**SEWER AUTHORITY MID-COASTSIDE**
**RESOLUTION NO. 2-2009**

**A RESOLUTION APPROVING THE SEWER AUTHORITY MID-COASTSIDE RECYCLED WATER PROJECT, PHASE I, AND ADOPTING A BUDGET RELATED THERETO**

**RESOLVED**, by the Board of Directors of the Sewer Authority Mid-Coastside, San Mateo County, California, as follows:

**WHEREAS**, this Board, at its meeting on October 27, 2008, approved in concept the Sewer Authority Mid-Coastside Recycled Water Project, Phase I (the "Project"), comprised of the engineering consultant's revised Facilities Planning Study-Phase II proposal, dated October 31, 2008, and caused a budget related thereto (the "Project Budget") to be prepared;

**WHEREAS**, this Board, pursuant to Article V, Section (B), of the Joint Exercise of Powers Agreement creating this Authority, then submitted the Project and the Project Budget to the three Member Agencies for approval;

**WHEREAS**, each of the Member Agencies has, by resolution, approved the Project and Project Budget;

**NOW, THEREFORE**, it is determined and ordered that:

1. The Sewer Authority Mid-Coastside Recycled Water Project Phase I is hereby approved and the Project Budget is hereby adopted.

2. Project expenditures to date will be transferred to the Recycled Water Capital Project Account.

3. A copy of this resolution, along with a copy of the Project Budget, shall be provided to each Member Agency.

* * * * * * * *

I hereby certify that the foregoing is a full, true and correct copy of a resolution duly passed and adopted by the Board of Directors of the Sewer Authority Mid-Coastside at a regular meeting thereof held on the 27th day of April 2009, by the following vote:

AYES: Fraser, Lohman, Woren, Muller, Harvey, Boyd
NOES: None
ABSENT: None
ABSTAIN: None

Secretary
Sewer Authority Mid-Coastside

**Resolution No. C-14-09**

**A RESOLUTION OF THE CITY OF HALF MOON BAY AUTHORIZING THE CITY MANAGER TO NEGOTIATE AND IMPLEMENT A WORK PLAN AND SHARE ITS COST WITH SEWER AUTHORITY MID-COAST TO PROVIDE RECYCLED WATER TO THE OCEAN COLONY GOLF COURSE IN A PHASE I PROJECT AND ITS ULTIMATE EXPANSION FOR OTHER USERS**

RECEIVED
MAR 25 2009
SEWER AUTHORITY MID-COASTSIDE
HALF MOON BAY, CA.

**Whereas**, Sewer Authority Mid-Coast (SAM) has requested the City of Half Moon Bay to share 50% cost of a proposed study to produce recycled water at its sewer treatment plant for irrigation use at various potential locations, and

**Whereas**, SAM has completed a similar study in August 2008 that has established the feasibility of such recycled water use, and

**Whereas**, the City Council of Half Moon Bay fully supports production and utilization of recycled water to its maximum potential as early as possible, and

**Whereas**, the City Council of Half Moon Bay has determined the need for expediting the project development, permitting, environmental reviews and agreements for production and utilization of recycled water at the Ocean Colony Golf Course concurrently with the needed additional studies for the ultimate expansion of its facilities.

**NOW, THEREFORE, BE IT RESOLVED THAT:**

The City Council of the City of Half Moon Bay hereby approves and authorizes the City Manager to negotiate and implement a work plan with Sewer Authority Mid-Coast and share up to 50% of its cost, not exceeding $75,000, leading to production and delivery of recycled water to the Ocean Colony Golf Course as a Phase I Project.

