



# STAFF REPORT

## SAUSALITO CITY COUNCIL

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### AGENDA TITLE:

Consultant Services to Respond to EPA Order – Deliverables of October 15, 2010

### RECOMMENDED MOTION:

Adopt a Resolution of the City Council of the City of Sausalito:

- 1) Approving Amendment No. 1 to the Professional Services Agreement with West Yost Associates for Regulatory Compliance Assistance to prepare (a) a Capacity Assessment and Capacity Assurance Plan and (b) a Sewer Rehabilitation and Rehabilitation Program and 10 Year Financial Plan;
  - 2) Authorizing the City Manager to Execute said Amendment; and
  - 3) Appropriating the Necessary Funds for Said Work.
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### SUMMARY

The City of Sausalito ("City"), Sausalito Marin City Sanitary District ("SMCSD"), and Tamalpais Community Services District ("TCSD") are operating under U.S. Environmental Protection Agency ("EPA") Amended Order for Compliance, Docket No CWA-309(a)-08-031 dated November 24, 2008 (the "Order"). The Order requires that the agencies undertake various activities to reduce the number of sanitary sewer overflows both from the conveyance systems operated by the agencies and from the SMCSD treatment plant.

The Order requires that the City complete a sewer capacity assessment and develop a capacity assurance program. The goal of this effort is to identify hydraulic problems and develop capital improvement projects to correct these problems. The Order also requires that the City prepare and submit an Infrastructure Renewal Plan. The goal of this effort is to create a long range sewer repair and rehabilitation program.

Staff requested and West Yost Associates submitted a proposal to perform the necessary regulatory compliance services. As a result of past efforts related to the EPA Order compliance, West Yost is qualified to perform the work, the proposal fully addresses the necessary services and their fees are lower than those proposed by similarly qualified firms in the recent past.

Staff recommends the City Council consider public comment and then adopt a Resolution of the City Council of the City of Sausalito:

- 1) Approving a Professional Services Agreement with West Yost Associates to prepare a Capacity Assessment and Capacity Assurance Plan
- 2) Approving a Professional Services Agreement with West Yost Associates to prepare a Sewer Rehabilitation and Rehab Programs and 10 Year Financial Plan
- 3) Authorizing the City Manager to Execute Professional/Consulting Services Agreements with West Yost Associates on behalf of the City, and
- 4) Appropriating the Necessary Funds for Said Work.

## **BACKGROUND**

The City of Sausalito ("City"), Sausalito Marin City Sanitary District ("SMCSD"), and Tamalpais Community Services District ("TCSD") are operating under USEPA Amended Order for Compliance, Docket No CWA-309(a)-08-031 dated November 24, 2008 (the "Order"). The Order requires that the agencies undertake various activities to reduce the number of sanitary sewer overflows both from the conveyance systems operated by the agencies and from the SMCSD treatment plant.

As required under the Order, a Sewage Spill Reduction Plan (the "Plan") was prepared for the three agencies and submitted to the EPA on October 15, 2008. Additionally Flow Meters were installed on December 15, 2008 for collection system capacity assessment and Infiltration and Inflow hotspot detections. A Quarterly Sewer Overflow Response report was also prepared and submitted on January 15, 2009. On April 15, 2009 Sausalito submitted a Pump Station Report, Pump Station Certification and a Pump Station Maintenance/Rehabilitation Plan. Additionally, the Plan required that the City submit a report documenting its Sewer Main Assessment completed in 2001/02.

The Council authorized the City Manager to execute an agreement with the SMCSD to prepare a response to the October 15, 2008 deadlines specified in the EPA Compliance Order. The Sewage Spill Reduction Plan was prepared and submitted for the three agencies.

The Order requires that the City complete a sewer capacity assessment and develop a capacity assurance program. The goal of this effort is to identify hydraulic problems and develop capital improvement projects to correct these problems. The Order also requires that the City prepare and submit an Infrastructure Renewal Plan. The goal of this effort is to create a long range sewer repair and rehabilitation program.

Staff requested and West Yost Associates submitted a proposal to perform the necessary regulatory compliance services. As a result of past efforts related to the EPA Order fulfillment, West Yost is qualified to perform the work, the proposal fully addresses the necessary services and their fees are lower than those proposed by similarly qualified firms in the recent past.

With Resolution No. 5064 of September 1, 2009 the City retained West Yost Associates for regulatory compliance assistance with elements of the Plan. That effort is ongoing and is expected to be completed for reporting on October 15, 2010. West Yost has also assisted the City in prioritizing known sewer repair and rehabilitation efforts and is preparing sewer repair construction plans.

## ISSUES

**Scope:** The proposals with cost estimates are attached. The analysis and reporting is expected to meet the Compliance Order requirement for Capacity Assessment. West Yost will coordinate with other consultants working for the SMCSD and TCSD. SMCSD and TCSD have chosen another consultant (RMC Water and Environment) knowledgeable of those agency's facilities and has been working with the agencies for several years on hydraulic assessments. SMCSD operates and maintains Sausalito's three pump stations under contract.

West Yost has submitted proposals based on time and materials budget estimates. The estimate for the Capacity Assessment and Assurance Program is \$83,619. The estimate to develop the Collection System Rehabilitation and Replacement Program is \$35,958. The total budget requested is \$119,577.

**West Yost or another Consultant:** Professional services contracts are awarded on qualifications rather than solely price. Engineering services are included in the definition of professional service pursuant to Sections 3.30.020 and 3.30.500 – 3.30.520 of the Sausalito Municipal Code. Nonetheless costs do factor into decisions to hire qualified consultants. Staff believes that West Yost Associates is highly qualified to do the work and has provided a superior effort for a reasonable price in the past.

