

Southern Marin County Sewer Service Alternatives Study Report

Submitted to:

Marin Local Agency Formation Commission

Submitted by:

PB Consult Inc.



Final Report: July 29, 2005



July 29, 2005

Mr. Peter V. Banning, Executive Officer
Marin Local Agency Formation Commission
165 N. Redwood Drive, Suite 160
San Rafael, CA 94903

Re: Southern Marin County Sewer Service Alternatives Study Report

Mr. Banning:

The enclosed Final Study Report was developed based on the PB Team's review and analysis of 1) documents/information provide by LAFCO, 2) sewer agency materials, reports and financial information, 3) sewer agency meetings, interviews and workshops 4) LAFCO Board of Commissioners guidance and 5) the project team's local knowledge and experience.

The main body of the Report is organized into brief topical sections supplemented by more elaborative and supportive appendices. The topical sections in the main body allow the reader to quickly review study background information and read through the respective functional collaboration and political consolidation analysis and findings. A conclusions section discusses the findings and recommends next steps. The appendices provide additional information and details supporting our analysis that can be referred to and reviewed by the reader. An Executive Summary highlights the study process and key findings.

The Study was conducted interactively with Agency involvement and LAFCO Board input. The LAFCO study process has already contributed positively to continuing Agency exploration of potential areas for collaboration. The process to produce the Report included:

☞ Agency surveys and interviews

☞ LAFCO Board selection of alternatives for and Agency workshop

- April 20, 2005 DRAFT Report to the Agencies and LAFCO Board with 7-week review/comment period
- June 21, 2005 workshop with the Agencies and LAFCO Board
- Corrections of factual errors and collection of refined financial formation

Once the final Study Report has been distributed, we are prepared to complete the final step, presentation of the study findings in a public meeting convened by LAFCO.

Sincerely Yours,

PB Consult Inc.

Glenn K. Nestel
Principal Consultant

Table of Contents

Executive Summary	7
Study Objective	7
Summary of Functional Consolidation Options	8
Summary of Political Consolidation Options	9
Conclusions and Recommendations	10
Section 1: Background and Study Objectives	12
Background.....	12
LAFCOs Sphere of Influence Process and Reasons for the Study	12
Study Goals and Objectives	12
Section 2 -- Current Situation	14
Current Organization.....	14
Current Agency Jurisdictional Map.....	16
Rate Comparison Survey of Southern Marin County Sewer Agencies.....	17
New Regulatory Requirements will Necessitate Additional Cost Expenditures and Capabilities.....	17
Capital Spending Must be Increased	18
Higher Future Operating Budgets	18
Section 3 – Study Process	20
Study Team and Guidance Principles:	20
Development of Topics for Functional Collaboration and Political Consolidation:	22
A) Screening criteria	22
B) Selection of Candidates for Further Study	23
C) Utilization of a Financial Projection Model	23
D) Development of Recommendations	23
Section 4 -- Functional Collaboration	24
Demonstrated History of Collaboration in the Wastewater Sector	24
Collaboration Using Joint Powers Agreements/Agencies.....	24
Functional Collaboration – Sanitary Sewer Overflow Program	25
Capital Improvement Program Collaboration	28
Shared Services/Resources	29
Financial and other Benefits from Functional Collaboration.....	32
Pathway to Functional Collaboration	33



Section 5 – Political Consolidations	35
Political Consolidation Map	36
GSO-1: SASM Integrated Sanitary District	38
GSO-2: Sausalito-Marín City Integrated Sanitary District.....	42
Section 6 – Summary, Conclusions and Next Steps	47
Summary of Key Findings	47
Why Isn't This Happening Now? (Barriers to Change).....	50
Important Drivers for Change.	50
Precursors for Any LAFCO Petition	51
Conclusions and Next Steps.....	52
Appendix A Marin County Sewer Rate Study Summary.....	53
Appendix B Whitepaper on SSMP Programs & Implications for Wastewater Collection Systems October 25, 2004	54
What are CMOM and SSMP for Wastewater Collection Systems?	54
What are the Key Components of an SSMP?.....	55
Implications for the Wastewater Agencies of Southern Marin County?	56
Appendix C Comparisons	63
Appendix D– Functional Collaboration Analysis Background and Details.....	68
Functional Collaboration – Sanitary Sewer Overflow Program	68
Capital Improvement Program Collaboration	69
Shared Services/Resources	71
Appendix E – Political Consolidation Analysis Background and Details	76
GSO-1: SASM Integrated Sanitary District	76
GSO-2: Sausalito-Marín City Integrated Sanitary District.....	81
Appendix F – Pre-LAFCO Process.....	85
Consolidation Leadership and Feasibility Studies.....	85
Appendix G – LAFCO Process Summary.....	88
Appendix H – Example Terms and Conditions	94
Appendix I – Glossary of Terms/Acronyms	96
Appendix J –Agency-Specific Input on DRAFT Report	97
Appendix J –Supplemental Infrastructure Information after Draft Report	98
Appendix K – Financial Model	99



List of Tables

Table ES-1: Potential Cost Savings – Current Cost Basis.....	11
Table ES-2: Potential Cost Savings – Future Cost Basis.....	11
Table 2-1: Southern Marin Sewer Agency Summary.....	14
Table 2-2: Projected Future Basis Capital and Operating Costs.....	19
Table 4-1: Advantages and Disadvantages of SSO/SSMP Program Collaboration.....	26
Table 4-2: Future Capital Expenditures for Collection System Infrastructure.....	27
Table 4-3: Advantages and Disadvantages of Capital Program Collaboration.....	28
Table 4-4: JPA – Advantages and Disadvantages of Shared Facilities and Equipment.....	30
Table 5-1: Advantages and Disadvantages of GSO-1 Political Consolidation.....	39
Table 5-2: Advantages and Disadvantages of Potential Political Consolidation GSO-1.....	42



List of Figures

Figure 2-1: Current Agency Jurisdictional Map.....	16
Figure 2-2: Future Baseline Capital and Operating Costs.....	19
Figure 4-1: Potential SSMP and Sewer Infrastructure Savings with Collaboration.....	27
Figure 4-2: Potential Capital Program Savings with Collaboration.....	29
Figure 4-3: Potential Staff Resources Savings with Collaboration.....	31
Figure 4-4: Potential Savings with Collaboration on Shared Resources and Capital Programs.....	32
Figure 4-5: Project Future Baseline Capital and Operating Costs.....	32
Figure 4-6: Potential Capital and Operating Future Basis Costs Savings.....	33
Figure 5-1: Potential Subregional Political Consolidations.....	36
Figure 5-2: Potential Future Capital and Operating Baseline Costs Increases for SASM Agencies.....	40
Figure 5-3: Potential Capital and Operating Cost Savings with GSO-1 SASM Agency Consolidation.....	41
Figure 5-4: Potential Capital and Operating Future Basis Costs Savings with GSO-1 SASM Agency Consolidation.....	41
Figure 5-5: Potential Future Capital and Operating Baseline Costs Increases for SMCS D Agencies.....	43
Figure 5-6: Potential Current Basis Cost Savings with GSO-2 SMCS D Agency Consolidation.....	44
Figure 5-7: Potential Capital and Operating Future Basis Costs Savings with GSO-2 SMCS D Agency Consolidation.....	45
Figure 6-1: Survey Results – Capital Improvements.....	47
Figure 6-2: Survey Results – Functional Consolidation.....	47
Figure 6-3: Survey Results - Functional Consolidation.....	47
Figure 6-4: Survey Results - Functional Consolidation.....	48
Figure 6-5: Potential Capital and Operating Cost Savings with Functional Collaboration.....	48
Figure 6-6: Survey Results - Political Consolidation.....	50



Executive Summary

Study Objective

This report summarizes the study conducted by the PB Consult Team. The objective of the study was to identify feasible options for improving the efficiency and effectiveness of sewer services currently provided to Southern Marin County by the eleven (11) agencies that presently serve the area. The report provides an analysis of three (3) functional collaborations and two (2) political consolidations. Functional collaborations, as referenced in this study, are arrangements that can be implemented through Joint Powers Agreements (JPAs) or similar contractual mechanisms without changing the current agency governance structures. Political consolidations, as referenced in this study, are formal restructuring transactions that would combine two or more agencies into a single organization and would require a formal LAFCO review and approval process. The three (3) functional collaboration and two (2) political consolidation options were selected and approved for further study by the LAFCO Commissioners on December 8, 2004, as the follow-on phase resulting from the study's evaluation of a broad spectrum of collaboration and consolidation options and possibilities.

The study evaluated the potential financial savings from functional and political consolidation options and attempted to quantify the maximum potential savings that could result if all Agencies in the study achieved or needed the same level of service performance. This report acknowledges that the likely financial savings and service improvements, while significant, will most likely be less than the "maximum potential savings" and/or the maximum levels of "service improvement specified in the report. Two methodologies were utilized to develop the maximum potential savings:

- 1) Current Costs Basis: Potential opportunities for improving the resource productivity and quality of service for current operations (i.e., the areas where near-term improvements can be achieved).** The eleven agencies collectively have a 2005 combined capital and operating budget of approximately \$12.3 million (\$8.7 million operating expenses and \$3.6 million in capital expenditures). The study evaluated potential savings in current operating costs and capital spending and candidate areas for improved efficiency and effectiveness.
- 2) Future Costs Basis: Potential opportunities for improving the resource productivity and quality of service based on the additional impacts of future agency requirements (i.e., adding the effects of future requirements to the analysis).** Future requirements will impose significant financial needs (i.e., incremental increases in operating and capital expenditures) over and above current budgets. Future requirements such as the Sanitary Sewer Management Plan/Sanitary Sewer Overflow (SSMP/SSO) regulatory program and upcoming capital expenditures for treatment systems and the replacement of aging sewer collection infrastructure will drive a projected annual budget increase of as much as 26% to a combined capital and operating budget of approximately \$15.5 million annually (2005 dollars) as they go into effect over the next 5-10 years. The study also evaluated the possibilities for the potential reduction of these future spending requirements through functional collaboration and political consolidations.

Once completed in draft form, the report was shared with the representatives from the eleven agencies. Factual correction feedback was received and has been incorporated into the Report. Based upon the comments received, representatives of some of the agencies do not share the Report's viewpoint or analysis on the need or feasibility of achieving either the maximum potential savings or the cost increases associated with the current structure's future performance requirements. Additional comments at the workshop resulted in additional gathering of financial information, particularly historic and projected capital expenditures. The inputs received, and a summary of the inputs, are provided in Appendix J of this Report. Understanding and reconciling these inputs and the differences between the inputs and the Report becomes a logical next step but is beyond the scope and resources of the current Study. It



should also be noted, that the overriding findings of the Report remain fundamentally unchanged under either scenario (Report estimates or Agency adjusted estimates). In short, significant financial benefits, service level responsiveness, and managerial improvements can be obtained through implementation of the functional collaborations and political consolidations discussed in the Report.

The potential savings from functional collaborations and political consolidations were analyzed independently. However, since we anticipate the agencies pursuing functional collaboration first and then considering political consolidations after successfully working together, it is likely that the potential savings would be at least partially additive.

Summary of Functional Consolidation Options

It is important to immediately acknowledge that functional collaborations will share resources and expertise but retain the current eleven (11) agency governance structures and local control. It is envisioned that Joint Powers Agreements (JPAs) and / or similar mechanisms will be the contractual vehicle through which functional collaborations are structured. As such, individual agencies can agree to participate, or not participate, in specific functional collaboration activities. Based upon the actual experience of successful functional collaborations by sewer services agencies, the JPA and / or similar contract mechanisms can also accommodate the addition or withdrawal of an agency from the collaboration agreement or, in the extreme circumstance, the collaboration may be ended for all agency participants.

The proposed functional collaborations analyzed in this study are expected to provide access to operational expertise that improves resource productivity, enhances levels of service, and delivers overall financial benefits. Successful functional collaborations offer the possibility of reducing future year budget increases for the participating agencies. As the collaborations demonstrate successful results, they will provide a vehicle for building additional trust and positive working relationships among the participating agencies.

Summarized below are the three functional collaboration opportunities that are presented in Section 4 of the report:

- 1) Sanitary Sewer Overflow(SSO)/Sanitary Sewer Management Plans (SSMP) Program**
Activities: collaboration on the development of the required plan(s) and implementation of specific elements of the plan(s) to prevent and manage SSO events, including cleaning, TVing, and inspection of collection systems.
- 2) Capital Projects:** collaboration on the identification of and planning for capital projects; financing of capital projects, delivering design, construction services and construction management.
- 3) Shared Resources and Staffing:** collaboration on the sharing of specialized equipment and staff resources; access to resources and staff expertise not currently available to all agencies.

Both individually and collectively, these functional collaborations have the potential to achieve significant improvements in both resource productivity and the effectiveness of the sewer services. Section 4 of the report covers the functional collaboration analysis.

Current Basis: The collaboration actions identified in this report have the potential to improve the resource productivity of current operations by \$1.3 million per year, an 11% savings from the \$12.3 million 2005 baseline operating and capital budget expenditures. At the same time, improvements in service delivery effectiveness and operational performance standards are achievable.

Future Basis: When these current budgets are increased by the projected \$4.5 million required for incremental future costs, the eleven agencies have the potential to save up to



\$1.9 million per year or over 12 % of the projected \$15.5 million combined operating and capital budget that will be necessary for wastewater collection and treatment services at that time.

Summary of Political Consolidation Options

Consistent with the study objectives of identifying opportunities for efficiency and effectiveness improvement, a variety of potential political consolidations of the eleven (11) Southern Marin County sewer services agencies were evaluated by the study team. Also consistent with the study objectives, the alternative of consolidating all eleven (11) agencies into a single, integrated agency was excluded from the study.

As a result, the study efforts were focused with the vision of agency consolidations structured around the three treatment plants and the collection systems that flow to each of these plants. Based upon the identification of such consolidation possibilities and the preliminary screening work performed by the study, two political consolidations were selected by the LAFCO Board for further study.

- 1) Consolidation of current SASM agencies into a single integrated sanitary district. (*SASM Integrated Sanitary District*)** Formation of the new integrated sanitary district would most likely involve a multi-step consolidation process. The four (4) independent sanitary districts currently served by SASM (Almonte, Alto, Homestead Valley and Richardson Bay) would be combined into a single sanitary district for provision of services to all four areas. The next steps would involve the annexation of the City of Mill Valley sewage collection system and the annexation of the portion of the Tamalpais Community Service District (TCSD) sewage collection system currently discharging to SASM. The existing JPA would be amended as interim consolidations occur. Once all the consolidations are complete, the final step would be the transfer of all SASM JPA assets and cash into the new integrated sanitary district and the dissolution of the JPA. Once completed, the SASM Integrated Sanitary District would be an integrated agency operating with one Board, representing all areas served, responsible for the provision of wastewater collection and treatment services.

Current Basis: We estimate the SASM Integrated Sanitary District can potentially achieve savings of approximately \$490,000 per year or approximately 8.6% of the combined budgets for operating and capital costs of \$5.7 million per year. These savings will be achieved through increases in resource productivity achieved through consolidated field maintenance activities and systems, shared staff resources for treatment plant operations/administrative services and pooled capital projects. These savings are at least partially additive to efficiency improvements already achieved through functional collaboration.

Future Basis: Adding in the incremental future costs projection of \$1.7 million, an integrated SASM Sanitary District has the potential to save up to \$750,000 per year or approximately 10% of the projected agency budgets totaling \$7.4 million per year that would otherwise be needed. These additional savings of future year cost increases will come from the economies of scale gained from implementing a consolidated SSMP/SSO program and pooled capital projects for infrastructure replacement and again, are potentially additive to savings already achieved by working collaboratively.

- 2) Expansion of the Sausalito Marin City Sanitary District (SMCSD) to include the City of Sausalito's collection system and that portion of the TCSD service area that flows to the SMCSD treatment plant. (*SMCSD Integrated Sanitary District*)** This consolidation involves the transfer of the City of Sausalito's collection system assets into the Sausalito-Marin City Sanitary District (SMCSD) and the annexation of the portion of the Tamalpais Community Services District that has its wastewater treated by the SMCSD treatment plant. This consolidation, with Board representation for all areas served, integrates the management of the collection systems, pump stations, and wastewater treatment facility serving these areas into a single, integrated organization.



Current Basis: We estimate the SMCSD Integrated Sanitary District can potentially achieve savings of over \$275,000 per year or approximately 7.5% of the current operating and capital budgets of \$3.7 million per year. These savings are anticipated to be obtained from more cost effective field maintenance and operations functions (improved systems, single system development costs, increased staff productivity, shared staff resources, and consolidated decision making and management. In addition, integrated capital project planning and implementation will also contribute to lower capital costs for capital projects.

Future Basis: Consolidation of the current SMCSD organizations into the SMCSD Integrated Sanitary District can potentially achieve savings of \$380,000 per year or approximately 8% of the projected future budget needs (capital and operations) of \$4.7 million per year (based on incremental future combined costs of \$1.23 million necessary for the individual agencies to effectively meet new regulatory requirements and infrastructure investment needs. These additional savings of approximately \$102,000 per year will come from economies of scale implementing the SSMP/SSO program and pooled capital projects for infrastructure replacement. Again as with the SASM Agency political consolidation, savings are potentially additively to those already achieved through successful collaborative arrangements.

Section 5 of the report provides the analysis of these political consolidation options and provides the rationale for the envisioned improvements in the efficient and effective provision of wastewater services. Both political consolidation options have the same rationale as the pending annexation of the Belvedere collection system into Sanitary District No. 5. Each would combine all the collection system assets served by the respective SASM and SMCSD treatment plants. The successful implementation of these two political consolidations, if fully implemented, will consolidate the current eleven Southern Marin sewage treatment agencies into three sanitary districts. A single Board would establish policy for each District. Each District would operate a wastewater treatment plant (i.e., integrated SASM, integrated SMCSD and Sanitary District No 5 with Belvedere annexation) and have responsibility for the collection systems and pump stations connected to the plant. Again, significant benefits, including improved coordination and integration of decision-making, cost effectiveness, and service level and quality are identified by the study as benefits from these actions.

Conclusions and Recommendations

Based upon our study analysis, the inputs received from the member agencies, and the LAFCO Study Committee, we believe these proposed collaborations and consolidations provide a workable blueprint for the achievement of the stated objectives of improving the efficiency and effectiveness of wastewater service in Southern Marin County. The JPA Agreement provides a practical framework for functional collaboration and requires no changes in agency governance restructure, thus retaining local control. The proposed political consolidations are a logical outgrowth of current service arrangements and would result in three integrated full-service sanitary districts, each providing full sewage collection, treatment and residuals management.

Table ES-1 summarizes the current cost basis combined operating and capital expenditure budgets and potential savings for functional collaboration and the two political consolidation options.

Table ES-1: Potential Cost Savings – Current Cost Basis

Option	Current Cost Basis Operating & Capital Budget (\$000)*	Annual Potential Savings (\$000)*	Annual Potential Savings
Functional Collaboration	\$12,300	\$1,330	11%
Integrated SASM Sanitary District	\$5,700	\$490	8.5%
Integrated SMCSD Sanitary District	\$3,700	\$275	7.5%

* Baseline Year – 2005; all costs in 2005 Dollars

Table ES-2 summarizes the future cost basis combined operating and capital expenditure budgets and potential savings for functional collaboration and the two political consolidation options.

Table ES-2: Potential Cost Savings – Future Cost Basis

Option	Future Cost Basis Operating & Capital Budget (\$000)*	Annual Potential Savings (\$000)*	Annual Potential Savings
Functional Collaboration	\$15,500	\$1,830	12%
Integrated SASM Sanitary District	\$7,400	\$750	10%
Integrated SMCSD Sanitary District	\$4,700	\$375	8%

* Baseline Year – 2005; all costs in 2005 Dollars

Section 1: Background and Study Objectives

Background

This report provides the results of a multi-faceted study of governance structures (existing and potential) and organizational options for the eleven (11) sewer services agencies of southern Marin County. These eleven agencies are comprised of six sanitary districts, three cities, one community services district and one joint powers agency. Three of the agencies operate wastewater treatment plants--Sanitary District No. 5 (Tiburon), the Joint Powers Agency (Sewerage Agency of Southern Marin or SASM), and the Sausalito-Marín City Sanitary District (SMCSD). Ten of the eleven agencies operate sewerage collection systems and pumping stations. All of the special districts providing sanitary sewer services are governed by independent boards, except for SASM, whose members are appointed by each of its six member agencies. The member agencies of SASM are the City of Mill Valley, the Tamalpais CSD, and Almonte, Alto, Homestead Valley and Richardson Bay Sanitary Districts.

These agencies were formed during the area's economic development period post World War II. Today, given the highly urbanized and interconnected nature of the area's infrastructure, the agency structure for a highly efficient and effective wastewater utility would likely be a single agency. Having said that, the existing eleven agencies serve environmentally aware communities that are sensitive to the importance of managing wastewater discharges to San Francisco Bay, protecting the ecology of major tourist areas along the waterfront, and providing high quality, cost effective wastewater services. An April 2004 report by the Marin County Civil Grand Jury recommended that the eleven (11) agencies retain a trained facilitator to assist the agencies in exploring shared resources and consolidation options that improve the efficiency and effectiveness of Southern Marin County sewer services. The eleven agencies did meet and develop options in the May/June 2004 timeframe. Our study used these ideas and options as our starting point - particularly where there was a strong base of agency support and/or a sound rationale for the services consolidation.

LAFCOs Sphere of Influence Process and Reasons for the Study

The California legislature has recognized the need for evaluation of existing and potential government structures for government agencies. The evaluations are directed to look at the advantages and disadvantages of consolidation as an approach to providing the most efficient delivery of high quality urban services over the long term. Consistent with this legislative mandate, LAFCOs are required to update the boundary plans or Spheres of Influence (SOIs) of local agencies at least every five years, and to conduct a comprehensive review of services (municipal service review or MSR) prior to updating them.

Marin LAFCO conducted a preliminary municipal service review (MSR) of Southern Marin sewer services and included the preliminary findings in the draft SOI report issued in April 2004¹. Based on this review, it was determined that additional study of sewer service delivery options needed to be undertaken prior to LAFCO's adoption of the required government MSR determinations. This decision emphasized the importance of evaluating government structure options, opportunities for shared facilities to achieve cost avoidance or rate improvements, and infrastructure and management efficiencies, deficiencies and needs.

Study Goals and Objectives

Based upon the above, the overall goal of this project was to identify opportunities for improving wastewater services to the communities served by the eleven (11) Southern Marin County sewer

¹ Marin Local Agency Formation Commission, Southern Marin Service Review and Sphere of Influence Study, Public Review Draft, Peter Banning, April 26, 2004.

agencies. The study evaluated three (3) functional collaboration options and two (2) political consolidations. Evaluations focused on the potential improvements to efficiency, effectiveness and service delivery structure as well as the practicality of implementation.

The study was done under the direction of LAFCO staff and LAFCO Study Committee comprised of LAFCO Commissioners representing the affected sewer agencies and communities. The study methodology provided opportunities for workshops and communications with the affected agencies. Interactive involvement of the affected agencies and stakeholders in the process was a critical element of the study approach. Adoption and implementation of the study recommendations will require a broad base of agency and community support.

The specific objectives of the study are summarized below:

- ☞ **Fulfill the LAFCO Review Requirement:** To assist Marin County LAFCO in fulfilling the requirements of Government Code Sections 56425 and 56430. To identify alternatives that improve efficiency and effectiveness and/or reduce costs (either current budgets or projected costs for accomplishment).
- ☞ **Identify and Evaluate Collaboration and Consolidation Alternatives:** To evaluate the cost and quality of wastewater collection and treatment services being provided in Southern Marin County and identify potential service benefits that can be achieved through functional collaboration and sub-regional consolidation.
- **Evaluate the Potential Advantages and Disadvantages:** To assist the eleven sewer agencies and Marin LAFCO in evaluating the advantages and disadvantages of different collaboration and consolidation alternatives and to provide objective information to the public about these advantages and disadvantages.
- **Provide Information:** The finalized report provides a working document that can be used by the cities and sewer agency governing boards to evaluate the proposed alternatives and make informed decisions about pursuing these alternatives.

Section 2 -- Current Situation

Current Organization

Today, sewer services in Southern Marin County are provided through a decentralized agency structure. Eleven (11) separate sewer agencies serve a population of less than 60,000 covering 25 square miles. Each agency acts as a separate governance structure with its own board. Below is a table (Table 2-1) showing the agencies, services provided by each agency, their size, and budgeted level of expenditures

Table 2-1: Southern Marin Sewer Agency Summary

City/ District	Type of Services				Service Population	EDU	Area (Sq Miles)	Operating and Capital Costs (\$000)*
	Sewer Collection	Treatment and Disposal	Solid Waste Disposal	Water Reclamation Other Services				
Sewerage Agency of Southern Marin		X		X	0	0	0	\$2,274
City of Belvedere	X		X	X	2,125	1,126	6	1,021
City of Mill Valley	X			X	13,600	7,204	4.8	2,246
City of Sausalito	X			X	7,330	6,115	1.7	962
Tamalpais Community Service District	X		X	X	5,851	2,560	1.7	1,308
Almonte Sanitary District	X		X		1,478	789	0.4	288
Alto Sanitary District	X		X		939	508	1	231
Homestead Valley Sanitary District	X		X		2,354	1,064	0.75	359
Richardson Bay Sanitary District	X			X	9,494	4,664	3.5	2,246
Sausalito - Marin City Sanitary District	X	X	X		3,426	2,133	3.4	2,072
Tiburon Sanitary District #5	X	X			3,690	2,740	1.4	1,770
Total					50,287	28,903	24.65	\$12,503**

* Baseline Year –Operating Costs are FY 04/05; Capital Costs are either FY 04/05 or a 3-5 year trend

** Total excludes SASM which is allocated back to member agencies

The combined systems, based on data provided in our study survey by the Southern Marin agencies, serve 31,454 EDUs and include 221 miles of gravity sewers, 21 miles of forced mains, 69 pump stations, and 3 wastewater treatment plants. There is an EDU discrepancy with the SASM Rate Study completed in December 2004, which showed 28,903 EDUs for Southern Marin Agencies. The combined agencies have a staffing level of approximately 42 Full Time Equivalents (FTEs), an annual operating budget of \$8.3 million per year, and a capital budget of \$4.5 million per year. The average combined daily dry weather flow is 5 Million Gallons per Day (MGD).

The Sewerage Agency of Southern Marin (SASM) is a Joint Powers Agency (JPA) comprised of six member agencies: the City of Mill Valley, Alto Sanitary District, Almonte Sanitary District, Homestead Valley Sanitary District, Richardson Bay Sanitary District and Tamalpais Community Service District. SASM provides wastewater treatment services to the six member agencies. Only a small amount of Tamalpais Community Services District wastewater is sent to SASM. Most of the Tamalpais wastewater is



**Southern Marin County Sewer Service Alternatives Study -- DRAFT
Marin County LAFCO**

sent to the Sausalito-Marin City Sanitary District, which operates a wastewater treatment facility serving its own customers and the City of Sausalito. The current agency jurisdictions are shown in the Map below. The consolidation process is currently underway to annex the sewer collection system from the City of Belvedere to Sanitary District #5.



Current Agency Jurisdictional Map




Figure 2-1: Current Agency Jurisdictional Map

[REVIEW STATUS MAP PAGE (11x17) HERE]

Rate Comparison Survey of Southern Marin County Sewer Agencies

Appendix A provides a table summarizing the results of a recent survey of sewer rates. The survey data was provided to the PB Study Team by SASM.

Overall conclusions from the comparisons include the following:

-  **Property tax subsidies for wastewater are under increasing pressure and will likely be phased out.** The Southern Marin sanitary districts receive revenue from property tax subsidies received from Marin County. This situation results in expenditures that are in excess of the revenues provided by the established sewer rates. In some cases, the increased level of expenditures would translate into much higher rates if the subsidies were not available (e.g., Richardson Bay -- \$246/EDU rate base versus \$433/EDU expenditure level and SD #5 -- \$300/EDU versus \$439/EDU.. The revenue received by these eligible agencies from property tax is being reduced (and likely phased out) in future years because of the increased requirements for special district financial contributions to reduce the State's debt. The three cities in Southern Marin (Sausalito, Mill Valley and Belvedere) do not receive county property tax subsidies.
-  **Southern Marin sewer agency rates are generally comparable to other Marin County agencies when revenues for County property tax subsidies are included in the total adjusted rate.** Southern Marin sewer agency rates are comparable to agencies in Central and Northern Marin County. Western Marin County rates are considerably higher but are very small agencies. It should be noted that individual agency revenue and rate requirements would be dependent on many factors, including, but not limited to, the number of Equivalent Dwelling Units (EDUs) served, the miles of collection system and its age/condition, the number of pump stations, future capital improvement expenditure needs, and the level of service being provided.
-  **Rate increases are forecast.** A number of agencies surveyed have indicated planned future rate increases to cover future capital expenditures (CAPEX) and/or increased operating expenses. The City of Sausalito, SD #5, TCSD and SMCSO are all projecting sewer rate increases.
- **Significant cost increases for operational and capital funds are likely.** As the implementation of the new SSMP/SSO requirements proceed, it is likely that all of the Southern Marin sewer agencies (e.g., City of Mill Valley, Homestead Valley) will require rate increases to cover increased SSMP-related operating expenses (systematic sewer collection system cleaning, inspection, incident response center costs). It is also likely that some of the Southern Marin sewer agencies will need to make significant capital investment to replace and/or rehabilitate aging infrastructure and other collection system deficiencies. In short, significant increases to existing sewer rates are projected.

