

**Council Meeting: August 23, 2011****SUBJECT: Amendment to an Existing Contract with RMC Water & Environment to Provide Additional Consultant Services for Emergency Bypass Pumping Plan Study Project (F1108-09)****REPORT IN BRIEF**

Approval is requested for a second amendment to an existing contract with RMC Water & Environment (RMC) to provide additional consultant services to design an alternative alignment of an emergency bypass pipeline at the Water Pollution Control Plant (WPCP). The second amendment will increase the contract amount from \$99,900 to \$165,100, an increase of \$65,200. Approval is also requested for a 10% contingency in the amount of \$16,510.

**BACKGROUND**

In June of 2008 the City contracted with the engineering consulting firm of RMC Water & Environment (RMC) in the amount of \$75,000 to prepare a study to evaluate alternatives for a contingency plan for emergency operation of the primary effluent pipeline at the WPCP. The 60-inch diameter reinforced concrete pipe is over 50 years old and is the single source conveying primary effluent from the primary sedimentation basins to the oxidation ponds for further treatment. Premature failure of this main pipeline would disrupt WPCP treatment operations and could cause a spill of sewage into the bay. The main pipeline is one of the most vulnerable facilities at the WPCP according to a 2006 Asset Condition Assessment. Replacement of the main pipeline will occur with one of the first projects in the upgrade of the WPCP facility. In the meantime, the emergency bypass plan will provide a means of recovery while repairs can be made to the existing pipeline in the case of pipeline failure and would facilitate replacement in the future.

The initial work done by RMC identified a solution by making a short connection between the primary effluent pipeline near the WPCP boundary and a secondary drain line near the WPCP's tertiary drainage system that also connects to the oxidation ponds. Since a simple cost-effective solution was identified, the consultant effort was redirected towards the design. In the design process it was determined that the work would partially cross Santa Clara Valley Water District (SCVWD) property adjacent to the northerly WPCP boundary, thus requiring an encroachment permit from the SCVWD as well as coordination with the District for construction activities on the SCVWD property. On September 1, 2009 (RTC #09-223) Council authorized amending

the existing contract with RMC to increase the contract value to \$99,900 and increasing the contingency to \$10,000 to move from study into design phase, including coordination and preparation, and submittal of an application package for the SCVWD permit.

### **DISCUSSION**

During the design phase several factors arose that prompted reevaluation of the design development. The District plans to activate a long dormant project to raise the levee for the Sunnyvale West Channel and make improvements within the route of the planned bypass line, which will conflict with the existing bypass design. In addition, significant environmental mitigation would need to be done during construction to protect endangered species in the area. An alternative route on City property is the most cost-effective solution.

In order to accomplish the in-plant project alignment, RMC is requesting an additional \$65,200 to evaluate this alternative alignment including hydraulics, construction sequencing within an operating facility, underground utility conflicts and to complete the design of this alignment and prepare construction bidding documents. The existing contract still has an available balance of \$30,848; this will be used for bidding and construction support services.

### **FISCAL IMPACT**

The project design contract will increase from \$99,900 to \$165,100 with an additional 10% contingency of \$16,510. Funds are available in Capital Project 827020 (Emergency Bypass Pumping).

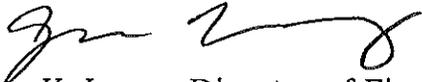
### **PUBLIC CONTACT**

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; and by making the agenda and report available at the Sunnyvale Public Library, the Office of the City Clerk and on the City's Web site.

**RECOMMENDATION**

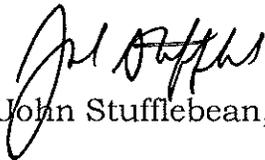
It is recommended that Council amend the existing contract with RMC Water & Environment, in substantially the same form as the attached draft second amendment, and increase the total contract value from \$99,900 to \$165,100 with a 10% design contingency in the amount of \$16,510.