## FISCAL IMPACT

This item has no impact to the General Fund. The budget amount necessary for these services was not available when the Sewer Fund budget for FY10 was approved. The estimate for the Capacity Assessment and Assurance Program is \$83,619. The estimate to develop the Collection System Rehabilitation and Replacement Program is \$35,958. The total budget requested is \$119,577 and Staff respectfully requests that the award be made with appropriation of the necessary additional funds.

Failure to fund these efforts could result in fines in excess of Compliance Order implementation costs and could result in the loss of control of the sewer enterprise.

## STAFF RECOMMENDATIONS

Staff recommends that the Council adopt a resolution:

- 1) Approving Amendment No. 1 to the Professional Services Agreement with West Yost Associates to prepare (s) a Capacity Assessment and Capacity Assurance Plan and (b)

- a Sewer Rehabilitation and Replacement Program and 10 Year Financial Plan for an amount not to exceed \$119,577
- 2) Authorizing the City Manager to Execute said Amendment No. 1
  - 3) Appropriating the Necessary Funds for said work.

## ATTACHMENTS

- 1) Resolution Appropriating Funds for, Approving and Authorizing the City Manager to Execute Amendment No. 1 to the Professional Services Agreement with West Yost Associates for Preparation of Capacity Assessment and Capacity Assurance Plan and Sewer Rehabilitation and Replacement Program Documents.

PREPARED BY:



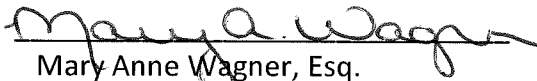
Todd Teachout  
City Engineer

REVIEWED BY (Department Head):



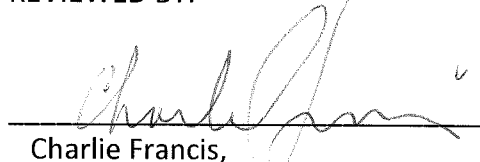
Jonathon Goldman,  
Director of Public Works

REVIEWED BY:



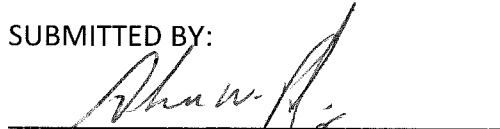
Mary Anne Wagner, Esq.  
City Attorney

REVIEWED BY:



Charlie Francis,  
Administrative Services Director/Treasurer

SUBMITTED BY:



Adam W. Politzer  
City Manager

## RESOLUTION

### **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SAUSALITO APPROPRIATING FUNDS FOR, APPROVING AND AUTHORIZING THE CITY MANAGER TO EXECUTE AMENDMENT NO. 1 TO THE PROFESSIONAL SERVICES AGREEMENT WITH WEST YOST ASSOCIATES FOR PREPARATION OF CAPACITY ASSESSMENT AND CAPACITY ASSURANCE PLAN, AND SEWER REHABILITATION AND REPLACEMENT PROGRAM DOCUMENTS**

**WHEREAS**, in accordance with the EPA Notice of Violation and Order for Compliance, Docket No.: CWA-309(a)-08-031 amended November 24, 2008 (the "Order") a Sewage Spill Reduction Plan (the "Plan") was prepared and submitted to the EPA on October 15, 2008; and

**WHEREAS**, with Resolution No. 5064 of September 1, 2009 the City retained West Yost Associates under a professional services agreement for regulatory compliance assistance under the Order (the "Agreement") based in part on West Yost's experience serving the City, the Sausalito-Marin City Sanitary District or the Tamalpais Community Services District on similar matters; and

**WHEREAS**, the Order requires that the City prepare a report documenting its Sewer Capacity Assessment efforts and prepare and begin implementing a Capacity Assurance Plan, and prepare report documenting an infrastructure renewal program – both of which are to be submitted to the EPA by October 15, 2010; and

**WHEREAS**, the Director of Public Works and City Engineer evaluated alternatives and issued a Request for Proposal to West Yost Associates; and

**WHEREAS**, West Yost Associates promptly and completely prepared the attached and incorporated by reference hereunder responses "Proposal for Capacity Assessment and Assurance Plan," and "Proposal for Rehabilitation and Replacement Program & 10-Year Financial Plan," dated May 18, 2010; and

**WHEREAS**, the proposals received include detailed scopes of services, schedules and budgets, as well as acceptable terms and conditions for performance of said services; and

**WHEREAS**, the Director of Public Works and the City Engineer have reviewed the proposals and concluded that West Yost has the level of experience, competence, staffing and other professional qualifications necessary for more than a satisfactory performance of the services required and that award of the work to West Yost will provide the best value to the City when compared with the alternatives identified; and

**WHEREAS**, the proposed professional services will not have any adverse environmental impact; and

**WHEREAS**, the budget estimated for preparation of the required Capacity Assessment and Assurance Plan is estimated to be \$83,619; and

**WHEREAS**, the budget estimated for preparation of the required Collection System Rehabilitation and Replacement Program is estimated to be \$35,958; and

**WHEREAS**, failure to prepare the required reports could jeopardize the City's ability to comply with requirements within the EPA Order for Compliance.

**NOW, THEREFORE**, the City Council of the City of Sausalito hereby resolves as follows:

1. Approves the attached and incorporated by reference hereunder Amendment No. 1 to the Professional Services Agreement between City of Sausalito and West Yost Associates in an amount not to exceed \$119,577
2. Authorizes the City Manager to execute said Amendment on behalf of the City.
3. \$119,577 is appropriated from Sewer Fund to fund said Amendment No. 1.

