

BAY AREA WATER SUPPLY AND CONSERVATION AGENCY
BOARD OF DIRECTORS MEETING
Foster City Community Building – 1000 E. Hillsdale Blvd., Foster City
Wind Room
(Directions on Page 2)

Thursday, January 19, 2006
7:00 p.m.

AGENDA

- 1. Call to Order/Roll Call/Salute to Flag** (Beecham)
- 2. Special Order of Business – Election of Officers** (*Attachment*) (Beecham)
 - Election of Chair
 - Election of Vice-Chair

(The term of the new Chair and Vice-Chair commence at the end of the meeting at which they are elected)
- 3. Comments by the Chair** (Beecham)
- 4. Board Policy Committee Report** (*Attachment*) (O’Mahony)
- 5. General Manager’s Reports** (Jensen)
 - A. Chloramine – Status of responses from the Environmental Protection PA and State Department of Health Services
 - B. Water System Improvement Program (WSIP)
 - C. SFPUC Financial Plan (*Attachment*)
 - D. Economic impacts of water supply reduction during drought
 - E. Water Supply Alternatives
- 6. SFPUC Report** (Leal)
- 7. Public Comments** (Beecham)

Members of the public may address the Board on any issues not listed on the agenda that are within the purview of the Agency. Comments on matters that are listed on the agenda may be made at the time the Board is considering each item. Each speaker is allowed a maximum of three (3) minutes.
- 8. Consent Calendar** (Beecham)
 - A. Approve Minutes of the November 17th 2005 Meeting (*Attachment*)
 - B. Receive and File Monthly Budget Status Report (*Attachment*)

9. Action Calendar

- A. Approve and authorize Mid-year 2005-06 Progress, Budget Review and Recommended Adjustments (*Attachment*) (Jensen)

Board Policy Committee recommends board approval

- B. Water Conservation Programs (Sandkulla)

1. Authorize agreement with GardenSoft to Develop the WaterWise Gardening CD-ROM for BAWSCA Service Area (*Attachment*)

Board Policy Committee recommends board approval

2. Authorize agreements to implement the Pilot CoolingTower Conductivity Rebate Program (*Attachment*)

Board Policy Committee recommends board approval

- C. Approval of additional signature authority for BAWSCA and BAWUA bank accounts (*Attachment*) (Jensen)

By one roll call vote, a) rescind Resolution No. 2004-02 that specifies what individuals are authorized to sign checks; and b) adopt a replacement Resolution No 2006-01 that adds the authority for the BAWSCA Senior Administrative Analyst to sign checks in the absence of the general manager, and requires that for checks needing two signatures, at least one shall be that of a director.

Board Policy Committee recommends board approval

10. Directors' Discussion: Comments, Questions and Agenda Requests (Beecham)

11. Date, Time and Location of Future Meetings (Beecham)
(See attached schedule of meetings)

12. Adjourn to next meeting scheduled for March 16, 2006 at 7pm (Beecham)

Upon request, the Bay Area Water Supply and Conservation Agency will provide for written agenda materials in appropriate alternative formats, or disability-related modification or accommodation, including auxiliary aids or services, to enable individuals with disabilities to participate in public meetings. Please send a written request, including your name, mailing address, phone number and brief description of the requested materials and the preferred alternative format or auxiliary aid or service at least two (2) days before the meeting. Requests should be sent to: **Bay Area Water Supply & Conservation Agency, 155 Bovet Road, Suite 302, San Mateo, CA 94402** or by e-mail at bawasca@bawasca.org

Directions to Foster City Community Bldg. – 1000 E. Hillsdale Blvd., Foster City

From Hwy. 101, take the Hillsdale Ave. exit East. Turn Right into the parking lot just after the intersection with Shell Blvd. The Community Bldg. entrance is separate from the Library entrance and is marked by signage. The Wind Room will be at the top of the stairs on the right, across from the reception station (there is also an elevator).

From the East Bay, take Hwy. 92 West, exiting at Foster City Blvd., and going South on Foster City Blvd. to Hillsdale. Turn Right (West) onto Hillsdale and proceed to Shell Blvd., making a U-turn to be able to pull into parking lot on SE corner of Hillsdale and Shell. See underlined sentence of first paragraph above for remainder of directions.

BAY AREA WATER SUPPLY AND CONSERVATION AGENCY

BOARD OF DIRECTORS MEETING

Agenda Item Title: **Election of Officers for Calendar Year 2006**

Summary:

The State Water Code (Division 31, Section 81401) requires the Board to elect a chair and vice chair each year at the January meeting. The term of officers of the Board commences at the close of the meeting at which they are elected.

Discussion:

The suggested process for electing the chair is as follows:

1. Call for nominations for the position of chairperson.
2. Call for a motion to close nominations once no further names are offered.
3. If there is only one nominee, call for the vote.
4. If there is more than one nominee, then proceeding alphabetically:
 - a. Ask each nominee to give a brief statement on his/her qualifications and interest in the position.
 - b. Ask if other directors would like to comment on behalf of the nominee.
 - c. Call for a vote of those in favor of each nominee, by a show of hands.

Following the election of the chair, proceed to the election of vice chair using the same process.

The Rules of the Board specify that the terms of the new chair and vice chair commence at the close of the meeting at which they are elected.

BAWSCA

Bay Area Water Supply & Conservation Agency

155 Bovet Road, Suite 302
San Mateo, California 94402
(650) 349-3000 tel. (650) 349-8395 fax

MEMORANDUM

TO: BAWSCA Board Members Agenda Item # 4

FROM: Arthur R. Jensen, General Manager

DATE: January 19, 2005

SUBJECT: Summary of Board Policy Committee meeting held December 14, 2005

At the Board Policy Committee meeting on October 12th, the committee discussed the following topics and took the following actions:

1. Reports:

Chloramines: In response to North Coast County Water District's letter to BAWSCA and SFPUC General Manager, Susan Leal, BAWSCA wrote a letter to the California Department of Health Services (CDHS), Environmental Protection Agency (EPA), and American Water Works Research Foundation (AWWARF) requesting information on studies of human health effects of chloramine as a drinking water disinfectant. To date, AWWARF has responded by providing a book that has information on studies done in 1999 and earlier. Director Beecham restated that BAWSCA does not have the expertise to address the concerns on chloramines.

Study of SFPUC project overhead costs: BAWSCA's studies of SFPUC's capital project overhead costs by Hilton Farnkopf and Hobson is being finalized. The draft report did not point to issues of significant concern. A final report is being prepared.

Water System Improvement Program (WSIP): The Commission adopted the WSIP at its meeting on November 29th. BAWSCA supports SFPUC in proceeding with implementation of the program, and resolving the issues of concerns, which include projects scopes definitions and the achievability of the schedule by the existing organization. Mr. Jensen stated that the success of the WSIP is contingent upon the implementation of Parsons' recommendations for project control, staffing, organization and management, and clarification of authority and accountability. The revised schedule is aggressive and the current San Francisco leadership will likely change before getting to the most challenging period of the WSIP. 2009 marks the end of Susan Leal's 5-year contract as SFPUC's General Manager, and 2010 marks the end of Mayor Newsom's second term. The Parsons report cites numerous obstacles that could derail the program from the schedule, and a plan to address each issue should be created. In a statement delivered at the SFPUC meeting of November 29th, Director Beecham stated the importance of issues being addressed effectively as implementation gets underway so the program can be managed. The commissioners expressed the same concerns with staffing and directed Mr. Irons to provide a report on staff capabilities. No such report was provided at the December 13th meeting.