Reviewed by:



Grace K. Leung Director of Finance  
Prepared by: Pete Gonda, Purchasing Officer

Reviewed by:



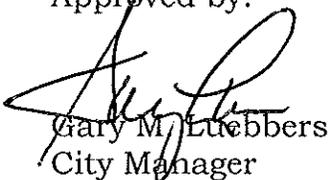
John Stufflebean, Director, Department of Utilities

Reviewed by:



Kent Steffens, Director, Department of Public Works

Approved by:



Gary M. Luebbers  
City Manager

**Attachments**

- A. Amendment to Consultant Services Agreement

**Attachment A  
DRAFT**

**SECOND AMENDMENT TO CONSULTANT SERVICES AGREEMENT  
BETWEEN THE CITY OF SUNNYVALE AND RMC WATER & ENVIRONMENT  
TO DEVELOP DESIGN AND CONSTRUCTION DOCUMENTS FOR AN EMERGENCY  
BYPASS PUMPING PLAN STUDY FOR THE WATER POLLUTION CONTROL PLANT**

This Second Amendment to Consultant Services Agreement, dated \_\_\_\_\_, is by and between the CITY OF SUNNYVALE, a municipal corporation ("CITY") and RMC WATER & ENVIRONMENT, a California corporation ("CONSULTANT").

WHEREAS, on June 3, 2008, CITY and CONSULTANT entered into a Consultant Services Agreement whereby CONSULTANT would provide professional services to develop an Emergency Bypass Pumping Plan Study for the Sunnyvale Water Pollution Control Plant (WPCP); and

WHEREAS, on September 16, 2009, CITY and CONSULTANT agreed to amend the Agreement to reflect additional work scope and an increase in the not to exceed value of the Agreement from \$69,900.00 to \$99,900.00; and

WHEREAS, the parties now agree that a Second Amendment to said Agreement is advisable;

NOW, THEREFORE, THE PARTIES ENTER INTO THIS SECOND AMENDMENT TO CONSULTANT SERVICES AGREEMENT:

Section 1. Services by CONSULTANT: Replace the first paragraph with the following:

CONSULTANT shall provide services in accordance with Exhibit "A" entitled "Scope of Work", Exhibit "A-1" entitled "Additional Services Scope" and Exhibit "A-2" entitled "Alternative Alignment Additional Services Scope". All exhibits referenced in this Agreement are attached hereto and are incorporated by reference. To accomplish that end, CONSULTANT agrees to assign Marilyn Bailey to this project to act in the capacity of Project Manager and personally direct the professional services to be provided by CONSULTANT.

Section 2. Notice to Proceed/Completion of Services Replace Paragraph (b) with the following:

- (b) When CITY determines that CONSULTANT has satisfactorily completed the services defined in Exhibits "A", "A-1" and "A-2", CITY shall give CONSULTANT written Notice of Final Acceptance and CONSULTANT shall not incur any further costs hereunder. CONSULTANT may request this determination of completion when,

In its opinion, it has satisfactorily completed the Scope of Work (Exhibit "A"), Additional Services Scope (Exhibit "A-1") and Alternative Alignment Additional Services Scope (Exhibit "A-2"), and If so requested, CITY shall make this determination within fourteen (14) days of such request.

Section 3. Payment of Fees and Expenses: Replace this section with the following:

Payments shall be made to CONSULTANT on a monthly basis as set forth in the attached Exhibit "B" entitled "Compensation Schedule", "Budget Estimate" section of Exhibit "A-1", and "Budget Amendment" section of Exhibit "A-2". Compensation will not be due until said detailed billing as submitted to CITY within a reasonable time before payment is expected to allow for normal CITY processing. An estimate of the percent of total completion associated with the various categories of the services shall be furnished by CONSULTANT with said billing. When applicable, copies of pertinent financial records will be included with the submissions of billing(s) for all direct reimbursables. Compensation shall not exceed the amounts set forth in Exhibit "B", the "Budget Estimate" of Exhibit "A-1" and the "Budget Amendment" section of Exhibit "A-2" for each phase. In no event shall the total amount of compensation payable under this Agreement exceed the sum of One Hundred Sixty Five Thousand One Hundred and No/100 Dollars (\$165,100.00) unless upon written modification of this Agreement. All invoices, including detailed backup, shall be sent to City of Sunnyvale, Attention Accounts Payable, P.O. Box 3707, Sunnyvale, CA 94088-3707.

All other terms and conditions remain unchanged.

IN WITNESS WHEREOF, the parties have executed this Second Agreement Amendment.