* * * *

I, the undersigned, hereby certify that the forgoing Resolution was duly passed and adopted on the 3rd day of March, 2009 by the City Council of the City of Half Moon Bay by the following vote:

Ayes, Councilmembers: Fraser, Grady, McClung, Patridge & Mayor Muller

Noes, Councilmembers: _____

Absent, Councilmembers: _____

Abstain, Councilmembers: _____

Attest:

Siobhan Smith, City Clerk

Approved:

Mayor, John Muller

# GRANADA SANITARY DISTRICT

## RESOLUTION NO. 2008-013

## A RESOLUTION APPROVING THE SEWER AUTHORITY MID-COASTSIDE RECYCLED WATER PLANNING PROJECT, PHASE II, AND THE PROPOSED PROJECT BUDGET

IT IS HEREBY RESOLVED AND ORDERED by the Board of Directors of the Granada Sanitary District that said District hereby approves the Recycled Water Planning Project and Budget, as further outlined on the attached Exhibit "A". If any other SAM member agency fails to approve the Project Budget and individual member agency cost allocation as presented herein, the Granada Sanitary District reserves the right to reconsider approval of a new and revised project budget and member agency cost allocation prior to commencement of the project.

This Resolution was duly and regularly adopted at a meeting of the Board of Directors of the Granada Sanitary District, San Mateo County, California, held on the 18th day of December 2008, by the following vote:

AYES, and in favor thereof, Members: Erickson, Fenech, Lohman, and Woren.
NOES, Members: None
ABSENT, Members: Clark
ABSTAIN, Members: None

Approved:

Leonard Woren, President

Countersigned:

Ric Lohman, Secretary

CC: JFF 12/29/08 ST

# GRANADA SANITARY DISTRICT
OF SAN MATEO COUNTY



December 24, 2008



John F. Foley III, Manager
Sewer Authority Mid-Coastside
1000 N. Cabrillo Highway
Half Moon Bay, CA 94019

**Re: A Resolution Approving the SAM Recycled Water Planning Project**

Dear Jack:

Please fine enclosed a copy of GSD Resolution 2008-013, A Resolution Approving the SAM Recycled Water Planning Project, Phase II, and the Project Budget, approved at the December 18, 2008 Board of Directors meeting, for your records.

Sincerely,

GRANADA SANITARY DISTRICT

Delia Comito

DELIA COMITO
District Administrator

cc: file

504 Avenue Alhambra, 3rd Floor ~ P. O. Box 335 ~ El Granada, California 94018
Telephone: (650) 726-7093 ~ Facsimile: (650) 726-7099 ~ E-mail: gsd@granada.ca.gov

EXHIBIT "A" (GSD RES. 2008-013

A PUBLIC AGENCY
SERVING:
City of Half Moon Bay
Granada Sanitary District
Montara Water and
Sanitary District

# Sewer Authority Mid-Coastside

1000 N. Cabrillo Highway
Half Moon Bay, CA 94019

Phone: (650) 726-0124
FAX: (650) 726-7833



November 19, 2008

Mr. Chuck Duffy
Granada Sanitary District
Post Office Box 335
El Granada, CA 94018

Dear Mr. Duffy,

One of SAM's highest priority programs is its Recycled Water Program. SAM recently completed a Recycled Water Study, Phase I, which identified the programs needs and next steps. A copy of this report can be viewed at or downloaded from: http://www.samcleanswater.org/RecycledWaterStudy.pdf

At its meeting October 27, 2008, the SAM Board approved in concept the SAM Recycled Water Project, Phase II, as well as a project budget. In accordance with the SAM Joint Exercise of Powers Agreement (the "JPA"), the Board then directed me to submit the project budget to SAM's member agencies for approval. SAM requests that the Board of Directors of the Granada Sanitary District approve this project and the proposed Project Budget related thereto by resolution as soon as possible.

For your convenience, we are providing you with a draft resolution. As background, we are also providing you with the staff report from the October 27, 2008 SAM Board meeting and the revised proposal for this work. The cost for Phase II will be $149,610.00. This is greater than the amount mentioned in the SAM staff report because the SAM Board requested additional work.