BAWSCA will monitor obstacles and concerns to assure that they are addressed, and will provide input to project schedule reviews by the California Seismic Safety Commission and Department of Health Services.

Mr. Jensen reported that SFPUC's analysis of the economic impacts of water shortages by Public Financial Management (PFM) was presented to the commission at its meeting on December 13th under the General Manager's report. Mr. Jensen stated that more work remains to be done on the analysis. The report should have been on the agenda for public comments from those who will be significantly impacted, and should have appropriate public policy process. Dr. William Wade will further review the report.

BAWSCA will continue to pursue the work needed on the economic impacts analysis, and will contribute to and monitor progress in WSIP project developments and PEIR/EIR's, implementation of Parsons' organizational recommendations, and Mayor Newsom's quarterly reviews, to ensure attention is given to the customers issues and concerns.

The committee discussed BAWSCA's efforts to work with San Francisco towards a successful implementation of the WSIP.

SFPUC Financing Plan: Mr. Jensen reported that San Francisco's current financial plan reallocates San Francisco groundwater and regional recycled water development, puts San Francisco as the issuer of all bonds, and increases wholesale water rates at approximately 14% higher than previous estimates. Some committee members felt that the financial plan was complicated and requested a way to better understand the document. BAWSCA's financial advisor is currently reviewing the document and will provide a better understanding of the plan's components.

Water Supply Workshop: For purposes of the PEIR, San Francisco held a water supply workshop with BAWSCA member agencies on December 5th. The purpose of the workshop was to receive input from the BAWSCA agencies on potential water supply projects in their local service areas that could be used to develop a water supply alternative for the PEIR that relies solely on a combination of aggressive conservation, water recycling, and naturally renewable groundwater to meet the projected 2030 water purchase requests. Prior to the workshop, member agencies were surveyed to find out what project may be available within each agency's individual service area that could provide a water supply benefit. Preliminary results were presented at the workshop for review and comment. As this analysis continues development, the regional benefits of what local resources or projects would need to be identified and evaluated, as well as the potential contractual issues, local agency issues, and BAWSCA issues. Who benefits and who pays, who decides, and who implements are important questions that would need to be answered.

2. Action Calendar

Mid-Year Budget Review: Mr. Jensen reported that results achieved are as scheduled and the balance of the fiscal year focuses on results critical to the success of the organization. The committee received a recommendation to authorize the general manager to allocate \$75,000 from the contingency budget to fund unanticipated activities that require outside expertise for the balance of FY 2005-06. The activities include \$15,000 for Dr. Ibbs' continued monitoring of WSIP schedules and budgets, \$30,000 for initial professional water system modeling investigations, and \$30,000 for evaluations of Master Contract auditing issues and procedures. The committee voted unanimously to recommend approval of the proposed board action.

BAWSCA will continue to monitor the WSIP, and support program success and document progress. Technical and policy input to the PEIR and project permitting process will be coordinated with San Francisco. Work on the development of a new master contract will continue as well as efforts to ensure communities are prepared for long-term water outages.

Garden Soft – WaterWise Gardening CD-ROM: Nicole Sandkulla reported on the conservation opportunity targeted at efficient landscape water use and presented the Garden Soft CD-ROM tool that may be developed and utilized to promote water efficient gardens. It was recommended that an agreement be executed with GardenSoft to develop a WaterWise Gardening CD-Rom for an amount not to exceed \$15,000 and to authorize BAWSCA to purchase the CD-Rom at a bulk rate for resale at cost to interested BAWSCA agencies. The committee was enthusiastic about the program and provided additional ideas. The committee voted unanimously to recommend board approval of the proposed actions.

Cooling Tower Conductivity Rebate Program: Nicole Sandkulla reported on the opportunity to identify the potential water savings on cooling towers through the automated monitoring of water flow and chemistry that controls the volume of water discharged from the cooling tower. Santa Clara Valley Water District (SCVWD) is initiating a pilot project that would offer rebates for the installation of the control devices, and has offered to partner with BAWSCA to expand the program into the service areas of interested BAWSCA agencies. The regional program will be structured with a Memorandum of Understanding (MOU) between SCVWD and BAWSCA, with SCVWD being the lead agency. The SFPUC is also interested in being a third partner in this project. For the BAWSCA agencies, the program will be subscription based, and program costs will be paid for by participating agencies. It was recommended that the BAWSCA board authorize the general manager to execute an agreement with SCVWD to implement a cooling tower conductivity rebate program that would run in FY 2005-06 and FY 2006-07, and to offer the participation in the program to BAWSCA member agencies. The committee voted unanimously to recommend board approval of the proposed action.

Approval of Signature Authority: Resolution # 2004-02 adopted by the BAWSCA board at its meeting on February 19, 2004 specifies what individuals are authorized to sign checks. The committee was asked to support the recommendation for the BAWSCA board to rescind Resolution # 2004-02, and adopt Resolution #2006-01 that adds the authority for the BAWSCA senior administrative analyst to sign checks in the absence of the general manager, and requires that for checks needing two signatures, at least one shall be that of a director. Resolution #2006-01 would replace Resolution #2004-02. The committee voted unanimously to recommend board approval of the proposed action.

AB 1234 Requirements - Local Government Ethics Bill: Art reported that recently adopted legislation AB1234 requires all agencies that provide either compensation or expense reimbursement to directors must also provide them with two hours of training in ethical matters at least once every two years. Many of BAWSCA's directors are elected officials who will receive training through their appointing authority, however, a few are citizens appointed by the agency or are individuals who have left their elected office during their term on the BAWSCA board. BAWSCA is responsible for assuring that the requirement is fulfilled.

AB 1234 – Directors' Expense Reimbursement: A second aspect of AB 1234 provides special districts with explicit authority to reimburse members of their boards of directors for expenses incurred on district businesses, and establish a uniform limit on activities that qualify for such reimbursement as well as a uniform procedure for the documentation of claims for reimbursement. The item was presented to the committee for consid-

eration as to whether the general manager should prepare and present to the board a draft of a reimbursement policy and procedure. The committee voted that a draft policy be put together by the general manager for committee discussion at its meeting in February.

3. **Adjournment:** The committee adjourned at 3:10pm. The next meeting is scheduled for February 8, 2005, at 1pm in the first floor conference room of the BAWSCA office building, 155 Bovet Road, San Mateo.



MEMORANDUM

To: Art Jensen, BAWSCA

From: David Brodsky, Kelling Northcross & Nobriga

A handwritten signature in black ink, appearing to read 'David Brodsky', is written over the 'From:' line.

Date: January 12, 2006

Subject: San Francisco Water System Financing Plan

The San Francisco Public Utilities Commission is preparing for the issuance of up to \$525 million in revenue bonds towards financing the \$4.3 billion water system capital improvement program (WSIP), as well as up to \$125 million to refund a portion of their outstanding debt from prior bond issues. BAWSCA has asked Kelling, Northcross & Nobriga to conduct a general assessment of the SFPUC's financing plan that was included in the WSIP approved by the SFPUC on November 29, 2005 and any associated documents. We have elected to provide you with our comments in an easy to understand question and answer format.