New Regulatory Requirements will Necessitate Additional Cost Expenditures and Capabilities

The California Water Quality Control Board and Regional San Francisco Bay Area Water Quality Control Board are promulgating new regulations to manage watershed issues like sanitary sewer overflow (SSO). As of December 2004, all agencies are required to report sewer overflows of 100 gallons or more. The reporting will consist of electronic reporting within a set time frame of the overflow event and will also require an annual report of agency performance and compliance.

In addition, all sewer collection agencies will have to develop a Sewer System Management Plan. This plan will have to include prioritized preventative maintenance, condition assessment, emergency



response plans, and includes additional sections to document and describe each agencies approach to managing their system.

Some Southern Marin agencies, especially those with deteriorated collection piping/manholes that are experiencing reportable overflow events, are like to face significant future investments for replacing or rehabilitating aging infrastructure.

A white paper on the subject of the new regulatory requirements is included in Appendix B.

Capital Spending Must be Increased

1) Aging Physical Infrastructure: As previously noted, the current infrastructure of Southern Marin sewer agencies is aging. The topography is hilly, sewer lines are often located through private property with easements, there are many narrow roads, and in general the agencies have older collection system sewer piping and structures such as manholes that will eventually need repair and replacement. Currently, each of the 11 agencies has a different methodology for approaching capital improvement. Depending upon the size of the agency and its capital planning methodology, agency plans can vary from a reactive to a proactive approach.

The current combined fiscal budget for capital improvement for the 11 agencies over the next several years is \$4.5 Million. Many of these expenditures are funded from current operating funds or reserves established over time. However, these short-term budget horizons do not readily facilitate a long term capital plan or the awarding of long term capital improvement projects. Furthermore, in order to meet new regulatory requirements, it is expected that the budget requirements will increase significantly in the upcoming years.

2) Restrictive Financing Options Compound the Problem: Compounding the challenges of providing funding for major capital expenditures are the restrictive financing options available to many of the current agencies. The smaller agencies in Southern Marin are not candidates for issuing revenue bonds using public finance methods as they have "reviewed" rather than audited financial statements and do not have established bond agency ratings. Moreover, the transaction cost of bond issuance for underwriters and attorneys fees would be prohibitively expensive relative to the size of the bond offerings. In short, many of the eleven agencies are not able to approach the bond markets on an individual basis.

Southern Marin Sewer agencies do have capital financing mechanisms available through collaborative organizations such as the California Special Districts Association (CSDA). CSDA does bond financing transactions on behalf of coalitions of participating special districts. Coalition members in a bond offering can involve dozens and even hundreds of sanitary districts. The CSDA capital projects collaboration provides participating special sanitary districts with market-rate financing. This option is available to the eleven agencies – either in concert or individually.

Higher Future Operating Budgets

The combined baseline 2005 operating and capital budget of \$12.8 million for the eleven agencies will have future cost drivers over and above inflation and result in a higher future budget need. Aging infrastructure and new regulatory requirements will have the net effect of the increased operating and capital expenditure requirements. We estimate the combined annual operating expenses and capital budget will potentially increase by up to 35% from \$12.8 million to \$17.3 million [as summarized in Table 2-2 below]. These projected future budget requirements were used as the basis for the functional collaboration and political consolidation analysis. The computed incremental increases for each agency shown in Table 2-2 are based on an assumed mandatory implementation of the SSMP/SSO regulatory requirements, the miles of each agency's collection system and an assumed replacement rate and sewer piping life cycle (i.e. \$200/foot and 75 year life). An individual agency's future spending requirements may be more or less depending on a number of factors, including the current condition of sewer piping,



**Southern Marin County Sewer Service Alternatives Study -- DRAFT
Marin County LAFCO**

current investment levels, sewer inspection results and the # of reportable future Sanitary Sewer Overflow (SSO) events. Further information on these potential budget increases can be found in Appendix J.

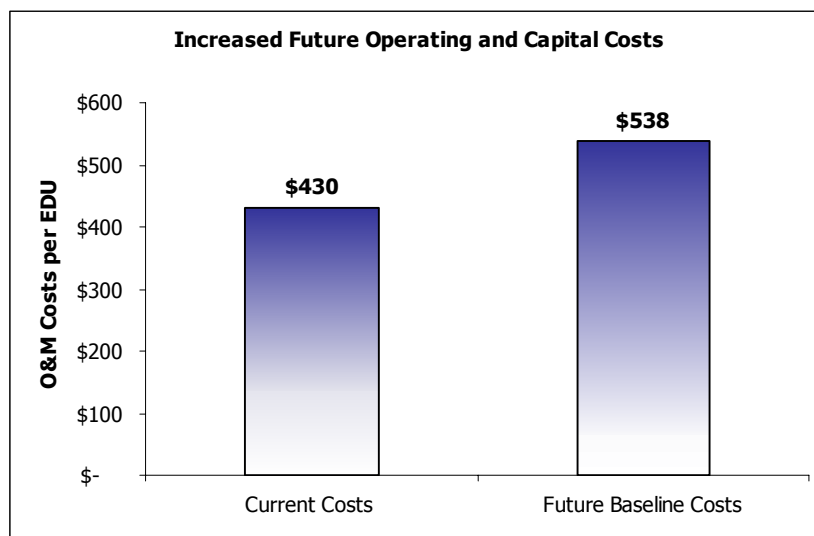
Table 2-2: Projected Future Basis Capital and Operating Costs

Agency	EDU	Total Baseline O&M Costs*	Total Baseline Capital Costs*	Estimated Incremental SSO/SSMP Costs*	Combined Pre-Allocation Costs*
Sausalito-Marín City Sanitary District	2,133	\$1,705,738	\$650,000	\$83,043	\$2,438,781
Sanitary District #5	2,740	1,731,000	573,000	299,797	2,603,797
Sewer Agency of Southern Marin		2,080,451	300,000	85,736	2,466,187
City of Belvedere	1,126	422,000	205,000	194,619	821,619
City of Sausalito	6,115	373,800	469,000	358,694	1,201,494
City of Mill Valley	7,204	693,000	530,000	946,728	2,152,568
Tamalpais	2,560	441,723	100,000	621,005	1,162,728
Richardson Bay Sanitary District	4,664	1,023,170	464,000	495,288	1,982,458
Alto Sanitary District	508	34,140	125,000	32,936	192,076
Almonte Sanitary District	789	141,428	40,000	83,043	264,471
Homestead Valley Sanitary District	1,064	82,650	125,000	45,872	253,522
Total	28,903	\$8,729,100	\$3,581,000	\$3,229,602	15,539,702

* Baseline Year – 2005; all costs in 2005 Dollars. SSO/SSMP costs have been adjusted to reflect the collection system age, prior investments and planned ongoing investments in sewer line replacement/rehabilitation.

The following chart (Figure 2-2) illustrates the net cost increase on an EDU basis.

Figure 2-2: Future Baseline Capital & Operating Costs (2005\$ per Equivalent Dwelling Unit)



Section 3 – Study Process

Collaborations and Consolidations Selected for the Study:

Utilizing the study processes discussed below, the Study Team and the LAFCO Board established the following collaborations and consolidations for this study:

Functional Collaborations

- 1) Sanitary Sewer Overflow Program (SSO/SSMP):** Joint development of the required plan(s) and implementation of specific elements of the plan(s) to manage SSMP activities and response to SSO events.
- 2) Capital Projects:** Identification of and planning for capital projects; design and construction services; construction management and capital project financing.
- 3) Shared Resources and Staffing:** Provision of specialized equipment and expertise; access to resources and staff not currently available to some agencies in Southern Marin.

A summary whitepaper on the new regulations and Sanitary Sewer System Overflow (SSMP) and their implications is provided in Appendix A of this report. The three functional collaboration opportunities are discussed in Section 4 of the report.

Political Consolidations

- 1) SASM Integrated Sanitary District:** Consolidation of current SASM agencies into a single integrated sanitary district.
- 2) SMCSO Integrated Sanitary District:** Expansion of the Sausalito Marin City Sanitary District (SMCSO) to include the City of Sausalito's collection system and that portion of the TCSD service area that flows to the SMCSO treatment plant.

These two political consolidation opportunities are discussed in Section 5 of the report.

Study Team and Guidance Principles:

The study was conducted using a multi-disciplinary Study Team with extensive experience in wastewater utility operations and management, financial expertise, knowledge of and experience with the LAFCO process, experience with best practices identification and implementation for wastewater utilities, and knowledge of local conditions.

Throughout the study, the team was guided by the following:

- 1) Study objective:** Provide a review of the eleven (11) Southern Marin wastewater agencies to identify opportunities for improvements in efficiency and effectiveness in the provision of wastewater services for Southern Marin.
- 2) Utilization of available materials, resources, and workshops:** The Study Team invested the time to understand and acknowledge the background, historical development and evolution of the current agency structures and catalogue the resources (staff and budgets) currently available and utilized to provide the current service levels and asset management. The study acknowledges the variety of organizational structures utilized by the eleven (11) agencies for the provision of services and acknowledges the results of the Grand Jury report and the subsequent workshops held by the agencies themselves. The study's work and report has attempted to build upon these activities and



results and has provided workshop opportunities for direct involvement and input from the eleven (11) agencies.

- 3) Utilization of comparisons:** Comparisons using information available from other sewer agencies, emphasizing the collection system portion of the utilities, were utilized to provide insights for possible areas of efficiency and effectiveness improvements for the eleven (11) agencies serving Southern Marin. Comparison of wastewater systems and operations can be a very difficult and challenging task as the systems and operations invariably have differences in treatment technologies, age of infrastructure, geographic conditions, levels of service provided, accounting systems and policies. Topography, as well as narrow streets and limited access, can also be important variables in hilly terrain.

That being said, our experiences continue to find it insightful and beneficial to review “high level” comparisons and then seek explanations for the apparent differences in the comparisons. This approach focuses on understanding “why the comparisons produce different results” rather than the all too frequent tendency to focus on the incompleteness or inadequacy of the comparison. Following our suggested approach for the usage of benchmarking will provide, we believe, insights and supporting quantification for the analysis and recommendations of this report.

Overall, the comparisons identified a number of areas for consideration for potential efficiency & effectiveness improvement for the eleven (11) agencies. The results of these comparisons are provided in Appendix C and were used to provide inputs into the functional collaborations and political consolidation opportunities recommended by this study as candidates for further consideration and action by LAFCO and the eleven (11) agencies. These comparisons are provided in Appendix C along with an assessment of potential areas for efficiency and effectiveness improvement identified by the comparisons.

- 4) LAFCO specialist:** To help insure that any study recommendations were subject to a “fatal flaw” analysis for LAFCO process and procedural format and feasibility, a recognized expert in LAFCO requirements provided a review and contributed to this study and report.
- 5) Alignment with New Regulatory Requirements and Trends:** The following elements were utilized:
- a) Regional Watershed Management:** Decentralized sewer services are inconsistent with the continuing trend of regional watershed/water quality management and watershed planning. Increasingly, regulatory agencies are moving from a point source discharge to regional watershed perspective. Point source discharge permits can be impacted by water quality standards for the watershed.
 - b) New Regulatory Requirements (SSMP/SSO):** The California Water Quality Control Board and Regional San Francisco Bay Area Water Quality Control Board are promulgating new regulations to manage watershed issues such as sanitary sewer overflow (SSO). For example, agency collaboration on the development of sanitary sewer management plans, SSO incident response, reporting would create an integrated regional response and provide cost savings through economies of scale. Agencies can save money by using shared dedicated in-house staff and equipment or outsourced services for routine sewer cleaning and CCTV inspections.
 - c) Availability of Financing Alternatives:** Collaboration/consolidation can provide more favorable scale for financing of anticipated future capital improvements to agency wastewater assets such as sewer collection infrastructure replacement/rehabilitation for reducing wet weather inflows, SSO events and collection system infiltration.

- d) Increased Need for Specialized Expertise and Usage of Technology:** Collaboration can provide increased access to new technologies and areas of specialization. For example, Geographic Information System (GIS) software is replacing traditional paper and AutoCAD (Computed Aided Design) collection system drawings, providing powerful spatial analysis capability. Supervisory Data Collection and Acquisition (SCADA) instrumentation are paving the way for unattended Wastewater Treatment Plant (WWTP) operation and improved system control. It can also provide improved expertise and eliminate redundancy in important support functions (e.g., legal counsel, human resources, auditors).

Development of Topics for Functional Collaboration and Political Consolidation:

Based upon the principles and processes discussed above and inputs received from individual discussions and interviews with each agency and a workshop with the eleven agencies, the Study Team developed a list of potential functional collaborations and political (governance) consolidations.

A) Screening criteria

Screening criteria were developed and utilized to evaluate and prioritize the collaboration and consolidation candidates. These screening criteria are summarized below:

1) For functional collaborations:

- ☞ Mission criticality – Is the area critical to agency mission/compliance?
- ☞ Alignment with new regulatory requirements and needs?
- ☞ Management efficiency improvement potential?
 - Operational/service delivery efficiency improvement potential?
 - Impact on quality of service – improvement for service delivery effectiveness?
 - Ease of implementation?
 - Cost and timeframe of implementation?
 - Timeframe to demonstrate value?
 - Efficiency/cost savings potential?
 - Ability to manage risks?
 - Implications of failure?

2) For political consolidations:

- Economies of Scale for Resources/Asset Leveraging?
- Management Efficiency Improvement Potential?
- Operational Efficiency Improvement Potential?
- Improved Quality of Service?
- Restructuring Complexity of the Transaction?
- Cost of Implementation?
- Timeframe for Implementation?
- Stranded Costs/Staffing Resources?
- Services Alignment?
- Geographic Alignment? Contiguous?
- Rate implications?
- Financing leverage Opportunities

B) Selection of Candidates for Further Study

The LAFCO Board reviewed the identified alternatives and recommendations. The LAFCO Board also prioritized the list to focus on three (3) functional collaborations and two (2) political (governance) consolidations for the next phase of the study (see above).

C) Utilization of a Financial Projection Model

An Excel analytical model was developed so that the implications of efficiency and effectiveness measures could be projected for the eleven (11) agencies. The budget information assembled for each of the eleven (11) agencies for operations, maintenance, staffing, and capital spending was utilized. These models are further discussed and examples provided in Appendix J of this report. The budget forecasts generated by the Excel model provide estimates of the dollar savings that are potentially obtainable through functional collaboration and political consolidations. The model analyzes savings for both the current baseline operating and capital budgets, as well as incremental projected future operating and capital budget increases.

D) Development of Recommendations

Based upon the above, the recommendations of this report were developed. The report was first prepared as a discussion draft report and circulated to LAFCO and the eleven (11) agencies in advance of a workshop session on the report. Comments from the workshop were then considered in the finalization of the report and conclusion of the study.

Section 4 -- Functional Collaboration

Demonstrated History of Collaboration in the Wastewater Sector

State Wide Agencies and Non-profits: California sections of the Water Environment Federation and the Water Environment Federation Research Foundation collaborate on research and programs such as operator training & certification. Members receive a wide range of benefits that help individual sewer agencies improve the efficiency and effectiveness of their operations. There are also various regional water resources organizations that collaborate on a broad range of wastewater regulatory requirements and initiatives. For example, the Bay Area Clean Water Agencies (BACWA) is collaborating with the San Francisco Bay Regional Board on the development of the SSMP/SSO Collection System guidelines for the San Francisco Bay area.

Similar non-profit (501.c.3.) organizations exist to service member constituencies. For example, California Special District Association (CSDA) provides a wide range of collaborative services. As CSDA members, special districts have access to education and training, insurance programs, legal advice, industry-wide litigation and public relations support, legislative advocacy, capital improvement and equipment financing, and collateral design services.

Southern Marin Agencies: These agencies also have a history of successful collaboration.

- ☞ The Sewage Agency of Southern Marin (SASM), a joint powers agency governed by members of six agencies (Alto, Almonte, Homestead, Richardson Bay, Tamalpais and Mill Valley), treats the wastewater for all six sewer agencies and is governed by a board comprised of the member agencies.
- ☞ Alto and Homestead Valley Sanitary Districts currently employ the same individual as a part-time General Manager for each District.
- ☞ Almonte Sanitary District and Richardson Bay Sanitary District (RBSD) are also in the process of employing the same individual to staff their independent General Manager positions when the current RBSD General Manager retires.

Collaboration Using Joint Powers Agreements/Agencies

This report attempts to build upon the experiences from existing collaborations. The Joint Powers Authority (JPA) is one viable approach for achieving additional collaborations while retaining local control. JPA Agreements, like the one used for the SASM joint powers agency, have widespread application among government organizations and public agencies throughout California, including sewer services agencies involved in wastewater collection, treatment and biosolids management. Under the JPA Agreements, JPA agencies perform a wide-range of services and function on behalf of the member agencies. These formalized collaborative service arrangements are provided using the Joint Power Agreements (JPAs). JPAs and similar contract vehicles are a practical mechanism for Southern Marin Agencies to collaborate on a wide-range of activities and services while retaining local control.

From a LAFCO perspective, there is no 'fatal flaw' in doing functional collaboration using JPAs. The application of JPAs by Southern Marin sewer services agencies is typically outside the LAFCO process since individual agencies retain their existing status, obligations and sphere of influence (i.e., sanitary district, community services district, city).

Usage of JPA's: Under the California Joint Powers Law, Article 1, Chapter 5, Division 7, Title 1 (California Government Code 6500), two or more public agencies, including special districts, can enter into Joint Powers Agreements to exercise powers common to the contracting parties. California Government Code 6506 specifically applies to the formation of JPA agencies. Under JPA Agreements CGC code 6508, a JPA agency can be empowered to provide a whole range of management services, including, but not limited to, 1) making and entering into contracts; 2) applying for and accepting grants,



advances, and contributions; 3) acquiring property, by eminent domain or otherwise, and holding/disposing of property; 4) employing or contracting for the services of agents, employees, consultants and others; 5) making plans and conducting studies; 6) incurring debts, liabilities or obligations; 7) issuing bonds; 8) designing, constructing and operating facilities and works; and 9) suing or being sued subject to limitations in the JPA agreement.

Governance of JPAs: JPA agencies and their specified activities are overseen by governing boards made up of officials appointed by the member agencies. The make-up of the JPA board by respective member agencies and their specific voting rights are spelled out in the JPA agreement. With good communications, open meetings and active member agency board participation provides a sound mechanism for retention of local control over the JPA agency. JPA agencies can also be dissolved by the member agencies when they have completed their assigned activities or are no longer providing intended benefits.

Functional Collaboration – Sanitary Sewer Overflow Program

The potential areas of collaboration on SSO/SSMP include:

- ☞ **Common SSMP templates, agency plans, and incident response protocols** – A single contract can provide economies of scale and incremental savings for SSMP plan development. Many common elements can be developed as a generic template for customization by each agency.
- ☞ **Shared sewer collection maintenance, TV inspection, cleaning, blockages, repairs** – Shared sewer collection system maintenance on pipes and pump stations provides potential annualized operational savings on services such as sewer cleaning/inspections, blockages, fully utilized VACTOR/Rodding trucks and crews, blanket contracts for external services (e.g., Roto Rooter).
- ☞ **Pooled capital expenditures for replacement and rehabilitation of aging infrastructure** using pooled design, construction, construction management and financing.
- **Shared set-up and operation of a regional emergency call center and shared incident response and reporting of SSO events.** An integrated call center and incident response capability can be achieved through some combination of shared staff resources and outsourced services.

Displayed below is an overview of potential advantages and disadvantages of potential SSMP/SSO Program Collaboration. Overall, the disadvantages can be characterized as administrative tasks along the implementation pathway and not fatal flaws or significant issues.

Table 4-1: Advantages and Disadvantages of SSO/SSMP Program Collaboration

Advantages	Disadvantages/Issues
<ul style="list-style-type: none"> ☞ Consistent, coordinated SSO response process for Southern Marin agencies with 24/7 coverage ☞ Shared incident response call center/dispatch services with 24/7 coverage ☞ Economies of scale/cost savings by shared engineering, legal, public relations and other SSMP-related activities ▪ Economies of scale/cost savings for SSO/SSMP-related activities, e.g. shared equipment and crews for periodic sewer cleaning and TV inspection based on benchmarking (15-25%) ▪ Shared Vactor/flushing trucks – higher utilization and elimination of redundant capital equipment purchases ▪ Higher volume of work for negotiating third party cleaning/TV inspection contracts if outsourced ▪ Each agency can set up tailored cleaning and inspection program to meet individual agency needs. ▪ Consistent, integrated SSMP plans for Southern Marin sewer agencies provide an integrated regional approach ▪ Economies of scale/cost savings in SSMP plan development ▪ Economies of scale for pooled capital expenditures to replace or rehabilitate the sewer collection system 	<ul style="list-style-type: none"> ▪ Some administrative resources and costs to collaborate on SSMP plan development and implementation ▪ Need for developing equitable costing and funding allocations for participating agencies ▪ Need to insulate member agencies from the overall financial/legal risk generated by the JPA

We believe the SSMP program, coupled with needed investment to replace/rehabilitate aging sewer collection infrastructure, will drive the need for significant increases in capital spending over the next 5-10 years. Table 4-2 provides an example of future collection system investments assuming a 75 year asset life. With the addition of new infrastructure replacement requirements, average annual capital spending for Southern Marin agencies could potentially double to \$9 million over this time period. These assumptions were used in developing the financial model assumptions.

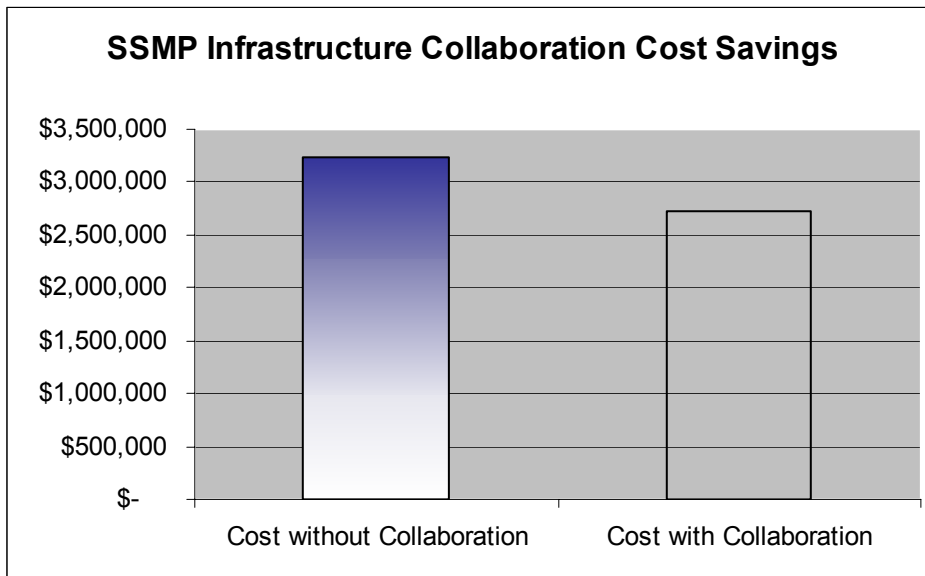
Table 4-2: Future Capital Expenditures for Collection System Infrastructure

Collection System Component	Amount/Units	Cost Factor Replacement*	Replacement Rate	Projected Increase (\$millions)*
Gravity Sewers	221 miles	\$200/ft	3 miles per year	\$3.20
Pressurized Mains	21 miles	\$500/ft	0.28 miles per year	\$0.70
Pump Stations	69	\$250,000/PS	2.75/year	\$0.70
Annual Incremental Capital Spending Increase				\$4.60

* Baseline Year – 2005; all costs in 2005 Dollars

Additional details are provided in Appendix D and Appendix J on potential collaboration savings. We have assumed that all 11 agencies participate and savings from collaboration on SSMP plan development, sewer cleaning and inspection, capital projects for sewer replacement and SSMP implementation items such as the emergency call center, response and reporting. **The estimated savings for collaboration on SSMP/SSO implementation are 15% or \$500,000 per year on a recurring basis (see Figure 4-1 below).**

Figure 4-1: Potential SSMP and Sewer Infrastructure Savings with Collaboration (2005\$)



Capital Improvement Program Collaboration

Collectively, the eleven Southern Marin agencies have annual capital spending levels over the next several years of around \$4.5 million. The largest individual agency forecast in the 2005 budget is for Sausalito Marin City Sanitary District at \$1.2 million or 27% of the total. Some of the other agencies are projecting capital spending increases. Capital Improvement Program collaboration can include any or all of the following shared services for member agency.

- ☞ Contracts for pooled engineering/design services.
- ☞ Contracts for pooled construction management services.
- ☞ Contracts for pooled construction services.
- Issuance of debt/revenue bonds to finance member agency capital projects.

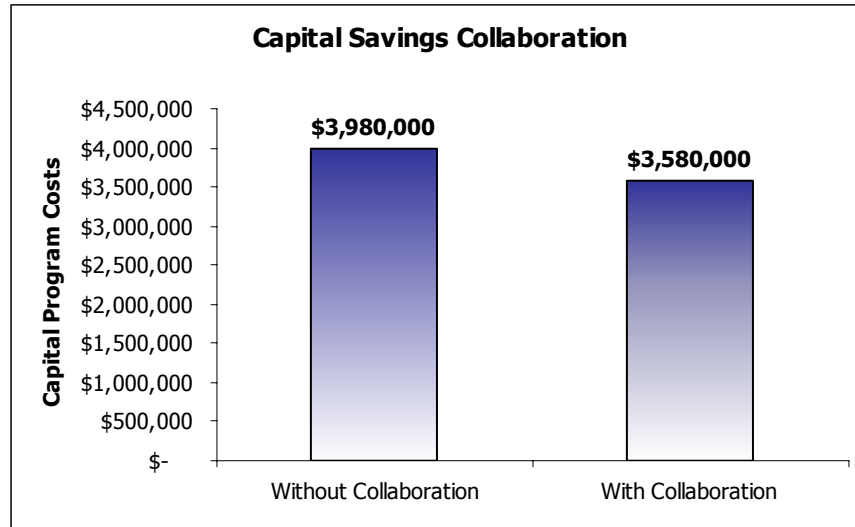
Table 4-3 summarizes potential advantages to be gained by collaboration on capital projects.

Table 4-3: Advantages and Disadvantages of Capital Program Collaboration

Advantages	Disadvantages/Issues
<ul style="list-style-type: none"> ▪ Minimum 5-10% annual recurring savings on capital spending using pooled services for design, construction and construction management ▪ Closer construction management and day-to-day project oversight for aggregate group of projects ▪ Potential savings on collaborative financing through jointly issued revenue bonds ▪ Potential reduction in mobilization/demobilization costs and contractor overhead 	<ul style="list-style-type: none"> ▪ Incremental increase in risk for the debt and financial obligations incurred by the JPA ▪ Incremental risks of lawsuits for capital projects-related disputes ▪ Administrative/JPA oversight requirements ▪ Differences in asset condition and level of capital spending requirements will need to be considered in cost allocation formula ▪ Managing projects across municipal boundaries ▪ Differing design and construction management philosophies

Capital program savings are also possible for the current capital spending budget through pooled design, construction, and construction management services. Additional savings could be achieved through pooled financing. We utilized 10% for pooled capital based on discussions with three Bay Area consulting engineering firms who have significant capital project and construction experience with public works projects in Marin County. At current capital spending levels, the potential for up to \$400,000 in annual capital programs savings are projected if all eleven (11) agencies participate (see Figure 4-2 below). Capital spending can also vary considerable by year. For example, SMCS D is currently in the middle of 2-3 years of elevated capital investments while SASM is just completing a higher spending year with the construction of the new relief sewer serving the Kay Park area of TCSD. Pooling capital investment design, construction and construction management/inspection will allow each agency to achieve savings and improve quality (e.g., shared inspection resource) even during lower capital spending periods. Small agencies will always benefit from these economies of scale.

Figure 4-2: Potential Capital Program Savings with Collaboration (2005\$).