Following approval of the Project and Project Budget by the member agencies, the SAM Board would then be authorized to approve the Project and Project Budget. SAM will then begin assessing the member agencies for the costs of the Project based on ownership:

| | |
|---|---|
| City of Half Moon Bay: | $ 75,553.00 |
| Granada Sanitary District: | $ 44,135.00 |
| Montara Water and Sanitary District: | $ 29,922.00 |

This project is planned to be completed within FY2008-09. Upon its adoption, would you please return an executed Granada Sanitary District Resolution to SAM. If you have any questions, please feel free to contact me.

Sincerely,

John F. Foley III
Manager

Attachments: Draft Resolution, Staff Report and Revised Proposal

S R T
consultants

October 31, 2008

Mr. John F. Foley III, Manager
Sewer Authority Mid-Coastside
1000 N. Cabrillo Highway
Half Moon Bay, CA 94109

**RE: Sewer Authority Mid-Coastside Recycled Water Facilities Planning Study 2008 Services – *Revised* SRT Consultants Proposal**

Dear Mr. Foley,

SRT Consultants is pleased to present this proposal for the Sewer Authority Mid-Coastside (SAM) Recycled Water Facilities Planning Study (Study) services. The Facilities Planning Study has been defined as Phase II of the Recycled Water Project (Project) planning. The services will be conducted with the approach outlined by the Facilities Planning Grant Program, and include a marketing study, project alternatives development, facilities project plan, and project financing plan. The work performed by SRT Consultants in association with Bartle Wells and Associates will result in the development of a comprehensive Facilities Planning Report by September 2009. A draft outline of the Facilities Planning Report is attached to this proposal as Appendix A.

In addition, this proposal includes field and office work needed to address the SAM Board request for locating an existing pipeline and Pilarcitos Creek Crossing from SAM Wastewater Treatment Plant (WWTP) that connects to the Ocean Colony Golf Courses irrigation pipeline.

## Project Background and Understanding

As an agency, SAM is interested in pursuing the Recycled Water Project to both maintain its position in environmental stewardship on the Midcoast by utilizing its WWTP effluent, a valuable water resource, for the benefit of the region and to financially balance its other necessary capital improvement projects. To effectively address the Recycled Water Project objective and accomplish its goals, SAM has previously (2006) agreed to partner with other Midcoast agencies to balance the beneficial uses of the available water resources in the

Pilarcitos Creek watershed by finding solutions that satisfy environmental, agricultural, public health, and economic interests.

Currently, the Midcoast region uses over 1.2 million gallons per day (MGD) of potable water for irrigation purposes. Some of this potable water is drawn from wells and withered creeks in the service region, while supplemental water is purchased from CCWD. SAM has the potential to produce recycled water that can serve the needs of irrigation customers in the Midcoast region. Phase I of the Recycled Water Project, the SAM 2008 Recycled Water Study, was completed by SRT Consultants in October 2008.

## Project Scope

SRT has recently completed the SAM 2008 Recycled Water Study, in which preliminary evaluations were made regarding the feasibility of the Recycled Water Project. The items to be completed under the Facilities Planning Study Scope of Work, or Phase II of the Project, are a continuation of the 2008 Recycled Water Study, and will result in a Facilities Planning Report. This Report will include a background of the study area and facilities, a marketing study, an evaluation of design alternatives, a conceptual engineering design of the recommended facilities plan, and financing options. The following outlines the scope in more detail.

## Task 1 Project Background

SRT will conduct research and collect field data to establish a finite study area and facility characteristics. This work will be more specific than the research conducted under Phase I of this study, and will involve obtaining current data regarding the study area and facilities.

*Subtask 1.1 Study Area Characteristics*

Study area characteristics will be established, including study boundaries, topographic features, hydrologic features, and population projections.

*Subtask 1.2 Water and Wastewater Facilities Background*

Current water and wastewater facilities will be studied, including water supply and wastewater characteristics, water use trends, and facility capacities, treatments levels, flows, and costs.