ATTEST:

CITY OF SUNNYVALE ("CITY")

By \_\_\_\_\_  
City Clerk

By \_\_\_\_\_  
City Manager

APPROVED AS TO FORM:

RMC WATER & ENVIRONMENT  
("CONSULTANT")

By \_\_\_\_\_  
City Attorney

By \_\_\_\_\_  
\_\_\_\_\_  
Name and Title

# City of Sunnyvale

## Water Pollution Control Plant Emergency Bypass Project

### Alternative Alignment Additional Services Scope

#### PROJECT DESCRIPTION

The City of Sunnyvale (City) plans to install a new primary effluent bypass pipeline at its Water Pollution Control Plant (WPCP) to provide redundancy for its treatment system. The project is currently at the 90-percent design phase for the proposed alignment near MH #3 outside the plant fence line. A portion of the pipeline is located within the Santa Clara Valley Water District (SCVWD) property and requires an encroachment permit. SCVWD is also in the planning phases of a future flood project in the vicinity of the proposed improvement.

To avoid potential conflicts with SCVWD's future flood project, the City is considering an alternative pipeline within the plant fence line (Exhibit A). Based on the initial project review, a bypass pipeline alignment in the roadway on the south side of the existing chemical storage area was thought to be the most viable alternative within the plant fence line. The pipeline would run from the primary effluent pipeline and connect to one of the pipelines going into the plant drain pump station.

RMC has prepared this scope of services to provide the City with an evaluation of the alternative Bypass alignment and subsequent design services, if an appropriate alternative is available.

#### ADDITIONAL SERVICES SCOPE

##### Task 1: Project Definition

##### **Subtask 1.1 Evaluate Alternatives – Constructability, Hydraulics, Construction Sequencing, and Utility Constraints**

RMC shall analyze and evaluate the proposed alternative alignment to determine fatal flaws, hydraulics criteria, construction sequencing and utility conflicts. A cost estimated for the new alignment shall also be developed.

##### **Subtask 1.2 Project Definition Workshop**

RMC shall conduct a workshop with WPCP management and staff to present the summary of the findings and verify the alternative route. This workshop shall also be used to obtain any other input needed from WPCP staff before preparation of the Technical Memorandum.

##### **Subtask 1.3 Technical Memorandum**

RMC shall prepare the draft Project Definition TM. The TM shall include the following information:

- Results of hydraulic analysis

- Preliminary alignment
- Identify utility constraints and construction methods
- Recommended Project Components
- Constructability Review and recommended construction sequencing
- Cost Estimate

We shall prepare draft and final TM's. The final TM shall serve as the basis of final design for any required physical facilities.

Deliverables:

- Workshop agenda and minutes
- Draft and Final TM

**Task 2: Design Services**

The estimated budget for the final design we have made the following assumptions.

- The recommended alternative is design of a bypass pipeline in the paved road to the south of the existing chemical storage area shown in Exhibit A.
- A reinforced concrete diversion box will need to be constructed around the 66" RCP primary effluent pipe for the alternative alignment.
- Bypassing of primary effluent (PE) flow will be viable to allow the PE line to be out of service to facilitate the connection to the PE pipeline.
- Isolation gates for bypass activation will be manual gates and won't require electrical and I&C services.
- Geotechnical investigation is not included as we assume the alternative pipeline alignment can be located to minimize any impacts to existing structures.
- For all review submittals, the WPCP staff will combine their review comments into single marked-up set of drawings and specifications. Whenever possible, conflicts between the WPCP internal review comments will be reconciled before the review comments are submitted to the consultant.
- The bid documents will use the City's General Conditions and RMC's Division 1 specifications.
- City will print and distribute the final bid documents.

**Subtask 2.1 60% Submittal**

The 60% submittal shall include the following:

- Major plans and sections for all project components
- Draft Specifications for all project components
- Updated construction cost estimate
- Draft Contingency Plan that provides step-by-step operational and notification procedures for implementing the bypass in the event of an emergency

Deliverables: (6 copies each)

- Half size copies of drawings
- Specifications, implementation schedule, and updated cost estimate
- Draft Contingency Plan

**Subtask 2.2 90% Submittal**

The 90% submittal shall include the following:

- Draft Final Construction Plans and Details
- Draft Final Specifications
- Draft Final Construction Quantity Calculations and Cost Estimate
- Design Calculations
- Structural Check Calculations
- Submittal list
- 90% Cost Estimates
- Documentation of Completed Internal QA / QC checks

Deliverables (6 copies of each):

- Items listed above (Half size copies of drawings)

**Subtask 2.5 100% Submittal**

The 100% submittal shall incorporate review comments from the 90% submittal into the final bid documents.