Shared Services/Resources

Benchmarking comparisons show that Southern Marin sewer agencies have substantially higher staffing levels than other consolidated agencies with similar demographic profiles (e.g., EDUs, miles of sewer pipe, daily wastewater treatment volume). There are also redundancies in facilities and equipment in addition to the staff personnel. Examples of potential shared resources and staffing consolidations include:

- ☞ Shared Administrative Resources including insurance, worker pool and training [Worker Pool – Collection (TCMS, RBSD, MV, SD5); Worker Pool – WWTP (SD5, SASM, SMCS)]
- ☞ Mechanical and Electrical/Instrumentation Maintenance – 3 WWTPS
- ☞ Monitoring and Laboratory analytical services – 3 WWTPs
- Consolidation/shared General Manager/Management Resources (ALL)
- Vehicle/Fleet Maintenance (ALL)
- Human resource management (benefits, grievances, training, certification, promotional criteria, job descriptions and classifications, etc) (ALL)
- Shared human resources services (hiring, contract negotiations, payroll and taxes, retirement, benefits)

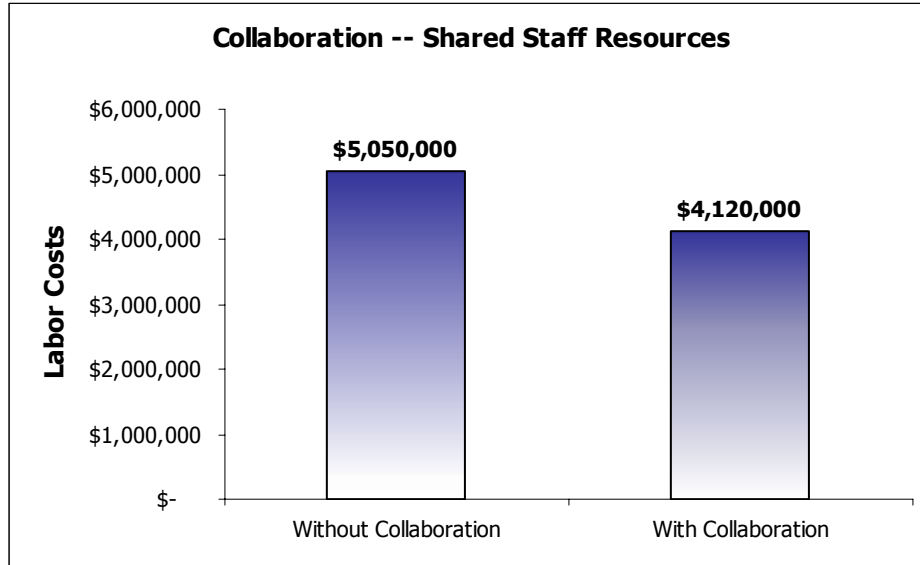
Table 4-4 lists examples of the advantages and disadvantages of shared equipment and facilities. Appendix E contains additional examples of potential advantages and disadvantages of shared services collaboration for various categories. There are potential areas for sharing human resources and assets. JPA agreements terms and conditions can assume a broad range of collaborative resource sharing arrangements. These can range from a simple multi-agency pooled services contract signed and administered by the individual agencies to a full-blown JPA agency arrangement similar to SASM. In addition to improvements in labor productivity, shared staff resources will provide enriching skills development and career path opportunities for agency employees.

Table 4-4: JPA – Advantages and Disadvantages of Shared Facilities and Equipment (e.g., Laboratories, VACTOR Trucks, Fleet Vehicles)

Advantages	Disadvantages
<ul style="list-style-type: none"> ▪ Higher equipment utilization and availability (where back-up is critical) ▪ Better justification of high cost specialty equipment ▪ Cash for sale of redundant facilities, vehicles and equipment ▪ Reduced capital costs for redundant assets ▪ Reduced operating and maintenance costs for redundant assets ▪ Integrated radio, cell phone and field communications systems 	<ul style="list-style-type: none"> ▪ Limited salvage/disposal value for redundant used vehicles and equipment ▪ Longer drive times for field staff ▪ Establishing equitable formula for distribution of proceeds from redundant assets disposal ▪ Transitioning from fleet car benefits

We conservatively estimate a potential savings of up 20% in resource productivity gains through pooled collection system and treatment plant services and project \$930,000 per year savings, as illustrated in the graph (see Figure 4-3).

Figure 4-3: Potential Staff Resources Savings with Collaboration (2005\$)

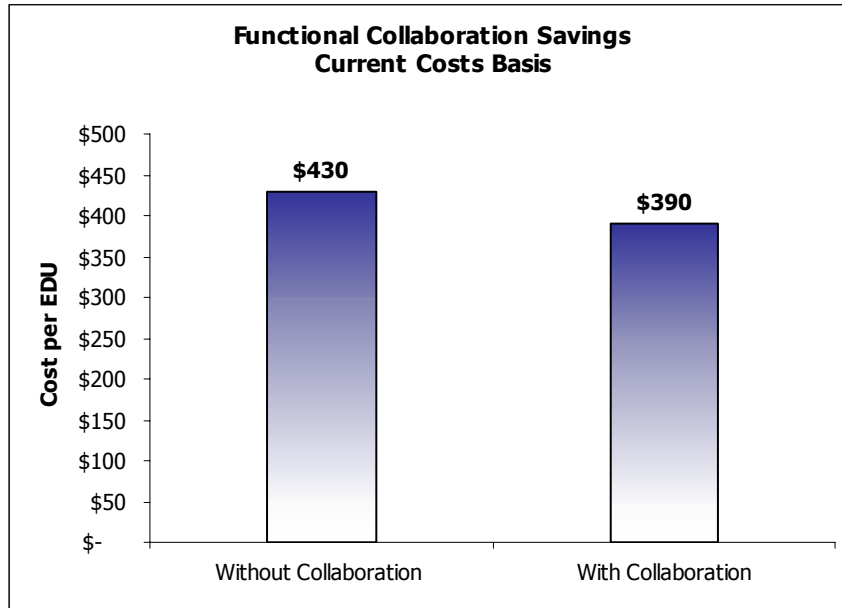


The staff reductions would be achieved over time through attrition and therefore would be without lay-offs. For example, even though operator reductions are limited by having three wastewater treatment plants, a cross-trained licensed operator pool can eliminate redundant relief coverage operators (vacation, sickness, training absence) and reduce off-shift coverage burdens that exist with smaller individual agency staffing. Pooled mechanical, electrical and instrumentation crews and laboratory services can improve resource productivity of these activities or alternatively justify more specialized skills training and/or the potential hiring of staff with more specialized skills that replace outsourced services. Pooled capital projects provide justification for added construction management and field inspection activities. Existing field crews and flushing/rodder trucks can be consolidated into dedicated field crews, providing higher equipment utilization. Dedicated cleaning crews also provide the capability for scheduled periodic cleaning of sewer lines, thereby reducing the potential for blockages. Consolidated fleets reduce the fleet operational costs while achieving higher vehicle and equipment utilization and availability. Outsourced services can be consolidated into single contracts. Support services such as Information Systems and Human Resources and personnel services could benefit from consolidation/outsourcing with both savings and access to greater expertise. Some of these shared service activities and actions are already underway and provide a positive basis for further development and implementation of these concepts. Additional discussion of the non-financial benefits of such shared services is further highlighted in the Appendix D examples.

Financial and other Benefits from Functional Collaboration

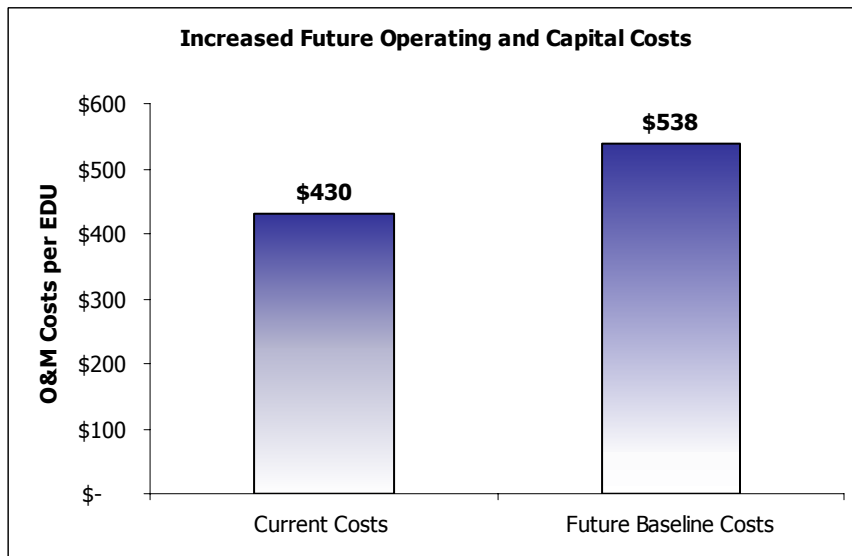
The average baseline cost/EDU for combined operating and capital costs is \$12.8 million per year or \$370/EDU. Collaboration on shared services and pooled capital spending can potentially achieve up to \$1.32 million or 11% recurring annual savings, reducing combined baseline operating and capital costs by \$40/EDU (see Figure 4-4 below).

Figure 4-4: Potential Savings with Collaboration on Shared Resources and Capital Programs (2005\$ per Equivalent Dwelling Unit)



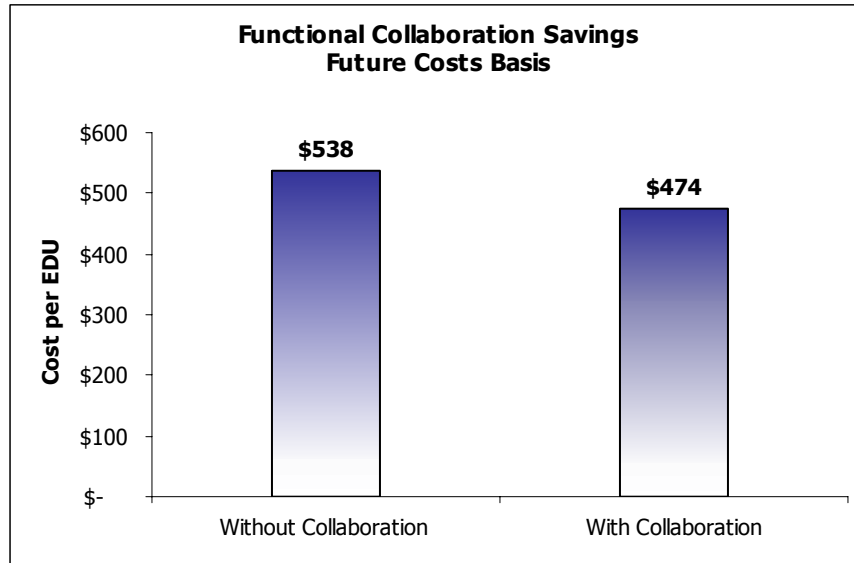
The SSO/SSMP program combined with aging infrastructure replacement/rehabilitation costs adds \$2.7 million in additional costs or \$108/EDU for a total of \$550/EDU (see Figure 4-5 below).

Figure 4-5: Project Future Baseline Capital and Operating Costs (2005\$ per Equivalent Dwelling Unit)



We estimate combined potential savings of up to \$64/EDU which is around a \$1.83 million dollar per year or 12% savings over future projected costs. Saving percentages and assumptions can be found on each of the worksheets. Our analysis projected the potential savings from the three (3) specified collaboration activities (see Figure 4-6 below).

Figure 4-6: Potential Capital and Operating Future Basis Costs Savings (2005\$ per Equivalent Dwelling Unit.)



The services collaboration should also enhance customer services and responsiveness while controlling costs and required sewer fees. For example, some of the small agencies currently rely on an answering machine for messages and referrals to Roto-Rooter for sewer blockage removals. A regionally integrated SSO plan could provide a single integrated call/incident response service. Customers in smaller agencies would then have 24/7 staff coverage. All agencies could have access to a computerized maintenance management and reporting system so that maintenance tasks are effectively shifted to the lower cost "planned" basis versus the higher cost "reactive" basis that characterizes significant portions of current operations. All agencies could benefit from access to human resources and information systems specialists, accessed through collaborative contracts. Collaboration on capital spending for sewer replacement should also provide opportunities for minimizing traffic disruption in roadways and reduction unit costs for the actual construction. A systematic sewer cleaning/inspection program will result in higher VACTOR/Rodder truck and crew utilization and should reduce blockage and reportable SSO incidents. Many additional examples of non-financial benefits can be found in Appendix D.

Pathway to Functional Collaboration

As demonstrated in the above sections, the collaboration opportunities are significant and have the potential to deliver significant cost savings and service improvements. To move forward, there needs to be a concerted commitment to change and a formal set of steps to move the discussions and negotiations forward. A typical sequence of activities would include the following:

- ☞ Agency board resolutions to actively pursue joint agency collaboration in specified areas of opportunity.
- ☞ Formation of a Collaboration Steering Group with Board/GM staff from each participating agency and facilitated workshop(s) to select targeted collaboration area.
- ☞ Formation of work groups for each targeted collaboration area.

- ☞ Creation of collaboration roadmap and high level work plans for pursuing each targeted collaboration area.
- ☞ Periodic (e.g.,) monthly Work Group meetings.
- ☞ Quarterly Steering Group progress meetings open to the public.
- Dispute resolution process.
- Decision-making process for carrying recommendations back to respective boards.

Section 5 – Political Consolidations

This section of the report reviews two specific sub-regional consolidation options. The factors summarized in Section 3 (see page 20) were used to screen a broader list of potential options. The following two political consolidation candidates were selected:

- 1) Government Structure Option 1 (GSO-1): SASM Integrated Sanitary District** Consolidation of current SASM agencies into a single integrated sanitary district.
- 2) Government Structure Option 2 (GSO-2): SMCSM Integrated Sanitary District** Expansion of the Sausalito Marin City Sanitary District (SMCSM) to include the City of Sausalito's collection system and that portion of the TCSD service area that flows to the SMCSM treatment plant.

Both of the proposed consolidations have a number of key factors in common with the annexation of the Belvedere collection system into Sanitary District #5 that is currently underway. A map of the potential consolidations is shown on the following page.

Political Consolidation Map

Figure 5-1: Potential Sub-regional Political Consolidations

[REVIEW POLITICAL CONSOLIDATION MAP HERE]

Both consolidations will:

- ☞ **Utilize current collection infrastructure and treatment services agreements** with the remaining two wastewater treatment plants (WWTPs) serving Southern Marin in Southern Marin County, SMCSO and SASM, and require no immediate capital expenditures to redirect sewage flows.
- ☞ **Combine the individual participating agency** staff resources, facilities, equipment, real property and tangible assets into two integrated sanitary districts that provide complete sewage collection and treatment to the same EDUs served by the current agencies.
- ☞ **Require the support and endorsement** of the respective individual agency boards to achieve the net benefits to their ratepayers from the consolidations.
- **Involve a series of phased transactions** leading to the integrated sanitary district that builds on the success of functional collaboration activities.

If the two consolidations outlined in this study are fully implemented and the annexation of Belvedere into Sanitary District #5 goes forward, Southern Marin would then be served by three (3) consolidated sanitary districts with integrated sewage collection systems and wastewater treatment plants. Significant advantages and benefits can thus be obtained for the rate payers and users of the sewer systems and wastewater treatment facilities.

A further description of GSO-1 and GSO-2 options and the identified benefits of the consolidation are provided in the remainder of this section. Additional information and examples on the GSO-1 and GSO-2 can also be found in Appendix E.

GSO-1: SASM Integrated Sanitary District

Summary Description

GSO-1 would involve the creation of a single Sanitary District to provide wastewater treatment, sanitary sewer, water reclamation and related services to territory currently served by the SASM.

Recommended potential reorganization actions would include:

1. Good faith discussions of strategic direction, potential consolidation steps, and negotiation of a Memoranda of Understanding setting forth terms and conditions would be important precursors to formal consolidation transactions (see discussion of Pre-LAFCO actions later in this section and in Appendices E, G, H and I).
2. Consolidation of Alto, Almonte, Homestead Valley and Richardson Bay sanitary districts into a single sanitary district (single consolidation transaction or phased consolidation transactions).
3. Annexation of the territory within the Tamalpais CSD currently served by SASM (*Kay Park*), and all territory within the City of Mill Valley to the new district for the single purpose of receiving sanitary sewer services (single annexation action or phased annexations).
4. The orderly transfer and disposition of sewer collection, wastewater treatment, water reclamation and solid waste services and assets to appropriate successor agencies, as applicable to each consolidation action. LAFCO action may or may not be required depending on the specific transfer.
5. Interim amendment of SASM Joint Powers Authority Agreement to reapportion operating, capital and debt recovery obligations to the successor agencies and other applicable JPA amendments.
6. When all phased consolidations and annexation are complete, the transfer of all assets and personnel and the assumption of all SASM Joint Powers Authority responsibilities and obligations by the new GSO-1 SASM Integrated Sanitary District and the discontinuance of the SASM JPA (single action dependent on implementation of phased merger and annexation transactions [Note: actions to dissolve a JPA do not require LAFCO action]).

Business Case for GSO-1: SASM Integrated Sanitary District

Table 5-1 below summarizes the potential advantage and disadvantages of the GSO-1 consolidation. We have also assumed that successful functional collaboration activities would be continued by GSO-1, although these are not considered in the saving estimates. Addition background and analysis discussion and examples can be found in Appendix E.

Table 5-1: Advantages and Disadvantages of GSO-1 Political Consolidation

Advantages	Disadvantages/Issues/Barriers
<ul style="list-style-type: none"> ☞ Higher resource productivity for sewer collection maintenance, cleaning, inspection and SSMP program management ☞ Higher resource productivity for Pump Station Maintenance and related mechanical, electrical/instrumentation maintenance ☞ Potential for staff specialists/crews if cost savings over contractor – higher work volume (e.g., electrical/instrumentation maintenance and sewer inspection) <ul style="list-style-type: none"> ▪ Consolidation of GM positions ▪ Career path resulting from expanded staff ▪ More efficient 24/7 off-shift coverage, relief staffing and emergency response capability from larger staff. ▪ Better regional sewer service integration for Southern Marin as well as coordinated management of watershed environmental impacts ▪ Builds on successful SASM JPA ▪ More staff and financial resources to address future program needs and capital investments (e.g., SSO/SSMP, regional water quality) 	<ul style="list-style-type: none"> ▪ Staff transitions issues (salaries, tenure, role in new organization, retirement) ▪ Differences in infrastructure condition and future capital investment requirements for replacement/rehabilitation ▪ Sewer rate differences, including phase out of property tax contribution ▪ Stakeholder opinion- perceived loss of local control ▪ Transition of existing debt/bond issue obligations ▪ LAFCO cannot enact consolidations ▪ Implementation issue of multiple corporate yards must be addressed ▪ Treatment of reserves and dispensation must be addressed ▪ Disparity of geographic rate assignments for different needs, e.g. TCSD ▪ Retention of local area expertise & knowledge becomes a potential issue ▪ Likelihood of existing boundaries continuing despite the consolidations

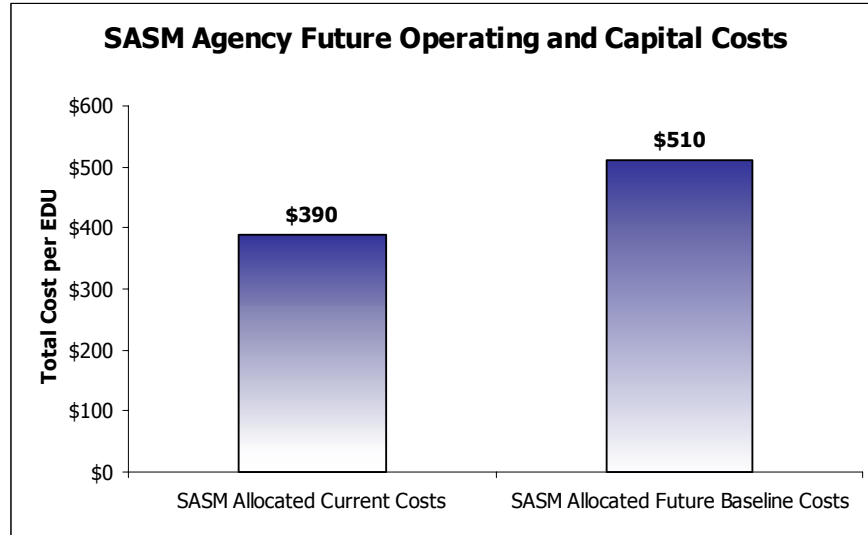
As with functional collaboration, we developed an Excel financial model to compute estimates for potential savings from the GSO-1 consolidation based on conservative assumptions. Refer to Appendix J for the complete set of assumptions, worksheets and computations. The baseline operating cost data was derived from the interview questionnaire supplemented with published budget and financial reports. The EDUs for each SASM member agency were derived from the recent Marin County Sewer Agency Rate Survey compiled by SASM in December 2004.

Baseline Costs: The weighted average baseline cost per EDU as allocated by agency using the SASM formula is \$5.68 million or \$400/EDU based on 14,427 EDUs.

Future Incremental Budget Increases: The incremental costs for SSO/SSMP implementation and replacement of aging infrastructure allocated by agency using the SASM formula adds over \$2.06 million annually, increasing the annual unconsolidated operating and capital budget to \$7.4 million or an average of \$120 per EDU and establishes the projected future allocated baseline budget cost without any consolidation of \$540 per EDU (see Figure 5-2 below).



Figure 5-2: Potential Future Capital and Operating Baseline Costs Increases for SASM Agencies (2005\$ per Equivalent Dwelling Unit)

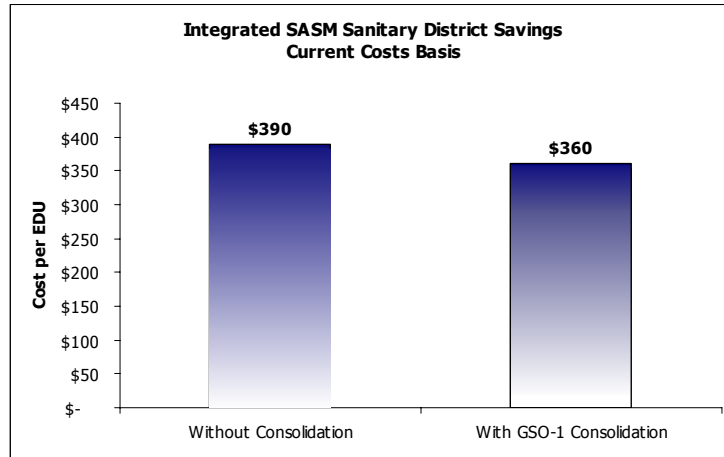


Resource Productivity Improvements/Cost Savings: The savings analysis assumes resource productivity gains through more efficient staffing and economies-of-scale savings from the following categories, which we believe are conservative estimates of potential savings. Further rationale, examples, and documentation of the potential savings estimates are provided in Appendix E and Appendix J.

- 👉 **Staffing/Salaries/Benefits costs – 10%** Reduction of staffing level from 18.5 to 17 by consolidation to a single General Manager position and supervisory position consolidations.
 - 👉 **Operating and Maintenance Cost (OPEX) Savings – 10%** Derived from the O&M consolidations for pump station maintenance and collection system cleaning and blockage incidence response.
 - 👉 **Capital Spending (CAPEX) Savings – 5 %** Combined larger base of capital projects for the combined agencies based on Marin County contractor input at current capital expenditures.
- Incremental SSO/SSMP Implementation – 15%** (Program administration, 24/7 dispatch, incident response, reporting, SSMP elements leveraged outsourcing or dedicated flusher/rodder crew for sewer cleaning) SASM member agencies indicated that a significant level of infrastructure capital investment will be needed in the future.

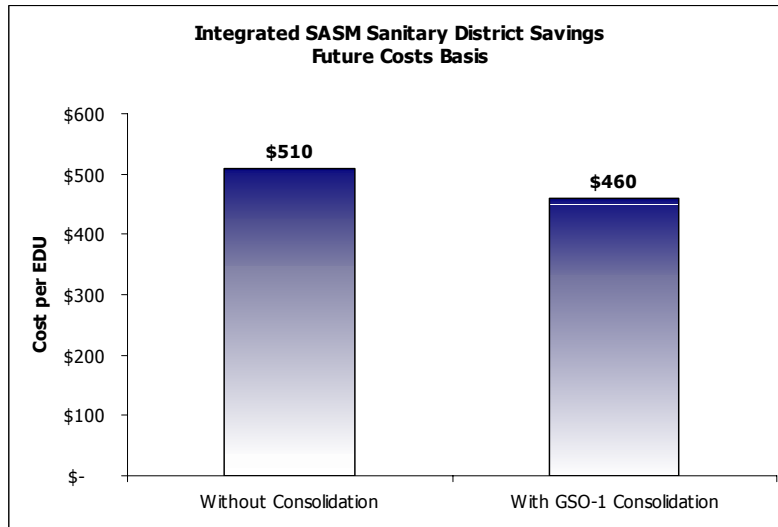
GSO-1 Consolidated Savings/Baseline Budget: We estimate that potential current basis savings from staff consolidation, operational and maintenance resource productivity improvements, and pooled capital expenditures of up to \$488,000 annually (8.6%) or \$30/EDU are feasible (see Figure 5-3 below).

Figure 5-3: Potential Capital and Operating Cost Savings with GSO-1 SASM Agency Consolidation (2005\$ per Equivalent Dwelling Unit)



GSO-1 Consolidation Savings/Incremental Future Cost Increases: The following chart summarizes the potential savings from the political consolidation of the six SASM agencies and SASM JPA into a single sanitary district. The example savings estimates assume these restructurings are occurring independent of functional collaboration. However, successful functional collaboration improvements in efficiency and effectiveness by SASM would be expected to be discussed and incorporated into the consolidation transaction terms and conditions. The base case allocated cost per EDU among SASM Agencies is \$510 per EDU, taking into account the incremental expenditure increases for the new SSO/SSMP program and increased capital spending for aging infrastructure savings is the assumed baseline cost. The average cost with consolidation is \$480 per EDU, based on the above assumptions, or a 10% decrease (\$750,000 per year in potential savings – see Figure 5-4 below). This is a recurring annual savings.

Figure 5-4: Potential Capital and Operating Future Basis Costs Savings with GSO-1 SASM Agency Consolidation (2005\$ per Equivalent Dwelling Unit.)



GSO-2: Sausalito-Marín City Integrated Sanitary District

Summary Description

GSO-2 involves the creation of a single Sanitary District to provide wastewater treatment, sanitary sewer, water reclamation and related services to territory currently served by the Sausalito- Marin City Sanitary District.

Recommended potential reorganization actions to form GSO-2 include:

1. Annexation of territory within the Tamalpais Community Services District, *with the exception of Kay Park*, currently utilizing Sausalito-Marín City Sanitary District (SMCSD) services to the SMCSD for the purpose of receiving sanitary sewer services (single action, subject to LAFCO approval). This includes the orderly transfer and disposition of assets. The new consolidated SMCSD agency would provide TSCD residents with board representation so they are able to participate in policy and priority setting, sewer rates setting and other governance matters.
2. The orderly transfer and disposition of Sausalito sewer collection system assets, staff, equipment, as well as the transfer and consolidation of enterprise cash balances, debt, reserves and other contractual obligations (single action, not subject to LAFCO approval).

Business Case for GSO-2: SASM Integrated Sanitary District

Table 5-2 summarizes the potential advantages and disadvantages of the GSO-2 consolidation. We have also assumed that successful functional collaboration activities would be continued by GSO-2, although these are not considered in the saving estimates. Addition background and analysis discussion and examples of both financial and non-financial benefits can be found in Appendix E.

Table 5-2: Advantages and Disadvantages of Potential Political Consolidation GSO-1

Advantages	Disadvantages/Issues/Barriers
<ul style="list-style-type: none"> ▪ Higher resource productivity for sewer collection maintenance, cleaning, inspection and SSMP program management ▪ Higher resource productivity for Pump Station Maintenance and related mechanical, electrical/instrumentation maintenance ▪ Potential for staff specialists/crews if cost savings over contractor – higher work volume (e.g., electrical/instrumentation maintenance and sewer inspection) ▪ Career path resulting from expanded staff ▪ More efficient 24/7 off-shift coverage, relief staffing and emergency response capability from larger staff. ▪ Better regional sewer service integration for Southern Marin ▪ Provide TSCD ratepayers with board representation ▪ More staff and financial resources to address future program needs and capital investments (e.g., SSO/SSMP, regional water quality) ▪ Move toward integrated regional management of sewage collection and treatment 	<ul style="list-style-type: none"> ▪ Staff transition issues (salaries, tenure, role in new organization, retirement) ▪ Differences in infrastructure condition and future capital investment requirements for replacement/rehabilitation ▪ Sewer rate differences, including phase out of property tax contribution ▪ Stakeholder opinion regarding possibility for loss of local control ▪ Transition of existing debt/bond issue obligations ▪ TSCD staffing transition because of multi-functional roles ▪ Stranded management and costs in both the City of Sausalito and TSCD ▪ Negotiation of equitable asset transfer costs and/or stranded asset investments (e.g., cleaning equipment if activities is outsourced and not staffed)

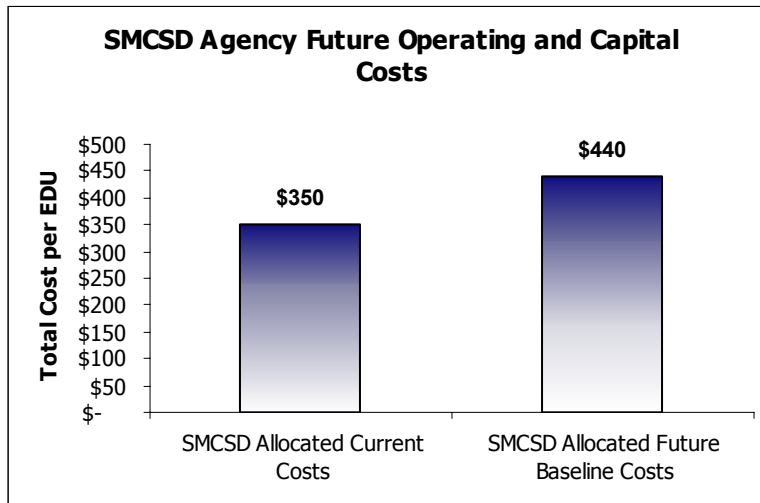


As with functional collaboration, we developed an Excel financial model to compute estimates of potential savings from the GSO-2 consolidation, based on conservative assumptions. Refer to Appendix J for the complete set of assumptions, worksheets and computations. The baseline operating cost data was derived from the interview questionnaire supplemented with published budget and financial reports. The EDUs for each SMCS member agency were derived from the recent Marin County Sewer Agency Rate Survey compiled by SASM in December 2004.