**PASSED AND ADOPTED** at a regular meeting of the City Council of the City of Sausalito on the 1<sup>st</sup> day of June, 2010, by the following vote:

AYES:            Councilmembers:  
NOES:            Councilmembers:  
ABSTAIN:        Councilmembers:

\_\_\_\_\_  
Mayor, City of Sausalito

ATTEST:

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

This **FIRST AMENDMENT TO PROFESSIONAL SERVICES SERVICES AGREEMENT**, (this "Amendment") is made and entered into this \_\_\_ day of June, 2010, by and between the **CITY OF SAUSALITO**, a municipal corporation (hereinafter "City") and **WEST YOST ASSOCIATES**. (hereinafter "Consultant").

### RECITALS

The following Recitals are a substantive part of this Agreement:

- A. City and Consultant entered into a Professional/Consulting Services Agreement dated as of September 1, 2009 (the "Agreement"). Pursuant to the Agreement, the Consultant provides the City with certain services related to the regulatory compliance assistance under the EPA Notice of Violation and Order for Compliance Docket No.: CWA-309(a)-08-031 amended November 24, 2008.
- B. The scope of Consultant's services was limited to the Viña Del Mar Park accessibility improvements and the budget augmented by Amendment No. 1 to Agreement with the City approved with Resolution No. 5022 adopted April 21, 2009.
- C. As a result of unforeseen demand for revisions and meeting support, the budget for professional services has been exhausted and requires Budget Augmentation for completion of the services required under the Agreement.
- D. City and Consultant desire to enter into this Amendment to include the provision of such services.

In consideration of the mutual promises contained herein, the parties hereto agree as follows:

#### **Section 1. Scope of Work**

Section 1 of the Agreement is hereby amended to provide additional conceptual design services and meeting support in addition to the scope identified in Exhibit A of the Agreement.

#### **Section 2. Schedule**

Section 2 of the Agreement is amended to extend the Schedule until improvement construction is substantially completed.

**Section 3. Compensation.**

Section 3 of the Agreement is amended to provide that in consideration of the additional Work to be performed by the Consultant as set forth in Section 1 of this Amendment Consultant shall be compensated in an amount not to exceed \$24,360 [total] (\$14,360 originally, \$10,000 for amendment No. 2 without additional authorization.

**Section 4. Effect on Agreement.**

Except as expressly set forth herein, the terms and conditions of the Agreement shall remain in full force and effect. In the event of any inconsistency between the Agreement and this Amendment, the terms of this Amendment shall control.

**Section 5. Entire Agreement; Conflicts.**

This Amendment and the Agreement contain the entire agreement between the parties with respect to the subject matter hereof. Except as otherwise specified herein, no prior oral or written understanding shall be of any force or effect with respect to those matters covered herein. This Amendment and the Agreement shall not be modified or altered except in writing signed by both parties.

**In Witness Whereof**, City and Consultant have executed this Amendment as of the date first written above.

City of Sausalito

Consultant

\_\_\_\_\_  
By: Adam W. Politzer  
Its: City Manager

\_\_\_\_\_  
By: \_\_\_\_\_  
Its: \_\_\_\_\_

Approved as to form:

\_\_\_\_\_  
Mary Anne Wagner  
City Attorney



EXHIBIT A  
SCOPE OF WORK



May 18, 2010

Mr. Jonathon Goldman  
Director of Public Works  
420 Litho Street  
Sausalito, CA 94965

SUBJECT: Proposal for Capacity Assessment and Capacity Assurance Plan  
In Compliance with EPA Administrative Order, Docket No. CWA 309(a)-08-031

Dear Mr. Goldman:

Enclosed is a scope and cost proposal for completion of assessments that are required by the City's November 23, 2008 EPA Order for Compliance, Sections IV.B.3 and V.B. These sections of the Order require an assessment of collection system flows and hydraulic capacity.

The assessments must use predictive flow modeling to evaluate sources and quantities of inflow and infiltration, and capacity constraints in the collection system. West Yost will develop this hydraulic model using InfoWorks software, which is consistent with the software used to develop the hydraulic model for the Sausalito-Marín City Sanitary District collection system.

A resulting Capacity Assurance Plan is required to identify and schedule the improvements needed to address the flow constraints. Finally, submittal to the EPA of a report summarizing work completed, including the Capacity Assurance Plan, is required by October 15, 2010. Our proposal includes completion of a draft and final report suitable for submittal to the EPA by the prescribed deadline.

Please call if you have any questions or if you would like to discuss our proposal in greater detail.

Sincerely,

WEST YOST ASSOCIATES

A handwritten signature in black ink, appearing to read "V. Housen".

Vivian W. Housen, P.E.  
Vice President

enclosure

**CITY OF SAUSALITO**  
**COLLECTION SYSTEM CAPACITY ASSESSMENT & CAPACITY**  
**ASSURANCE PLAN**  
**SCOPE OF WORK**

This Scope of Work outlines the tasks required to complete a capacity assessment and capacity assurance plan for the City of Sausalito (City) wastewater collection system as required by the November 24, 2008 EPA Order for Compliance (CWA 309(a)-08-031). The Order for Compliance (Order) requires that the City submit a report to the EPA by October 15, 2010 that uses flow measurements and predictive flow modeling to identify areas, sources, and quantities of significant inflow and infiltration (I&I) to the collection system; identifies wet weather capacity issues; and provides a discussion of the impact of wet weather flow to Sausalito-Marin City Sanitary District. The Order also requires that the City submit a report to the EPA on this same date that identifies improvements needed to eliminate spills from the collection system during peak wet weather, as determined through the capacity assessment.

Flow measurements were obtained by the City during the 2008-09 wet weather season. West Yost has reviewed these flow measurements and has confirmed that the data is adequate for evaluation of I&I, and for calibration of a hydraulic model.

The proposed services include development and calibration of a new collection system hydraulic model, completion of the City's I&I analysis, capacity assessment of the existing system under the same design storm that is utilized by the SMCSO hydraulic model, and development of a draft and final report suitable for submittal to the EPA.