1. ***What are the major cost components of the \$4.3 billion WSIP? What is the split among wholesale (BAWSCA) agencies and S.F. ratepayers?***

The \$4.3 billion estimate of cost includes \$3.8 billion in capital costs and roughly \$.6 billion in "financing costs". The capital costs include \$400 million for in-city projects paid exclusively by San Francisco rate payers, and \$3.4 billion in regional improvements, which will be shared by San Francisco and the wholesale water customers. About two-thirds of the regional capital costs plus the regional share of associated financing costs will be borne by the wholesale ratepayers. This is about \$2.6 billion.

2. ***What are the "financing costs" included in the WSIP? How was the SFPUC able to reduce its financing costs from the \$753M reported last March to the \$552M stated in the financing plan approved in November when the size of the WSIP remained virtually unchanged?***

The "financing costs" represent uses of bond proceeds for purposes other than construction. The largest share is for pre-funded interest during construction (also called "capitalized interest") at \$400 million. The balance of \$152 million consists of debt service reserve funds and reserve surety premiums, bond insurance, and various fees. This of course only represents part of the "financing cost," since it excludes underwriters' discount (the cost of underwriting and distributing bonds, which is effectively financed out of the interest rates) and interest over the life of the bonds.

The major source of the reduction comes from reducing the amount allocated to debt service reserve funds. This reflects a correction of a mistake in the prior estimate, and an assumption of how the reserve requirement will be met (assuming that additional insurance will be purchased, thereby reducing the amount of bond proceeds required). Also, changes in interest rate assumptions have reduced the amount of estimated capitalized interest.

A reduction in the stated “financing costs” does not necessarily result in a reduction in the cost of financing. For example, if you eliminated the \$21 million budgeted for bond insurance, the net cost of interest would increase by a significantly greater amount, due to the disproportionately higher interest rate on uninsured bonds. While the presentation of “financing costs” as part of the WSIP will help reconcile the cost of the capital program to the amount of bonds issued, we find it distracting, and would prefer that the improvement program focused exclusively on capital improvement costs. The recently reported reductions of \$200 million in “financing costs” will have minimal if any impact on actual water rates, and are not worth discussing, as they primarily effect the timing of debt service payments, and not the present value cost of capital.

3. How is the SFPUC financing its WSIP program?

Up to this point, the SFPUC has been issuing commercial paper to finance the WSIP. This instrument bears a variable interest rate, and can be issued as needed to meet construction payments.

The upcoming bond issue will refund all outstanding commercial paper, with 30-year fixed rate revenue bonds, as well as fund additional construction projected over the next 18 months. This seems like an appropriate funding horizon. The total amount of “new money” bonds being authorized, designated as Series A, is up to \$525 million. The SFPUC appears to be locking in the relatively low current interest rates. Going forward, they are expected to use a variety of financing instruments, including commercial paper for construction, and both fixed-rate and variable-rate bonds for permanent financing. Their long-range plan calls for 25% of the bonds issued to be of the variable variety, which is consistent with other large capital programs.

The SFPUC has also sought authorization to issue up to \$125 million in refunding bonds, designated as Series B. Much like refinancing an existing home loan, these bonds would retire outstanding revenue bonds for debt service savings.

4. What is the projected wholesale water rate to BAWSCA member agencies over the course of the WSIP? What is the expected impact on monthly water bills?

The wholesale rate forecast included in the SFPUC financial plan (Appendix F of the WSIP) projects wholesale rates increasing from the current rate of \$444 per acre foot in 2005 to roughly \$1,500 per acre foot in 2015. According to BAWSCA’s preliminary

analysis, the monthly water bill, based on 14 units per month for the average residential customer in the BAWSCA service area, will increase from approximately \$41 to \$93 dollars in 2015. These increases reflect the manner in which rates are determined by the existing master water sales contract, which expires in 2009.

Under the existing master water sales contract, wholesale payments are related to SF's bond payments, but not directly. The wholesale water rate recovers capital costs through a complicated formula, which charges a rate of return based on the value of assets as well as charges for depreciation. The "rate of return" is driven mostly by SF's borrowing costs, although there are other factors that make the rate a little higher than the bond rate. In many cases, the wholesale ratepayer will be paying for capital improvements long after the associated bonds are retired, because the capital formula reflects asset life rather than the length of the borrowing that financed it.

Over the long-run the current method is only modestly more expensive to the wholesale ratepayer on a current dollar basis than if they paid their pro-rata share of debt. But the timing of payments is very different, and may place significant strain on the SFPUC once the capital program is completed.

5. *What are your impressions of the appropriateness of the financing plan?*

We find the proposed financing plan to be reasonable. We don't feel compelled to second guess the many small decisions that must be made in designing a plan of finance, including the mix of variable and fixed rate debt, the mix of commercial paper and permanent financing, and the timing of individual bond issues.

The assumptions included in the plan appear reasonable as well. We note that two-years of interest is being capitalized out of bond proceeds. While the SFPUC has struggled to complete its projects on schedule, the local San Francisco ratepayer takes the most immediate risk of inadequately funded capitalized interest.

Furthermore, we have found the SFPUC's financing staff to be highly thoughtful and competent, and we have a high regard for their outside financing team. Having said that, the SFPUC recently lost a key finance employee and will need to find a suitable replacement.

6. *How is the SFPUC perceived by the bond market?*

As this will be the SFPUC's first entry into the long-term bond market for a while, this will be easier to answer afterwards. The essential nature of water service and the strength of the service area economy should ensure a good appetite for this paper from both bond insurers and investors.

We have noted before that the ratings on the water system, at A1 Moody's and A+ Standard & Poor's, are lower than one would expect from a major water system of this size and underlying economic strength. The lower ratings will result in moderately increased costs to all ratepayers. The system's relatively low ratings reflect the size of the capital program, the historic deferral of capital investment and the restraints on rate increases on S.F. ratepayers imposed by voter initiative. While the rate freeze has been lifted, other factors raise credit concerns: a huge capital program combined with very weak debt service coverage (that is the amount of revenues they collect in excess of operations and debt service for use in pay-as-you-go capital).

We also see the potential for credit concerns arising from the structure of the existing master water sales contract and the pressure it will place on San Francisco ratepayers beginning in 2019, when wholesale rates begin to decline and S.F. retail rates escalate. We don't believe the market has yet recognized that risk, so we doubt it will affect ratings or interest rates in the short term.

But despite some credit pressures, we believe that the SFPUC should continue to have sufficient access to the capital markets at reasonable interest rates throughout the capital program.

7. The initial bond authorization is for up to \$1.6 billion yet the total amount of funds needed is \$4.3billion. How will the SFPUC finance the remainder? Would there be any advantage in BAWSCA/RFA issuing the debt rather than the SFPUC?

The upcoming bonds are being issued under the authorization approved by S.F. voters as Proposition A in November 2002, authorizing up to \$1.6B in revenue bonds. Under a companion measure (Proposition C), San Francisco can now issue revenue bonds without voter approval. Therefore, there are no current legal limits on the amount of bonds that San Francisco can now issue.

Whether the additional bonds should be issued by San Francisco or by another entity is another question. We provided some analysis of this question in our major report in September 2004. From a cost of funds perspective, bonds issued by BAWSCA/RFA might be a little less expensive, assuming that BAWSCA/RFA could obtain the higher AA rating that the underlying credit characteristics of the service area would merit.