Baseline Costs: The combined baseline cost for the unconsolidated SMCS member agencies is \$3.70 million per year combined operating and capital costs, or an average baseline Cost per EDU as allocated by agency is \$350/EDU based on 10,610 EDUs.

Future Incremental Budget Increases The incremental costs for SSO/SSMP implementation and replacement of aging infrastructure allocated by agency based on miles of sewer and EDUs adds an average \$90 per EDU and establishes the projected future baseline cost without consolidation at an average \$440 per EDU, as illustrated in the following chart (See Figure 5-5 below).

Figure 5-5: Potential Future Capital and Operating Baseline Costs Increases for SMCS Member Agencies (2005\$ per Equivalent Dwelling Unit)

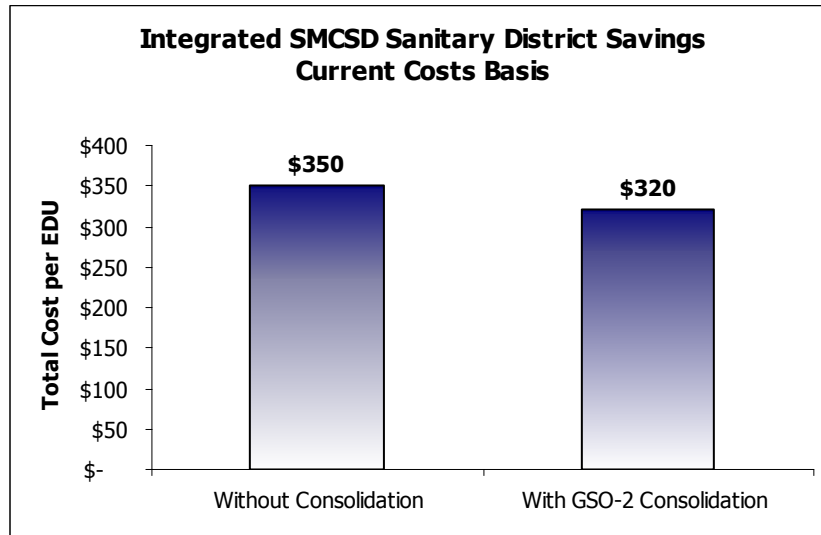


Resource Productivity/Cost Saving Assumptions: The savings analysis assumes resource productivity gains through more efficient staffing and economies-of-scale savings from the following categories, which we believe are conservative estimates of potential savings. Further rationale, examples, and documentation of the potential savings estimates are provided in Appendix E and Appendix J.

- ☞ **Staffing/Salaries/Benefits – 7.5%** There will be redundant staffing and consolidation opportunities for sewer collection and pump station maintenance (supervision/field staff).
- ☞ **Operating and Maintenance Cost (OPEX) Savings – 10%** Increased productivity of pump station and sewer collection crews.
- ☞ **Capital Spending (CAPEX) Savings – 5%** Based on some limited economies of scale from larger size and greater financing capacity.
- **Incremental SSO/SSMP Implementation – 10%** Program administration, 24/7 dispatch, incident response, reporting, SSMP elements versus individual agency implementation.

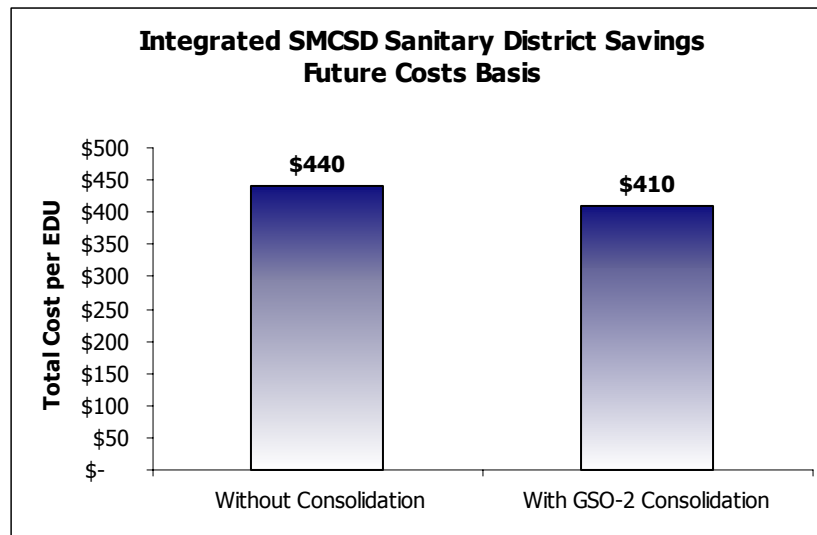
GSO-2 Consolidation Savings/Baseline Budget: The following chart summarizes the potential savings from the political consolidation of the City of Sausalito and Tamalpais CSD into a single SMCSO integrated sanitary district. The example savings estimates assume these restructurings are occurring independent of functional collaboration, although successful functional collaboration arrangements would be expected to be part of the negotiated terms and conditions. The base case average cost per EDU among SASM Agencies is \$350 per EDU, and potential savings of approximately \$30/EDU or \$275,000 per year is feasible through staff consolidations, operating and maintenance cost savings and pooled capital spending (see Figure 5-6 below).

**Figure 5-6: Potential Current Basis Cost Savings with GSO-2 SMCSO Agency Consolidation
(2005\$ per Equivalent Dwelling Unit)**



GSO-2 Consolidated Savings/Incremental Future Cost Increases: The following chart summarizes the potential savings from the political consolidation of the City of Sausalito and Tamalpais into a single SMCSO integrated sanitary district. The example potential savings estimates assume these restructurings are occurring independent of functional collaboration, although successful functional collaboration arrangements would be expected to be part of the negotiated terms and conditions. The base case average cost per EDU among SASM Agencies is \$440 per EDU, taking into account the incremental expenditure increases for the new SSO/SSMP program and increased capital spending for aging infrastructure savings. The average cost with consolidation is \$410 per EDU based on the above assumptions or a \$378,000 annual savings, an 8% decrease. This is a recurring annual savings (see Figure 5-7 below).

Figure 5-7: Potential Capital and Operating Future Basis Costs Savings with GSO-2 SMCSO Agency Consolidation (2005\$ per Equivalent Dwelling Unit.)



Pre-LAFCO Actions

Pre-LAFCO actions for both the GSO-1 and GSO-2 consolidations are significant and critical to moving forward with the process. Appendix H provides a summary of key steps and activities that must precede initiation of the formal LAFCO application.

Developing an implementation plan for GSO-1 and GSO-2 will require considerable dialogue among SASM member agencies and SMCSO, TCSD and the City of Sausalito respectively. Public outreach and communications with agency ratepayers is also critical. LAFCO would need to be available to facilitate proceedings over the long term, and take appropriate actions when necessary. The process needed to accomplish agency restructuring is complex, and would need to be carried out in carefully developed steps. However, the Cortese-Knox-Hertzberg Act and Joint Powers Authority legislation provide the guidance and enabling authorities necessary to accomplish restructuring.

While LAFCO can be supportive and consulted in pre-application meetings, the individual agencies must lead the process. It's up to them to verify feasibility, analyze and negotiate definitive terms and conditions, which should be worked out in advance of the LAFCO application. For GSO-1 and GSO-2, these pre-LAFCO steps include the following:

- Agreement on Direction/GSO-1 Structure:** Agreement on the organization, board structure and overall implementation pathway, supported, if necessary, by high-level feasibility studies.

- Agreement on Implementation Pathway:** Sequential steps in the phased progression to form the integrated sanitary districts, supported by discussions of alternatives.

- For each Consolidation:**

- **Due Diligence/ Feasibility Studies (Technical and Financial):** To reach a go/no go decision and develop the transaction framework.
- **Organizational Transition Plan:** Specific policies and transition plan for staffing and organizational restructuring, new organization chart (retirements, layoff policy, salary, wage rates, benefits, pensions, tenure, new organizational roles).
- **Financial/Asset Transition Plan:** Specific plans for equipment, other tangible asset transfers, facility property/right-of-way/easements transfers, equitable transition plans for rates (e.g.,

separate rate zones versus consolidated rates), debt transfer/consolidation and/or future capital spending allocation reflecting differences in individual agency capital improvement needs, reserve and enterprise fund balance transfers, accounts payable and receivable, property tax exchange, fund transfers for specific assets and facilities (e.g., TCSD collection system).

- **Contracts for Equipment, Supplies, Utilities, Services:** Transfer/ dissolve/ renegotiate existing supplier and vendor contracts.
- **Legal Agreements/Documents:** Drafting, negotiation and execution of the legal agreements/documents (board resolutions, memorandum of understanding, LAFCO Resolutions Application, terms and conditions, treatment of liabilities and indemnifications for successor agencies.
- **Regulatory Requirements** Effects on successor agencies as codified in Government Code Sections 57425-57502.

Many of these elements will become part of the LAFCO Resolutions of Application terms and conditions and legal agreements executed by the parties (Example terms and conditions – see Appendix H).

In the case of GSO-1, the SASM Joint Powers Agreements will need to be considered. Associated actions of the SASM governing board would include transitional amendments for each consolidation step and the eventual dissolution/termination of the SASM Agency JPA. There would also need to be plans for transitioning administrative support services provided by the City of Mill Valley.

LAFCO Process

Appendix G contains an annotated summary of the steps involved in the LAFCO process and a summary flowchart of the process. Because of the complexity and multiple transactions that are likely to be involved in the political consolidation to form GSO-1 and GSO-2, close coordination and communications with Marin LAFCO will be critical from the outset.

For the GSO-1 consolidation, the LAFCO process is likely to be repeated multiple times, beginning with the consolidation of existing SASM agency sanitary districts (Alto, Almonte, Homestead Valley and Richardson Bay). It is also possible that one or more of the agencies will choose not to participate, so contingency plans should also be developed and put in place. This activity should be part of the overall consolidation planning. The LAFCO process for the GSO-2 consolidation will involve at least two annexation/asset transfer steps. The proposed splitting of the Tamalpais CSD collection system adds complexity requiring approval of the TCSD board and Tamalpais CSD participation in both GSO-1 consolidation of SASM agencies and the GSO-2 consolidation.

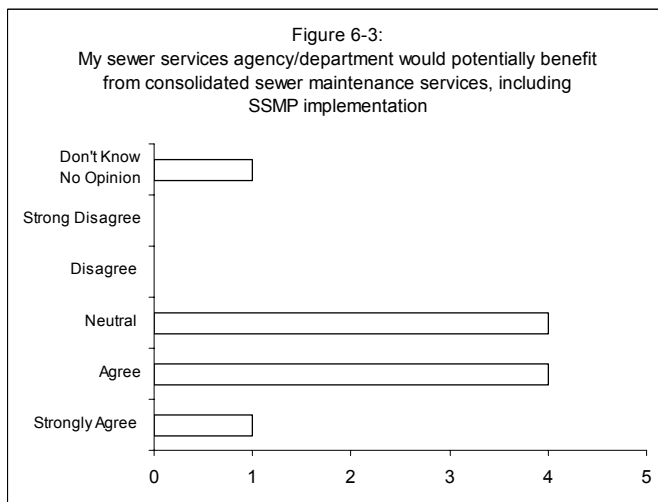
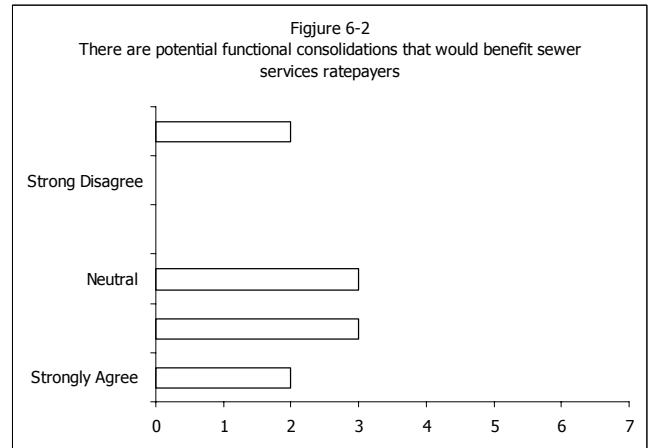
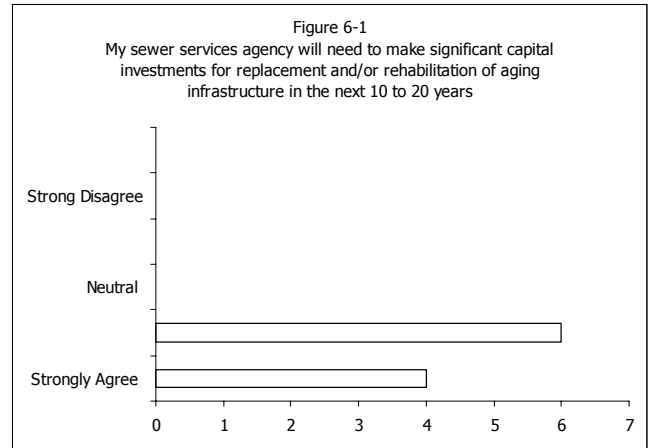
There is also a real opportunity to streamline the public communications component with public meetings, workshops and other forums to involve the affected constituencies and ratepayers in the process as early as possible. Assuming the agencies and their respective boards/City Council can come to agreement on an overall consolidation plan, public outreach to gain public support, as well as identify issues and concerns, would be a critical success factor. Early public communication and outreach should help streamline the LAFCO hearing process and may potentially reduce the level of protest/negative filings that often occur when people are uninformed or misinformed as to the objectives, rationales and implications of a consolidation proposal.

Section 6 – Summary, Conclusions and Next Steps

Summary of Key Findings

Collectively the agencies have a 2005 baseline budget of \$12.8 million, which breaks down into an annual operating budget of \$8.3 million and \$4.5 million in capital improvements. We have projected that future regulatory programs and requirements like SSMP coupled with new capital expenditures for replacement aging infrastructure and other system improvements will increase the annual baseline operating and capital budget costs by \$4.5 million, or 35%, to \$17.3 million. This increased budget level translates into a future baseline cost of \$500/EDU or an increase of \$130/EDU.

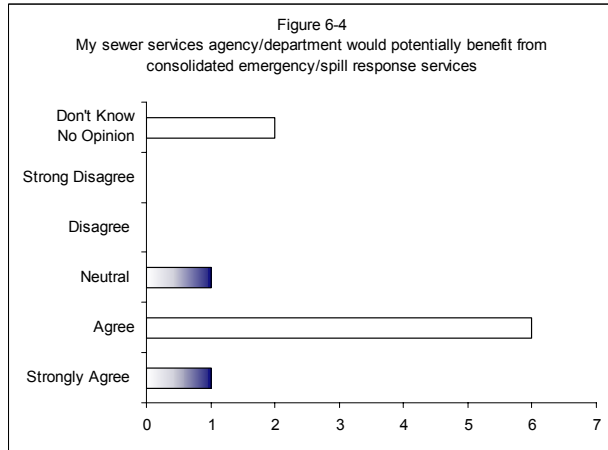
Based on our survey of sewer agencies, there is broad agreement that the eleven (11) agencies will face significant increases in capital spending over the next 10-20 years to replace or rehabilitate aging sewer collection infrastructure (see Figure 6-1). There is also positive consensus that functional collaborations will benefit individual agencies and their ratepayers (see Figure 6-2). The three agencies with treatment plants each recognized the need for future capital improvements to their facilities. There is broad recognition that the emerging SSMP regulations for managing and reporting Sanitary Sewer Overflows (SSOs) will have significant impacts and consequences for the eleven (11) agencies and that collaboration would be potentially beneficial. There is also a broad



consensus on the benefits of functional collaboration to meet these requirements (see Figure 6-3). Some of the agencies recognize that SSMP requirements could drive future increases in capital spending as well as increased operating expenses implementing the SSMP program elements.



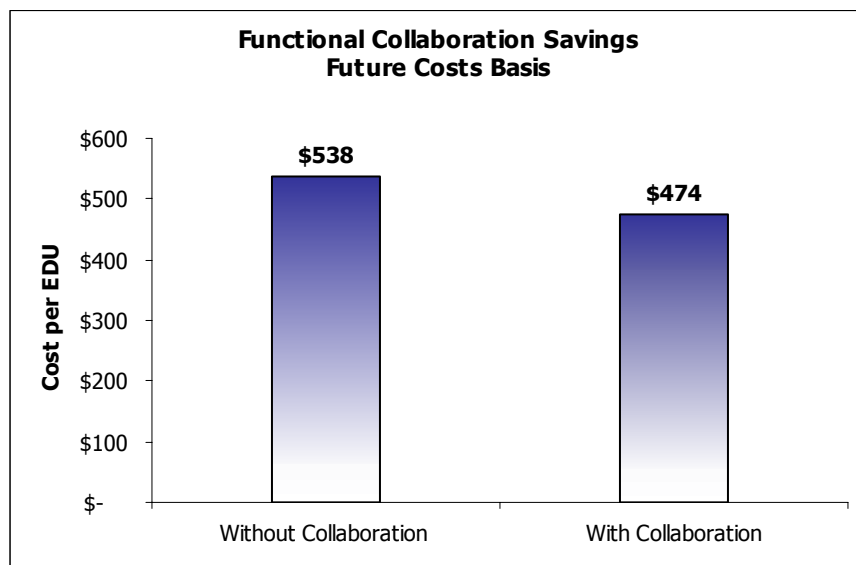
There are on-going collaboration activities among the Southern Marin sewer agencies as a follow-up to the April 2004 Civil Grand Jury Report and recommendations. Collaboration on various elements of the SSMP regulations is a good example of an area that has fairly broad support among the agencies. SSMP was one of the options selected for evaluating functional collaboration opportunities. For example, a majority of the agencies see benefits to collaboration on SSO incident and other emergency response activities (see Figure 6-4). Various categories of shared resources, as well as capital program services (design, construction, construction management and finance), were also identified as potential areas of opportunity.



Functional Collaboration

Collaboration through shared services, pooled capital project services, and SSMP plan implementation have the potential to generate operational savings through economies of scale and increased resource productivity. The potential savings illustrated in Figure 6-5 are based on conservative assumptions regarding efficiency gains. We estimate a net annual savings of \$1.83 million or \$64 per EDU. The study also identified many non-financial benefits that translate into improved service and lower long term costs (e.g., improved career path, improved off-peak coverage, and consistent regional SSMP implementation). This functional collaboration analysis was covered in Section 4.

Figure 6-5: Potential Capital and Operating Cost Savings with Functional Collaboration (2005\$ per Equivalent Dwelling Unit)



Political Consolidation Options

The study's analysis of the two political consolidations follows a similar rationale as the pending annexation of Belvedere sewer collection system into Sanitary District No. 5 (Tiburon). As with Belvedere/SD#5, both proposed consolidation options build upon existing sewer collection and interceptor sewer infrastructure, as well as existing service relationships.

The first Government Political Structure 1 (GSO-1) looked at the consolidation of SASM JPA agencies, including a small portion of the Tamalpais CSD collection system, into a single SASM Integrated Sanitary District. GSO-1 builds on the very successful SASM JPA Agreement. Collectively with almost 55% of the sewer collection system in Southern Marin, GSO-1 would consolidate collection system field services for sewer cleaning, inspection and pump station maintenance. There would be even more leverage and service opportunities as SSMP requirements go into effect. Agencies like Richardson Bay with well-established sewer collection maintenance programs and experienced staff would potentially raise the level of service in other agencies, particularly the smaller ones with limited staff resources (i.e., Alto, Almonte and Homestead Valley) and the City of Mill Valley, which shares these field resources with Mill Valley Department of Public Works.

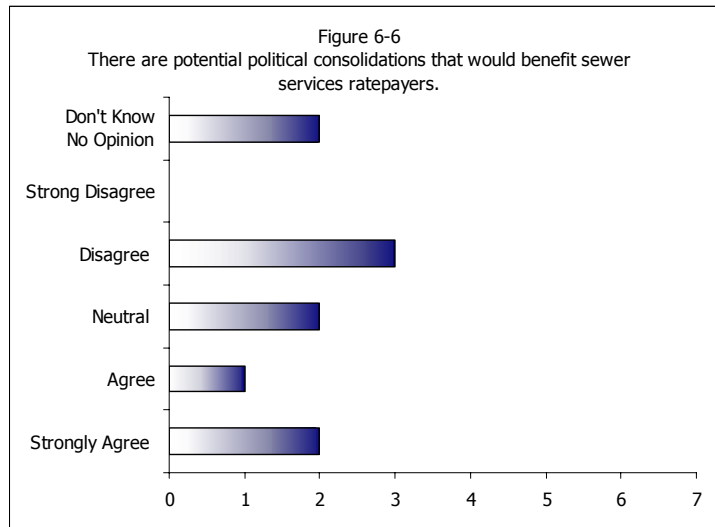
Terms and conditions for staffing consolidation, transition of outsourced services, maintenance plans, capital spending, transfer of assets, transfer of enterprise fund balances and handling of existing debt would be critical parts of the transaction negotiations. For example, improvements in staff skills, knowledge, and capabilities should result from the consolidations, but could also be tricky elements of the negotiations if individuals from multiple agencies are qualified for supervisory positions in the consolidated agency. Differences in historic levels of service and capital investment and existing debt would also be potentially delicate discussions.

Capital programs for investment in treatment plants can be pooled with aging infrastructure and pump station rehabilitation. Managing an expanded pool of capital projects provides the potential for additional savings in design and construction costs and closer construction management oversight. Mechanical, electrical and instrumentation maintenance can be consolidated into a dedicated crew or pooled contract with greater savings. Agencies with only an answering machine would then have a manned customer service office with potential 24/7 dispatch center coverage. If the staffing consolidation can be coordinated with retirements, then the possibility exists to coordinate some staffing consolidations with the already announced retirements of some key staff at several agencies, allowing it to occur through attrition. Key staff could be retained as consultants to assist with the transitional activities. We estimate annual savings from resource productivity improvements at approximately \$900,000 per year for GSO-1 plus many additional non-financial benefits.

GSO-2 looked at a similar consolidation of the SMCSO, the City of Sausalito, and most of the Tamalpais CSD collection system into a new SMCSO Integrated Sanitary District. GSO-2, would among other things, address the current situation where Tamalpais CSD ratepayers have no seat or vote on the SMCSO board. The GSO-2 consolidation has a much smaller collection system but there would still be savings similar to GSO-1. The GSO-2 agencies actually own most of the existing sewer cleaning equipment. Tamalpais CSD staff has significant collection system maintenance expertise that would directly assist the implementation of collection services integration, which the City of Sausalito, like Mill Valley, shares as part of the City's Department of Public Works. GSO-2 would also achieve some improvements in operational efficiency, as well as many non-financial benefits although not a large as the GSO-1 consolidation. We estimate recurring savings at \$435,000 per year for GSO-2. This political consolidation analysis was covered in Section 5.

Why Isn't This Happening Now? (Barriers to Change)

There are many reasons why these changes have not occurred to date. As illustrated in Figure 6-6, the agency survey, in sharp contrast to the generally positive support for collaboration, was more negative about the benefits of political consolidation. For starters, the current agencies, as structured, have been providing generally good levels of service, at affordable and fairly stable sewer rates. They have been operating in compliance with historic regulatory and permit requirements. Moreover, the decentralized agency structure with independent board/city council oversight provides an organization structure and governance structure that places a very high priority and importance on local control of sewer rates and service level polices. They believe that local control and low overhead organizations will allow them to maintain low sewer services rates. The sewer agencies are also staffed by competent managers, engineers, operators and staff. The existing agency structure has evolved with development within the small individual areas for which they provide service. Residents with questions or issues know the part-time GMs and can call them at their residence.



The general thrust of objections seems to focus around loss of local control coupled with increased overhead expenses and paperwork to administer multi-agency activities. Individual agencies talk about personal relationships and attention to follow-up on service-related questions. The implication is that this kind of personalized customer follow-up and prompt response, for example to a blockage incident, would not occur in an integrated agency. There seems to be a general belief that the status quo is quite stable.

Important Drivers for Change.

Circumstances are changing and some level of change to the methods and structure of the Southern Marin sewer agencies may be inevitable. The opportunity exists to proactively chart the course and manage the process. The current 11-agency structure is no longer the ideal configuration for serving the highly urbanized areas they now serve in Southern Marin County. Major investments in aging collection system infrastructure replacement and rehabilitation represent a brand new investment cycle for these agencies. The estimated replacement cost for providing current modern sewer collection piping for the 242 miles of collection system range from \$130 to \$260 million in 2005 dollars. This investment cycle will begin over the next 10 years, sooner for some agencies.

In addition, the SSMP/SSO requirements, as discussed in the report, impose a new regulatory program with the need for significant increases in operational expenses to competently implement the program. Two of the three agencies with treatment plants also anticipate significant future capital investment needs. Some of the agencies have recently implemented or are planning rate increases (e.g., Mill Valley from the \$243/EDU to \$297 per EDU; Belvedere from \$700 per EDU to \$900 per EDU as part of SD#5 annexation). The City of Sausalito, SD #5 and TCSD are also planning rate increases. The upcoming investment cycle will gain advantage through either JPA-based collaboration and/or actual political consolidations.

Precursors for Any LAFCO Petition

Future Vision -- Good Faith Discussions

The most important initial step is coming to the realization that the status quo is not sustainable and will not meet future needs. This opens the door to exploratory good faith discussions for potential functional collaboration and political consolidations. These discussions can build on the positive momentum already established by the current collaboration activities initiated by Southern Marin sewer agencies following the Civil Grand Jury report. A second parallel step is to begin a public outreach process with key stakeholders. These stakeholders include agency employees, board members, and ratepayers. They need to recognize that sewer rate increases are inevitable and that these increases will be much more severe under the current decentralized structure.

Functional Collaborations Through JPAs

Functional collaboration represents a real short term opportunity and pathway forward. It maintains the current board structure and existing mechanisms for political accountability. There are numerous examples of successful JPA applications for collaborative activities among sewer services agencies in California. JPAs can be simple agreements for shared resources administered by one of the member agencies or the JPA Agreement can form a whole new organization that through agreement of the parties is empowered to operate as a fully functional sewer services agency. JPAs can also include specific provisions for termination so, unlike political restructuring, JPAs are reversible.

The most important benefit of proceeding with a JPA, even for a narrowly defined program area like the SSMP program, is that it will generate working relations and trust among the participating agencies. It can also provide a platform for building public awareness of the challenges ahead and different methods of approaching them.

Political Consolidation Pathways

There are a number of key steps for proceeding toward potential GSO-1 and GSO-2 political consolidations analyzed in Section 5. There are multiple pathways possible to move toward the formation of the consolidated GSO-1 and GSO-2 integrated sanitary districts. Following successful experience with functional collaborations, the establishment of a vision of the future GSO-1 and GSO-2 consolidated sanitary district and creation of a memorandum of understanding to pursue good faith discussions among the parties are important first steps. Without preliminary talks and a general consensus framework for the joint pursuit of consolidation, nothing is likely to happen. This will need to include funding commitments to support initial feasibility and due diligence work. Additional information on the pre-LAFCO steps and LAFCO process can be found in Appendix F and Appendix G.

Conclusions and Next Steps

We believe the study and this report present a strong and very positive case for Southern Marin sewer agencies to pursue through 1) more collaborative working relationships and 2) political / governance consolidations as a second pathway for improved efficiency & effectiveness and reduced demands for budget increases.

The analysis in Sections 4 and 5 of this report looked independently at functional collaboration and political consolidation options. In reality, there is no line separating the two approaches and both areas can be pursued in parallel.