*Subtask 1.3 Existing Recycled Water Pipeline Location*

This subtask includes field and office work needed to address the SAM Board request for locating an existing pipeline and Pilarcitos Creek Crossing from SAM WWTP and connecting to the Ocean Colony Golf Courses irrigation pipeline.

## Task 2 Marketing Study

A recycled water marketing study for the Mid-coast region will be conducted as part of the Study. With this data, a basic marketing plan and logical service area can be developed. A majority of this marketing study has been completed in Phase I, but continued and more specific research will be included as part of the Facilities Planning Study.

*Subtask 2.1 Market Assessment*

The marketing study will consider all potential recycled water users, the specific quality and price per acre-foot of water desired by each customer, and the capital investment required to connect each user.

*Subtask 2.2 Logical Service Area*

From the market assessment, a logical recycled water service area will be established and a basic marking plan will be developed.

## Task 3 Project Alternatives

SRT will develop and evaluate project alternatives for the SAM Recycled Water Project, including several water recycling alternatives, non-recycled water alternatives, and the possibility of a no project alternative. This evaluation will result in a recommendation of the most viable alternative.

*Subtask 3.1 Planning and Design Assumptions*

Parameters and assumptions will be established by researching pressure, flow, storage, and water quality data.

*Subtask 3.2 Alternatives*

Several alternatives for water recycling facilities will be established based on the market study, potential storage options, total demand, and water quality options. In addition, non-recycled water alternatives and a no project alternative will be evaluated. The analysis of each alternative will include potential customers, pipeline routes, water quality concerns and impacts, and a cost estimate. The evaluation of alternatives will result in a comparison of the options and a final recommendation of the most viable option.

*Subtask 3.3 Water Conservation Analysis*

A water conservation and pollution control analysis will be completed if found applicable to the recommended project alternative. Recommendations and implementation of the potential water conservation solution will be evaluated if necessary.

## Task 4 Facilities Project Plan

SRT will complete a facilities project plan for the SAM Recycled Water Facility, which will be the main focus of the Study. The project plan will include a conceptual engineering design for the recommended alternative, estimated construction costs, an implementation plan, and a facilities operations plan.

*Subtask 4.1 Conceptual Engineering Design*

The conceptual engineering design will include preliminary facility sizing and layout.

*Subtask 4.2 Construction Costs and Implementation Plan*

A planning-level opinion of probable construction cost based on treatment system suppliers, infrastructure, and labor will be developed. The preliminary recycled water implementation plan will also be developed and will involve obtaining preliminary commitments from potential users to connect to the system, development of principals of agreement with the water distribution entity, if necessary, and a detailed permitting, design, and construction schedule.

*Subtask 4.3 Operational Plan*

A preliminary facilities operational plan will be developed to define the operations and monitoring required for the maintenance of the recommended recycled water alternative.

## Task 5 Project Financing and Revenue

SRT will develop project financing and a revenue structure for the proposed alternative, including refining potential funding sources and developing a pricing policy for the recycled water. The majority of this task has been completed in the Phase I Study, however, more specific development will be included as part of this Facilities Planning Study.

*Subtask 5.1 Funding Sources*

Funding sources for both design and construction will be further researched, and an estimated timeline for applying and receiving those funds will be developed.

*Subtask 5.2 Pricing Policy*

Pricing policy will be developed by reviewing the annual projection of water prices for each user or category of users, demands from each user, and annual costs of the project. A unit price per acre-foot of recycled water for each user will be estimated.

## Task 6 Final Facilities Planning Report

A final facilities planning report will be developed by SRT and will include documentation of the entire study presented in the previous five tasks.

