage and a lateral replacement program.

8. How does the Project solve the identified water quality problem(s)?

Answer: The implementation of this Project eliminates or greatly reduces the potential of raw sewage spills and stormwater infiltration, and ensures that the system will operate within its designed capacity to treat all sewage before discharging it into the Pacific Coast thus preventing contamination from entering sensitive beaches and the Pacific Ocean.

9. Describe the impaired waters, their beneficial uses, and the water quality problem(s) that interfere with the beneficial uses of those waters. Beneficial uses associated with a water body can be found in each Regional Water

Board Basin Plan located on their website (Appendix B).

Answer: Pillar Point Harbor and Venice State Beach are currently posted by the San Mateo County Environmental Health Department as "Advisory". This posting level warns the public of a health risk from swimming in the water when bacterial levels exceed state standards. The affected population are the visitors to the recreational areas of the coast at and in the vicinity of these locations. This posting has been in effect since 2003 and is expected to remain indefinitely. These waters have recreational uses that have not been allowed due to beach and harbor closures. These uses include swimming, wading, and surfing. This project will contribute to restoring the intended beneficial uses of the beaches.

10. If necessary, provide additional problem definition information not addressed in the previous questions.

Answer: This Project's major components address the very heart of the coastal contamination problem by both reducing the potential of storm water infiltration into the sewer system, and effectively storing the access storm water to prevent sanitary sewage spills into the Pacific Coast.

11. Attach a map or diagram depicting the Project and watershed in Attachment 1, and provide photographs of the proposed site.

Answer: See Attachment 1

12. Submit any additional baseline water quality data in the immediate vicinity of the Project in Attachment 5. Explain the relevance of the data.

Answer: Attachment 5 contains weekly bacterial data sampling results at four locations in Pillar Point Harbor and two locations at Venice State Beach since 1998.

13. What are possible or known sources of bacteria or pathogens? Describe any studies or data collection efforts that have been done to confirm these conclusions. Attach copies of reports in Attachment 6.

Answer: The proposed Project focuses on the elimination of sanitary sewer overflow-induced fecal contamination, which are known sources of discharge in the Fitzgerald Marine Reserve and impacted beaches. SAM has had numerous instances of manholes in the beaches' vicinity overflowing during wet weather and causing beach contamination and subsequent closures. Bacteriological Sampling Data was collected by the County of San Mateo Environmental Health Department (Attachment 5). This data was compared with the precipitation data obtained from the DWR Division of Flood Management, and fecal contamination (Total Coliform, Fecal Coliform, and Enterococcus) is higher during and after rain events. All data demonstrates positive correlation between bacterial contamination and precipitation. High precipitation causes stormwater runoff and manhole overflows, inevitably linking bacterial contamination in the Fitzgerald Marine Reserve with SAM sewer overflows.

14. What is the quantity and origin of the flow to be treated (If applicable)?

Answer: The quantity of flow varies from several hundred to several million gallons, depending on the SSO incident. The origin of the flow is raw sewage overflowing from the SAM sewer system, which cause beach zone contamination. The Project proposes 200,000-gallons of off-line storage piping to retain the excess sewage. In addition, the Project also proposes to repair the leaky and aged sewer laterals. SAM conveys over 4 million gallons of sewage daily. The implementation of this Project eliminates or greatly reduces the potential for sewage spillage and stormwater infiltration, and ensures that the system will operate to treat all sewage before discharging it into the Pacific Coast.

15. If necessary, provide additional information about the source of contamination that was not addressed in the previous questions.

Answer: The presence of certain contaminants typical of untreated sewage (total coliform, fecal coliform, enterococcus) in the beach water samples indicates a close connection between sewer overflow events and beach contamination.

16. Provide a list and brief description of all major project work items and the associated schedule for completion of all major project work items.

Answer: The proposed Project consists of two components, including a pilot lateral replacement program and the construction of a new 200,000-gallon off-line storage. Attachment 6, Project Cost and Schedule, provides a detailed cost breakdown and schedule of the project components.