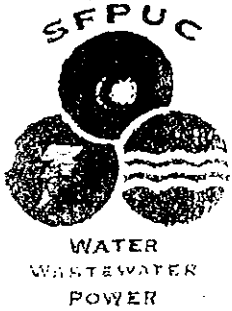
But the larger question is the method by which the wholesale customers pay for their share of the capital cost. Our prior report focused on the differences between the current "utility method" under the master contract and the "cash method," where wholesale customers simply pay their pro-rata share of debt service. While in many ways the current method serves the wholesale customers well by allowing them to stretch their repayment over a longer term, it will create increasing pressures on San Francisco's retail ratepayers. This structural risk in the current rate-setting system is known to the SFPUC and its financial advisors.

We recommend that consideration of the long-term business relationship between the SFPUC and the wholesale customers, particularly in light of the master water sales contract's pending expiration, take precedence. The plan of finance, including who issues bonds, should be designed to optimally serve that relationship.

8. *What are the costs associated with project delay?*

Currently, construction costs are escalating at a rate that is much higher than the value of money. Therefore, delay is costing real dollars, which will translate into higher water rates. Based on input from your other consultants, it seems reasonable to project construction cost inflation of 6% or more over the long-term. At this rate, each year of delay on the \$3.8 billion capital program would add another \$230 million in costs.

Project delays and cost increases can have broader impacts on stakeholders. Ratepayers and voters may lose confidence in the system and be more reluctant to support the rate increases required to complete the program. Delay reflects poorly on management, which can shake the confidence of rating agencies and bond investors. While these costs would be difficult to predict, they would be very real.



SAN FRANCISCO PUBLIC UTILITIES COMMISSION

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November 23, 2005

To: Richard Sklar, President
Ann Moller Caen, Vice President
Dennis Normandy, Commissioner
Adam Warbach, Commissioner
Ryan Brooks, Commissioner

Thru: Susan Leal, General Manager

From: Scott MacDonald, Acting Assistant General Manager

Re: Financing of the Water System Improvement Program

GAVIN NEWSOM
MAYOR

RICHARD SKLAR
PRESIDENT

ANN MOLLER CAEN
VICE PRESIDENT

E. DENNIS NORMANDY
ADAM WARBACH
RYAN L. BROOKS

SUSAN LEAL
GENERAL MANAGER

Attached for your information is a document outlining the financing of the Water System Improvement Program. Financial projections and assumptions are used to determine the total use of bond proceeds, and, therefore, the total par amount of bonds to be issued. The financial projections and the underlying assumptions used to estimate current WSIP financing remain consistent with projections previously presented to the Commission and reviewed by the City Controller and the PUC's consultant, R.W. Beck.

March 2005

In March 2005, the total WSIP project budget was estimated to cost \$3,591,488,000. Financing costs were estimated to be \$753,136,000 or 21% of the total WSIP.

April 2005

At the April 26, 2005 Commission meeting, the General Manager discussed financing of the WSIP and outlined refinements that would lower the total bond issuance and the associated financing "costs." The refinements discussed at the April meeting include:

- Issuing a mix of fixed rate bonds (75%) and variable rate bonds (25%) instead of 100% fixed rate bonds. As a result, the assumed interest rate is reduced to 5% from 5.5%.
- Substituting 40% of cash reserve with a surety policy.

Based upon this discussion, financing assumptions were refined.

Financing of the WSIP
November 23, 2005

October 2005

In October 2005, Parsons/CH2MHill presented their assessment with a new total estimated WSIP project budget of \$3,758,592,000. Based upon the discussion at the April 2005 Commission, financing assumptions were refined and reduced financing costs to \$633,699,000 or 17% of the total WSIP.

November 2005

Current total project costs of the WSIP to be bond financed are estimated to be \$3,739,968,000. This total is equal to spending to date attributable to Proposition A authority plus projected spending. This total does not include \$20,064,530 spending on the WSIP that was funded with other sources.

Again, further refinements to the financing assumptions are reflected in the attached document. The significant refinement is to the calculation of debt service reserve. In previous financing estimates, the debt service calculation was equal to 100% maximum annual debt service. While consistent with conventions of typical utility revenue bonds, this calculation was not consistent with the bond indenture requirement of 50% maximum annual debt service. This change reduces the bond reserve fund significantly.

Based upon these further refinements, financing costs are now estimated to be \$552,419,000 or 15% of the total WSIP.

Refinements due to changes in projections and the market will be continually monitored throughout the period that bonds are issued to finance the WSIP.

Summary of Significant Changes to Financing

	March	October	November
Bond Mix and Interest Rate	100% fixed at 5.5%	75% fixed at 5.5% 25% variable at 3.75% Blended rate of 5%	75% fixed at 5.5% 25% variable at 3.75% Blended rate of 5%
Debt Service Requirement	Fully funded bond reserve fund Calculated at 100% of annual maximum annual debt service.	60% bond reserve fund 40% surety policy Calculated at 100% of annual maximum annual debt service.	60% bond reserve fund 40% surety policy Consistent with indenture, calculated at 50% of annual maximum annual debt service
Total WSIP Project Budget (\$000)	\$3,591,488	\$3,758,592	\$3,759,968
Financing	\$753,136 (~21%)	\$633,699 (~17%)	\$552,419 (~15%)

November 22, 2005

Financing of the Water System Improvement Program

Full implementation of the WSIP is projected to require approximately \$4.3 billion to be raised from the issuance of tax-exempt debt. The impact on rates and debt service are summarized below. Underlying assumptions and pro forma financial projections follow.

The primary drivers of the financial projections are WSIP project costs and schedules. Secondary drivers include:

- Commission adopted financial policies;
- Assumption that the terms of the existing Master Water Sales Contract remain in place throughout the projection period; and
- Assumption that SFPUC finances the entire WSIP.

Actual results may be materially different from projected results.

The \$4.3 billion in projected bond issuance includes project construction and delivery costs and other financing-related amounts, as summarized in the table below.

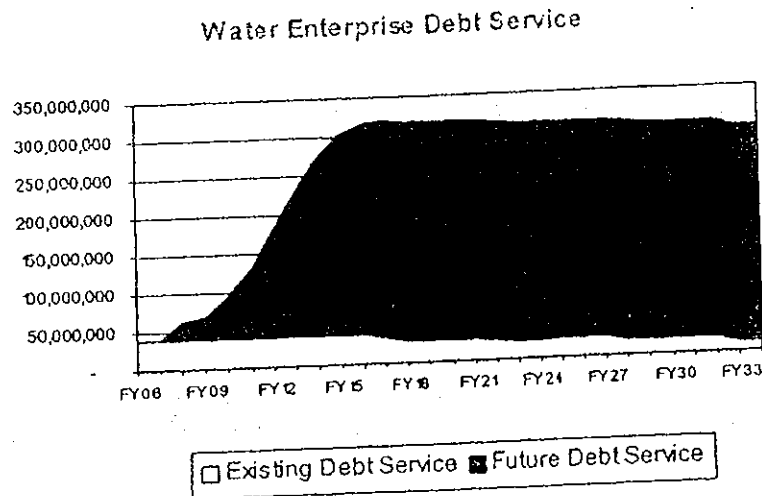
Application of Aggregate Bond Proceeds (\$000s)	
Project Construction Fund ¹	<u>\$3,739,968</u>
Financing-Related Amounts:	
Capitalized Interest Fund	\$400,378
Bond Reserve Fund	86,435
Surety Policy Premium	1,441
Bond Insurance Premium	21,241
Costs of Issuance	<u>42,924</u>
Subtotal	<u>552,419</u>
Total Par Amount of Bonds	<u>\$4,292,387</u>

The financial planning model assumes that bonds will be issued annually, in a pattern roughly mirroring the project spending projections. In practice, the precise timing and size of the issuance of additional bonds will depend on the actual pace of project spending and general municipal bond market conditions.