The estimated level of effort for the services outlined in the Scope of Services is provided in the table below.

| Staff Assigned | Project Manager | Senior Engineer | Project Engineer |
|---|---|---|---|
| Billing Rate, $/hr | $170/hr | $110/hr | $100/hr |
| Task 1 | 5 | 20 | 30 |
| Task 2 | 3 | 5 | 5 |
| Task 3 | 10 | 20 | 20 |
| Task 4 | 40 | 200 | 240 |
| Task 5 | 10 | 20 | 20 |
| Task 6 | 40 | 60 | 100 |
| Total Labor Hours | 108 | 325 | 415 |
| ODCs and Subconsultant Cost | $54,000 | | |
| Total Labor Costs | $18,360 | $35,750 | $41,500 |
| **Total Facilities Planning Study** | **$149,610** | | |

The estimated fee is based on the following key assumptions:

1. SRT project manager will attend monthly Board meetings, prepare brief memoranda with the status update, and make presentations for the Board.
2. SRT will facilitate up to two public meetings and support SAM staff when addressing the media regarding the Recycled Water Project.
3. No facility rental or equipment rental is included.

We are pleased to be of service to SAM and hope that this proposal meets your approval. We'll be ready to proceed with the work upon receiving authorization. Please contact me at 415-776-5800 with any questions.

Sincerely,

Tatyana Yurovsky

Tatyana T. Yurovsky, P.E.
Principal
SRT Consultants

# APPENDIX A

## Facilities Planning Report Outline

## Section 1 Project Background

### *1.1 Study Area Characteristics*

1.1.1 Detailed map of study area

- Study area boundaries
- Topographic map
- City boundaries
- Population projections of study area
- Present and projected land use

1.1.2 Hydrologic features

- Ground water basin boundaries including: quantities extracted by all users, natural and artificial recharge, losses by evapotranspiration, inflow and outflow of basins, and safe yield or overdraft.
- Major streams
- Water quality of ground water and surface water
- Beneficial uses of receiving waters including degree of use and portion of flow that is effluent

### *1.2 Water and Wastewater Facilities Background*

1.2.1 Wholesale and retail water agency

- Description of all wholesale and retail entities
- Water supply entity boundaries within study area and adjacent to study area
- Water supply characteristics including sources of water, ground water management, recharge, and overdraft problems, water supply quality, and water use trends/future demands
- Capacities and existing flows of present facilities
- Customer prices
- Fixed and variable costs
- Estimated years when capacities are to be reached for major components including: water treatment plants, major transmission lines and storage facilities
- Plans for new facilities

1.2.2 Wastewater agency

- Description of entities
- Wastewater agency boundaries within study area and adjacent to study area
- Description of wastewater facilities including capacities, present flows, description of treatment processes, existing wastewater treatment schematic, and seasonal and hourly wastewater flow variations
- Customer prices
- Fixed and variable costs

- Wastewater characteristics, such as water quality of effluent and any seasonal variation, streams receiving waste discharges, and sources of problem constituents
- Additional facilities needed to comply with waste discharge requirements
- Existing rights to use of treated effluent after discharge

## Section 2 Marketing Study

### *2.1 Market Assessment*

2.1.1 Descriptions of all users or categories of potential users, including the following:

- Estimated internal capital investment required (on-site conversion costs),
- Needed water cost savings,
- Desire to use recycled water,
- Date of possible initial use of recycled water,
- Present and future source of water and quantity of use,
- Quality and reliability needs, and
- Wastewater disposal methods.

### *2.2 Logical Service Area*

## Section 3 Project Alternatives

### *3.1 Planning and design assumptions:*

- Delivery and system pressure criteria
- Peak delivery criteria
- Storage criteria
- Cost basis regarding cost index, discount rate, and useful lives
- Planning period
- Detailed map of existing recycled water facilities in the study area including: distribution pipelines, storage, and customers

### *3.2 Alternatives*

3.2.1 Water Recycling Alternatives

- Alternative markets based on different levels of treatment and geographical areas

- Alternative storage locations
- Sub alternatives of selected alternative including: marginal analysis for selected alternative for certain categories of users or certain geographic areas, varying storage, pump

rates, and pipeline diameters, use of water blending during peak irrigation months
- Information for each alternative includes: Detailed map of each recycled water facilities alternative, cost tables for each alternative, economic analysis, energy analysis for each alternative, and water quality impacts