Potential next steps include:

- 1) Approving individual agency board resolutions supporting good faith discussion and the commitment of dollars for additional feasibility studies of potential functional and political consolidation.
- 2) Establishing working groups and holding additional workshops to identify, prioritize, and conduct good faith negotiations of potential functional collaboration initiatives.
- 3) Developing a model JPA structure/agreement(s) and formal processes for pursuing of multi-agency contract(s) to pilot and implement various functional collaboration activities including, but not limited to:
 - a. SSMP/SSO program implementation activities to complete the necessary studies and plans for regulatory compliance, including shared services for sewer collection system cleaning, inspection, blockage/overflow incident response and reporting;
 - b. Pooled capital projects implementation services (i.e., design, construction, construction management/inspection and finance) for both planned improvements to treatment plants, pump stations and collection system, as well as future replacement of aging infrastructure;
 - c. Contracting for various shared resources, including pooled human resources/personnel services, workplace safety, training, laboratory testing, computerized maintenance management of plants and collection system assets and pooled plant operations
- 4) Launching formal pilots coupled with performance monitoring to evaluate feasibility and the payoffs from such actions.
- 5) Initiating good faith exploratory discussions of potential political consolidation supported by a commitment of money and staff resources for additional feasibility studies. The goal of these studies would be to evaluate the pathways toward these alternative consolidated governance structures.

Appendix A

Marin County Sewer Rate Study Summary

Table A-1 below summarizes the results of a SASM rate study completed in December 2004:

Table A-1: Marin County Sewer Service Charges Survey

Marin County Sewer Service Charge Survey June 2005										
Agency	Annual sewer service charge per EDU					2003/2004 property tax revenue	Current EDU count	Current SSC + [tax / EDU]	Revenues	EDUs by Region
	Current	Known coming increase(s)		5 years ago	Projected 5 years from now					
		Year	Amount							
Southern Marin										
Almonte SD	\$250			\$275	\$250	\$47,250	789	\$310	\$244,500	
Alto SD	\$285			\$285	\$285	\$10,000	508	\$305	\$154,780	
Belvedere, City of	\$700	2005-06	\$890	\$875		\$0	1,126	\$700	\$788,200	
Homestead Valley SD	\$250			\$100	\$250	\$32,000	1,064	\$280	\$298,000	
Mill Valley, City	\$297			\$243	\$325	\$0	7,204	\$297	\$2,139,588	
Richardson Bay SD	\$246			\$246	\$246	\$887,484	4,664	\$436	\$2,034,828	
Sausalito, City of	\$473					\$0	6,115	\$473	\$2,892,395	
Sausalito/Marin City SD	\$349			\$160	per CPI	\$302,965	2,133	\$491	\$1,047,382	
SD #5 of Marin County	\$300	2005-06	\$351	\$300	\$700	\$380,000	2,740	\$439	\$1,202,000	
		2006-07	\$411							
		2007-08	\$480							
Tamalpais Valley CSD	\$301	2005-06	\$421	\$301		\$0	2,560	\$301	\$770,560	
		2006-07	\$573							
		2007-08	\$711							
Average charge per EDU:								\$400	\$11,572,233	28,903
Central Marin										
Las Gallinas Valley SD	\$176	2005-06	\$211	\$146	\$303	\$505,000	15,200	\$209	\$3,180,200	
		2006-07	\$253							
		2007-08	\$303							
San Rafael SD	\$308	2005-06	\$320	\$245		\$591,078	19,515	\$338	\$6,601,698	
Area	\$215			\$165		\$3,475,000	24,119	\$359	\$8,660,585	
SD #1: Larkspur Area	\$292			\$257		\$0	3,111	\$292	\$908,412	
SD #2 of Marin County	\$188			\$188	\$500	\$1,533,000	6,000	\$444	\$2,661,000	
Average charge per EDU:								\$324	\$22,011,895	67,945
Northern Marin										
Novato SD	\$262	2005-06	\$300	\$98	\$420	\$1,430,000	26,000	\$317	\$8,242,000	
		2006-07	\$338							
		2007-08	\$376							
		2008-09	\$424							
		2009-10	\$462							
Average charge per EDU:								\$317	\$8,242,000	26,000
Western Marin										
Tomales Village CSD	\$612			\$540	\$400	\$0	126	\$612	\$77,112	
Bolinas PUD	\$554			\$413	\$740	\$32,629	163	\$754	\$122,931	
Average charge per EDU:								\$692	\$200,043	289
Treatment only										
CMSA	\$119	2005-06	\$129			\$0	52,797	\$119	\$6,282,843	
SASM	\$142			\$142	\$156	\$0	14,484	\$142	\$2,056,728	
Belvedere. Annexation to SD #5 effective 7-1-05. Thereafter, SD #5 will set the rates.										
CMSA. Tentative plan to expand plant capacity from 100mgd to 125mgd at a cost of \$30 to \$50,000,000. Significant rate increases will be required.										
LGVSD. \$1,694,989 max. property tax.										
SD #1 Ross Valley area. \$4,250,000 max. property tax.										
SD #2. Increase in 2005 planned. Amount not yet known.										



Appendix B

Whitepaper on SSMP Programs & Implications for Wastewater Collection Systems October 25, 2004

What are CMOM and SSMP for Wastewater Collection Systems?

The release of untreated sewage from sanitary sewer overflows is a significant national issue. Yet the regulation and enforcement of sanitary sewer overflows remains an unsettled issue with different policies and requirements among the US EPA regions as well as at the state and local level. The Draft Sanitary Sewer Overflow (SSO) regulations issued near the end of Clinton Administration were withdrawn shortly after President Bush took office in early 2001 and have not been reissued. The need for promulgating the SSO regulations remains a controversial issue. Some in US EPA and the Department of Justice believe they already have under the necessary authority under the Clean Water Act for taking enforcement action against sanitary sewer overflows (SSOs). At the federal level, the underpinning of the Draft SSO regulations is the very successful Capacity Monitoring, Operation and Maintenance (CMOM) program for SSO management. The CMOM program is already in place in US EPA Region 4 in the southeast US. The CMOM/SSO regulations are an active program in EPA Region 4.

Even in the absence of a federal SSO rule, however, regulatory agencies and authorities at the federal level (US EPA regions) as well as at the state & local level have moved forward. At the federal level, the US EPA is implementing the CMOM requirements as a permit program for publicly owned collection systems under the state-delegated NPDES authority. The Draft CMOM regulations articulate these requirements and are being used as guidance even though the DRAFT SSO regulations were withdrawn. Within the US EPA, differences exist between the headquarters and many of the regional offices over how to set up the CMOM permit program (i.e., individual agency-specific permits by each permit writer or a general permit patterned after storm water permit program). There are also questions about what constitutes an overflow violation. The position of many EPA regional offices is that any overflow is a violation. The headquarters' position (supported by WEF and CASA) is that only unpermitted overflows are subject to the violation provisions. In California, State and Regional Water Boards have filed significant enforcement actions for SSO events in sewer agencies under the provisions of existing California Clean Water statutes.

California has also decided to take a proactive approach toward SSO management. New regulatory requirements for sanitary sewer overflows (SSO) are under development. The State Water Board has convened a statewide Guidance Committee comprised of representatives from the State Board staff, Regional Board staff, county environmental health departments, environmental groups, U.S. EPA, and local public collection system owners, to advise the Board on the development of this collection system management and SSO reduction initiative. The State Water Board has a pending draft resolution for creating a Sewer Overflow Reduction Program. It is the intent of the State Board, that staff in coordination with the SSO Guidance Committee, will develop a proposed Sewer Overflow Reduction Program that will direct publicly owned collection systems to develop and implement Sanitary Sewer Management Plans (SSMPs). These Plans incorporate appropriate management practices, provide consistent Statewide reporting of SSOs, explore third party SSMP review and certification, and propose appropriate



enforcement guidelines, by November 2005. The Board will then consider adopting the recommended implementation approach.

The State Water Board plans to delegated responsibility for SSO program implementation to the Regional Water Boards to meet the needs of each region. The San Francisco Bay Regional Board and the Bay Area Clean Water Agencies (BACWA) have formed a "Guidance Committee" to develop these requirements for the Bay Area. Specifically, the DRAFT guidance specifies that each wastewater collection agency will develop and implement a Sanitary Sewer Management Plan (SSMP) for monitoring the collection system and, responding to and reporting of collection system SSO events. The Regional Water Board has passed a resolution (supported by Board staff and BACWA) to utilize electronic reporting of overflows. This requirement has been enacted utilizing the "13267" requirement powers of the Board. Each Agency with a sewer collection system will be required to develop an SSMP. The SSMP requirements are similar to the US EPA Region 4 CMOM regulatory program for managing SSO events in wastewater collection systems

While some implementation issues and clarification needs remain, requirements are being implemented that will impact every publicly owned, wastewater collection system in the San Francisco Bay area. Specifically, the San Francisco Bay Regional Board will do the following: 1) Every wastewater agency with a collection system will receive a letter from the Board establishing the reporting requirements and encouraging the usage of the BACWA standard format. 2) The next step will be the development of an SSMP by each wastewater agency.

The penalty provisions of the Regional Board program will be a "fully discretionary" penalty structure and will not impose mandatory penalties. It appears that Agencies who: 1) do the reporting; and 2) establish and follow an SSMP program will not be penalized by the Board for "permitted" overflows. This Regional Board position may not fully align with State positions where the view that any overflow is a violation may prevail.

What are the Key Components of an SSMP?

The goals of the Sanitary Sewer Management Plan (SSMP) are to drive state-wide reductions in sewer overflow events. A collection agency's SSMP is expected to

1. Minimize the number and impact of SSO events that occur;
2. Provide the capacity for design storm flows; and
3. Maintain and improve the condition of the collection system infrastructure to provide reliable future service.

The Draft SSMP guidance has ten (10) elements as summarized in table at the back of this whitepaper. Some of the elements, particularly for non-urban communities, can be waived for systems serving populations of less than 10,000. In order to meet the goals and requirements of the SSMP, each wastewater agency will be required to develop and implement a documented plan for managing, operating & maintaining, and preserving/rehabilitating the long-term condition of the wastewater collection system. The "level of condition" and improvement elements of the SSMP could involve significant capital improvements. These elements can be thought of as containing at least three (3) subsections for implementation:

- 1) **Condition Assessment** of the collection system;
- 2) **Specification of the "Level of Condition"** that becomes the target or goal for the collection system. Agencies with GASB 34 requirements will need to assure alignment and disclosure of rehabilitation/replacement capital expenditures for the management of the collection system.



3) **Demonstration of a pro-active (long term) program to achieve “Condition Level” target**

Currently, the first priority of the SSMP appears to be dry weather flow conditions with system capacity to meet wet weather flows a second priority. However, separate regulatory activity is also underway to revisit the established practice that allows less than full secondary treatment of some portion of wet weather flows received at a treatment facility. Since these wet weather flows typically result from collection system infiltration and inflow issues, additional requirements may be looming not only for wastewater treatment facilities but also for the collection systems that convey the wastewater to the treatment plant.

In any case, under the SSMP program being adopted by the Regional Board, if an overflow occurs, the Regional Board will look to the Agency’s SSMP and the progress being demonstrated to achieve the target “Condition Level” and determine if a monetary fine for an overflow is appropriate.

Complimenting these regulatory enforcement efforts are the actions of public interest groups using private lawyers to obtain the public record information with regard to collection system overflows. Significant activity is underway and law suits are successfully moving their way through the courts. As examples: 1) consent decrees are now legally in place for Camp Pendleton and Escondido, and 2) LA Sanitary has received a Notice of Violation and Compliance from USEPA Region IX for improvements to their collection system and pump stations. Attached is a brief summary showing recent “Freedom of Information Act” letters regarding sanitary sewer overflows in the Bay Area. Southern Marin County agencies are on the list! Examples of penalties incurred in the State include:

Implications for the Wastewater Agencies of Southern Marin County?

In addition to implementing all the monitoring, response and reporting elements of the SSMP requirements, all eleven agencies, will need to perform a “Condition Assessment” and adopt a long term “Condition Target” for their wastewater collection system. Significant economies of scale and reduction of timelines may be possible if these Assessments and the establishment of “Condition Target” can be done on a unified, consolidated basis. Once established, these documents will also need to be maintained and updated.

Management, operational, and capital requirements (read as rate impacts) will also exist for all eleven agencies. Good records regarding the collection systems, maintenance and improvement programs, capital programs for upgrades and line replacements will be an absolute requirement. Again, the opportunity to consolidate components of these activities into area wide resources (i.e. staff responsible for multiple agency programs) will exist.

Overflows into a street or water body and backups resulting in property damage are established regulatory and legal “no-no’s”. In addition, blockages that are reported by the community to the Agency for action by the Agency will be considered an overflow by the Regional Board for the simple reason that for someone to report it, there must have been an overflow. Agencies will be required to report every overflow (date, time, amount, location, corrective action) to the Regional Board. These requirements mean record keeping and administrative requirements will increase, staff skills and response time targets will need to be improved, and the need to demonstrate significant progress toward the long term Condition Target will be essential. Where outsourcing of these activities is utilized, additional requirements and responsibilities will need to be provided by the service provider with failure to provide exposing the Agency to regulatory actions.

In short, the regulatory arena will become intolerant of overflows and / or insufficient progress by an Agency to achieve the long term “Condition Target” for the collection system. Agencies will need to insure that sufficient resources and expertise are provided to comply.



Attached to this whitepaper are the following documents:

Attachment 1 -- Summary of SSMP Requirements by PB Consult & Eisenhardt Group

Attachment 2 -- Draft Resolution State Water Resources Control Board dated 10/7/04

Attachment 3 -- Draft Summary of Recent Freedom of Information Act requests regarding
sanitary sewer overflows dated 9/27/04



Attachment 1 - Sewer System Management Plan Requirements Summary

Summary of SSMP Requirement	All Agencies	Can be Waived for Agencies < 10,000
1. <u>Goals Requirement</u> : Each wastewater collection system agency shall, at a minimum, develop goals for the Sewer System Management Plan as follows: 1) To properly manage, operate, and maintain all parts of the wastewater collection system; 2) To provide adequate capacity to convey peak flows; 3) To minimize the frequency of SSOs; and 4) To mitigate the impact of SSOs.	X	
2. <u>Organization Requirement</u> : Each wastewater collection agency shall, at a minimum, provide information regarding organization: 1) Identify agency staff responsible for implementing, managing, and updating the SSMP; 2) Identify chain of communication for responding to SSOs; and 3) Identify chain of communication for reporting SSOs	X	
3. <u>Legal Authority Requirement</u> : Each wastewater collection system agency shall, at a minimum, describe its legal authority, through sewer use ordinances, services agreements, or other legally binding procedures to: 1) Control infiltration/inflow (I/I) from satellite wastewater collection systems and laterals; 2) Require proper design and construction of new and rehabilitated sewers and connections; and 3) Require proper installation, testing, and inspection of new and rehabilitated sewers		X
<hr/>		
4. Measures and Activities		
4.a. <u>Collection System Map Requirement</u> : Each wastewater collection system agency shall maintain up-to-date maps of its wastewater collection system facilities.	X	
4.b. <u>Facilities & Equipment Requirement</u> : Each wastewater collection system agency shall allocate adequate resources to the operation and maintenance of its collection system facilities and equipment.	X	
4.c. <u>Prioritizing Preventive Maintenance Requirement</u> : Each wastewater collection system agency shall prioritize its preventive maintenance activities.	X	
4.d. <u>Structure Deficiencies Requirement</u> : Each wastewater collection system agency shall identify and prioritize structural deficiencies and implement short-term and long-term actions to address them.		X
4.e. <u>Routine Preventive Maintenance Requirement</u> : Each wastewater collection system agency shall establish a routine preventive operation and maintenance schedule.	X	
4.f. <u>Capacity Assessment Requirement</u> : Each wastewater collection system agency shall establish a process to assess the current and future capacity requirements for the collection system facilities.		X



Summary of SSMP Requirement		All Agencies	Can be Waived for Agencies < 10,000
4.g.	<u>Replacement Inventories Requirement</u> : Each wastewater collection system agency shall provide contingency equipment and spare/replacement parts intended to minimize equipment/ facility downtime.		X
4.h.	<u>Training Requirement</u> : Each wastewater collection system agency shall provide training on a regular basis for its staff in collection system operations, maintenance, and monitoring.		X
<hr/>			
5.	Design and Construction Standards		
5.a.	<u>Standards for Installation, Rehabilitation and Repair Requirement</u> : Each wastewater collection system agency shall identify minimum design and construction standards and specifications for the installation of new sewer systems and for the rehabilitation and repair of existing sewer systems.	X	
5.b.	<u>Inspection and Testing of New and Rehabilitated Facilities Requirement</u> : Each wastewater collection system agency shall identify procedures and standards for inspecting and testing the installation of new sewers, pump stations, and other appurtenances; and for rehabilitation and repair projects.	X	
6.	<u>Monitoring, Measurement and Program Modification Requirement</u> : Each wastewater collection system agency shall monitor the effectiveness of each SSMP element and update and modify SSMP elements to keep them current, accurate, and available for audit as appropriate.	X	
7.	<u>Overflow Emergency Response Plan Requirement</u> : Each wastewater collection system agency shall develop an overflow emergency response plan with the following elements: 1) Notification – Provide SSO notification procedures; 2) Response – Develop and implement a plan to respond to SSOs; 3) Reporting – Develop procedures to report and notify SSOs per SSO Monitoring and Reporting Program; and 4) Impact Mitigation – Develop steps to contain wastewater, to prevent overflows from reaching surface waters, and to minimize or correct any adverse impact from SSOs.	X	
8.	<u>Fats, Oils and Grease Control Program Requirement</u> : Each wastewater collection system agency shall evaluate its service area to determine whether a FOG control program is needed. If so, a FOG control plan shall be developed as part of the SSMP.		X
9.	<u>System Evaluation and Capacity Assurance Plan Requirement</u> : Each wastewater collection system agency shall prepare and implement a capital improvement plan to provide hydraulic capacity of key sewer system elements under peak flow conditions.		X
10.	<u>SSMP Audit Requirement</u> : Each wastewater collection system agency shall conduct an audit of their SSMP which includes any deficiencies and steps to correct them (if applicable), appropriate to the size of the system and the number of overflows, and submit a report of such audit.		X



Attachment 2

CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

RESOLUTION

In Support of a Collaborative Strategy for Collection System Management to Reduce Sewer System Overflows by the State Board and interested parties:

Whereas, Sewer System Overflows (SSOs), can pose a risk to both human health and the environment and are a significant contributor to beach closures.

Whereas, some SSOs are small in volume and do not present human health or environmental risks.

Whereas, some SSOs are contained and pumped back into the collection system prior to reaching waters of the State.

Whereas, while not all SSOs are preventable, the number and size of SSOs generally can be reduced through the application of sound and appropriate operating, infrastructure maintenance and management principals to wastewater collection systems.

Whereas, to facilitate proper management of collection systems, each collection system owner or operator should develop and implement, a facility-specific Sewer System Management Plan (SSMP). To be effective, these SSMPs should include the applicable elements that provide proper management, operation and maintenance of collection systems.

Whereas, many local public agencies in California have already developed SSMPs and implemented measures to reduce SSOs, but others still require technical assistance and, in some cases, funding to accomplish this goal. The development of a "model" SSMP would be a key element of assistance for these agencies.

Whereas, developing a mechanism for third party review and certification of SSMPs by technically qualified and experienced persons may provide a useful and cost-effective alternative method for ensuring that SSMPs are developed appropriately.

Whereas, it is the Board's desire to gather information on the causes and sources of SSOs in order for the Board to determine the full extent of SSOs and consequent environmental impacts occurring in the State.

Whereas, uniform SSO reporting and a centralized statewide electronic database is needed to collect information in order for the Board to effectively analyze the information about SSOs.

Whereas, several of the Regional Boards are engaged in initiatives to address SSOs, and some have issued waste discharge requirements or NPDES Permits to collection system owners/operators within their jurisdictions.



Whereas, many of the Regional Boards and the U.S. Environmental Protection Agency (U.S. EPA) have taken a range of enforcement actions on SSOs.

Whereas, the State Board has convened a statewide Guidance Committee comprised of representatives from the State Board staff, Regional Board staff, county environmental health departments, environmental groups, U.S. EPA, and local public collection system owners, to advise the Board on the development of this collection system management and SSO reduction initiative.

THEREFORE, BE IT RESOLVED that:

It is the goal of the State Board and the participants in this process to improve water quality in California through a reduction in the number and volume of SSOs.

A key approach to achieve reduction in SSOs is through the development and adherence to applicable industry standards by developing a "model" SSMP.

Unique conditions such as geographic location and topography, age of system, size of system, design criteria of system, and the financial capability of the community, indicate that SSMPs must be tailored for individual facility implementation to be most effective.

It is the intent of the State Board that a system for third party review and certification of SSMPs by technically qualified and experienced persons be evaluated, and if feasible, developed.

It is the intent of the State Board that a statewide reporting system for SSOs be developed, including consistent reporting thresholds, whereby SSOs that are of a reportable quantity will be reported into a centralized statewide database through an electronic reporting system that provides a comprehensive tracking system for SSOs.

It is the intent of the State Board to continue the efforts of the SSO Guidance Committee to advise staff and the Board on the development and implementation of actions necessary to reduce SSOs.

It is the intent of the State Board, that staff in coordination with the SSO Guidance Committee, develop a proposed Sewer Overflow Reduction Program that will direct publicly owned collection systems to develop and implement SSMPs that incorporate appropriate management practices, provide consistent Statewide reporting of SSOs, explore third party SSMP review and certification, and propose appropriate enforcement guidelines, by November 2005. The Board will then consider adopting the recommended implementation approach.



Attachment 3

Bay Area Clean Water Agencies Collection Systems Committee

Status of Recent Freedom of Information Act (FOIA) Letters and Related Activity Regarding Sanitary Sewer Overflows (SSOs)

--- DRAFT ---

9/27/04

Agency	Received Request for Information About SSOs	Received Follow-Up Letter Indicating Information No Longer Needed	Received 60-Day Notice Letter Stating Intent to File Suit
Central Contra Costa Sanitary District	X	X	
City of Millbrae	X	X	
City of Oakland	X		
City of Berkeley	X	X	
City of Petaluma	X		X
Vallejo Sanitation and Flood Control District			
Sonoma County Water Agency (Sonoma County Valley Sanitation District)	X		X
Sausalito-Marín City Sanitary District	X		
City of Foster City	X		
Sewer Agency of Southern Marin (SASM)	X		
Sanitation District No. 5 of Marin County	X		
Sanitation District No. 1 of Marin County	X		X



Appendix C Comparisons

Benchmark Comparison Methodology and Objectives:

Comparison of wastewater systems and operations can be a very difficult and challenging task as the systems and operations invariably have differences in treatment technologies, age of infrastructure, geographic conditions, levels of service provided, accounting systems and policies. Topography, as well as narrow streets and limited access, can also be important variables in hilly terrain.

That being said, our experiences continue to find it insightful and beneficial to review “high level” comparisons and then seek explanations for the apparent differences in the comparisons. This approach focuses on understanding “why the comparisons produce different results” rather than the all too frequent tendency to focus on the incompleteness or inadequacy of the comparison. Following our suggested approach for the usage of benchmarking will provide, we believe, insights and supporting quantification for the analysis and recommendations of this report.

For example, as shown in the Comparison Table C-1 below, the Southern Marin System currently incurs the highest costs for “operating \$’s/mile of collection system” . While it is tempting to adopt the explanation and justification as based predominantly on the hilly terrain and narrow streets, we believe there are also opportunities to avoid future cost increases and potentially decrease current levels of expenditures while maintaining and / or improving customer service and performance. One example of potential for future cost increases is illustrated by new requirements for systematic TV inspection and line cleaning. In addition to this added maintenance, problematic sewers with recurring overflows may require hydraulic modeling coupled with rain gage readings to establish wet weather sewer capacity and quantify infiltration and inflow. Unlike other utility operations provided in the comparisons, the Southern Marin System (taken as a whole) has not fully implemented a planned TV inspection and cleaning program for all 242 miles of collection system. Hence, on a relative basis, the Southern Marin Agency costs are likely to increase further as these steps are fully implemented as part of the new regulatory requirements for Sewer System Management Plans (SSMP) required by the Regional Water Quality Control Board. Further discussion and analysis of the comparisons also suggest that some economies from shared resources, expertise, and equipment may exist and could also contribute to a more cost effective performance as measured by the comparison criteria.

Comparisons Provided

The work scope and research efforts initially identified for this report did not envision this Comparison activity as part of the report. Despite this limitation, we have attempted to provide an initial set of relevant comparisons with the objective of ascertaining the relative performance of the Southern Marin Agencies (taken in aggregate) and also to thereby identify potential areas for improvement of overall efficiency and effectiveness (staffing levels, sharing of resources, expertise, program components, outsourcing effectiveness, etc.).

In support of this comparison analysis, we have been fortunate to obtain collection system and WWTP operational information from the following organizations:

- 1) 11 Southern Marin Agencies
- 2) Richmond, CA
- 3) Union Sanitary District, Union City, CA
- 4) Gresham, OR
- 5) Stege Sanitary District, CA

While some may argue that the comparisons that were available for the Study are from agencies of larger size and that the comparisons have inherent economies of scale not available to the eleven agencies, the comparisons do serve as a starting point for assessing and understanding the current performance and metrics for the eleven (11) agencies of this Report. The comparisons provide a very useful tool for additional discussion and analysis of “what causes and/or explains the differences”.



In addition, we have provided a very brief comparison to the Novato Sanitary District and also highlighted the significant variability amongst the 11 agencies comprising the Southern Marin Agencies. We have accomplished this later comparison by providing a comparison of Richardson Bay Sanitary District to the aggregate of the 11 agencies. What these later comparisons illustrate, we believe, is that comparisons of all eleven (11) agencies taken as an aggregate do not automatically apply to the specifics of one of the individual eleven agencies. The comparisons, as illustrated by Richardson Bay, must also be considered in light of the agency specific considerations of each agency, taken as a subset of the aggregate. Action plans developed using the comparisons as inputs will need to consider agency-specific variations as efficiency and effectiveness improvements are implemented.

Illustrating these specific considerations are the following two examples.

Example 1: Could economies of scale be obtained if the three wastewater facilities were operated by one O&M organization with the capabilities of SCADA automation, unattended operations, shared functional staff and utilization, a centralized control room facility, and the integration of regulatory reporting and interfacing provided by a single organization? The benchmarking comparisons and the results demonstrated by other utilities suggest that such economies are obtainable and that high quality O&M can be provided under such an integrated O&M organization. Looked at in this manner, the size difference between the aggregated treatment plant facilities and the benchmark comparisons becomes significantly less and can be removed as the central explanation for the apparent differences provided by the comparisons.

Example 2: The comparisons for the collection systems have identified potential improvement areas. In reviewing these comparisons one needs to consider the implications of Vactor truck vs. hydro-flushing approaches used to clean lines and blockages. Also, the requirement to provide maintenance and cleaning services for collection system lines can result in off-road and operational impacts caused by the hilly topography in portions of the eleven (11) agency service area.

Results / Conclusions from the Comparisons:

1) Efficiency and Effectiveness Gains Identified: The Comparisons provide inputs for identification of potential efficiency and effectiveness improvement areas. Taken in the aggregate, the Southern Marin Agencies do not compare well with the other programs – either in comprehensiveness of services (collection system specifically) or in the relative cost for the provision of services.

2) Comparisons allow quantification of the potential improvement (budget & service levels): Key comparisons support the conclusion that efficiency & effectiveness gains are identified:

- # of Rodder and cleaning trucks available vs. miles of system vs. usage of outsourced contracts for the provision of such services
- \$/foot estimates for the costs for cleaning and/or TV inspections of the collection systems
- Operating \$s / mile of collection system
- Miles of collection system/FTE staff
- FTE staff / average MGD of flow
- Overall budget expenditures for the wastewater treatment process and the miles of collection systems taken as a total activity

3) Alignment with Report - Potential Areas for Efficiency and Effectiveness Improvement

A number of site-specific factors may explain some or indeed a significant number of these differences. For example, the Southern Marin Agencies must operate and maintain 69 pump stations or 14 pump stations per MGD of flow. Other systems have far fewer pump stations to operate and maintain. As another example, with three treatment plants, each of the three (3) wastewater treatment plants currently require sufficient operators for 24/7 coverage and are also staffed for three separate laboratory functions. Sharing of resources and increased utilization of automation and control could allow reduced



coverage for evening shifts with one on-duty operator to monitor treatment plant operations for all three facilities and the utilization of additional workforce on a call-in basis. Further assessment and evaluation of the differences identified by the Comparisons is certainly warranted.

Even without such additional assessments and insights, we believe that improvement actions, including cost effective planning & implementation of programs in the new SSMP world are warranted. The recommendations of this report are, we believe, consistent with such an approach.