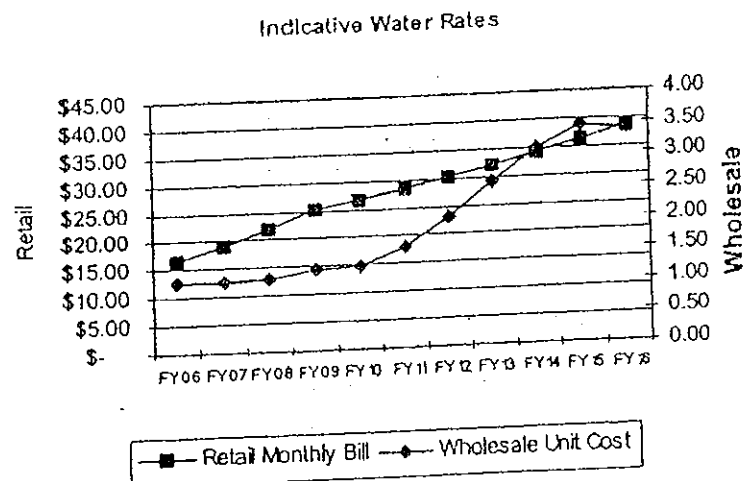
¹ Equal to spending to date attributable to Proposition A authority plus projected spending. Does not include \$20,064,530 spending on WSIP that was funded with other sources.

Financing the WSIP
November 22, 2005

The chart below illustrates the Water Enterprise's outstanding debt service as of June 30, 2005, and compares it to projected future debt service.



The following chart illustrates the rate impacts of the WSIP on SFPUC's wholesale and retail customers. Retail rate adjustments are made concurrent with the issuance of bonds related to the WSIP. The rate applicable to wholesale customers is based on a proportionate share of O&M and depreciation expenses combined with a return on the portion of net plant investment used to provide wholesale water service.



WSIP Financing Assumptions

This section identifies assumptions and methods used in the financial planning model to provide a reference for understanding the output. Note that financial planning is dynamic and assumptions will be reevaluated frequently to reflect the actual pace of spending and results of operations as well as significant changes in the municipal bond market.

Model Description – The financial planning model serves a dual purpose: (i) size bond issues necessary to meet desired capital investments, and (ii) estimate future retail and wholesale rates necessary to support the Water Enterprise.

O&M, debt service and revenue funded capital projects are forecasted to determine the annual revenue requirement. Contractual revenues from wholesale customers are derived from O&M projections and from assets that are added to rate base as projects are completed, pursuant to a project capitalization schedule. The retail revenue requirement is the difference between annual revenue requirement and contractual revenue requirement.

The WSIP project costs and schedule, as well as financing assumptions will affect the size and timing of required revenue bond issuances and hence the profile of additional debt service. In turn, the profile of additional debt service combined with the profile of asset capitalization, certain financing assumptions and water sales volume projections will affect the size and timing of rate increases.

Financial Policies - In May 2002, the Commission adopted several key financial policies, which in large measure drive the rates required to support the Water Enterprise's operations and a fully funded WSIP. The two policies with the greatest direct impact on the projections are described below.

- **Debt Service Coverage Target** – In the existing bond indenture, the Water Enterprise covenants to establish rates such that net revenues (operating revenue less operating costs) plus unappropriated fund balance is equal to at least 125% of annual debt service. In certain years of the projections, achieving this target may impose an unreasonable burden in which case adherence to this policy may be relaxed.
- **O&M Reserve Target** - The City Charter requires utilities to maintain prudent reserves. This is also required by the Water Enterprise bond indenture and constitutes sound financial practice. The Commission's approved policy is to establish an O&M reserve target of 25%, or three months worth, of annual O&M expenses. Similar to targeted coverage, in years in which achieving the reserve target imposes an unreasonable burden, this policy target may be relaxed.

Financial Assumptions – The following briefly describes the numerous variables imbedded in the model and the associated assumptions.

- **Cost of Funds** – All bonds issued during the forecast period are assumed to have a blended interest rate of 5.00%. This rate is based on historical long-term fixed rates (Buyer Revenue Bond Index or BBRI) and variable rates (Bond Market Association or BMA), and the historical spread between the BBRI and triple-A rated insured bonds. It is assumed that approximately

75% of the bonds are issued as long-term fixed rate bonds with an interest rate of 5.50% and that 25% of the bonds are issued as long-term variable rate bonds with an interest rate of 3.75% - resulting in a blended rate of 5.00%.

- Investment rates – Several relatively conservative assumptions were made regarding the rate of return on various investment opportunities relating to operations and debt issuance.
 - Earnings on the Water Enterprise's fund balances are assumed at a rate of 2%, which is intended to be a conservative representation of the earnings generated by the Treasurer's investment pool.
 - The project construction fund is gross funded – that is, the money is spent at the time it's raised and therefore earns no interest.
 - The capitalized interest fund, which is sized to meet debt service payments for the first two years that each bond issue is outstanding, is invested at 4.00%, which is 100 basis points below the borrowing cost of 5.00%.
 - Pursuant to the indenture, the debt service reserve requirement is equal to $\frac{1}{2}$ maximum annual debt service and may be met with bond proceeds or a surety, or a combination. We have assumed that roughly 60% of the reserve requirement is met with cash from bond proceeds and 40% is met with a surety. The reinvestment of the cash-funded portion is assumed to be arbitrage neutral – that is, 5.00% is assumed to be both the borrowing and investment rate.
- Other Water Enterprise operating assumptions include:
 - Retail water sales are forecasted to be flat during the projection period and wholesale water sales are forecasted to increase at a rate of .83% per year, consistent with recent demand studies.
 - Growth in labor costs is forecasted at 6% for FY06 and FY07, consistent with actual City labor agreements) and 3.00% thereafter.
 - Other non-labor O&M costs are expected to grow by 3% per year.
- Other bond-related assumptions include:
 - 30-year term on all bonds, with principal amortization beginning in year 3.
 - Principal payments are due annually and interest is due semi-annually.
 - Annual debt service is structured to be level.
 - While the Water Enterprise has underlying ratings of A1/A+, the bonds are assumed to be insured and rated triple-A. The cost of bond insurance is estimated to be .25% of total principal and interest, payable upfront (at the time of each bond sale).
 - The cost of a surety policy to meet reserve requirements is estimated to be 2.5% of the requirement.
 - Other costs of issuance, including fees for legal advice, financial advisors, rating agencies, trustee and payments to the RBOC are estimated at 1% of the total par amount issued.