17. Is this a phased project or part of a larger project effort? Please explain the objectives, framework, and scheduling for the larger project. Note whether there is a commitment to complete the entire project.

Answer: The lateral replacement program of the proposed Project is a phased program. The proposed program, Phase I, is a pilot program designed to (1) identify and replace the "hot spots" in the system, i.e. the leakiest and oldest laterals, (2) assess the cost-effectiveness of the project effort, and (3) secure public participation for future phases, which is likely a system-wide lateral replacement program. Future phases will be planned based on sewer flow monitoring data collected during wet weather events following this program completion.

18. Describe any computer models, management practices, specialized testing, or other extraordinary methods and materials that will be implemented or used as part of this project.

Answer: Sewer flow monitoring will be used to identify the areas tributary to the manholes that contribute a greater amount of stormwater and to locate the laterals within those tributary areas that are most susceptible to stormwater inflow. This data will also be used to update the existing capacity model. The Supervisory Control and Data Acquisition (SCADA) system will be updated to accommodate the modified system hydraulics incorporating the new stormwater storage tank.

19. If necessary, provide additional information about the proposed solution that was not addressed in the previous questions.

Answer: SAM has conducted many studies to develop recommendations for reducing sanitary sewer overflows (SSOs). The 1998 study made general recommendations to install off-line flow storage, expand the capacity, and implement corrective measures in the collection systems. In 2002, SAM installed a 430,000-gallon off-line storage tank. In 2004, SAM examined the effectiveness of these measures and identified the need for additional capacity relief at the Portola Pump Station. The studies indicated SAMs facilities' inability to store excess stormwater causes SSO incidents. The Project is supported by the studies conducted by Carollo Engineers and SRT Consultants, including the Risk Analysis Study (2007), the Intertie Pipeline System Evaluation Report (2005), Wet Weather Flow Storage Alternatives (2005), Wet Weather Flow Management Program Facility Plan Update (2004), and the NPDES Compliance Evaluation Report (2006).

20. How do you propose to measure and document your projects benefits to water quality and beneficial uses (e.g. before and after concentrations of a constituent, percent load reduction, amounts of storm water captured, etc.)? Use the Project Performance Tables per Appendix F.III to quantify. Submit Project Assessment and Evaluation Plan (PAEP) tables in Attachment 4.

Answer: Please refer to Attachment 4, Project Assessment and Evaluation Plan for Load Reduction. This document describes the planned data collection activities to quantify the project performance.

21. If applicable, describe how the project provides multiple benefits.

Answer: The Project provides multiple benefits to the public in the following ways: (1) Improves coastal water quality and protects coastal aqua-habitat by eliminating potential sanitary sewer overflow (SSO) incidents through the construction of the new 200,000-gallon off line storage. (2) Protects public health by eliminating sewer overflows into the beach zone by replacing leaky sewer laterals. (3) Protects local economics by reducing beach posting and closure incidents due to sewer contamination. (4) Improves public service by ensuring the efficient operation of the Portola pump station and the wastewater treatment plant during wet weather.

22. Is this Project is implementing a Total Maximum Daily Load (TMDL)? If yes, identify the TMDL by name.

Answer: No

Answer: No. The project is not implementing a TMDL.

23. Is the project located in an area of special biological significance (ASBS)? If yes, identify the ASBS in the box below and briefly describe how your project will benefit the ASBS. A list of ASBSs is available on-line at: <http://www.waterboards.ca.gov/plnspols/asbs.html>

Answer: Yes

Answer: The Project is located in ASBS No.9: James V. Fitzgerald Marine Reserve. The Marine Reserve is located at the north point of SAMs service area. On average, over 10 sanitary sewer overflow (SSO) incidents occur every year in the area, and some have directly impacted the Marine Reserves. The proposed Project would reduce the frequency and volume of SSO incidents by replacing aged laterals and repairing the failing facilities of the system. In addition, the new 200,000-gallon off line storage piping system would effectively eliminate the potential of excess stormwater overloading the Portola pump station that could subsequently result in the direct discharge of raw sewerage from the wastewater treatment plant into Pacific coastal waters.