### **Task 1 – Gather and Prepare Data**

The objective of this task is to gain a thorough understanding of the City's existing collection system facilities, their condition, and operation. This task will expand West Yost's knowledge of the City's collection system gained on other projects.

#### 1.1 Gather System and Land Use Data

West Yost will gather and review necessary data for the project, including but not limited to:

- Current land use maps and available data based on general plan information, zoning information, and other sources as available from the City, County and other agencies served by the City of Sausalito.
- Current available GIS files from the City, including any updates to the collection system GIS layers, LIDAR or other topographic data, and recent aerial photographs (if available).
- As-built documentation for the City's pump stations connecting to the trunk sewer system as shown in Figure 1. Information shall include pump curves, wet well size and elevations, force main size and elevations, and pump on/off elevations. Four City's pump stations will

be included in the hydraulic model: Gate 5, Whiskey Springs, Anchor Street, and Princess Street Pump Station.

- For the above pump stations, run-time logs for the previous 2 years, and maintenance and inspection reports for the prior year.
- Any historical past planning reports, including available background data and information gathered to develop these reports.
- City's design criteria including unit flow factors and capacity criteria.
- Available rainfall data.
- Current collection system data for Sausalito-Marin City Sanitary District (SMCSD) facilities routed through the City of Sausalito, including Locust Street, Main Street and Scotty's Pump Stations.
- Flows generated from the upstream communities of SMCSD (Marin City) and Tamalpais Community Services District (TCSD) for inclusion in the hydraulic modeling effort.
- Alternately, obtain, either all or a portion of, the hydraulic model built for TCSD and SMCSD so that these communities collection system facilities and flows being routed through the City of Sausalito can be incorporated into the City of Sausalito collection system hydraulic model.

The information collected will facilitate construction of the hydraulic model and support model needs for flow generation, as described in Task 3.

The City does not currently have a reliable dataset of invert elevations for their manholes and pipelines. The City will conduct necessary field work to collect rim and invert elevations for specific manholes, as needed to facilitate construction of the hydraulic model and support model needs for flow generation, as described in Task 3.

## 1.2 Field Work

In addition to the trunk sewer manhole rim and invert elevations that are obtained by the City under Task 1.1, additional data may be required to correct inconsistent survey data, or capture information for smaller pipelines in high I&I areas. West Yost will provide the City with a map and list of supplemental manholes that need to be surveyed for this project.

In addition, field verifications of flow direction, connectivity, and anomalies within the system may need to be investigated. West Yost will develop maps for these "special case" field investigations. It is assumed that City maintenance crews will provide West Yost with manhole access required to complete the field work.

### 1.3 Flow Monitoring Data

The City conducted a flow monitoring program in 2008/2009. The 2008/2009 flow monitoring data will be used to calibrate the hydraulic model (Task 3). West Yost will prepare the flow monitoring data for use in the hydraulic modeling effort, including developing diurnal curves and separating the various flow components into base wastewater flow, inflow, infiltration, and tidal flows.

### 1.4 Draft and Final Technical Memoranda

West Yost will prepare draft and final Data Review technical memoranda (TM) to document the work completed in Task 1. Findings in the draft TM will be discussed with the City to obtain comments for incorporation in the final TM.

*Task 1 Deliverables: One electronic submittal of draft and final TM.*

## **Task 2 – Infiltration and Inflow (I&I) Evaluation**

### 2.1 Review Findings and Complete I&I Evaluation

West Yost has reviewed the City's flow data, and has completed an initial I&I analysis to locate the basins with high I&I. West Yost will review and finalize this information as required to meet the requirements of the Order, including documenting areas, potential sources, and quantities of significant inflow and infiltration (I&I) to the collection system.

### 2.2 Draft and Final Technical Memoranda

Draft and final I&I Evaluation TMs will be prepared to document the work completed in Task 2. Findings in the draft TM will be discussed with City Staff to obtain comments, which will be incorporated into the final TM.

*Task 2 Deliverables: One electronic submittal of the draft and final TMs.*

## **Task 3 – Hydraulic Model Development & Calibration**

### 3.1 Hydraulic Model Construction

West Yost will construct the hydraulic model using InfoWorks CS. The model network will include pipeline, manhole and pump station facilities that are in the relatively flat areas of the City. The collection system facilities in the steep areas of the system are assumed to have adequate capacity and thus will not be included in the model. The model will include the City and SMCS D pump stations located along the trunk sewers. The SMCS D main trunk sewer along Bridgeway will also be included in the model, as well as three SMCS D pump stations. Approximately 27% of the collection system will be included in the model, which includes the SMCS D regional facilities. West Yost will work with City staff to identify additional smaller diameter pipelines to be included in the model to ensure connectivity throughout the system and address known problem areas.

### 3.2 Land Use & Flow Generation

West Yost will generate current dry weather flows by applying industry-standard unit flow factors to available land use data, confirmed through aerial map information, as collected in Task 1.01. Sewersheds or sub-basins define small areas in a collection system where flows will be input into the hydraulic model. West Yost will digitize the sewersheds based on the layout of the pipe network. The sewersheds will then be intersected with available flow data to develop “node-specific” flow inputs for use in the hydraulic model. These flows will be augmented with any known data on significant point source dischargers such as large industries or major institutional users.

### 3.3 Hydraulic Model Calibration

West Yost will calibrate the hydraulic model to the City’s 2008/2009 flow monitoring data. Modeling parameters will be adjusted for dry and wet weather flows to match actual flow data at the eight monitoring sites in 2008/2009. This will be an iterative process that is designed to match model behavior as closely as possible to actual measured flows and flow trends, including flows resulting from tidal influence, in all of the sewer basins that were defined in the flow monitoring study. Flows from TCSD and Marin City (SMCSD) will be included as point flows at the upstream end of the SMCSD trunk sewer along Bridgeway in order to model the entire regional collection system.