Table C-1: Overview Comparison of Southern Marin Agencies and Other Representative Wastewater Operations (Collection Systems & Treatment Plants)

Comparisons	Southern Marin Agencies	Richmond	Novato ***	Union Sanitary	Gresham	Stege Sanitary
Service Area & System Comparisons :						
Population Served (000s)	61.5	95	56	323	107	40
Treatment Plant Capacity (MGD)	6.4	18		33	20	EBMUD - WWTP
Average Daily Flow (MGD)	4.8	10.0		28	12	2.8
Number of WWTPs	3	1	2	1	1	NA
Collection Sewers (Miles)	242	160		766	410	150
Storm Water Sewers (Miles)	NA	95		NA	200	--
Number of Pump Stations – Sanitary	69	14		7	10	2
Number of Pump Stations – Storm	NA	7		NA	NA	--
Staffing - Total	43	27	26	49	34	10
Staffing Treatment Plant Operations	25	10		19	21	NA
Staffing: Collection System Operations	18	13		30	13	10
Operations. & Maintenance Budgets (\$ Millions):						
Total	7.9	4.7	4.5	14.3	4.5	NA
Treatment Operations	5.1	2.35		10.8	2.8	NA
Collection Sys. Operations	2.8	1.7		3.5	1.7	1.6
Capital Spending (\$ Millions) :						
Total for Collection Sys & P.S. Only	3.5	4.5		18.1	4.0	1.3
Collection System	NA	3.5		12.8	3.0	1.2
Pump Stations	NA	1.0		5.3	1.0	0.1
Performance Comparisons:						
% of collection system TV inspected/year	Varies – often just call outs	10%	See note at bottom of chart	17%	17%	70%
% of collection system cleaned/year	Varies – often just call outs	25%		19%	22%	80%
# of Vactor Trucks	3	2 combo's		4	2	1
# of Rodder Trucks	1			--		2

Comparisons	Southern Marin Agencies	Richmond	Novato ***	Union Sanitary	Gresham	Stege Sanitary
Sewer Collection System sewer sizes						
% less than or equal 6"	Available info. but	70%		50%		70%
% less than or equal to 10"	not summarized	80%		68%	70%	80%
\$ / foot of collection – TV Inspections	\$ 1.00 – \$1.50 avg.	\$0.89		\$0.45	\$0.90	\$0.95
\$ / foot of collection – Line cleaning	\$1.25 - \$2.09 avg.	\$1.00		\$0.44	\$0.83	\$0.55
System Wide Measures						
Operating \$s / mile of collection system	\$11,330	\$10,620		\$3,960	\$4,146	\$10,667
Miles of collection system / FTE staff	13.5	17.8		25.3	31.5	15.0
FTE staff / average MGD of flow (WWTP)	5.2	1.0		0.7	1.7	NA
Operating \$s / MGD of Avg. Daily Flow	\$1.65/ MGD	\$0.47/ MGD		\$0.51/ MGD	\$0.38/ MGD	--
\$ CAPEX Spending/mile of collection sys.	NA	\$28,875/mile		\$16,710/mile	\$7,317/mile	\$8,000/mile
\$ CAPEX Spending/Pump Station	NA	\$47,600/PS		\$757,143/PS	\$100,000/PS	\$50,000/PS
All cost in 2005 Dollars						

NOTES:

*** Novato Sanitary District is Informational Only: Completion of the Novato Sanitary District comparison beyond the very top level is not included in the comparisons. Novato recently announced large budget and rate increases. However, the overall comparison shows similar sized population with staffing @ 62% of Southern Marin Agencies and operating budgets @ 57% of the Southern Marin Agencies. It is further recognized and acknowledged that line cleaning costs for some of the 11 agencies are impacted by significant rodding requirements to clear blockage and maintain line functionality and are also impacted by terrain conditions.

Variability of the Eleven Southern Marin Agency Budgets and Comparisons:

The Southern Marin Agencies included in the comparisons are the aggregate, composite budget for all 11 agencies. Significant variability is reflected in the individual budgets for each Agency as demonstrated by a comparison of the Richardson Bay budget to the 11 Agency Aggregate. As measured by "Operating \$'s / Mile of Collection System" or "Miles of collection sys. / FTE staff", extension of the Richardson Bay metrics to all eleven agencies would result in a significant increase in resources necessary (staffing and budgets) and / or the increased usage of outsourcing of services as the alternative to increased staffing.

Topic	Richardson Bay	11 Agency Aggregate
Total Budget	\$1.683 million	\$ 7.9 million
WWT Budget Ops.	\$0.660 million	\$ 5.1 million
Collection System & Pump Station Ops	\$1.020 million	\$ 2.8 million
Miles of Collection System	44 miles	242 miles
Number of Pump Stations	29	69
FTE Staffing	4.5	18 for Collection
Operating \$'s / mile of Col. Sys.	\$23,600	\$11,330
Miles of collection sys / FTE staff	9.8 miles	13.5 miles



Appendix D– Functional Collaboration Analysis Background and Details

Functional Collaboration – Sanitary Sewer Overflow Program

Background

This area and the new SSO/SSMP regulations provide an excellent opportunity for increased collaboration amongst the eleven agencies. Significant economies of scale, reduced costs, and improved service opportunities are available through the sharing of resources, systems, and staff.

As previously discussed, as of December 1, 2004, sewer agencies must follow new incident reporting guidelines issued by the State and Regional Water Quality Control Boards. Agencies that do not report SSO incidents will not only face potential regulatory enforcement action. Third party advocacy groups are aggressive targeting sewer agencies with SSO incidents and have filed third party law suits under citizen suit provisions of the Clean Water Act. The SSO/SSMP reporting requirements establish will create a paper trail and provide FOIA-accessible incident information.

The new regulations will also require each of the eleven (11) agencies to develop SSMP Plans. More elaborate plans will be needed by the agencies with larger collection systems and more pump stations. The SSMP will need to provide for periodic systematic cleaning and inspection of collection system sewer lines. Deteriorated lines will be candidates for sewer rehabilitation/replacement, beginning with those sewer segments with a history of SSO incidents. Some Southern Marin sewer agencies have no internal staffing and rely exclusively on third party providers such as Roto Rooter for cleaning and SSO response. SSMPs will add to these activities as they will require grease control/grease trap programs for commercial customers with oil/grease discharges (e.g. restaurants, fast food).

Implementing SSO reporting and SSMP program requirements were unanimously identified as an area for potential collaboration among Southern Marin County sewer services agencies in the facilitated workshops held in May and June 2004 as a follow-up to the Civil Grand Jury Report recommendations.

The legal vehicle that is applied to implement collaboration on SSO/SSMP activities can vary from simple multi-party agreements for jointly contracted services to the formation of a JPA agency with staffing, facilities and equipment needed to perform the duties spelled out in the JPA Agreement (e.g., sewer cleaning, TV inspection, emergency call center, SSO incident response). The JPA can also authorize services to be performed and managed by one of the member agencies. Collaboration on the SSMP program should improve the program's efficiency (through economies of scale) and the effectiveness of the services provided and response times. Equitable funding approaches that recognize the variability in collection system condition, the level of inflow and infiltration and the risk of an SSO event among Southern Marin agencies will need to be developed and implemented.

Financial and other Benefits

Appendix J contains a copy of the financial model developed by the Study Team for estimating potential savings from various types of collaboration. The baseline operating and capital costs in the model are based on actual financials for the eleven Southern Marin agencies collected during the survey/interview process. The model is set up to evaluate potential savings from agency collaboration in cost per Equivalent Dwelling Unit (EDU's) for various categories of spending.

An example of the usage of the model to assess the implications of the new SSMP requirements and the potential collaboration savings for cleaning and lining is shown below in Figure D-1. Collectively, the collaboration approach has the potential to reduce the costs incurred by approximately 30% or over \$180,000 / year as discussed below.



Figure D-1: Sewer Cleaning Collaboration Savings Example

Collection System Line Cleaning and Lining Collaboration Example:

Southern Marin County agency cleaning costs ranged from \$1.00 to \$1.50 per foot. Corresponding comparative sewer cleaning costs for larger Bay area sewer agencies ranged from \$0.45 to \$0.95 per foot. Similar estimates were gathered for TV inspection. Southern Marin County Agency Costs ranged from \$1.25 to \$2.09 per foot. Corresponding comparative sewer TV inspection costs for larger Bay area sewer agencies ranged from \$0.45 to \$1.00 per foot. The example table from page 15 of the model, Appendix F, assumed costs at the lower end of the range for “as-is” individual agency cleaning and relining and cost savings at the high end of the benchmark comparisons. Actual savings will depend on factors like the cleaning/inspection cycle, the number of participating agencies and whether the activity is outsourced or down internally. Collectively, for example, the Southern Marin agencies have enough equipment and crews to conduct systematic cleaning on the entire 221 miles of gravity sewer as a shared activity

Incremental Increased Operating and Maintenance Costs for Sewer Cleaning and Inspection

Cleaning Cost per foot	\$ 1.10	Low End of Southern Marin Agency Costs
TV Cost per foot	\$ 1.35	Low End of Southern Marin Agency Costs
Percent of Lines Cleaned	20%	5-year Cleaning/Inspection Cycle
Collaboration Savings	33%	Higher end of Benchmark costs

	Agency	Miles of Sewer Pipelines	Sewer Pipelines (ft)	Combined Cost w/ Collaboration
1	Sausalito-Marín City Sanitary District	6	31,680	\$ 10,401
2	Sanitary District #5	19	100,320	\$ 32,935
3	Sewer Agency of Southern Marin	5	26,400	\$ 8,667
4	City of Belvedere	11	58,080	\$ 19,068
5	City of Sausalito	27	142,560	\$ 46,802
6	City of Mill Valley	65	343,200	\$ 112,673
7	Tamalpais	27	142,560	\$ 46,802
8	Richardson Bay Sanitary District	40	211,200	\$ 69,337
9	Alto Sanitary District	5	26,400	\$ 8,667
10	Almonte Sanitary District	6	31,680	\$ 10,401
11	Homestead Valley Sanitary District	10	52,800	\$ 17,334
		221	1,166,880	\$ 383,087

Potential savings identified are 33 % or a reduction of \$184,000 from projected costs utilizing

In providing the above comparisons, it is recognized that some portion of the cost differentials are attributable to the significant rodding requirements for the collection system to clear potential blockage areas and maintain line functionality as well as terrain conditions. Conversely, other systems may be demonstrating significant operation cost benefits from an established capital program for collection system line replacement and upgrading on a systematic basis.

Capital Improvement Program Collaboration

Collectively, the eleven Southern Marin agencies have annual capital spending levels over the next several years of around \$4.5 million. We believe the SSMP program coupled with needed investment to replace/rehabilitate aging sewer collection infrastructure will drive the need for significant increases in capital spending over the next 5-10 years. Table D-1 provides an example for collection system investments. Average capital spending could easily double over this time period.



Table D-1: Projected Infrastructure Replacement Costs (2005\$)

Collection System Component	Amount/Units	Cost Factor Replacement*	Replacement Rate*	Projected Increase (\$millions)*
Gravity Sewers	221 miles	\$200/ft	3 miles per year	\$3.20
Forced Mains/Interceptors	21 miles	\$500/ft	0.28 miles per year	\$0.70
Pump Stations	69	\$250,000/PS	2.75/year	\$0.70
Annual Incremental Capital Spending Increase				\$4.60

JPA Agreements provide a viable approach for the eleven (11) Southern Marin sewer services agencies to collaborate on capital improvement programs. JPAs can authorize the JPA agency or designated lead member agency to enter into contracts for the design and construction of sewer collection infrastructure, pump stations and treatment facilities. JPAs can authorize incurring debt and issuing revenue bonds to finance capital improvements to individual member agency’s sewer collection and/or treatment systems capital improvements. JPA’s can contract for construction management services that manage a portfolio of projects on behalf of member agencies. Collaboration on financing under a JPA Agreement provides smaller agencies with the ability to finance capital improvements through revenue bonds and secure a lower financing rate.

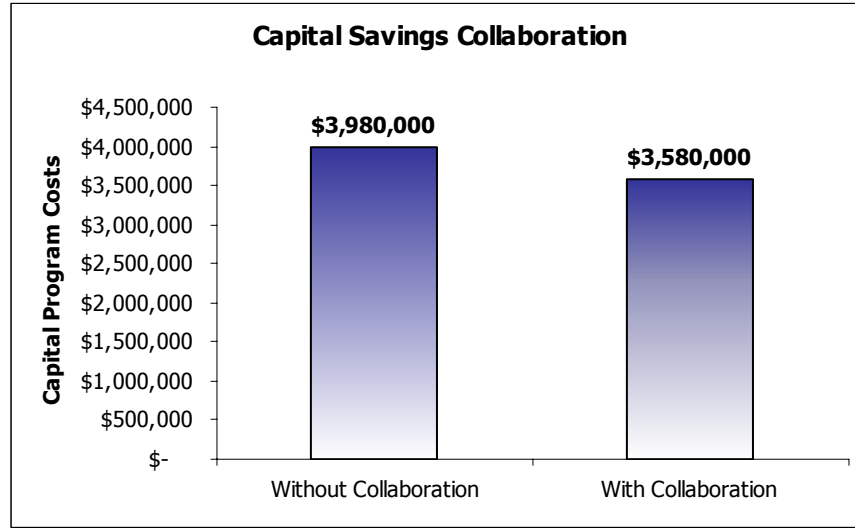
Because of different capital needs among the agencies, each individual agency will have different capital program service needs. Consequently, the funding allocations for the capital program services will need to be based on an individual agency’s level of utilization. The easiest way to do this is through a specific project list over a specific time period that can be linked to the construction services contracts.

To get some local market calibration on potential savings from collaboration on design and construction services, we interviewed three Bay area contractors (Mike Joyce, Kennedy/Jenks Consultants; Mike Donovan, Whitley Burchett & Assoc.; Joe Covello, Covello Group). All three contractors estimated that potential savings in capital projects were a minimum of 5% and likely 10% or more were achievable if the eleven Southern Marin Agencies created pooled design and construction services. Even higher savings could be achieved with multiyear project commitments. Collaboration on capital spending, assuming 5-10% savings would yield recurring annual savings up to \$400,000 per year on baseline capital costs. Managing a pooled capital program will also provide non-financial benefits such as increased construction management and field inspection resources. These recurring annual savings can be used to finance additional debt with no impact on rates. A 30 year debt will allow up to \$10 + million of “free” borrowing (\$900,000 per year) with no impact on rates because the funds are generated from the collaboration savings. A \$10 million capital savings represents 2.2 times the current annualized capital expenditures of the eleven agencies.

Examples of potential savings from collaboration on capital projects can be found in Appendix J financial model. The model assumes a 10% savings on design, construction and construction management services. Figure D-2 illustrates the potential annual savings in current capital costs assuming a 10% savings from capital program collaboration. Actual savings will depend on many factors, including the number of participating agencies, the number and size of the pooled projects and the overall scope of capital project collaboration.



Figure D-2: Potential Capital Program Savings with Collaboration (2005\$)



Shared Services/Resources

Collaboration Examples

Significant savings can be achieved through shared services and staffing consolidations. Collectively, the eleven (11) Southern Marin sewer agencies have 43 FTEs, with approximately 25 FTEs for the operations and maintenance of the three treatment plants at an average flow of 4.8 MGD (5.2 FTE per MGD) and 18 FTEs for the operation and maintenance of 242 miles of collection system (13.5 miles per FTE). The 25 FTEs in the treatment plant operations do not account for the additional 1-1.5 FTEs (\$125,000 per year) for contracted electrical/instrumentation maintenance. The 18 FTEs in the collection system operations do not account for the additional 2-3 FTEs (\$230,000 per year) of contracted staff supplied through third party contracts for sewer blockage, cleaning and inspection. The combined personnel costs for staff and contract labor is approximately \$4.1 million per year or 52% of the 2004 \$7.9 million operating budget which is roughly \$95,400 per FTE.

The following tables summarize advantages and disadvantages for a number of shared resource examples

Table D-2: Advantages and Disadvantages of JPA Shared General Management/Manager/Supervisor/Staff Resources

Advantages	Disadvantages/Issues
<ul style="list-style-type: none"> ☞ Elimination of redundant staffing and associated salary/benefits costs ☞ Broader scope of job responsibilities ☞ Career path for staff, supervisors and middle managers ▪ Broader off-shift and relief coverage ratios for vacation, other absences ▪ Broader staff skills, special skills, expertise ▪ Higher supervisor/worker coverage ratios 	<ul style="list-style-type: none"> ▪ Increased administrative requirements ▪ Salary/wage scale differences among agencies ▪ Time to phase out redundant staff (no layoff rule) ▪ Longer drive time from field crew consolidations

**Table D-3: Advantages and Disadvantages of Shared Human Resources Services
JPA – Shared Human Resources Management and Services**

Advantages	Disadvantages
<ul style="list-style-type: none"> ☞ Higher level of HR management expertise, knowledge ☞ Enhanced employee benefits (medical, dental, short-term disability) ☞ More efficient payroll administration ▪ Formalized staff training for job, career path, safety ▪ Formal employee grievance process 	<ul style="list-style-type: none"> ▪ Working out differences in salaries and wages ▪ Working out differences in benefits ▪ Transition of existing agency HR staff

Table D-4: Advantages and Disadvantages of JPA -- Shared Mechanical, Electrical and Instrumentation Maintenance

Advantages	Disadvantages
<ul style="list-style-type: none"> ▪ Specially trained, equipped crews ▪ Higher staff and equipment resource productivity ▪ Improved quality/effectiveness of maintenance 	<ul style="list-style-type: none"> ▪ Longer driving distances ▪ Broad range of equipment types ▪ Larger combined spare parts inventory

Table D-5: Advantages and Disadvantages of JPA -- Shared Laboratory Analytical Services

Advantages	Disadvantages
<ul style="list-style-type: none"> ▪ Higher resource productivity ▪ Higher staff expertise over time ▪ Savings in outsourced commercial lab services (economies of scale) ▪ Technician career path and overtime/relief coverage ▪ Justification of expanded internal specialty equipment based on pooled need 	<ul style="list-style-type: none"> ▪ Phase-out of redundant staff through attrition ▪ Sample transport -- drive time between facilities ▪ Longer cycle time for test results ▪ Staff resource limitation during emergency events/incidents

Collection System: Collection system staffing for the larger benchmarked sewer agencies ranges from 15 to 31.5 miles per FTE. A 20% resource productivity gain to 17 miles per FTE achieved through pooled collection system staffing would provide a 4 FTE efficiency improvement or a \$280,000 annual recurring savings assuming an average labor cost of \$60,000 per FTE. This savings could be achieved through pooled contracts with third party sewer cleaning/inspection contracts or through pooled internal sewer cleaning crews. Based upon the demonstrated productivity at other utilities, two crews of 2/crew with existing VACTOR/flushing equipment could achieve a 3-year cleaning cycle for the 221 miles of gravity sewer. Sewer collection maintenance crew and pump station maintenance crews and their respective supervisors could be employed by a JPA Agency and charged back to the individual sewer agencies.

Treatment Plants: Similarly, treatment plant staffing for benchmarked sewer agencies ranged from 0.7-1.7 FTEs of Staff per MGD. A 20% improvement in resource productivity gain through shared treatment plant services would provide a 5 FTE efficiency gain or \$350,000 annual recurring savings assuming an average \$60,000 per FTE. Treatment plant pooled services could be achieved through cross-trained plant operators, pooled laboratory services, pooled mechanical/electrical/instrumentation maintenance crews. JPA Agreements or similar shared services contracts could provide the mechanism to these kinds of shared service, jointly funded activities. Treatment plant operators and maintenance technicians could be

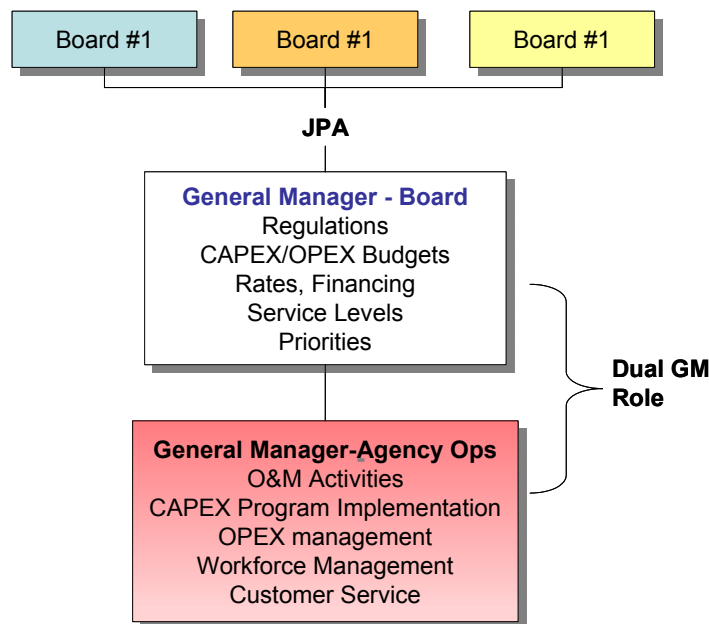


employed by a JPA Agency including maintenance supervisors/chief operators could be charged back to the respective treatment plant agencies

Human Resources/Personnel Services: A JPA can also provide valuable services that smaller entities struggle to provide, or cannot provide in a cost effective manner. Cooperative Personnel Services (CPS) provides a successful model of a JPA which provides efficient and cost effective services to a number of member and non member agencies in California. CPS is a JPA consisting of the State and a number of Counties. CPS provides administrative, management and human resources services. Member and non-member agencies may contract with CPS for a variety of services, and request that CPS screen, hire and provide contract employees. An advantage of the CPS system is the ability to hire employees at full benefits, and assign the employee to a number of agencies or projects. CPS has a retirement system and offers other employee benefits, which make it attractive for qualified professionals; attributes smaller agencies often lack. CPS charges an administrative fee plus cost for services provided to public agencies. CPS is able to achieve economies of scales not possible to member agencies, which offset a portion of its administrative charges. CPS also maintains expertise in employee retirement systems, hiring and taxation laws and other processes, which require specialization.

Shared General Managers: Using a JPA approach, there is an opportunity to consolidate GM arrangements by expanding on the shared GM arrangements that are already in place for Alto, Homestead Valley, Almonte and Richardson Bay. GM consolidations could occur over time as future retirements and other opportunities become available. The conceptual arrangement is illustrated below. Multiple agencies of the size in Southern Marin County can share a General Manager resource. The General Manager would have dual roles: 1) managing board activities and 2) managing agency operations as illustrated in Figure D-3 below. A shared GM overseeing multiple agencies will speed decision-making and also create a bridge for other functional collaboration. An individual serving such a GM role will gain the trust of the respective agency boards and this help streamline discussions for future agency collaborations and potential political consolidations. A multi-agency GM role will also naturally move toward a more integrated regional approach for programs such as the emerging SSO/SSMP requirements. It will also make it easier to implement shared services and collaboration on capital expenditures that can achieve lower costs through economies of scale.

Figure D-3: Shared General Manager Resources



Functional Collaboration Savings Rationale

Table D-6 summarizes pertinent Southern Marin County demographic information. Table D-7 summarizes some key performance benchmarks. Collectively, these establish a basis for shared resources, capital program and SSMP/SSO program collaboration. Our estimates of 20% for shared resources, 10% for pooled capital programs and other model assumptions are conservative. Specific opportunities need to be developed by the agencies. The productivity and support service benchmarks and best practices are supported by numerous 'Association of Metropolitan Sewerage Agency (AMSA) and Water Environment Research Foundation Studies on wastewater agency efficiency.

Table D-6 Southern Marin County Sewer Agencies

Description	SMCSD	SD #5	SASM	Alto SD	Almonte	City of Belvedere	City of Sausalito	City of Mill Valley	Homestead Valley SD	Richardson Bay SD	Tamalpais CSD	Totals	Comments
Average Flow, MGD	1.6	0.7	2.5									4.8	Combined Average Daily Flow of 3 Wastewater Treatment Plants
Miles Forced Main, Miles	3	1	9.5	0	0	1	0.5	1	0	4	1	21	Treatment Plants, Cities, Richardson Bay and Tamalpais
Miles Gravity Sewer, Miles	6	19	5	5	6	11	27	65	10	40	27	221	
Pump Stations, No.	7	9	6	0	0	13	3	5	0	24	2	69	Relatively large number of pump stations for 25 square miles
Management FTEs	1	0.5	1	0.1	0.3	0.5	City	City	0.1	1	0.5	5	Public Works oversees sewer staff for cities
Administrative/Professional FTEs	1	1	City	0	0	City	1.5	City	0	0.5	0	4	In addition to staff FTEs, cities provide additional administrative and professional services for some agencies for accounting, HR, procurement, engineering, IT, ; all agencies utilize external engineers, consultants for planning and design services
Treatment Plant O&M /Lab FTEs	4	5.5	7.5	0	0	0	0	0	0	0	0	17	All three WWTP agencies contract laboratory analysis for all but basic process control tests; Some mechanical/electrical/instrumentation maintenance functions are outsourced
Collection System/Pump Station O&M//Construction FTEs	2	2	2.5	Con	Con	0.5	3	2.5	Con	3.5	2	18	Outsourced contractor services for cleaning, CCTV inspection, blockage incidents, pump station maintenance in addition to/in lieu of internal staffing. Actual FTEs are higher if contractor staff included
Staffing Totals	8	9	11	0.1	0.3	1	4.5	2.5	0.1	5	2.5	44	
Cars and Pick-up Trucks	2	5	7	0	0	3	2	1	0	4	3	27	
Dump Trucks	1	0	0	0	0	1	0	s	0	0	0	2	Shared equipment with Mill Valley
Tanker/Rodder Trucks	0	0	0	0	0	0	1	0	0	0	0	1	
Flusher Trucks	0	0	0	0	0	0	1	1	0	0	1	3	
Backhoes	0	0	0	0	0	0	1	s	0	0	2	3	Shared equipment with Mill Valley
Portable/Spare Pumps	3	1	6	0	0	3	2	0	0	2	0	17	
Portable Generators	2	1	3	0	0	2	1	0	0	1	0	10	
Stationary Back-up Power	4	3	7	0	0	3	4	0	0	10	1	32	



Table D-7: Functional Collaboration Savings Rationale

Description	Marin Agencies Index/Practice	Benchmark/Best Practice	Comments
Management Span of Control	9	40 to 1	100% plus improvement potential with collaboration. Average is very low, even considering contractor staff oversight; Range is from <5:1 to 20:1; Budget \$ per GM is also very low. Savings potential up to \$500K
Supervisor Span of Control	3 - 5 to 1	10 - 20 to 1	100%+ targeting 10:1 (2-4 FTEs or \$150 to \$300K) improvement potential with collaboration; In agencies with larger staff, supervisor/crew leaders have very low span of control. There is a significant opportunity for pooling both plant and collection system staff resources and increasing span of control
Human Resources/Other Support Services	City staff/Internal	Outsourced	There is an opportunity to improve both the efficiency and effectiveness of HR staffing for payroll, benefits administration, safety, employee relations and training
Engineering Services	Outsourced	Outsourced	Some limited engineering staff in smaller agencies. Pooling of engineering services with collaboration for design and planning projects could potentially save up to 10% or \$50- 100K
Treatment Plant O&M, FTEs per MGD	3.5	1.5 - 3	100% plus improvement potential with collaboration and full plant automation. The best practice would be 8-10 total plant O&M staff FTEs (\$600K) , half the current staffing level achieved with cross-trained operators, plant automate/unattended off-shift operations, pooled maintenance, operators assigned basic preventive maintenance. The index does not include contractor staff
Collection System Staffing, Miles/FTE	13.4	15 - 30+	20%+ savings potential with collaboration, even with high density of pump stations. Clean/inspection/blockage response can potentially be consolidated into two to three 2-person crews for all 11 agencies. Each 2-person crew should be capable of cleaning 35 to 40 miles per year. Savings for outsourced cleaning, inspection and blockage services can be negotiated on a pooled basis
Capital Projects	\$4.5 million/year - current basis \$3.5 - 4.5 per year - future basis	5-year Capital Plans Multi-year design construction contracts Inspection/Construction Mgt	10% Collective the agencies have \$4.0 to 4.5 million of capital projects. Infrastructure replacement has significant potential to as much as double future capital budgets. Multi-year contracts for pooled design and construction could potentially achieve 5-10% savings. (\$450K, including engineering)
Vehicles and Equipment	Replicated by Agency	Pooled vehicles and equipment 10,000 miles per year LD Vehicles 50-60% utilization	While more detailed utilization/availability and condition assessment is needed to better evaluate current inventory levels, there appears to be some opportunity for pooling, especially expensive equipment like flusher trucks, rodder trucks, backhoes, etc. Savings \$?
SSMP/SSO Program	Varies significantly by agency	SSMP program elements Life cycle based Asset management - see below	SSMP program elements SSO event monitoring; I&I reduction; life-cycle cost-based replacement and rehabilitation; grease trap program, etc. \$300-\$400K in operating cost and \$400K in capital savings with pooled programs, call center, response, cleaning/inspection) off new incremental costs
Collection System Asset Management/SSO Management	Varies significantly by agency	Life cycle cost based replacement Up-to-date Inventory/Condition Assessment	Significant upgrades in current practices needed by some agencies. Computerized maintenance management software, other tools like geographic information management systems, to track blockages/overflows, inflow and Infiltration measurements, inspection results from inspection; periodic cleaning/inspection every 3-5 years. The SSMP program will drive these practices. Collaboration will enable the implementation of more sophisticated practices. Cost justification of software is case-specific.