24. Does the project improve water quality in a disadvantaged community? If yes, the applicant must complete Attachment 7.

Answer: No

Answer: There is no disadvantaged community located in SAMs service area.

25. Is this a Low Impact Development (LID) project? If yes, identify the LID technique(s).

Answer: Yes

Answer: Project includes NO paving over of the site, therefore there will be NO increased stormwater runoff and contaminant loads to receiving waters. Since the project will be constructed on a grassy parcel and the surface will be restored following construction, it will allow rainwater to locally infiltrate and reduce the runoff leaving the site. This approach will eliminate standing water, provide for groundwater recharge, facilitate pollutant removal, and provide for a more aesthetically pleasing site. This development scheme seeks to achieve a stormwater management system nearly identical to natural conditions.

26. Does the project promote stormwater reuse. If yes, identify how the technique(s) are consistent with supporting beneficial uses and existing water rights.

Answer: Yes

Answer: This project promotes stormwater reuse, albeit indirectly. By replacing leaky sewer laterals and preventing stormwater infiltration, this project effectively promotes stormwater reuse by recharging groundwater aquifers and multiple surface water streams in the Mid-Coast region.

27. Does this project implement the Ahwahnee Principles? If yes, identify the applicable Ahwahnee Principle(s).

Answer: Yes

Answer: 8: The community should contain an ample supply of specialized open space in the form of squares, greens, and parks whose frequent use is encouraged through placement and design. The Project complies by preserving open space. 10: Each community or cluster of communities should have a well-defined edge, such as agricultural greenbelts or wildlife corridors, permanently protected from development. The Project complies by permanently protecting open space. 12: Wherever possible, the natural terrain, drainage, and vegetation of the community should be preserved with superior examples contained within parks or greenbelts. The Project complies by preserving natural terrain. 13: The community design should help conserve resources and minimize waste. The Project complies by properly managing waste. 14: Communities should provide for the efficient use of water through the use of natural drainage, drought tolerant landscaping, and recycling. The Project complies by preserving natural drainage.

28. Does this project address the impacts of climate change, including the minimization of greenhouse gas? If yes, describe how.

Answer: Yes

Answer: The following measures will be implemented during construction to address greenhouse gas and dust emissions: 1. During construction activities, contractor will implement a dust abatement program following the Bay Area Air Quality Management District's (BAAQMD) recommended measures. These measures include but are not limited to daily watering practices and other methods designed to manage dust from excavation areas and trucks hauling material off site. In addition they require a 15 MPH speed limit to be instated on unpaved roads. 2. During construction activities the following measures will be taken to minimize greenhouse gas emissions: On-road construction vehicle idling time shall not exceed five minutes. Additionally, off-road equipment engines shall not idle for longer than five minutes per Section 2449(d)(3) of Title 13, Article 4.8, Chapter 9 of the California Code of Regulations.

29. Does this project address environmental justice community needs or issues? If yes, describe.

Answer: Yes

Answer: Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. EPA has this goal for all communities and persons across this Nation. It will be achieved when everyone enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work

30. Will this project reduce wet weather beach postings? If yes, describe.

Answer: Yes

Answer: This Project is expected to restore the year-round recreational and educational uses of three of the four CBTF Priority Beaches San Mateo County by significantly (by over 75 percent) reducing their postings and closings in winter months where sanitary sewer overflows are the cause of the closures. This Project will eliminate excess stormwater infiltration and inflow and reduce the amount and frequency of sanitary sewage overflow incidents during wet weather resulting in beach postings.

31. Provide the status of all environmental documents required for the project. All projects require CEQA compliance and will be allowed to use matching grant funds for reimbursement of CEQA costs, provided the costs were incurred after the adoption of the Guidelines. If draft or final CEQA documents are available, please submit documents as part of Attachment 2.