### 3.4 Draft and Final Technical Memoranda

Draft and final Hydraulic Model TMs will be prepared to document the work completed in Task 3. Findings in the draft TM will be discussed with City Staff to obtain comments, which will be incorporated into the final TM.

*Task 3 Deliverables: One electronic submittal of the draft and final TMs.*

## **Task 4 – Capacity Assessment and Assurance**

### 4.1 Review Design Criteria

West Yost will review available design criteria, including pump station operating criteria, unit wastewater flow factors, and capacity criteria, and recommend changes, if needed. The capacity analysis will evaluate the performance of the existing system under the design storm that has been utilized by the SMCSD collection system model.

### 4.2 Capacity Analysis

West Yost will complete a capacity analysis of the collection system pipelines for the current 2010 scenario. The 2010 capacity analysis will assess the presence and severity of capacity restrictions within the collection system, assuming all flows will be conveyed to the wastewater treatment plant. Capacity deficiencies identified during this effort will be discussed and refined through discussions with City staff. This analysis will also identify capacity limitations of the City’s pump and/or lift stations. However, this analysis does not include a detailed condition assessment of the City’s pump and/or lift stations.

### 4.3 Capacity Assurance Plan

West Yost will evaluate available alternatives for the capacity deficient pipelines, including upsizing existing pipelines or providing new relief sewers where appropriate. West Yost will prepare a summary of the alternatives evaluated, recommend project priorities, and provide associated planning-level costs and benefits/challenges for each alternative.

### 4.4 Draft and Final Technical Memoranda

Draft and final Capacity Assessment TMs will be prepared to document the work completed in Task 4. Findings in the draft TM will be discussed with City Staff to obtain comments, which will be incorporated into the final TM.

*Task 4 Deliverables: One electronic submittal of draft and final TMs.*

### **Task 5 –Draft and Final EPA Report**

A draft and final Report suitable for submittal to the EPA will be prepared summarizing the work completed in Tasks 1 through 4. The report will comprise an executive summary, followed by the TMs described above.

Findings in the draft Report will be discussed with City. Comment received will be incorporated into the final Report.

*Task 5 Deliverables: One electronic submittal of draft Report, and three hard copies plus one electronic submittal of the final Report.*

### **Task 6 – Project Management and Meetings**

West Yost will provide project management activities throughout the duration of the project. Project management will include project coordination and meetings; monitoring project progress, schedule and budget adherence; project communications; and Quality Assurance / Quality Control.

*Task 6 Deliverables: Meeting minutes*

## BUDGET AND SCHEDULE

Proposed costs for the Collection System Capacity Assessment are attached and summarized in Table 1.

**Table 1. Summary of Costs**

Task	Proposed Fee
1. Gather and Prepare Data	\$15,191
2. Complete I&I Evaluation	\$5,880
3. Hydraulic Model Development & Calibration	\$30,686
4. Capacity Assessment & Assurance	\$22,348
5. EPA Report	\$3,980
6. Project Management and Meetings	\$5,534
Total	\$83,619

All West Yost tasks will be performed on a time and materials basis according to the rate schedule included in Exhibit B. The project will require a duration of 5 months from Notice to Proceed, with completion of the EPA report in advance of the October 15, 2010 submittal date.