EY 2006 Approved Budget and November 2005 FY21P Costs Estimates

Description	FY 2006 (Budget)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Beginning Fund Balance—July 1											
Revenue											
Retail Water Sales—existing rates	74,270,000	74,270,000	74,270,000	74,270,000	74,270,000	74,270,000	74,270,000	74,270,000	74,270,000	74,270,000	74,270,000
Retail Water Sales—rate increases	11,140,500	23,957,075	38,865,385	55,628,894	63,747,383	72,373,448	81,538,563	91,276,705	101,623,374	115,215,710	124,297,129
Wholesale Water Sales Revenue	99,313,308	99,023,332	104,676,959	115,193,186	118,854,215	146,341,355	186,652,785	240,108,433	287,843,324	323,453,209	348,181,265
Balancing Account Credits	(7,596,786)	21,006	21,006	21,006	21,006	21,006	3,085,003	3,545,945	3,959,494	4,134,424	4,164,408
Interest Income on Fund Balances	1,897,800	1,707,639	1,917,028	2,205,388	2,328,434	2,643,185					
Rate Stabilization Fund Interest Income											
Other Miscellaneous Income	42,800,000	12,600,000	12,600,000	12,600,000	12,600,000	12,600,000	12,600,000	12,600,000	12,600,000	12,600,000	12,600,000
Rate Stabilization Fund Withdrawal / (Deposit)	191,424,622	211,574,252	232,176,376	259,918,276	272,822,017	308,248,964	358,156,452	421,801,082	450,045,192	526,844,243	533,512,801
Total Revenue											
Operation and Maintenance Expenses											
Labor and Fringe Benefits	60,004,588	63,604,683	65,513,009	67,476,999	69,502,751	71,587,834	73,735,469	75,947,533	78,235,659	80,572,728	82,969,620
COWCAP	2,286,605	2,370,801	2,441,825	2,515,183	2,590,839	2,666,358	2,748,408	2,830,851	2,915,787	3,003,260	3,093,358
Non-Personal Services	10,887,655	11,214,285	11,550,713	11,897,235	12,254,152	12,621,776	13,000,429	13,390,442	13,792,156	14,206,520	14,632,098
Materials and Supplies	9,511,728	9,787,080	10,066,862	10,383,722	10,705,534	11,026,700	11,357,501	11,698,228	12,049,172	12,410,648	12,782,987
Equipment	2,911,698	2,968,049	3,089,020	3,181,691	3,277,142	3,375,456	3,476,720	3,581,021	3,686,452	3,799,105	3,913,079
Light, Heat, and Power	5,858,151	6,136,896	6,321,002	6,510,632	6,705,951	6,907,130	7,114,344	7,327,774	7,547,807	7,774,038	8,007,257
Services of SFPC Bureau	29,754,448	31,539,715	32,485,908	33,450,484	34,464,298	35,498,227	36,563,174	37,660,069	38,789,871	39,953,567	41,152,174
Services of Other Departments	7,333,479	7,773,488	8,006,582	8,248,883	8,494,300	8,749,129	9,011,603	9,281,951	9,560,402	9,847,222	10,142,638
Hatch Hatchery Assessment	18,037,000	19,808,110	20,194,353	20,802,244	21,426,311	22,069,101	22,731,174	23,413,108	24,115,502	24,838,967	25,584,136
Total Operation and Maintenance Expense	147,635,352	155,044,286	159,695,515	164,466,483	169,421,078	174,503,710	179,738,821	185,130,586	190,584,516	196,431,463	202,287,627
Net Revenue	43,789,270	56,529,966	72,474,764	95,431,793	103,400,940	133,745,283	178,417,630	236,670,096	289,351,276	330,436,589	351,215,171
Debt Service											
Debt Service—Existing Bonds	38,444,973	38,517,056	38,553,073	38,548,554	38,586,531	38,633,325	38,643,942	38,652,275	38,745,800	38,810,133	32,952,911
Debt Service—Authorized Bonds	-	-	-	-	-	-	-	-	-	-	-
Debt Service—Proposed Bonds	-	24,472,432	30,222,117	57,494,622	93,974,788	143,921,576	182,894,017	235,959,837	283,034,143	277,319,190	284,409,744
Capitalized Interest Fund Cash Flow—Proposed Bonds	-	(23,978,635)	(29,813,542)	(24,135,580)	(54,267,038)	(80,934,192)	(84,875,114)	(86,329,150)	(85,512,540)	(14,233,127)	(3,153,231)
Reserve Fund Cash Flow—Proposed Bonds	-	(492,785)	(808,575)	(988,790)	(1,723,589)	(2,852,041)	(3,463,712)	(4,015,143)	(4,255,173)	(4,307,778)	(4,319,977)
Net Debt Service	38,444,973	38,517,056	38,553,073	70,908,829	76,582,672	86,968,658	143,489,132	204,297,819	259,011,950	267,516,818	305,853,441
Net Revenue After Debt Service	5,344,297	18,012,910	33,921,691	24,522,964	26,818,267	34,776,615	34,918,498	32,372,277	30,345,347	32,863,961	21,331,721
Revenue Funded Capital Projects	25,296,045	20,000,000	21,000,000	22,050,000	23,152,500	24,310,125	25,525,631	26,801,913	28,142,008	29,549,109	31,028,565
Repair & Replacement Projects	44,738,556	42,251,488	55,173,157	57,546,120	61,311,388	71,778,378	81,171,245	86,741,610	89,948,049	92,262,900	82,588,061

Special Performance Measurements													
Debt Service Coverage—Revenue Bonds—Indenture	2,808	2,616	2,975	2,124	2,103	1,971	1,744	1,556	1,452	1,409	1,367		
Debt Service Coverage—Revenue Bonds—Current Basis	1,139	1,458	1,880	1,346	1,350	1,351	1,243	1,158	1,117	1,110	1,069		
O&M Reserve—Beginning Fund Balance/O&M Budget	0.435	0.285	0.265	0.335	0.340	0.351	0.399	0.438	0.455	0.453	0.456		
Tolling Debt Service Coverage or (Deficit)	59,913,358	52,622,202	66,534,888	61,988,913	65,318,720	71,345,336	70,822,093	62,469,060	52,537,974	47,418,054	36,123,766		
Operations & Maintenance Reserve Surplus (Deficit)	27,271,466	5,477,485	2,327,562	14,051,538	15,290,851	17,685,960	26,843,673	34,888,499	39,070,381	39,847,582	41,688,493		
Annual % Increase (Directly Used)	15.00%	15.00%	15.00%	15.00%	6.25%	6.25%	6.25%	8.25%	6.25%	6.25%	6.25%		
Calculate Cumulative % Increase (Directly Used)	15.00%	32.25%	52.09%	74.90%	85.83%	97.45%	109.79%	122.90%	136.93%	151.63%	167.36%		
Average Monthly Retail Water Bill	\$ 16.59	\$ 19.08	\$ 21.95	\$ 25.24	\$ 26.82	\$ 28.49	\$ 30.27	\$ 32.16	\$ 34.17	\$ 35.31	\$ 36.58		
Compounded Annual Growth Rate in Avg. Bill	15.00%	15.00%	15.00%	15.00%	13.19%	12.01%	11.17%	10.54%	10.05%	9.67%	9.35%		
Projected Suburban Water Sales (Ccf)	85,730,000	86,441,559	87,159,024	87,882,444	88,611,868	89,347,347	90,088,930	90,836,668	91,590,812	92,350,814	93,117,326		
Annual Percentage Increase	3.01%	-1.12%	5.04%	9.47%	3.31%	21.72%	27.14%	28.09%	19.09%	11.57%	-2.37%		
Cumulative Percentage Increase	3.01%	1.85%	6.98%	17.11%	20.98%	47.26%	87.22%	139.80%	195.57%	218.60%	211.08%		
Unit Cost Net of Service Charge (\$/Ccf)	\$ 1.12	\$ 1.11	\$ 1.16	\$ 1.27	\$ 1.32	\$ 1.60	\$ 2.04	\$ 2.61	\$ 3.10	\$ 3.46	\$ 3.38		
Compounded Annual Growth Rate in Unit Cost	3.01%	0.92%	2.27%	4.03%	3.88%	6.66%	9.37%	11.55%	12.37%	12.29%	10.87%		

**BAY AREA WATER SUPPLY AND CONSERVATION AGENCY
BOARD OF DIRECTORS MEETING
November 17, 2005 – 7 p.m.
Foster City Community Building, Foster City CA**

MINUTES

1. Call to Order/Pledge of Allegiance/Roll Call – 7:05 p.m.

BAWSCA Chair, Bern Beecham, called the meeting to order and led the flag salute. Secretary Art Jensen called the roll. Nineteen (22) members were present, constituting a quorum. A list of directors present (22) and absent (6) is attached.