Answer: Project components of the lateral replacement program and facility repair qualify for categorical exemption under CEQA. An Initial Study/Mitigated negative Declaration is currently being prepared for the 200,000-gallon underground stormwater storage facility component. See Attachment 2.

32. List any permits, approvals, or design standards that must be obtained/met before the Project can be implemented.

Answer: SAM will prepare the necessary environmental review documents to obtain the Coastal Development Permit from the County of San Mateo for the Project. Sewer laterals will be replaced in conformance with the

specifications of the SAM member agency with jurisdiction over the collection system at the lateral location.

33. Is project planning and design complete? If not, what is the estimated completion date?

Answer: YES. SAM has completed the project planning and conceptual design of the 200,000-gallon off-line storage facility. The lateral replacement and facility repair, do not require substantial planning and design. These project components are anticipated to be completed within a 12-month period.

34. Have you or any cooperating entities applied for other funds from another program for this specific project? (This includes programs not administered by the State Water Board.) If yes, identify the agency and program.

Answer: No

Answer:

35. Has the Applicant or any Cooperating Entities entered into a contract or grant agreement: (1) that was terminated; (2) in which funds were withheld by the State Water Board; or (3) that has been the subject of an audit in which there were findings regarding the management of the project or funds by the Applicant or a Cooperating Entity? If yes, please explain in the box below, including actions taken to address the problem(s).

Answer: No

Answer:

36. Is the Applicant or was the Applicant a party to a current or pending legal challenge to any State Water Board or Regional Water Board regulation or order, which either requires performance of the project, or though not required, whose terms or conditions would be satisfied in whole or in part by performance of the project? If yes, please explain in the box below (include the name and case number in your explanation).

Answer: No

Answer:

37. The Project Director has read and understands the General Terms and Conditions of the Grant Agreement. If the Project Director does not agree with the terms and conditions, a grant award may be denied. All Applicants will be required to check the "Yes" box and initial in the text field.

Answer: Yes

Answer:

Pre Award Attachments

Attachment Title	Date
Attachment 1	1/22/2009 3:57:53 PM
Attachment 2	1/22/2009 4:09:06 PM
Attachment 3	1/22/2009 5:48:06 PM
Attachment 4	1/22/2009 4:17:48 PM
Attachment 5	1/22/2009 4:19:11 PM
Attachment 6	1/22/2009 4:19:59 PM

Post Award Attachments

Attachment Title	Date
------------------	------

Performance Measure Classification Data

BMP_GROUP

BMP Group	BMP Sub Group	Percentage
Urban Areas	Alternative Septic System (no.) 921	100.00
Total		100.00

IMPLEMENTATION

Attribute Name	Sub Attribute Name	Percentage
020 - Stormwater Design/ Control	Not Applicable	100.00
Total		100.00

LAND_USE_ACTIVITY

Attribute Name	Sub Attribute Name	Percentage
6900 - Storage Tank Underground	Not Applicable	100.00
Total		100.00

LAND_USE_SITE_SOURCE

Attribute Name	Sub Attribute Name	Percentage
8600 - Natural Sources	Not Applicable	100.00
Total		100.00

PURPOSE

Attribute Name	Sub Attribute Name	Percentage
Restoration	Not Applicable	100.00
Total		100.00

SAMP_MON_EFF

Attribute Name	Sub Attribute Name	SOW?
Bacteria 9010	Not Applicable	No
Total		

WATER_BODY

Attribute Name	Sub Attribute Name	Percentage
CM Coastal Marine	Not Applicable	100.00
Total		100.00

Certification & Submission

Please read before signing and submitting application.

I certify under penalty of perjury that the information I have entered on this application is true and complete to the best of my knowledge and that I am an employee of the applicant authorized to submit the application on behalf of the applicant. I further understand that any false, incomplete or incorrect statements may result in the disqualification of this application. By signing this application, I waive and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent provided in this RFP.

Submitted by: Tanya Yurovsky

Submitter initials TY

Submitted date: 1/22/2009 6:07:31 PM

If you have any questions, please [contact](#) us.