PROPOSED BUDGET for CITY OF SAUSALITO  
 PROJECT: HYDRAULIC MODEL, CAPACITY ASSESSMENT, AND CAPACITY ASSURANCE PLAN

	PVP \$206	PE/PS \$179	ESIL \$127	ADMV \$92	Labor		Modeling		Costs		
					Hours	Fee	Hours	Fee	Routine ODC 5%	ODC	Total Costs
<b>1.0 Gather &amp; Prepare Data</b>											
1.01 Data Collection	2	12	24	0	38	\$ 5,608			\$ 280	\$ 200	\$ 5,888
1.02 Field Work	2	8	12	0	22	\$ 3,368			\$ 168	\$ 200	\$ 3,536
1.03 Flow Monitoring Data	0	8	4	0	12	\$ 1,940			\$ 97		\$ 2,037
1.04 Draft and Final TM	2	8	12	2	24	\$ 3,552			\$ 178		\$ 3,730
<b>Subtotal, Task 1 (hours)</b>	<b>6</b>	<b>36</b>	<b>52</b>	<b>2</b>	<b>96</b>						
<b>Subtotal, Task 1 (\$)</b>	<b>\$ 1,236</b>	<b>\$ 6,444</b>	<b>\$ 6,604</b>	<b>\$ 184</b>		<b>\$ 14,468</b>			<b>\$ 723</b>	<b>\$ 400</b>	<b>\$ 15,191</b>
<b>2.0 I&amp;I Evaluation</b>											
2.01 Review Findings and Complete I&I Evaluation	4	8	8	0	20	\$ 3,272			\$ 164		\$ 3,436
2.02 Draft and Final TM	2	4	8	2	16	\$ 2,328			\$ 116		\$ 2,444
<b>Subtotal, Task 2 (hours)</b>	<b>6</b>	<b>12</b>	<b>16</b>	<b>2</b>	<b>36</b>						
<b>Subtotal, Task 2 (\$)</b>	<b>\$ 1,236</b>	<b>\$ 2,148</b>	<b>\$ 2,032</b>	<b>\$ 184</b>		<b>\$ 5,600</b>			<b>\$ 280</b>	<b>\$ -</b>	<b>\$ 5,600</b>
<b>3.0 Hydraulic Model Development</b>											
3.01 Model Construction	2	20	36	0	58	\$ 8,564	44	\$ 1,100	\$ 428		\$ 10,092
3.02 Land Use & Flow Generation	2	8	24	0	34	\$ 4,892	10	\$ 250	\$ 245		\$ 5,387
3.03 Model Calibration	2	24	40	0	66	\$ 9,768	48	\$ 1,200	\$ 489		\$ 11,477
3.04 Draft and Final TM	2	8	12	2	24	\$ 3,552			\$ 178		\$ 3,730
<b>Subtotal, Task 3 (hours)</b>	<b>8</b>	<b>60</b>	<b>112</b>	<b>2</b>	<b>182</b>		<b>102</b>				
<b>Subtotal, Task 3 (\$)</b>	<b>\$ 1,648</b>	<b>\$ 10,740</b>	<b>\$ 14,224</b>	<b>\$ 184</b>		<b>\$ 26,796</b>		<b>\$ 2,550</b>	<b>\$ 1,340</b>	<b>\$ -</b>	<b>\$ 30,686</b>
<b>4.0 Capacity Assessment &amp; Assurance</b>											
4.01 Design Criteria	4	4	0	0	8	\$ 1,540			\$ 77		\$ 1,617
4.02 Capacity Analysis	2	12	16	0	30	\$ 4,592	12	\$ 300	\$ 230		\$ 5,122
4.03 Capacity Assurance	16	16	24	2	58	\$ 9,392	12	\$ 300	\$ 470		\$ 10,162
4.04 Draft and Final TM	4	12	16	2	34	\$ 5,188			\$ 259		\$ 5,447
<b>Subtotal, Task 4 (hours)</b>	<b>26</b>	<b>44</b>	<b>56</b>	<b>4</b>	<b>130</b>		<b>24</b>				
<b>Subtotal, Task 4 (\$)</b>	<b>\$ 5,356</b>	<b>\$ 7,876</b>	<b>\$ 7,112</b>	<b>\$ 368</b>		<b>\$ 20,712</b>		<b>\$ 600</b>	<b>\$ 1,035</b>	<b>\$ -</b>	<b>\$ 22,348</b>
<b>5.0 EPA Report</b>											
5.01 Draft Report	2	4	8	2	16	\$ 2,328			\$ 116		\$ 2,444
5.02 Final Report	2	2	4	2	10	\$ 1,482			\$ 73		\$ 1,555
<b>Subtotal, Task 5 (hours)</b>	<b>4</b>	<b>6</b>	<b>12</b>	<b>4</b>	<b>26</b>		<b>0</b>				
<b>Subtotal, Task 5 (\$)</b>	<b>\$ 824</b>	<b>\$ 1,074</b>	<b>\$ 1,524</b>	<b>\$ 368</b>		<b>\$ 3,790</b>		<b>\$ -</b>	<b>\$ 190</b>	<b>\$ -</b>	<b>\$ 3,980</b>
<b>6.0 Project Management</b>											
6.01 Project Management	4	4	0	2	10	\$ 1,724			\$ 86		\$ 1,810
6.02 Progress Meetings (2)	6	6	0	0	12	\$ 2,310			\$ 116		\$ 2,426
6.03 Q/A/C	6	0	0	0	6	\$ 1,236			\$ 62		\$ 1,298
<b>Subtotal, Task 6 (hours)</b>	<b>16</b>	<b>10</b>	<b>0</b>	<b>2</b>	<b>28</b>		<b>0</b>				
<b>Subtotal, Task 6 (\$)</b>	<b>\$ 3,296</b>	<b>\$ 1,790</b>	<b>\$ -</b>	<b>\$ 184</b>		<b>\$ 5,270</b>		<b>\$ -</b>	<b>\$ 264</b>	<b>\$ -</b>	<b>\$ 5,534</b>
<b>TOTAL HYDRAULIC MODEL DEVELOPMENT (HOURS)</b>	<b>55</b>	<b>158</b>	<b>240</b>	<b>15</b>	<b>495</b>		<b>126</b>				
<b>TOTAL HYDRAULIC MODEL DEVELOPMENT (\$)</b>	<b>\$ 13,596</b>	<b>\$ 38,072</b>	<b>\$ 31,406</b>	<b>\$ 1,472</b>		<b>\$ 76,656</b>		<b>\$ 3,159</b>	<b>\$ 3,032</b>	<b>\$ 400</b>	<b>\$ 83,618</b>

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May 18, 2010

Mr. Jonathon Goldman  
Director of Public Works  
420 Litho Street  
Sausalito, CA 94965

SUBJECT: Proposal for Rehabilitation and Replacement Program & 10-Year Financial Plan  
In Compliance with EPA Administrative Order, Docket No. CWA 309(a)-08-031

Dear Mr. Goldman:

Enclosed is a scope and cost proposal for completion of assessments and documents that are required by the City's November 23, 2008 EPA Order for Compliance, Sections IV.A.4 and VI.A. These sections of the Order require a summary of CCTV inspection findings and condition assessments, and development of a 5-year CIP, a 10-year assessment of continued replacement needs, and a 10-year financial plan.

The EPA requires submittal of a report summarizing work completed, including the CIPs and financial plans, by October 15, 2010. Our proposal includes completion of a draft and final report suitable for submittal to the EPA by the prescribed deadline.

Please call if you have any questions or if you would like to discuss our proposal in greater detail.

Sincerely,

WEST YOST ASSOCIATES

A handwritten signature in black ink, appearing to read "V. Housen".

Vivian W. Housen, P.E.  
Vice President

enclosure

**CITY OF SAUSALITO**  
**COLLECTION SYSTEM 10-YEAR CAPITAL IMPROVEMENT PLAN**  
**SCOPE OF WORK**

This Scope of Work outlines the tasks required to complete a 10-year capital improvement plan for the City of Sausalito (City) wastewater collection system as required by the November 24, 2008 EPA Order for Compliance (CWA 309(a)-08-031). The Order for Compliance (Order) requires that the City submit a report to the EPA by October 15, 2010 that summarizes findings from the City's closed circuit television (CCTV) inspections and presents the City's 10-year financial plan for short-term and long-term repair, rehabilitation, and replacement of sewer pipes.