- 2. Comments by the Chair:** Chair Beecham announced that the San Francisco Public Utilities Commission (SFPUC) is scheduled to act on the draft Water System Improvement Program (WSIP) on November 29th. SFPUC's independent consultant, Parsons Engineering, and BAWSCA's technical consultant, Professor William Ibbs, have provided several significant recommendations. BAWSCA strongly recommends that the consultants suggestions be addressed in the final draft of the WSIP. Chair Beecham stated that wholesale customers paid about \$720,000 for Parsons' assessment of the WSIP, and the report is an asset that needs to be fully utilized at this point. SFPUC has looked at the recommendations, and it is important for the wholesale customers to understand the rationale of SFPUC's response to those recommendations. Chair Beecham announced his exchange of calls with Mayor Newsom which has not yet resulted in a conversation. The call is to express BAWSCA's interest in ensuring that the recommendations by Parsons and Prof. Ibbs are incorporated in the WSIP. Chair Beecham explained that if incorporating the consultants' recommendations take more time, it would be appropriate to invest in the time.

Mr. Jensen is currently assisting Foster City in developing a plan for coping with long-term water outages, with the goal of that plan becoming a prototype for other BAWSCA agencies. Chair Beecham urged board members to develop similar preparedness plans.

North Coast County Water District issued a letter to BAWSCA inquiring about respiratory, dermatological and epidemiological testing on human effects of chloraminated water. Mr. Jensen has asked the Environmental Protection Agency (EPA), California Department of Health Services (CDHS) and the American Water Works Association Research Foundation (AWWARF) to notify BAWSCA of studies on human health effects of chloramine in drinking water that have been conducted, being conducted, or are anticipated.

- 3. Board Policy Committee Report:** Committee Chair Rosalie O'Mahony reported that the committee met on October 12th, and discussed the Parsons review of the WSIP cost and schedule estimates. The committee's assessment of the draft report from Parsons is that the program cost of the WSIP is unrealistic and the schedule unachievable. The committee noted

Parsons report stated it did not contain the analytic depth needed to thoroughly validate the WSIP. The committee had also discussed Foster City's interest in considering desalination as an alternative source of water.

4. General Manager's Report:

- a. Introduction of Benjamin Pink, Water Resources Planner:** Benjamin Pink joined BAWSCA as its Water Resources Planner three weeks ago. Mr. Pink holds a Bachelor and Masters Degree in Geology from UC Santa Cruz and a Master Degree in Environmental Science and Management from the Bren School of Environmental Science and Management at UC Santa Barbara.. Together with Nicole Sandkulla, Mr. Pink is reviewing the various draft Urban Water Management Plans that BAWSCA member agencies must adopt by December 31, 2005, and has worked with the Silicon Valley Leadership Group and Santa Clara Valley Water District in developing a Bay Area cooling tower initiative. His arrival has allowed Nicole to conduct the necessary comprehensive review of the WSIP Program EIR.
- b. Community preparedness to cope with long-term water outages:** The office of Supervisor Adrienne Tissier sponsored a County Disaster Preparedness Day on November 12th that address preparedness in the home. Art reported that a meeting with managers of the City of Foster City and BAWSCA is scheduled to discuss how Foster City's water contingency plan might be strengthened and used as a prototype for the BAWSCA member agencies.
- c. Concerns about the Water System Improvement Program:**
Comments on PEIR: The task of the San Francisco Planning Department is to ensure that the Program EIR addresses all of the needs and issues that are critical to the water customers while they do the primary task of looking at the environmental impacts of the proposed plan and its alternatives. BAWSCA's comments on the PEIR supports the two objectives of addressing all critical water demand and meeting all legal requirements.

Mr. Jensen reported that the PEIR is written with a sound direction, but needed elaboration in some areas. BAWSCA's comments included identification of projects, clarification on where the water is going to come from, and consideration of the environmental impacts resulting from no planned growth, and water shortages during drought. BAWSCA also commented on the need to take into account how water is allocated to wholesale customers during droughts, how ongoing water conservation decreases a customers ability to cut back further during a drought, and the environmental impacts of a pipeline failure if the necessary and significant parts of the system is not rebuilt. Comments submitted by other organizations are currently being reviewed for their significance.

Comments on Parsons' Assessment of the WSIP: Mr. Jensen reported that BAWSCA's priority in the comments it provides on the WSIP is reducing the risk to public health and safety. BAWSCA believes that all of the recommendations made by SFPUC's independent consultant, Parsons Engineering and BAWSCA's technical consultant, Dr. William Ibbs, should be addressed. These recommendations should be incorporated into the program or projects, unless clear policy and technical reasons provide that they shouldn't. The work

completed by Parsons Engineering was performed on behalf of SFPUC and BAWSCA member agencies, and the information on how the recommendations are addressed should be available to the wholesale customers.

Preliminary comments on the draft WSIP: BAWSCA provided preliminary comments on November 4th, and will be providing a second set of comments on November 18th. There are seventeen recommendations BAWSCA believes should be addressed prior to the adoption of the WSIP on November 29th. These recommendations affect project scopes, the ability to keep the program on schedule, and on budget.

BAWSCA's comments state the need to clarify several issues including the revised San Joaquin pipeline project and its ability to replenish supply in the Peninsula reservoirs after a lengthy reduction of flows from Hetch Hetchy, identification of which cities will receive water following a major earthquake after the projects have been completed, and the scope of the desalination project and the basis for the cost. The comments also suggest the need to examine the risks related to critical project delays, the reliability of Crystal Springs and San Andreas Reservoirs after an earthquake, cost contingencies to address foreseeable legal challenges in the PEIR, and San Francisco's capacity to implement the program. Mr. Jensen reported that at the October 25 SFPUC meeting, the commission directed SFPUC staff to provide a frank assessment of its ability to implement the program. BAWSCA's comments will also recommend a more detailed revised financial plan and an estimated cost impact to water customers.

Director O'Mahony asked about the 47 mile San Joaquin Pipeline #4 that has been replaced by a 9 mile pipeline in the WSIP. Mr. Jensen explained that increasing capacity across the San Joaquin valley can be achieved by a shorter piece of pipeline, however, the question is whether this alternative can achieve the level of service goals the commission adopted. Clarification is needed at this time.