Deliverables:

- Full-size Mylars of all drawings (one copy)
- Camera-ready half-size drawings (one copy)
- Camera-ready specifications (one copy)
- Final Engineer's estimate of costs

Electronic files of drawings, specifications, and estimate

**Task 3: Additional Services During Construction Budget**

The proposed alternative alignment follows an existing corridor with significant number of existing utilities. As unknown and unforeseen conditions typically arise when work on wastewater treatment plant sites, additional budget is requested to support the City during the construction phase as needed. In addition, the current competitive state of the construction bidding environment, construction projects have required more rigorous management and engineering services in assuring proper execution of construction projects. RMC shall assist the City's construction team during construction as needed and as requested to ensure the requirements of the contract document are met. This task shall

include additional assistance in submittal review, responding to RFI's, coordination with the City Construction Manager, and review of construction change order. RMC assumes up to 29 hours of additional effort for the construction services.

**Task 4: Project Management**

RMC shall provide project management to monitor all activities, schedule, and budgets of the project. The project management activities shall include the following:

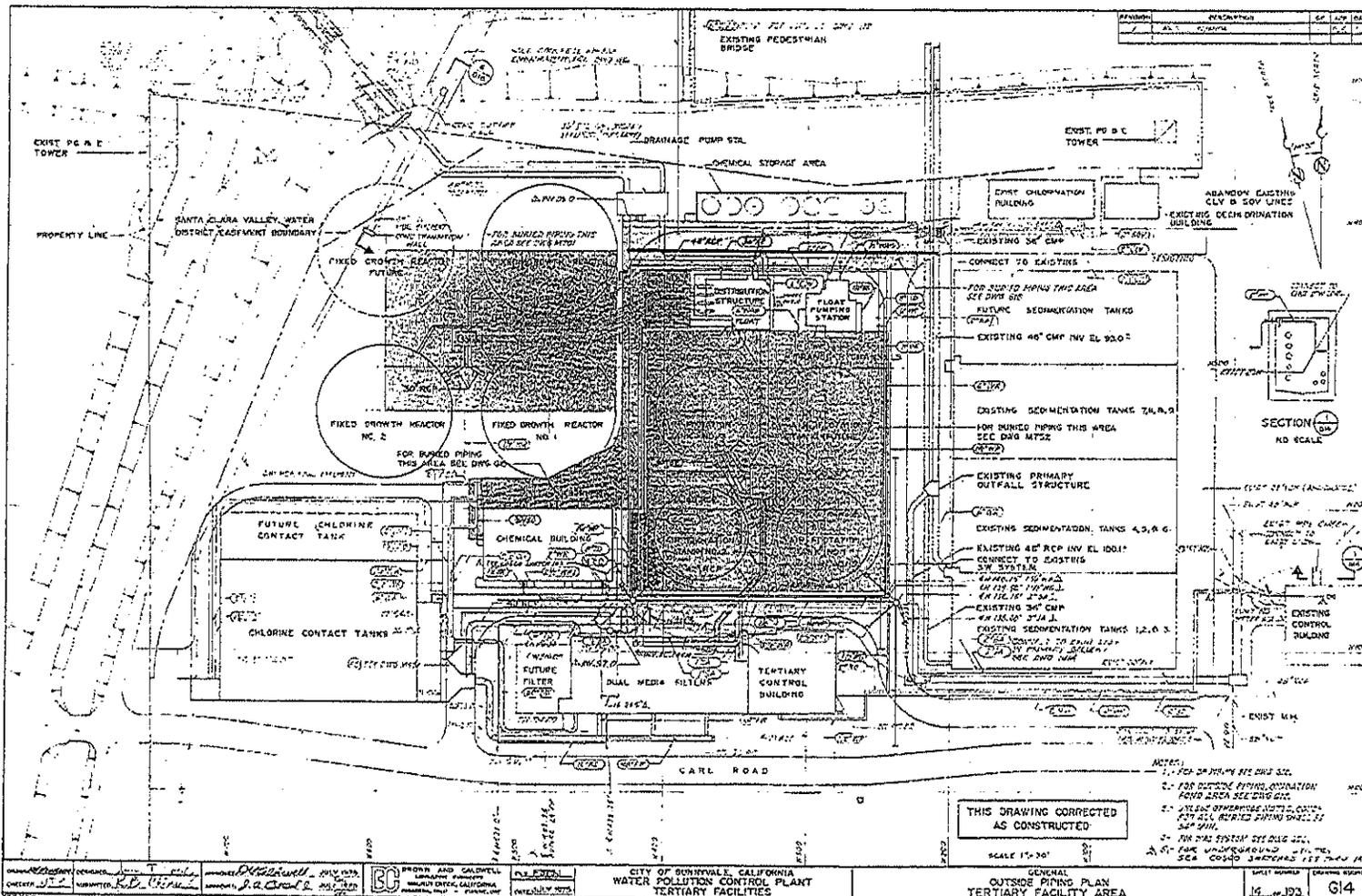
- Preparation of monthly invoice by task and by individual
- Preparation of monthly progress report describing specific accomplishments during the reporting period, problems encountered or anticipated, work scheduled for the next reporting period, and cost report