3.2.2 Non-recycled water alternatives
- Discussion of other potentially viable new sources of water
- Provide economic costs

3.2.3 No project alternative

3.2.4 Alternative Recommendation

*3.3 Water Conservation Analyses.*
- Pollution control alternatives (if applicable) needed to comply with waste discharge requirements
- Recommendation and implementation

## Task 4 Facilities Project Plan

*4.1 Conceptual Engineering Design*

4.1.1 Preliminary design criteria
- Refined pipeline routes
- List of all potential users
- Quantity of recycled water use
- Peak demand
- Commitments obtained
- Reliability of facilities as compared to user requirements

*4.2 Construction Cost and Implementation*

4.2.1 Construction Cost
- Cost estimate based on time of construction

4.2.2 Implementation Plan
- Determination of recycled water supplier including coordination with water suppliers and development of needed agreements or ordinances
- Ability and timing of users to join system and make on-site investments
- Tentative water recycling requirements of RWQCB
- Commitments from potential users
- Water rights impact
- Permits, right-of-way, design, construction
- Detailed schedule

*4.3 Operational Plan*
- Monitoring
- Equipment Maintenance

- Responsible parties
- Irrigation scheduling

## Task 5 Project Financing and Revenue

### 5.1 *Funding Sources*

- Sources and timing of funds for design
- Sources and timing of funds for construction

### 5.2 *Pricing Policy*

- Costs that can be allocated to water pollution control.
- Annual projection of water prices for each user or category of users, recycled water used by each user, annual costs (required revenue) of recycling project, allocation of costs to users, unit costs of recycled water, and unit price of recycled water
- Sensitivity analysis assuming portion of potential users fail to use recycled water.
- Sunk costs and indebtedness.

## Task 6 Final Facilities Planning Report

- Tables of all abbreviations
- Copies of letters of interest or intent from recycled water users, or other documentation of support from potential users
- Draft of recycled water mandatory use ordinance or model user contract
- Drafts of necessary agreements, such as: wholesale-retail agreement and joint powers agreement

**Montara Water and Sanitary District**

**Resolution No.** 1439

**RESOLUTION APPROVING AND ADOPTING SEWER AUTHORITY MID-COASTSIDE RECYCLED WATER PROJECT, PHASE II AND PROPOSED PROJECT BUDGET**

**RESOLVED,** by the Board of Directors of the Montara Water and Sanitary District of San Mateo County, California, as follows:

**WHEREAS,** Sewer Authority Mid-Coastside, pursuant to Article V, Section (B) of the Joint Exercise of Powers Agreement, dated February 3, 1976, as amended, creating the Authority, has heretofore submitted to the Board of Directors of the Montara Water and Sanitary District, its Recycled Water Project Phase II and a proposed Project Budget;

**WHEREAS,** this Board of Directors of the Montara Water and Sanitary District has duly reviewed the project and proposed Project Budget;

**NOW, THEREFORE,** it is found, determined and ordered, that:

1. The Sewer Authority Mid-Coastside Recycled Water Project, Phase II, and proposed Project Budget related thereto, are hereby approved.

2. A copy of this resolution shall be provided to the Sewer Authority Mid-Coastside.

******

Paul Perkovic
President, Montara Water and Sanitary District
Paul Perkovic

COUNTERSIGNED:

Secretary, Montara Water and Sanitary District
Scott Boyd

* * * *

I HEREBY CERTIFY that the foregoing Resolution No. 1439 duly and regularly adopted and passed by the Board of the Montara Water and Sanitary District, County of San Mateo, California, at a Regular Adjourned Meeting thereof held on the 20th day of November 2008, by the following vote:

AYES, Directors: Perkovic, Boyd, Ptacek, Harvey, Slater-Carter

NOES, Directors: None

ABSENT, Directors: None

Secretary, Montara Water and Sanitary District