CCTV inspection of the City's previously uninspected pipes is currently in progress by the City. Inspections are expected to be completed by the end of June 2010. West Yost will utilize the inspection results, including City-assigned condition ratings using National Association of Sewer Service Companies (NASSCO) Pipeline Assessment Condition Program (PACP) protocol, to evaluate the condition of the inspected pipelines. This condition information will augment existing condition data from previously inspected pipes.

The proposed services include a system-wide assessment of pipeline condition and replacement needs as derived from CCTV inspection data and spatially represented using GIS mapping; conceptual level cost estimates for projects proposed in the 10-year timeframe; integration of identified rehabilitation projects with capacity improvement projects (identified through the capacity assurance plan) and prioritization of the combined program to best address I&I reduction and control; and update of the City's 5-year CIP and development of a 10-year financial plan. As requested by the City, the 5-year and 10-year plans will each include a line item for repair of lower laterals in conjunction with ongoing mainline sewer replacement projects.

**Task 1 – Gather and Review Data**

1.1 Gather and Review Data

This task will expand West Yost's knowledge of the City's collection system through the review of records from recently-completed CCTV records, review of historical sewer system overflows (SSOs), and discussions with City staff regarding known problem areas in the collection system.

1.2 Draft and Final Technical Memoranda

West Yost will prepare draft and final Data Review technical memoranda (TM) to document the work completed in Task 1. Findings in the draft TM will be discussed with the City to obtain comments for incorporation in the final TM.

*Task 1 Deliverables: One electronic submittal of draft and final TM.*

## Task 2 – Evaluation of Rehabilitation and Replacement Needs

### 2.1 Review Findings and Identify R&R Needs

West Yost will prepare a map using GIS to spatially record and locate asset, inspection, and maintenance data obtained in Task 1. Based on overlapping areas of concern with regard to condition ratings and sewer system overflows, West Yost will identify sewer repairs, rehabilitation, and replacement needs to be implemented within a five-year time period and within a ten-year and greater planning horizon.

West Yost will develop replacement alternatives and assign conceptual costs to these projects, and will use a weighted prioritization methodology to score and rank the projects based on probability, risk, and consequence of failure.

### 2.2 Draft and Final Technical Memoranda

Draft and final Rehabilitation and Replacement Needs TMs will be prepared to document the work completed in Task 2. Findings in the draft TM will be discussed with the City to obtain comments for incorporation in the final TM.

*Task 2 Deliverables: One electronic submittal of the draft and final TMs.*

## Task 3 – Development of 5- and 10-Year CIPs

### 3.1 Project Prioritization and CIP

Based on the findings from Task 2, and also from the Capacity Assurance Plan that will be developed currently under a separate scope, West Yost will update the City's 5-year capital improvement program (CIP) and develop a 10-year CIP that provides a balance of capacity improvements and condition-related replacements, while prioritizing the projects based on risk. The 5-year and 10-year CIPs will include a line item for repair of lower laterals in conjunction with mainline repairs.

### 3.2 CIP Project Summary Sheets

For each project listed in the 5-year CIP, a CIP project sheet will be prepared that includes flows, reason for CIP, implementation schedule, cost estimate, and pertinent pipeline information such as existing and recommended size, slope, depth of pipe, and existing material. A detailed map showing the extent of the recommended improvement will also be included on each CIP project summary sheet.

### 3.3 Draft and Final Technical Memoranda

Draft and final Capital Improvement Program TMs will be prepared to document the work completed in Task 3. Findings in the draft TM will be discussed with City Staff to obtain comments, which will be incorporated into the final TM.

*Task 3 Deliverables: One electronic submittal of the draft and final TMs.*

#### Task 4 –Draft and Final EPA Report

A draft and final Report suitable for submittal to the EPA will be prepared summarizing the work completed in Tasks 1 through 3. The report will comprise an executive summary, followed by the TMs described above.

Findings in the draft Report will be discussed with City. Comment received will be incorporated into the final Report.

*Task 5 Deliverables: One electronic submittal of draft Report, and three hard copies plus one electronic submittal of the final Report.*

#### Task 5 – Project Management and Meetings

West Yost will provide project management activities throughout the duration of the project. Project management will include project coordination and meetings; monitoring project progress, schedule and budget adherence; project communications; and Quality Assurance / Quality Control.

*Task 5 Deliverables: Meeting minutes*

### **BUDGET AND SCHEDULE**

Proposed costs for the Collection System Rehabilitation and Replacement Program & 10-Year CIP are attached and summarized in Table 1.

**Table 1. Summary of Costs for Capacity Assessment**

Task	Proposed Fee
1. Gather and Review Data	\$4,973
2. Rehabilitation and Replacement Plan	\$10,282
3. CIP Development – Condition & Capacity Needs	\$13,056
4. EPA Report	\$3,786
5. Project Management and Meetings	\$3,860
Total	\$35,958

All West Yost tasks will be performed on a time and materials basis according to the rate schedule included in Exhibit B. The project will require a duration of 5 months from Notice to Proceed, with completion of the EPA report in advance of the October 15, 2010 submittal date.