Appendix E – Political Consolidation Analysis Background and Details

GSO-1: SASM Integrated Sanitary District

Additional Formation Considerations

Implementation of GSO 1 is likely to be accomplished through a sequence of phased transactions. The need for, and nature of, the potential phasing will emerge after more detailed information on agency governance, assets, financial statements, debt, personnel, service style and quality, and infrastructure conditions is developed and analyzed.

Specific government reorganization actions necessary to combine existing service providers and service provider responsibilities into a single Sanitary District are listed below. It is important to remember when reviewing these steps that the sequencing and number of specific steps will depend on the needs and preferences of affected agencies and the public, as well as local conditions and circumstances. To ensure political and financial feasibility, and facilitate personnel actions that do not harm existing service users and employees, additional study and analysis will be necessary.

Rationale for GSO-1

A compelling element of the consolidation of the SASM agencies to form the GSO-1: SASM Integrated Sanitary District is the success of the current SASM Joint Powers Agency. Four sanitary districts, the City of Mill Valley and Tamalpais Community Service District collaborated to finance, build and operate the existing SASM WWTP. All six agencies send their sewage to the SASM wastewater treatment plant. The JPA defines the allocation funding formula (based on allocated EDU treatment capacity) which establishes the basis for member agency payments for funding SASM's ongoing capital expenditure and operating expense and debt repayment requirements. All six agencies have SASM representation on the 6-member SASM board. Under the JPA, the City of Mill Valley provides administrative and human resources support services and office space for staff.

Going forward, consolidation into a single SASM Agency Sanitary District will provide operational efficiencies as well as some additional economies of scale to better address future requirements such as the new California and Regional Water Quality Control Board SSO/SSMP Program. The GSO-1 agency will also be in a stronger position to finance future capital improvements to the treatment plant and individual agency collection system assets.

Business Case for GSO-1: SASM Integrated Sanitary District

1) Summary of Demographics: The following table (Table E-1) provides a summary profile the SASM Agencies from the study survey. Since only a small portion of the Tamalpais CSD collection system will be annexed and transferred into GSO-1, the assumption is that none of the staff or operating budget elements would be included in the GSO-1 consolidation so TCSD data is not included in Table E-1

Table E-1: SASM Agency Data for Potential GSO-1 Consolidation.

SASM Agency Data

Description	SASM	City of Mill Valley	RBSD	Almonte	Alto	Homestead Valley	Total/Avg
Staffing (FTEs)	11	2.5	4	0.3	0.1	0.1	18
General Manager (FTE's)	1	0.15	1	0.3	0.1	0.1	2.65
O&M Budget (\$000)	2080	456	1023	141	159	207	4066
Salaries (\$000)	1088	194	440	23	10	14	1769
Average Staff Tenure (years)	14.5	10	13.5	7	NA	NA	11.25
Miles of Gravity Sewer	5.3	65	40	6	5	10	131.3
Miles of Forced Main	9.5	0	4	0	0	0	13.5
Number of Pump Stations	6	5	24	0	0	0	35
Collection Clean/Inspection	MV/Contractor	Staff/Contractor	Contractor	Contractor	Contractor	Contractor	
Pump Station Maintenance	Staff/Contractor	Staff/Contractor	Staff	NA	NA	NA	
Treatment Plant Operation	Staff	NA	NA	NA	NA	NA	
Treatment Plant Maintenance	Staff	NA	NA	NA	NA	NA	
Pick-up Trucks	7	1	4	0	0	0	12
Dump Trucks	0	Shared	0	0	0	0	0
Rodder Trucks	0	0	0	0	0	0	0
Flusher Trucks	0	1	0	0	0	0	1
Backhoes	0	Shared	0	0	0	0	0
Portable/Spare Pumps	6	0	2	0	0	0	8
Portable Generators	3	0	10	0	0	0	13
SASM Consolidation	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2) Consolidation Analysis: The combined GSO-1 agency has 54% of the total Southern Marin collection system assets, 51% of the pump stations, 42% of the staff and 49% of the operating budget. There are some opportunities for staffing consolidation. The GM positions would be transitioned to a single GM position. The GM consolidation can mostly likely be accomplished through attrition/planned retirements. Some or all the GMs would likely be retained for a transition period to provide continuity and institutional knowledge transfer. Both SASM and Richardson Bay do pump station maintenance with outsourcing of some of the electrical/instrumentation and specialty mechanical maintenance and there may be some opportunities for crew consolidation as well as maintenance program enhancements. Both agencies appear to have excellent programs. The increased number of pump station assets coupled with the treatment plan may justify the addition of a dedicated electrical/instrumentation staff specialist. We assume there should be some opportunities for improving resource productivity either way, although we have also assumed that the base of sewer cleaning/inspection and related collection system maintenance activities that are mandated by the SSMP program (formal grease trap inspection/clean-out program).

With the exception of Mill Valley, most of the collection system maintenance, cleaning, and inspection activities as performed today are outsourced so the leverage here would be mostly through contract consolidation. Since Mill Valley does have a flusher truck and does some cleaning, the feasibility of creating a staff capability would need to be compared with continuation of the outsourced services. There would be enough work to justify a single dedicated cleaning crew, assuming a three-year cycle. This would require the hiring of 2-3 FTEs. The current SASM treatment plant operation and maintenance functions would likely remain as currently configured.

The expansion in staffing with the larger organization will create employee career path opportunities, especially for the smaller agencies. There are likely to be tricky transition issues on salaries, wage rates, benefits, retirement accruals and so on that will need to be worked through for assuring equity and fairness. Among the larger agencies with operational staffs, average tenure is over 11 years so there should be good institutional knowledge transition into GSO-1.

3) The consolidated SASM Sanitary District would combine staff, equipment, facilities and assets. There would be a single GM, a WWTP operations function, a maintenance function (plant and collections), engineering function, and administrative support service (finance, accounting, procurement, HR, IT). The GSO-1 would transfer and consolidate the four sanitary districts (Alto, Almonte, Homestead Valley and Richardson Bay) and provide for the annexation of the Tamalpais territory currently served by SASM (*Key Park*) along with the consolidation of the City of Mill Valley territory. Accomplishment of such a consolidation would involve the orderly transfer and disposition of assets and staff to include: 1) sewer



collection system assets and responsibilities; 2) wastewater treatment assets and services; 3) water reclamation and solid waste services and assets; 4) staff; 5) enterprise cash balances; and 6) transfer and consolidation of debt and other contractual obligations from the six agencies and the SASM JPA. Formation of the new consolidated SASM sanitary district would also transfer SASM JPA responsibilities and require the discontinuance of the JPA. While the actual implementation is likely to a phased process, we have modeled savings, assuming the existing agencies are fully converted to the consolidated SASM sanitary district. EDUs of 14,513 would remain the same.

4) Model Assumptions

The model analysis assumes staff reduction and economies of scale savings from the following categories:

- ☞ **Staffing/Salaries/Benefits costs – 10%** Reduction of staffing level from 18.5 to 17 by consolidation to a single General Manager position.
- ☞ **Operating and Maintenance Cost (OPEX) Savings – 10%** This would come from the O&M consolidations for pump station maintenance crews and leveraged outsourcing or dedicated flusher/rodder crew for sewer cleaning.
- **Capital Spending (CAPEX) Savings – 5 %** Combined larger base of capital projects for the combined agencies based on Marin County contractor input; SASM member agencies indicated that a significant level of infrastructure capital investment will be needed in the future.
- **Incremental SSO/SSMP Implementation – 15%** Program administration, 24/7 dispatch, incident response, reporting, SSMP elements.

5) Details of the Transition Pathway: There would be many details to work through along the actual transaction pathway. Some elements such as the JPA dissolution and conversion would be outside of the LAFCO process. If there significant differences in capital expenditures and operating expense for the collection system as a result of past practices and infrastructure renewal investment, “multiple rate zones” would be set up to avoid “transfer payments” and paying for “others” needed improvements.

GSO-1 Savings Rationale (SASM Integrated Sanitary District) Table E-2 summarizes the SASM agency demographic information, not including Tamalpais. d Table E-3 summarizes some key performance benchmarks. Collectively, these establish a basis for assumed savings (10% staffing, 10% efficiency improvement, 5% capital and 15% on new SSMP requirements) Specific opportunities need to be developed by the agencies. The productivity and support service benchmarks and best practices are supported by numerous Association of Metropolitan Sewerage Agency (AMSA) and Water Environment Research Foundation Studies on wastewater agency efficiency.

Table E-2: SASM Agency Data

Description	SASM	City of Mill Valley **	RBSD	Almonte	Alto	Homestead Valley	Totals	Comments
Overall Staffing (FTEs)	11	2.5	4.5	0.3	0.1	0.1	18.5	Internal staff is supplemented by outsourced engineering and contractor services.
General Manager (FTE's)	1	0	1	0.3	0.1	0.1	2.5	The two full-time GMs (SASM and RBSD) have announced retirement
Administrative/Professional Staff (FTEs)	City	City	0.5	0	0	0	0.5	SASM and Mill Valley Public Works rely on City for administrative support services.
Treatment Plant O&M/Lab (FTEs)	7.5	0	0	0	0	0	7.5	There are 2 FTEs for painting and building/grounds. Some electrical/instrumentation maintenance are outsourced
Collection System/Pump Station O&M (FTEs)	2.5	2.5	3	Contractor	Contractor	Contractor	8	Agencies with internal staff also use some contractor resources
O&M Budget (\$000)	2080	456	1023	141	159	207	4066	** 20% of engineering budget from Sewer Funds
Salaries (\$000)	1088	194	440	23	10	14	1769	** 20% of engineering budget from Sewer Funds
Average Staff Tenure (years)	14.5	10	13.5	7	NA	NA	45	
Average Daily Flow in MGD	1.6						2.5	
Miles of Gravity Sewer	5.3	65	40	6	5	10	131.3	59% of collection sewers
Miles of Forced Main	9.5	0	4	0	0	0	13.5	64% of forced mains
Number of Pump Stations	6	5	24	0	0	0	35	50%+ of pump stations
Collection Clean/Inspection	MV/Contractor	Staff/Contractor	Contractor	Contractor	Contractor	Contractor	0	Primarily by contractor
Pump Station Maintenance	Staff/Contractor	Staff/Contractor	Staff	NA	NA	NA	0	
Treatment Plant Operation	Staff	NA	NA	NA	NA	NA	0	
Treatment Plant Maintenance	Staff	NA	NA	NA	NA	NA	0	
Pick-up Trucks	7	1	4	0	0	0	12	
Dump Trucks	0	Shared	0	0	0	0	0	
Rodder Trucks	0	0	0	0	0	0	0	
Flusher Trucks	0	1	0	0	0	0	1	
Backhoes	0	Shared	0	0	0	0	0	
Portable/Spare Pumps	6	0	2	0	0	0	8	
Stationary Emergency Power	7	0	1	0	0	0	8	
Portable Generators	3	0	10	0	0	0	13	



Table E-3: GSO-1 Savings Rationale

Description	Marin Agencies Index/Practice	Benchmark/Best Practice	Comments
Management Span of Control	7.4	40 to 1	10%+ plus improvement potential with GSO-1 Consolidation. Reduction to one GM for consolidated agency provides \$200K in savings from \$1.8 million in salary costs
Supervisor Span of Control	3 - 5 to 1	10 - 20 to 1	10%+ reduction of \$1.8 million salary costs. In agencies with larger staff, supervisor/crew leaders have very low span of control (\$200K) 10%+ economies of scale efficiency improvement off \$2.1 million (\$200K) -- There is a significant opportunity for pooling both plant and collection system maintenance mechanical/electrical/instrumentation staff resources and increasing span of control
Human Resources/Other Support Services	City staff/Internal	Outsourced	Efficiency and effectiveness of HR staffing for payroll, benefits administration, safety, employee relations and training can be compared with City of Mill Valley support. -- Assume cost neutral.
Engineering Services	Outsourced	Outsourced	Some limited engineering staff in smaller agencies. Pooling of engineering services with collaboration for design and planning projects could potentially save up to 5% of total aggregate cost -- \$100K savings
Treatment Plant O&M, FTEs per MGD	3	2	5 -10% improvement potential with GSO-1 consolidation and full plant automation. The best practice would be 5 total plant O&M staff (2 +1 operators + 2 Maintenance) achieved with plant automation/unattended off-shift operations (if cost justified) , pooled mechanical/electrical/instrumentation maintenance, operators assigned basic preventive maintenance There are 2 FTEs for painting and building/grounds. The index does not include contractor staff - evaluate outsourcing - potential \$100K - \$200K savings.
Collection System Staffing, Miles/FTE	16.4	15 - 30+	10-15% savings potential with GSO-1. Cleaning/inspection/blockage response can potentially be consolidated into one 2-person crews for all 6 agencies. A 2-person crew should be capable of cleaning 35 to 40 miles per year. Savings for outsourced cleaning, inspection and blockage services could also be negotiated on a pooled basis (\$200K savings)
Capital Projects	\$2.0 million/year - current basis Additional \$2.1 million per year - future basis	Life cycle cost based replacement of aging infrastructure Inventory/Condition Assessment	5-10% Collective the agencies have \$2.0 million of capital projects. Infrastructure replacement has significant potential to as much as double future capital budgets. Multi-year contracts for pooled design and construction could potentially achieve 5-10% savings. (\$100K - \$200K savings @ 5%) Savings are market condition dependent
SSMP /SSO Program Implementation	Varies significantly by agency	SSMP program elements Life cycle based Asset management	SSO event monitoring; I&I reduction; life-cycle cost-based replacement and rehabilitation; grease trap program, etc. --\$100K to \$200K in operating cost and \$100K in capital savings with pooled programs, call center, response, cleaning/inspection
Vehicles and Equipment	Replicated by Agency	Pooled vehicles and equipment	Further evaluation needed; 10,000 miles per year LD Vehicles; 50-60% utilization equipment.
Collection System Asset Management/SSO Management	Varies significantly by agency	Life cycle cost based replacement of aging infrastructure Up-to-date Inventory/Condition Assessment	Significant upgrades in current practices needed by some agencies. Computerized maintenance management software, other tools like geographic information management systems, to track blockages/overflows, inflow and Infiltration measurements, inspection results from inspection; periodic cleaning/inspection every 3-5 years. The SSMP program will drive these practices. Collaboration will enable the implementation of more sophisticated practices. Cost justification of software is case-specific.



GSO-2: Sausalito-Marin City Integrated Sanitary District

Rationale and Assumptions

The proposed consolidation of TCSD and the City of Sausalito into SMCSO has several compelling elements. First, it is aligned with existing service arrangements treatment and the current CAPEX and OPEX support allocation. Second, it would correct the current lack of board representation by TCSD. This was a significant consideration when TCSD evaluated the feasibility of diverting 100% of its flow to SASM and disconnecting from SMCSO. Third, core infrastructure investments in interceptor sewer, pump stations and the treatment plant are in place.

Going forward, consolidation into a consolidated SMCSO will provide organization efficiencies as well as economies of scale to better address future incremental increases in OPEX and CAPEX from requirements such as the new California and Regional Water Quality Control Board SSO/SSMP Program.

Business Case for GSO-2: SASM Integrated Sanitary District

1) Summary Demographics: Table E-4 provides a summary profile proposed GSO-2 agencies from the survey. Since most the Tamalpais collection system will be annexed and transferred into GSO-2, the assumption is that staff equivalent working on sewer collection and the sewer collection operating budget elements would be included in the GSO-2 consolidation.

SMCSO Agency Data

Description	SMCSO	City of Sausalito	TCSD	Total/Avg
Staffing (FTEs)	8	4.5	2	14.5
General Manager (FTE's)	1	0	0.3	1.3
O&M Budget (\$000)	1706	374	618	2698
Salaries (\$000)	832	281	174	1287
Average Staff Tenure (years)	15	NA	10	12.5
Miles of Gravity Sewer	6	27	27	60
Miles of Forced Main	3	0.3	0.8	4.1
Number of Pump Stations	7	3	2	12
Collection Clean/Inspection	Agency/Contractor	Staff/Contractor	Staff/Contractor	
Pump Station Maintenance	Staff/Contractor	Staff/Contractor	Staff	
Treatment Plant Operation	Staff	NA	NA	
Treatment Plant Maintenance	Staff	NA	NA	
Pick-up Trucks	2	2	3	7
Dump Trucks	1	0	0	1
Rodder Trucks	0	1	0	1
Flusher Trucks	0	1	1	2
Backhoes	0	1	1	2
Portable/Spare Pumps	3	2	2	7
Portable Generators	2	4	1	7

2) Consolidation Analysis: The combined GSO-2 agency has 25% of the total Southern Marin collection system assets, 17% of the pump stations, 34% of the staff and 33% of the operating budget. There are some opportunities for staffing consolidation. Unlike GSO-1, a GM consolidation is unlikely as the TCSD general manager has a much broader role, managing parks and recreation and solid waste collection in addition to sewers. All three agencies do pump station maintenance so there may be some opportunities for crew consolidation as well as maintenance program enhancements. Since both Sausalito and TCSD do sewer cleaning and have sewer cleaning equipment there should be opportunities for improving resource productivity. One full-time dedicated crew would have the capacity to doing



cleaning on a 2-year cycle. Additional staff resources should be available to work on the new SSMP program requirements for cleaning/inspection and related collection system maintenance activities that are mandated by the SSMP program (formal grease trap inspection/clean-out program). The current SMCSO treatment plant operation and maintenance functions would likely remain as currently configured.

Collection crew transfers from TCSD could be an issue since Tamalpais does not have dedicated sewer collection field staff. The 7 FTEs of field crew in TCSD all cross-functional responsibilities. Perhaps TCSD could provide sewer collection services under contract to the new GSO-2. Otherwise, TCSD may need to seriously consider staff reductions if the sewer collection services and assets are transferred.

The expansion in staffing with the larger organization will create employee career path opportunities, especially for the smaller agencies. There are likely to be tricky transition issues on salaries, wage rates, benefits, retirement accruals and so on that will need to be worked through for assuring equity and fairness. Among the larger agencies with operational staffs, average tenure is over 12.5 years so there should be good institutional knowledge transition into GSO-2.

3) The consolidated SMCSO would combine staff, equipment, facilities and assets. There would be a single GM, a WWTP operations function, a maintenance function (plant and collections), engineering function, and administrative support service (finance, accounting, procurement, HR, IT). The new consolidated SMCSO would include the transfer of City of Sausalito sewer collection system assets, the annexation of the Tamalpais territory and currently served by SMCSO (*excludes Key Park*) and orderly and the orderly transfer and disposition of staff, as well as transfer and consolidation of enterprise cash balances, debt reserves and other contractual obligations from TCSD and Sausalito. Consolidated SMCSO EDUs of 16,392 remain the same.

4) Model Assumptions: The model analysis assumes staff reduction and economies of scale savings from the following categories:

- ☞ Staffing/Salaries/Benefits – 7.5% There will be redundant staff for sewer collection and pump station maintenance but additional new requirements for the SSO/SSMP program.
- ☞ Operating and Maintenance Cost (OPEX) Savings – 10% Increased productivity of pump station and sewer collection crews.
- ☞ Capital Spending (CAPEX) Savings – 5% Based on some limited economies of scale from larger size and greater financing capacity.
- Incremental SSO/SSMP Implementation – 10% Program administration, 24/7 dispatch, incident response, reporting, SSMP elements versus individual agency implementation.

5) Details of the Transition Pathway: There would be many details to work through along the actual transaction pathway. Some elements such as the JPA dissolution and conversion would be outside of the LAFCO process. If there significant differences in capital expenditures and operating expense for the collection system as a result of past practices and infrastructure renewal investment, “multiple rate zones” would be set up to avoid “transfer payments” and paying for “others” needed improvements.

GS0-2 Savings Rationale (SMCSD Integrated Sanitary District)

Table E-5 summarizes the SMCSD agency demographic information, not including Tamalpais. Table E-6 summarizes some key performance benchmarks. Collectively, these establish a basis for assumed savings (10% staffing, 10% efficiency improvement, 5% capital and 15% on new SSMP requirements) Specific opportunities need to be developed by the agencies. The productivity and support service benchmarks and best practices are supported by numerous Association of Metropolitan Sewerage Agency (AMSA) and Water Environment Research Foundation Studies on wastewater agency efficiency.

Table E-5: SMCSD Agency Data

Description	SMCSD	City of Sausalito	TCSO	Total	Comments
Staffing (FTEs)	8	4.5	2.0	14.5	Internal staff is supplemented by outsourced engineering and contractor services.
General Manager (FTEs)	1	City	0.3	1.3	Tamalpais GM time is divided between parks, solid waste and sewer collection
Administrative/Professional Staff (FTEs)	1	1.5	0	2.5	City of Sausalito has 2 part-time engineering FTEs
Treatment Plant O&M/Lab (FTEs)	4	0	0	4	There are 2 FTEs for painting and building/grounds. Some electrical/instrumentation maintenance are outsourced
Collection System/Pump Station O&M (FTEs)	2	3	2	7	Agencies with internal staff also use some contractor resources
O&M Budget (\$000)	1706	374	618	2698	
Salaries (\$000)	832	281	174	1287	
Average Staff Tenure (years)	15	NA	10	25	
Average Daily Flow				1.6	
Miles of Gravity Sewer	6	27	27	60	27% of collection sewers
Miles of Forced Main	3	0.5	1	4.5	21% of forced mains
Number of Pump Stations	7	3	2	12	17% of pump stations
Collection Clean/Inspection	Agency/Contractor	Staff/Contractor	Staff/Contractor	0	Combination of staff and contractor
Pump Station Maintenance	Staff/Contractor	Staff/Contractor	Staff	0	
Treatment Plant Operation	Staff	NA	NA	0	
Treatment Plant Maintenance	Staff	NA	NA	0	
Cars/Pick-up Trucks	2	2	3**	7	** Shared resources with only TCSO functions (Solid Waste & Parks)
Dump Trucks	1	0	0	1	
Rodder Trucks	0	1	0	1	
Flusher Trucks	0	1	1	2	
Backhoes	0	1	1	2	
Portable/Spare Pumps	3	2	0	5	
Portable Generators	2	1	1	4	
Stationary Emergency Power Supplies	4	4	1	9	



Table E-6: GSO-2 Consolidation Savings Opportunities

Description	Marin Agencies Index/Practice	Benchmark/Best Practice	Comments
Management Span of Control	10	40 to 1	10%+ plus improvement potential with GSO-2 Consolidation. Reduction to one GM for consolidated agency provides \$50K in savings from \$1.3 million in salary costs
Supervisor Span of Control	<5 to 1	10 - 20 to 1	5 to 10% reduction of \$1.3 million salary costs. In agencies with larger staff, supervisor/crew leaders have very low span of control (\$90K) 5 to 10%+economies of scale efficiency improvement off \$1.3 million (\$90K) -- There may be some potential pooling both plant and collection system maintenance mechanical/electrical/instrumentation staff resources and increasing span of control
Human Resources/Other Support Services	City staff/Internal	Outsourced	Efficiency and effectiveness of HR staffing for payroll, benefits administration, safety, employee relations and training can be compared with current. -- Assume cost neutral.
Engineering Services	Outsourced	Outsourced	Some limited engineering staff in smaller agencies. Pooling of engineering services with collaboration for design and planning projects could potentially save up to 5% of total aggregate cost -- \$10 to \$20K savings
Treatment Plant O&M, FTEs per MGD	2.5	2	<5% improvement potential with GSO-2 consolidation and full plant automation. The best practice would be 4 total plant O&M staff (2.5 operators + 1.5 Maintenance) achieved with plant automation/unattended off-shift operations (if cost justified) , pooled mechanical/electrical/instrumentation maintenance, operators assigned basic preventive maintenance The index does not include contractor staff - evaluate outsourcing - potential <\$100K savings.
Collection System Staffing, Miles/FTE	9	15 - 30+	5 - 10% savings potential with GSO-2. Cleaning/inspection/blockage response can potentially be consolidated into one part-time 2-person crews for all 6 agencies. 2-person crew should be capable of cleaning 35 to 40 miles per year. Savings for outsourced cleaning, inspection and blockage services could also be negotiated on a pooled basis (\$50K to 100Ksavings)
Capital Projects and Infrastructure	\$1.8 million/year - current basis +\$1.0 million per year additional - future basis	5-yearCapital Planning Life Cycle Cost based replacement	5% Collective the agencies have \$1.8 million of capital projects. Infrastructure replacement has potential to add another \$500K to \$1.0 million per year. Multi-year contracts for pooled design and construction could potentially achieve 5-% savings. (\$100K savings @ 5%) Savings are market condition dependent
SSMP /SSO Program Implementation	Varies significantly by agency	SSMP program elements Life cycle based Asset management	SSO event monitoring; I&I reduction; life-cycle cost-based replacement and rehabilitation; grease trap program, etc. --\$50 to \$100K in operating cost and \$50K in capital savings with pooled programs, call center, response, cleaning/inspection
Vehicles and Equipment	Replicated by Agency	Pooled vehicles and equipment	Further evaluation needed; 10,000 miles per year LD Vehicles; 50-60% utilization equipment.
Collection System Asset Management/SSO Management	All three agencies have some level of sewer line replacement in their budget	Life cycle cost based replacement of aging infrastructure Up-to-date Inventory/Condition Assessment	Further evaluation needed Computerized maintenance management software, other tools like geographic information management systems, to track blockages/overflows, inflow and Infiltration measurements, inspection results from inspection; periodic cleaning/inspection every 3-5 years. The SSMP program will drive these practices. Collaboration will enable the implementation of more sophisticated practices. Cost justification of software is case-specific.



Appendix F – Pre-LAFCO Process

Consolidation Leadership and Feasibility Studies

Getting Started

The first step toward creation of GSO-1 and GSO-2 is to begin serious dialogue among participating agencies, LAFCO and the public.

For GSO-1, all SASM agencies, which may be party to reorganization (consolidation, annexation, service change) are JPA members. Member agencies serve as a conduit to their individual Boards, service recipients and employees. For productive dialogue, one or more agencies will need to assume a leadership or sponsoring role. Because each of the six agencies belongs to the SASM, there may be an advantage to the JPA's assumption of the lead for dialogue and planning purposes. In the questionnaire, all SASM agencies identified some level of consolidation as one of the desired steps for moving forward.

For GSO-2, SMCSO would be the logical lead agency, since as the successor agency, they would be doing all the transfers of assets and annexation of territory.

Tamalpais (TCSD) is tied to both the GSO-1 and GSO-2 transactions. One issue is the fact that the TCSD collection system would be split. A second is that the TCSD staff is multi-function, with job roles split between sewer system maintenance, parks and recreation and municipal solid waste collection.

Marin LAFCO could play a role in facilitating discussions, lending technical expertise on government reorganizations, and possibly conducting further studies as enabled in Section 56378 of the CKH Act. In the latter role, LAFCO is empowered to require any local or State agency to provide any requested information needed to make informed decisions. But, given the realities of the consolidation process, we strongly believe that the leadership for such a consolidation needs to come from the sewer agencies themselves.

The second step in achieving such a consolidation is to establish a common vision and general implementation pathway. This vision and pathway establishment is an important precursor to serious consolidation discussions. Without a general consensus to at least explore the possible benefits of agency consolidations, nothing is likely to happen. Agency management and their boards need to generally understand the potential advantages and disadvantages of consolidations. To that end, LAFCO leadership role in funding this study is consistent with Section 56378 of the CKH Act.

Inherent to good planning and productive dialogue is the possession of up-to-date technical, organizational and financial data. This LAFCO-sponsored study, the recently completed Marin County sewer rate study and on-going collaboration work being led by SASM provide a starting point. In addition, both GSO-1 and GSO-2 would require high-level financial feasibility studies. These studies may also be phased. Resources can be directed, for example, to the study of consolidations of agencies whose elected officials and constituents see potential value in restructuring, and wish to pursue action in the short term.

Important elements to be studied include a general analysis of 1) existing rates, revenues, enterprise fund balances, reserves and cash flows; 2) existing debt, liabilities and obligation, including bond issue indentures, covenants, and repayment schedules 3) several years of CAFRs, current balance sheets and projected capital and operating budgets; 4) sewer services being provided by individual agency staff 5) contracts for third party sewer services; 6) information on collection system infrastructure inventory and condition, and 7) general governance principles. These studies establish baseline financial conditions, the framework for transfer and disposition of assets and the overall financial feasibility of the consolidation transaction.



Pre-LAFCO Actions

To begin this endeavor, each interested agency will need to consider initiating coordination, necessary studies and preliminary actions leading to government structure changes at noticed public hearings. Staff will need direction from elected officials regarding timelines, expenditures, overall project direction and related matters, and an authorization to proceed with preliminary collaboration and fact finding. Affected agency Boards may wish to develop a Memorandum of Understanding formalizing their commitment to pursue the actions necessary to enable future consolidation. Some Boards have found a joint meeting of affected Boards a helpful exercise.