**BUDGET**

RMC proposes to complete the tasks as described in the above Scope of Services, for a total estimated budget of \$65,200 and will invoice monthly on a time and materials basis. Exhibit B provides a complete breakdown of the hours and costs by task.

This total Project budget is based on completion of the work within 2011. If delays occur, an amendment of the price may be warranted to accommodate additional project management and other costs.

### EXHIBIT A - TOPOGRAPHIC SURVEY AREA



PROJECT NO. 15-300  
 SHEET NO. 614  
 DATE: 10/15/83  
 DRAWN BY: J.P. ...  
 CHECKED BY: ...  
 APPROVED BY: ...

CITY OF BIRMINGHAM, CALIFORNIA  
 WATER POLLUTION CONTROL PLANT  
 TERTIARY FACILITIES

THIS DRAWING CORRECTED  
 AS CONSTRUCTED

SCALE: 1" = 30'  
 GENERAL OUTSIDE PILING PLAN  
 TERTIARY FACILITY AREA  
 SHEET NUMBER: 15-300  
 DRAWING NUMBER: 614

**EXHIBIT B**  
**BUDGET ESTIMATE**



Fee Estimate

Exhibit A - Sunnyvale Emergency Bypass Pipeline Project Budget Amendment

City of Sunnyvale

Alternative Design Emergency Bypass Pipeline Project

Tasks	Labor					Travel	Subcontractors	Outside Services				ODCs		Total
	Project Manager	Project Manager	Project Engineer	CAD	Support			Utility Investigation	Structural	Site Investigation	Other	Other	Other	
	\$255	\$215	\$175	\$125	\$105									
<b>Task 1: Project Definition-TM</b>														
1.1 Evaluate Alternatives - Constructability, Hydraulics, Construction Sequencing, and Utility Constraints	2	2	16	8		28	\$4,740			\$0	\$0	\$0	\$0	\$4,740
1.2 Workshop	2	4	4			10	\$2,070			\$0	\$0	\$50	\$55	\$2,125
1.3 Technical Memorandum	2	4	20			26	\$4,870			\$0	\$0	\$0	\$0	\$4,870
<b>Task 2: Design Services</b>														
2.1 60% Design	2	8	30	20	1	61	\$10,085	\$3,000	\$6,000	\$9,000	\$9,900	\$100	\$110	\$20,095
2.2 90% Design	2	6	24	16	1	49	\$6,105		\$4,000	\$4,000	\$4,400	\$100	\$110	\$12,615
2.3 100% Design	2	4	8	8	1	23	\$3,875		\$2,000	\$2,000	\$2,200	\$200	\$220	\$6,295
<b>Task 3: Additional Services During Construction</b>														
3.1 Additional Services During Construction			51	24		29	\$5,275		\$3,000	\$3,000	\$3,300	\$200	\$220	\$8,795
<b>Task 4: Project Management</b>														
4.1 Project Management			15	16		31	\$5,630		\$0	\$0	\$0	\$80	\$55	\$5,685
<b>Additional Services Total</b>	<b>14</b>	<b>49</b>	<b>126</b>	<b>52</b>	<b>19</b>	<b>260</b>	<b>\$44,650</b>	<b>\$3,000</b>	<b>\$15,000</b>	<b>\$18,000</b>	<b>\$19,300</b>	<b>\$700</b>	<b>\$770</b>	<b>\$65,200</b>

- The individual hourly rates include salary, overhead and profit.
- Subconsultants will be billed at actual cost plus 10%.
- Other direct costs (ODCs) such as reproduction, delivery, mileage (rates will be those allowed by current IRS guidelines), and travel expenses, will be billed at actual cost plus 10%.
- RMC reserves the right to adjust its hourly rate structure and ODC markup at the beginning of the calendar year for all ongoing contracts.
- Electrical and I&C is an optional effort depending on whether the City selects motorized gates for control of the bypass pipeline.