PROPOSED BUDGET for CITY OF SAUSALITO  
 PROJECT: REHABILITATION AND REPLACEMENT PROGRAM / PRIORITIZED CIP

	PVP					ESII					Labor					Costs			Total Costs
	PVP \$206	PE/PS \$179	ESII \$127	ADMIV \$92	Hours	Fee	Routine ODC 5%	ODC											
<b>1.0 Catheter &amp; Review Data</b>																			
1.01 Data Collection	6	6	4	0	16	\$ 2,818	\$ 141	\$ 200	\$ 3,159										
1.02 Draft and Final TM	2	4	4	1	11	\$ 1,728	\$ 86		\$ 1,814										
<b>Subtotal, Task 1 (hours)</b>	<b>8</b>	<b>10</b>	<b>8</b>	<b>1</b>	<b>27</b>														
<b>Subtotal, Task 1 (\$)</b>	<b>\$ 1,648</b>	<b>\$ 1,790</b>	<b>\$ 1,016</b>	<b>\$ 92</b>		<b>\$ 4,546</b>	<b>\$ 227</b>	<b>\$ 200</b>	<b>\$ 4,973</b>										
<b>2.0 Rehabilitation &amp; Replacement Plan</b>																			
2.01 Identify Needs; Develop Alternatives; Cost Estimates	16	16	8	2	42	\$ 7,360	\$ 368		\$ 7,728										
2.02 Draft and Final TM	2	6	6	2	16	\$ 2,432	\$ 122		\$ 2,554										
<b>Subtotal, Task 2 (hours)</b>	<b>18</b>	<b>22</b>	<b>14</b>	<b>4</b>	<b>58</b>														
<b>Subtotal, Task 2 (\$)</b>	<b>\$ 3,708</b>	<b>\$ 3,938</b>	<b>\$ 1,778</b>	<b>\$ 368</b>		<b>\$ 9,792</b>	<b>\$ 490</b>	<b>\$ -</b>	<b>\$ 10,282</b>										
<b>3.0 CIP Development - Condition and Capacity Needs</b>																			
3.01 Project Prioritization and CIPs	8	8	4	2	22	\$ 3,772	\$ 189	\$ 200	\$ 4,161										
3.02 CIP Summary Sheets	4	8	24	8	44	\$ 6,040	\$ 302		\$ 6,342										
3.03 Draft and Final TM	2	6	6	2	16	\$ 2,432	\$ 122		\$ 2,554										
<b>Subtotal, Task 3 (hours)</b>	<b>14</b>	<b>22</b>	<b>34</b>	<b>12</b>	<b>82</b>														
<b>Subtotal, Task 3 (\$)</b>	<b>\$ 2,884</b>	<b>\$ 3,938</b>	<b>\$ 4,318</b>	<b>\$ 1,104</b>		<b>\$ 12,244</b>	<b>\$ 612</b>	<b>\$ 200</b>	<b>\$ 13,056</b>										
<b>4.0 EPA Report</b>																			
4.01 Draft Report	2	4	8	0	14	\$ 2,144	\$ 107		\$ 2,251										
4.02 Final Report	2	2	4	2	10	\$ 1,462	\$ 73		\$ 1,535										
<b>Subtotal, Task 4 (hours)</b>	<b>4</b>	<b>6</b>	<b>12</b>	<b>2</b>	<b>24</b>														
<b>Subtotal, Task 4 (\$)</b>	<b>\$ 824</b>	<b>\$ 1,074</b>	<b>\$ 1,524</b>	<b>\$ 184</b>		<b>\$ 3,606</b>	<b>\$ 180</b>	<b>\$ -</b>	<b>\$ 3,786</b>										
<b>5.0 Project Management</b>																			
5.01 Project Management	5	0	0	1	6	\$ 1,122	\$ 56		\$ 1,178										
5.02 Progress Meetings (1)	4	4			8	\$ 1,540	\$ 77	\$ 200	\$ 1,817										
5.03 QA/QC	4				4	\$ 824	\$ 41		\$ 865										
<b>Subtotal, Task 6 (hours)</b>	<b>13</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>18</b>														
<b>Subtotal, Task 6 (\$)</b>	<b>\$ 2,678</b>	<b>\$ 716</b>	<b>\$ -</b>	<b>\$ 92</b>		<b>\$ 3,486</b>	<b>\$ 174</b>	<b>\$ 200</b>	<b>\$ 3,860</b>										
<b>TOTAL REHABILITATION, REPLACEMENT AND CIP (HOURS)</b>																			
	57	64	68	28	209														
<b>TOTAL REHABILITATION, REPLACEMENT, AND CIP (\$)</b>																			
	\$ 11,742	\$ 11,456	\$ 8,536	\$ 1,840		\$ 33,674	\$ 1,684	\$ 600	\$ 35,958										



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EXHIBIT B  
COST ESTIMATE

## BUDGET AND SCHEDULE

Proposed costs for the Collection System Capacity Assessment are attached and summarized in Table 1.

**Table 1. Summary of Costs**

Task	Proposed Fee
1. Gather and Prepare Data	\$15,191
2. Complete I&I Evaluation	\$5,880
3. Hydraulic Model Development & Calibration	\$30,686
4. Capacity Assessment & Assurance	\$22,348
5. EPA Report	\$3,980
6. Project Management and Meetings	\$5,534
<b>Total</b>	<b>\$83,619</b>

All West Yost tasks will be performed on a time and materials basis according to the rate schedule included in Exhibit B. The project will require a duration of 5 months from Notice to Proceed, with completion of the EPA report in advance of the October 15, 2010 submittal date.

## BUDGET AND SCHEDULE

Proposed costs for the Collection System Rehabilitation and Replacement Program & 10-Year CIP are attached and summarized in Table 1.

**Table 1. Summary of Costs**

Task	Proposed Fee
1. Gather and Review Data	\$4,973
2. Rehabilitation and Replacement Plan	\$10,282
3. CIP Development – Condition & Capacity Needs	\$13,056
4. EPA Report	\$3,786
5. Project Management and Meetings	\$3,860
<b>Total</b>	<b>\$35,958</b>

All West Yost tasks will be performed on a time and materials basis according to the rate schedule included in Exhibit B. The project will require a duration of 5 months from Notice to Proceed, with completion of the EPA report in advance of the October 15, 2010 submittal date.