Agencies will need to communicate with each other, internal staff and the public through a series of workshops and meetings. During this period, specific issues will be identified that enable the agencies to develop terms and conditions for implementing a consolidation. For example, difference in pay rates, union contracts, staff training and use, targeted grants, assessment district constraints, effects on services not included in the consolidation (Tamalpais CSD for example), and other factors needing resolution will be identified. There may be a need to negotiate property tax exchange agreements.

During this period, agencies should also consult with LAFCO and with other local agencies that have successfully consolidated in the past ten years. This will enable agencies to learn what types of strategies enable smooth and successful changes in government structure. Memoranda of understanding, agency board resolutions and completion of operational and financial feasibility study/studies for consolidated agency assets, debt, reserves and rate integration models are critical.

Agencies will need to decide what a combined organizational chart should look like. For example, how many Board members a successor agency needs, employee attrition, and cross training would be discussed and determined. It should be noted that many agencies in California have found it easier to initiate reorganizations when important staff transitions occur, such as retirement or promotion.

Due Diligence/Terms and Conditions

As with any transaction, due diligence investigations will be critical and should begin early in the process. This can include document/records audits, disclosures and employee interviews as well as physical inspections. Independent third party attestation audit work will also occur (e.g. financial statement audits). Due diligence activities will typically be done under a Memorandum of Understanding within a defined timeframe.

Terms and Conditions must be agreed to by the parties to the transaction. Many of these elements will become part of the LAFCO Resolutions of Application terms and conditions and legal agreements executed by the parties (Example terms and conditions – see Appendix H). For GSO-1 and GSO-2, terms and conditions will need to be developed for the following key areas:

- **Schedules:** What is the transition closing date? What information needs to be shared and transferred in advance of the closing date? What are those dates?
- **Organizational Plan:** What are the specific policies (e.g., layoff policy) and transition plan for staffing and organizational restructuring? What does the new organization chart look like and what are specific roles in the new organization? How are differences in salaries, wage rates, benefits, pensions/retirement plans, tenure resolved? Will any key employees be retained as consultants because of the institutional knowledge? Will there be any retirement package incentives?
- **Asset Transfers:** What are the specific plans and dates for actual title transfers of equipment other tangible assets? What are the specific plans and dates for actual title transfers of facilities, real property/right-of-way/easements? When do the documents and records get transferred? What legal documents and activities are needed to complete these transfers (e.g., title searches)?
- **Financial Transfers/Obligations:** What is an equitable transition plans for sewer rates (e.g., separate rate zones versus consolidated rates) that reflect existing debt obligations, current and future capital improvement needs? How will reserves and enterprise fund balances, property tax



exchange and other fund transfers be handled? On what dates do these transfers occur? How are the acquired agency's accounts payable and receivable handled? While financial obligations are retained by the successor organizations after the closing date (e.g., cities)?

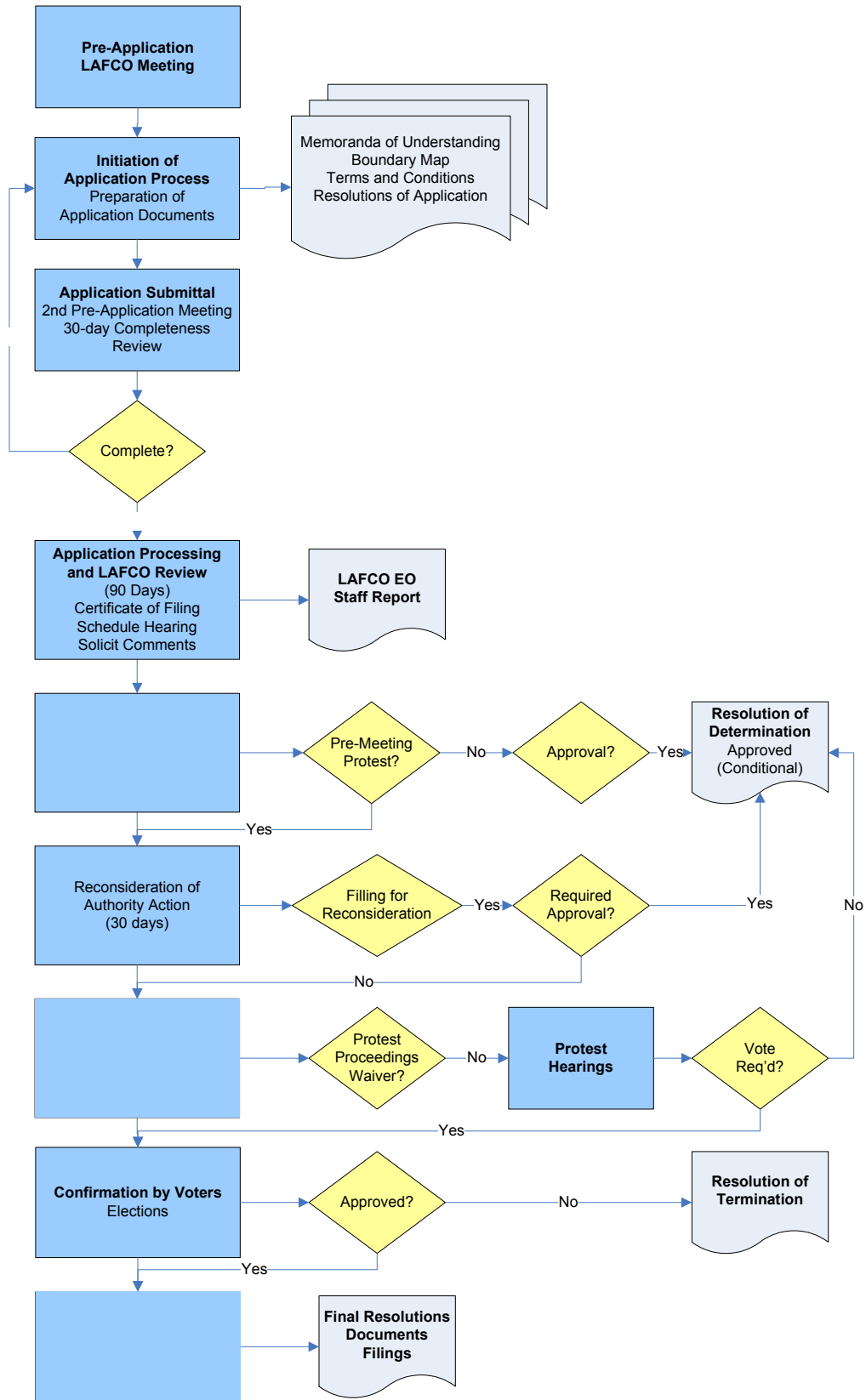
- **Risk Management/Retention of Liabilities:** Who assumes the liability for existing conditions (e.g., contamination, debt, lawsuits, sewer collection and facility design defects, property liens)? How are the indemnifications clauses structured, especially between a city and successor agency?
- **Document/Records Transfers:** What are all the specific records (electronic and hardcopy) that need to be transferred – financial/general ledger and accounting, system maps, drawings and engineering plans, maintenance records, customer/billing records, purchasing procurement records, miscellaneous legal documents? On what date will these transfers occur?
- **Contracts for Equipment, Supplies, Utilities, and Services:** What happens to existing supplier and vendor contracts for supplies, utilities, and professional services? Are they transferred, dissolved, renegotiated? Who retains existing payment obligations for pre-closing date invoices for goods delivered/work completed?
- **Regulatory Requirements** Effects on successor agencies as codified in Government Code Sections 57425-57502. Transfers of regulatory permits to successor agency (e.g., NPDES permits)? Transfer of permits for existing construction projects?



Appendix G – LAFCO Process Summary

The following excerpt from the LAFCO regulations describes the sequence of activities is required under the Marin County LAFCO Application Process. A summary flowchart of the process is illustrated in the flowchart diagram on the following page (see Figure G-1). The LAFCO process for consolidation of special districts must be initiated by one of the following processes: 1) petition of registered voters or landowners; 2) by resolution of the governing body of an affected local agency; or, 3) by LAFCO itself (GC56375 (a)). Figure G-1 envisions the usage of one of these initiation processes.

Figure G-1: LAFCO Process for Consolidation



- 1. Pre-application submittal meeting with LAFCO.** Pre-submittal meetings substantially reduce processing time and potential frustrations by facilitating preparation of application packages that are complete and consistent with legal requirements. All applicants need to contact Marin LAFCO staff to discuss issues, schedule an appointment to discuss application processes, and obtain guidance regarding the materials that should be gathered and brought to the pre-submittal meeting. LAFCO also will be able to provide input into requirements for agency initiation of a reorganization request, and supporting information it should develop for the application. Examples of items to be discussed are: Resolutions of Application, boundary maps, and terms and conditions.
- 2. Agency Initiation of Application Process.** Proceedings for consolidation of special districts must be initiated by one of the following processes: 1) petition of registered voters or landowners; 2) by resolution of the governing body of an affected local agency; or, 3) by LAFCO itself (GC56375 (a)). It is recommended that GSO 1, or iterative elements, be initiated by resolutions of affected agencies. This approach has been found to be most successful in similar cases throughout the state for many reasons including the ability of the proposing agencies to better identify and resolve issues, decide on optimum timing, and communicate with their constituents. Each agency will need to adopt a separate resolution of application.

Agencies proposing to consolidate will also need to develop a proposed boundary. It is recommended that the applicants request comments from LAFCO staff prior to finalizing the proposed boundary map.

Agencies should also work together to develop and negotiate terms and conditions for the Consolidation, which address the concerns of their constituents. Terms and conditions cannot directly regulate land use. A listing of permitted types of terms and conditions can be found in Government Code Section 56886. Terms and conditions should be adopted and included as an attachment to the Resolution of Application.

Agency-proposed terms and conditions can be considered by LAFCO as a basis for adoption of LAFCO terms and conditions. In previous Marin LAFCO deliberations, terms and conditions adopted by resolution of affected agencies have ultimately been adopted by LAFCO although LAFCO may modify them. Appendix F provides an example of terms and conditions applied to a recent Marin LAFCO approved reorganization.

- 3. Application Submittal.** After adopting Resolutions of Application, agencies will need to complete a LAFCO application and provide all material determined necessary by LAFCO staff. At this juncture, it would be advisable for agencies to schedule another pre-application meeting in order to obtain the application, and discuss processing steps. LAFCO staff will be able to provide samples of necessary application components. Proposing agencies will need to work together to prepare a joint application. Within 30 days of application receipt, LAFCO staff will decide whether the application is sufficient and complete as required by law including required additional copies and fees (§56652). The Executive Officer will then evaluate the need for CEQA review consistent with LAFCO's adopted policies and procedures, and take appropriate steps to comply with CEQA. It is likely that a Consolidation proposal will qualify for an Exemption from CEQA as long as the territory is the same and no new services are proposed.
- 4. Application Processing and LAFCO Review.** There are a number of procedural steps which LAFCO completes after an application is submitted. The Executive Officer mails notice of application receipt to each interested and subject agency, all affected counties, the county committee/s on school district reorganization, and each school superintendent whose school district overlies the area (§56658). Notice and opportunity to request a public hearing is given to agencies whose boundaries are affected (§56658).



If the application is complete, the Executive Officer will issue a Certificate of Filing and schedule a Commission hearing within the following 90 days, but no sooner than 21 days following mailed notices. If the application is incomplete, the Executive Officer will inform the applicants in writing of the additional information or supplemental documentation that is needed (§56658).

The Executive Officer will also solicit comments from affected Marin County departments, and other affected counties, agencies, entities, persons and parties requesting notice, as appropriate (§56658). LAFCO may conduct a meeting with affected residents to present the proposal and receive comments. The Executive Officer will review the application, other pertinent information and any comments received from the public or other entities.

The Executive Officer will then prepare a staff report, which contains: (1) an analysis of the proposal's consistency with pertinent LAFCO factors, such as effects on cost and adequacy of services, and policies, SOIs, general and specific plans, other pertinent plans or programs, and LAFCO's policies and procedures (§56668, §56668.3, §56668.5); (2) recommendations of appropriate Commission actions; and (3) appropriate terms and conditions (§56885-§56890). Consideration and disclosure of the effects of consolidations on successor cities or districts, including disposition of assets, is an integral part of the consolidation review process (§56668, §§57500-57502).

At least five days prior to hearing, the Executive Officer mails the staff report to each LAFCO Commissioner, each person designated in the application, each affected local agency requesting a report, each agency whose boundaries or SOI will be changed, each individual who has indicated an interest in the action, and the Executive Officer of the LAFCO of any other affected county (§56665).

- 5. LAFCO Public Hearings.** The Executive Officer sets the hearing date, and provides public notice, at least 21 days prior to the hearing date. LAFCO also makes a first-class mailing to each affected agency which contains territory or whose SOI contains territory within the proposal area including individual notice to each elected local official, each member of the governing body, and the executive officer of the agency, chief petitioner(s) and project proponents and applicants, persons requesting notice, to all registered voters and property owners, each city within three miles, any affected school districts, and the county. LAFCO may waive notice to property owners if the initiating agency has provided proof of notice. (§56123, §56155, §56157, §56658, §56661).

LAFCO considers the proposal on the noticed date and will receive oral and written testimony. LAFCO may continue a hearing for up to 70 days. At the same hearing, or within, 35 days of approving a proposal, LAFCO adopts Determinations which include terms, conditions or modifications to the proposal if the application is by resolution of each agency subject to Consolidation; initiates conducting authority processes and protest proceedings; and states the window of time (21-60 days) allowed for the collection and filing of protest. The number of days required is based on the need to expedite the process and the level of controversy or interest surrounding the proposal. The Executive Officer mails a copy of the Resolution of Determination to proponents, chief petitioners if any, and each affected local agency whose boundaries will be changed (§56882).

LAFCO may waive protest proceedings for inhabited areas entirely if a written notice of commission proceedings is provided to all registered voters and landowners within the affected territory and no opposition from registered owners or landowner within the affected territory is received prior to or during the commission meeting. The notice is required to disclose that opposition must be expressed or there will be no subsequent protest and election proceedings. Subject agencies must also consent in writing to a waiver (§56663).

If the joint applicants have adopted similar Resolutions of Application, LAFCO is required to approve or conditionally approve the Consolidation without an election unless 25% of registered voters (if 12



or more voters), or 25% of the landowners holding 25% of assessed value, submit a petition requesting confirmation by voters (§56853, §57081).

- 6. Reconsideration of LAFCO's Action.** Any person, agency or other entity may file a written request with the Executive Officer seeking reconsideration of any portion of a resolution adopted by the Commission (§56895). The request needs to state what new or different facts that could not have been presented previously justify LAFCO's reconsideration. Requests for reconsideration of a Commission resolution are to be submitted in writing and accompanied by the reconsideration request fee (§56383). Reconsideration requests need to be filed within 30 days of a resolution making determinations (§56895(b)). If the 30th day falls on a weekend or holiday, the filing deadline is extended to the next business day at 5:00 p.m.
- 7. Conducting Authority Proceedings.** After project approval, LAFCO assumes the ministerial role of conducting authority (§56029). The basic purpose of the conducting authority process is to provide a process for registered voters and property owners to formally voice their approval or disapproval. The Executive Officer is generally designated conducting authority and assumes conducting authority responsibilities on behalf of the Commission (§57000(c)) unless otherwise directed by the Commission.
 - a. Protest Processes.** If the protest proceeding is not waived, LAFCO as conducting authority holds a noticed protest hearing. The protest hearing is held in the affected territory if the proposal was initiated by LAFCO (for a district consolidation, dissolution, or merger, or the establishment of a subsidiary district).

Written protests may be filed by any affected landowner or registered voter (§57050, §57051) after notice of the hearing is published and prior to, or at, the protest hearing. During a protest hearing, LAFCO summarizes its resolution and receive oral or written protests, objections, or evidence, and accepts withdrawals of written protests if any. LAFCO may continue a protest hearing, but not more than 60 days from the date specified in the notice (§57050). Upon conclusion of the protest hearing, LAFCO may adopt a resolution ordering the reorganization without an election if insufficient protests are received; or, within thirty days after the conclusion of the hearing, make determinations on the value of the protests by comparing signatures with the voters' register in the office of the Registrar of Voters or the names of the landowners land on the most recent assessment roll (§56708 and §56710).

If there are no or insufficient signatures, LAFCO adopts a resolution making determinations and ordering the change of organization or reorganization without an election. If a majority protest is validated, LAFCO will issue a Certificate of Termination.

- b. Confirmation by Voters.** If there are sufficient signatures to establish a protest, LAFCO adopts a resolution making determinations and calling for an election. The criteria for establishing that "sufficient signatures" exist for a protest is the following:The Executive Officer, pursuant to §57000(d), informs the Board of Supervisors or City Council of the affected agency, asks them to direct elections' officials to conduct the election, and the election is held. If a majority of the votes cast are in favor, LAFCO will execute a Certificate of Completion (COC) confirming the order of the change of organization or reorganization (§56176) following completion of final action requirements (see below). LAFCO executes a Certificate of Termination of Proceedings if the majority of votes were against the proposal.
- 8. Final Actions, Filings and Notifications.** After proceedings are completed, applicants provide LAFCO with fees for the State Board of Equalization, final maps and legal descriptions; and proof of compliance with all terms and conditions of LAFCO's Resolution. Within 30 days of receipt of required materials, the Executive Officer records a COC with the County Recorder. The COC must be recorded in one year or the proceedings will be abandoned unless LAFCO grants a waiver (§57001). If no effective



date is specified in the Commission resolution, the recordation date is the effective date (§56102). A statement of boundary change or creation will be issued by the Executive Officer and filed with the State Board of Equalization and County Assessor.

Property tax resolutions, if any, are forwarded to the County Auditor to enable property tax transfer. Agencies whose boundaries are affected and affected county departments receive a copy of the COC as well as utilities and other appropriate agencies or parties (§57201, §57203, §57204). After receiving notice, agencies are required to recognize the jurisdictional change and implement any amended processes such as redistribution of property tax.



Appendix H – Example Terms and Conditions

Exhibit B

Resolution of Application to the Marin Local Agency Formation Commission to Initiate Proceedings for the Annexation of Territory

Terms and Conditions City of Belvedere Collection Operation Annexation Proposal

1. The effective date of the annexation shall be July 1, 2005 provided all terms and conditions below have been met to the satisfaction of the Agency and City by June 15, 2005.
2. Annexation shall not result in expansion of the number of District Board of Directors.
3. City shall adopt sewer rates for fiscal 2005/2006 that shall comply with the state law and shall fund all operational, capital, debt payment requirements not later than June 15, 2005. These rates shall not exceed those identified in the Bartle Wells Study attached to the LAFCO application and are to be not less that \$850 per year or more than \$900 per year at the time of adoption.
4. District to establish separate billing zone for Belvedere collection system service operations.
5. City to transfer \$750,000 fund balances associated with the City Sewer Enterprise Fund to District on July 1, 2005. All cash reserves and fund balances transferred shall be maintained for the sole benefit of the rate payers in rate zone established in Condition 4 above. City shall have no rights or responsibilities to these funds subsequent to their transfer to District.
6. City to transfer title and responsibilities for all easements, rights-of-way and fee title to District not later than June 15, 2005. City shall prepare a separate inventory of Real Property Interests to be transferred not later that sixty (60) days follow adoption of the Resolution of Application. All transfers shall be conditioned such that any fee title shall revert to the City should the District declare the use as surplus.
7. City to retain full responsibility for all liability related to collection system facilities and operations prior to the effective date of the annexation (anticipated to be July 1, 2005). The City shall indemnify, defend and hold the District harmless against all claims and damages arising from the City's sewer system facilities and operation prior to the effective date of the annexation.



8. City to transfer all records, financial data, sewer use information, plans, drawings, legal documents, electronic documents and software related to the collection system operations, operations manuals, reports and files to District not later than June 1, 2005.
9. City to transfer all infrastructure improvements, pipelines, manholes pump stations, interceptors, forced mains, appurtenances and any other facilities and improvements necessary to fully maintain and operate the collection system of the City.
10. City shall transfer to the District all rights and obligations as contained in any wastewater contracts or agreements existing at the time of the annexation after District review of these documents. Current contracts are limited to a maintenance agreement with the Central Marin Sanitation Agency and two (2) agreements for pipeline maintenance and wastewater treatment and disposal with the Agency [District].
11. City shall notify Trust Agent for the 1996 Certificates of Participation of the new billing address for annual principal and interest payments subsequent to the effective date of the annexation. Thereafter District shall be responsible for the annual principal and interest payments required by the issue covenants.
12. Agency [District] and City to share outside annexation expenses equally. Each agency will bear sole responsibility for their staff time and in-house costs for the annexation process. It is estimated that these total expenses shall not exceed \$13,000.
13. The Agency [District] and City shall negotiate and execute a full settlement to all billing claims prior to the completion of the annexation proceedings.

Appendix I – Glossary of Terms/Acronyms

1. **CCTV** – Closed Circuit Television (used for inspecting sewer piping)
2. **CSDA** – California Special Districts Association
3. **EDU** – Equivalent Dwelling Unit (refers to number of sewer agency customers/users)
4. **FTE** – Full Time Equivalents (refers to agency full time/part time staffing levels)
5. **GIS** – Geographic Information System
6. **JPA** – Joint Powers Agreement or Joint Powers Agency
7. **LAFCO** – Local Agency Formation Commission
8. **MGD** – Million Gallons per Day
9. **RBSD** – Richardson Bay Sanitary District
10. **SASM** – Sewerage Agency of Southern Marin
11. **SCADA** – Supervisory Control and Data Acquisition (Refers to pump station and treatment plant control instrumentation)
12. **SMCSD** – Sausalito Marin City Sanitary District
13. **SOI** – Sphere of Influence
14. **TCSD** – Tamalpais Community Services District
15. **WWTP** – Wastewater Treatment Plant



Appendix J –Agency-Specific Input on DRAFT Report

Appendix J SASM Agency Site Specific Inputs After Review of Draft Report

Incremental SSO/SSMP Costs:	Miles of Sewer Pipe	PB Consult SSMP Plans	Agency Estimate SSMP Plans	PB Consult O&M	PB Consult Incremental O&M	Agency Baseline O&M	Agency Estimate Incremental O&M	PB Consult Baseline Capital	PB Consult Incremental Capital	Agency Baseline Capital	Agency Estimate Incremental Capital
Sewerage Agency of Southern Marin	5	\$ 20,000	\$ 10,000	\$ 2,080,451	\$ 14,256	\$ 2,080,451	\$ -	\$ 300,000	\$ 52,800	\$ 300,000	\$ 20,000
City of Mill Valley	65	\$ 75,000	\$ 150,000	\$ 693,000	\$ 185,328	\$ 693,000	\$ 300,000	\$ 530,000	\$ 686,400	\$ 530,000	\$ 270,000
Tamalpais	27	\$ 75,000	\$ 25,000	\$ 442,000	\$ 76,982	\$ 618,000	\$ 50,000	\$ 100,000	\$ 476,150	\$ 100,000	\$ 400,000
Richardson Bay Sanitary District	40	\$ 75,000	\$ 10,000	\$ 1,023,170	\$ 114,048	\$ 1,023,170	\$ 5,000	\$ 464,000	\$ 316,800	\$ 464,000	\$ 5,000
Alto Sanitary District	5	\$ 20,000	\$ 20,000	\$ 34,140	\$ 14,256	\$ 75,260	\$ 5,000	\$ 125,000	\$ -	\$ 75,260	\$ 5,000
Almonte Sanitary District	6	\$ 20,000	\$ 5,000	\$ 141,428	\$ 17,107	\$ 117,230	\$ 5,000	\$ 40,000	\$ 47,520	\$ 35,000	\$ 5,000
Homestead Valley Sanitary District	10	\$ 20,000	\$ 20,000	\$ 82,650	\$ 28,512	\$ 101,560	\$ 7,000	\$ 125,000	\$ -	\$ 101,560	\$ 7,000
Totals:	158	\$ 305,000	\$ 240,000	\$ 4,496,839	\$ 450,489	\$ 4,708,671	\$ 372,000	\$ 1,684,000	\$ 1,579,670	\$ 1,605,820	\$ 712,000

Note: "Red" numbers were provided by Agencies as their view of appropriate "site specific" adjustments. No change indicates no input.

Collaboration in Staffing all agencies:

Consolidation of Staffing through attrition and retirement:

Reduction of staff from 43 to 34. Includes reduction of 1.5 GM positions (see page 78) also page 75

SASM: Best Management practices/benchmarking:

7.5 to 5.0 FTE (see page 80)

Pump Station Replacement (number and rate): Greenwood Beach (9 small stations) \$ 250,000 per year

Collection System Component	Units	PB Consult Replacement Cost	PB Consult Replacement Rate	PB Consult Projected Increase	Agency Estimate Projected Increase
Gravity Sewers	221 miles	\$200/ft.	3 miles/year	\$3.20	
Pressurized Mains	21	\$500/ft.	0.28 miles/yr	\$0.70	
Pump Stations	69	\$250K/PS	2.75/year	\$0.70	
				\$4.60	



Appendix J –Supplemental Infrastructure Information after Draft Report

Name of Agency	Miles of Sewer	Sewer Age (Range)	# of Pump Stations	PS Age (Range)	Baseline OPEX Collection	Frequency of Historic Cleaning and Inspections (years)	FY 00/01 to FY 04/05 (Last 3-5 years)			FY 05/06 to FY09/10 (Next 3-5 years)		
							Average CAPEX (Total)	Average CAPEX Pump Station R&R	Average CAPEX Sewer R&R	Projected CAPEX (Total)	Projected CAPEX Pump Station R&R	Projected CAPEX Sewer R&R
SMCSD Agencies												
Sausalito-Marín City	9	5-35	7	5-25	\$ 200,000	3	\$ 548,565	\$ 58,108	\$ 432,350	\$ 1,625,419	\$ 323,314	\$ 58,534
City of Sausalito	27.5	5-75	3	5-30	\$ 400,000	3	\$ 400,000	\$ 25,000	\$ 375,000	\$ 562,000	\$ 25,000	\$ 537,000
TCSD (SMCSD) (Except Kay Park)	26	5-40	2	5-30	\$ 439,270	Blockages	\$ 330,292	\$ 310,292	\$ 20,000	\$ 347,588	\$ 50,000	\$ 150,000
Subtotal SMCSD	62.5		12	0	\$ 1,039,270		\$ 1,278,857	\$ 393,400	\$ 827,350	\$ 2,535,007	\$ 398,314	\$ 745,534
SASM Agencies												
SASM	14.5	3-75	6	9-33	\$ 443,200	3	\$ 19,700	\$ 5,600	\$ 74,300	\$ 300,000	\$ 25,000	\$ 20,000
Alto Sanitary District	5	30-60	0	N/A	\$ 106,340	Blockages	\$ 75,000	\$ -	\$ 75,000	\$ 125,000	\$ -	\$ 125,000
Almonte Sanitary District	6	30-40	0	N/A	\$ 253,211	Blockages	\$ 35,000	\$ -	\$ 35,000	\$ 40,000	\$ -	\$ 40,000
Homestead Valley Sanitary District	10	40-75	0	N/A	\$ 233,650	Blockages	\$ 125,000	\$ -	\$ 125,000	\$ 125,000	\$ -	\$ 125,000
Richardson Bay Sanitary District	44	35-40	24	5-30	\$ 693,000	3	\$ 349,350	\$ 162,150	\$ 187,200	\$ 464,000	\$ 204,000	\$ 210,000
City of Mill Valley	66	0-100	5	20-50	\$ 537,000	Every 3 mos. to never	\$ 450,000	\$ 10,000	\$ 460,000	\$ 810,000	\$ 10,000	\$ 800,000
TCSD (SASM) (Kay Park)	2	30-60	0		\$ 23,499	5	\$ 620,000	\$ 400,000			\$ -	\$ 300,000
Subtotal SASM	147.5		35	0	\$ 1,846,700		\$ 1,674,050	\$ 577,750	\$ 956,500	\$ 1,864,000	\$ 239,000	\$ 1,620,000
SD#5 Agencies												
Sanitary District #5 Tiburon	20	20-40	9	5-30	\$ 364,000	?	\$ 447,500	\$100,500	\$100,000	\$ 516,000	\$32,000	\$60,700
City of Belvedere	12	30-60	13	5-30	\$ 182,000	?	\$ 835,500	\$35,000	\$0	\$ 195,600	\$ 10,600	\$ 35,000
Subtotal SD#5	32		22		\$ 546,000		\$ 1,283,000	\$ 135,500	\$ 100,000	\$ 711,600	\$ 42,600	\$ 95,700
Total	242		69		\$ 3,431,971		\$ 4,235,907	\$ 1,106,650	\$ 1,883,850	\$ 5,110,607	\$ 679,914	\$ 2,461,234



Appendix K – Financial Model