Director Gage expressed his concern with the program cost and the potential environmental impacts of what BAWSCA agencies and their customers can afford. Director Weed inquired about the inclusion of desalination in the WSIP, and what kinds of impacts desalination of sea water at less than \$5 per unit can have on the overall program. Mr. Jensen stated that a placeholder value of \$10M is included in the WSIP for a potential new desalination project. One of BAWSCA's comments to the draft WSIP is the clarification of the cost basis for that project. Mr. Jensen stated that the cost of the WSIP is predominantly for rebuilding the system, and a small amount is associated with developing new water supply. If new water supply is developed, a reliable system in which the supply can be transported would still be required.

Director O'Mahony asked about the basis of the significant cost variances in SFPUC's financial plan. Art stated that in reviewing the financial plan with BAWSCA's financial advisor, the reduction of the financing costs from 20% to 16% is possible, and may have no impact to the water customers at the end. Financial staff of the SFPUC and of the Mayor's office are reviewing the mechanisms and approach of the program's financial plan, and the issue is addressed in BAWSCA's comments submitted on November 4th.

SFPUC staff are reviewing comments and will submit a summary to the commission on or before November 29th. There are more than 100 concerns and recommendations by various experts, and BAWSCA suggests that seventeen recommendations that significantly affect the project scopes, PEIR, and the cost and schedule, be incorporated into the program.

Chloramine: North Coast County Water District (NCCWD) submitted a letter to BAWSCA and to Susan Leal requesting information on human health studies on the impacts of using chloramines as a disinfectant in drinking water. As a response, Mr. Jensen issued a letter to the Environmental Protection Agency (EPA), California Department of Health Services (CDHS), and the American Water Works Association Research Foundation (AWWARF) inquiring about the kinds of studies that have been done, in the process of being done, and are anticipated to be done. The letter asks that responses be sent to Citizens Concerned About Chloramines, BAWSCA and Susan Leal.

Chair Beecham moved the report from SFPUC staff as agenda item #5.

5. SFPUC Report:

SFPUC General Manager, Susan Leal and Deputy General Manager Tony Irons reported that all public comments on the draft WSIP received during the 30 day period will be reviewed and responded to prior to adoption of the program. The commission will be provided with information to allow them to act on a program on November 29th. Mr. Irons concurred with the importance of getting the program right and the costs right. He noted that following adoption of the program, things will change over time, and project scopes will become more specific. Currently, seven regional projects are in design phase and six are in construction. The projects are moving rapidly, concurrent with the environmental review, and he is pleased with the progress.

The 9-mile alternative to building San Joaquin pipeline #4 (SJPL #4) is a solid engineering proposal that will meet all the level of service goals, and is much more cost effective. Ms. Leal noted that at the PEIR scoping meetings, the number one environmental objection was building the longer San Joaquin Pipeline #4 and that SFPUC believes that the reconfigured SJPL #4 removes one of the big environmental concerns on the WSIP.

Mr. Irons reported that at a recent meeting with the California Seismic Safety Commission, there were concerns with the risks of water-outage to hospitals, schools and residents. Mr. Irons stated that SFPUC can identify the risks associated with water coming to the turnouts, but cannot identify the risks beyond that because San Francisco does not control the distribution systems of local communities that purchase water from SFPUC.

Mr. Jensen stated that it would be helpful for wholesale customers to know which turnouts will receive water once the system is repaired.

Mr. Irons reported that a Seismic Safety Task Force has been convened and is working with SFPUC in identifying where the likelihood of breaks in the system would occur, and therefore

knowing which turnouts would be operational. SFPUC is happy to work with local communities and in getting that information to the BAWSCA member agencies.

6. Ira Ruskin Address:

Assemblymember Ira Ruskin stated that part of his work focuses on the issues that are of great importance to BAWSCA. First, it is essential for San Francisco to adopt a sound WSIP with a schedule that is achievable, a budget that is realistic, and a financial plan to get the job done. These and the financial impacts on the water-rate payers are significant information to the people in the local communities. Assemblymember Ruskin stated his support for BAWSCA's efforts to make this happen and recognized the hard work SFPUC staff is putting forth to accomplish this difficult task.

Second, the legislature is concerned with the threat of disasters, and as a part of the legislative committee on Emergency Preparedness on Homeland Security, Assemblymember Ruskin stated his efforts in acquainting the committee with the need to seismically retrofit Hetch Hetchy, and all the challenges that is involved in the process.

Third, it is essential that local communities have appropriate emergency response plans in place. Board members were urged to meet with their respective governing bodies to determine their agency's state of preparedness for a disaster, and to identify how BAWSCA can assist.

Finally, Assemblymember Ruskin commended BAWSCA member agencies' continuing efforts on conservation. Water conservation should be a high priority, and implementation of aggressive, cost-effective and technically feasible programs is essential in the future of water supply. Agencies have also made a significant commitment to diversify their water supply portfolio so that future water conservation and recycled water can be used to meet 14% of projected water demand in the service area in 2030.

Assemblymember Ruskin expressed his appreciation for having the opportunity to share his thoughts and express his concerns on critical issues. BAWSCA's concerns are important to him and that he welcomes the opportunity to assist BAWSCA.

7. Public Comments:

Denise Johnson-Kula, President of Citizen Concerned About Chloramines (CCAC) thanked the board of directors for the inquiry letter it sent to the EPA, CDHS, and AWWARF inquiring what human health studies have been done, are being done, and are anticipated to be done on the effects of using chloramines as a disinfectant in drinking water.

Kevin Russo, a carpenter-builder, shared his experiences with the different types of degradation to plumbing fixtures over the last 16 months.

Marilyn Raubitschek, a San Mateo resident and member of the CCAC described the skin reaction she experienced following the addition of chloramine in the water, and her experiment with using distilled water versus tap water.

Wynn Grcich, a Fremont resident, commented on the health effects of disinfectant byproducts in the water, the rising costs to retrofit the Hetch Hetchy system, and the increasing water rates to customers.

Lillian Lieberman, Secretary of CCAC, urged BAWSCA to pursue the efforts of having studies conducted on the dermal and respiratory effects of chloramines.

Linda Corwin, Vice-President of CCAC, thanked BAWSCA for corresponding with the EPA, CDHS and AWWARF requesting information on any past, current, and anticipated studies on the human health impacts of chloramines.

Kory Trebbin, member of CCAC, spoke of the negative effects he is experiencing with chloramine in the water, and of the negative impacts it has on plumbing systems. He asked for BAWSCA's support to stop the use of chloramines until all facts are known.

8. Consent Calendar:

M/S/C (Craig/O'Mahony; Claire abstained) that the Minutes of the September 15, 2005 BAWSCA Board meeting be approved; the Quarterly Budget Status Report, Quarterly Investment Report, and the BAWUA and BAWSCA Audit report for FY 2004-05 be received and filed.

9. Directors' Discussion: Comments, Questions and Agenda Requests:

Director Gage stated that as the water supplier, SFPUC should hear what the customers of BAWSCA member agencies are saying, and stay for the duration of the meeting.

Director O'Connell asked about the Governor's response to the Restore Hetch Hetchy Report. Mr. Jensen stated that no comment has been received from the Governor's office to date, and that the report from the State Department of Water Resources is expected to be released at the beginning of the next calendar year.

10. Adjournment to the San Francisco Bay Area Regional Water System Financing Authority. The meeting was adjourned at 8:40pm

11. Date, Time and Location of Next Meeting: The next meeting is scheduled for January 19, 2006 at 7:00 p.m. in the Wind Room, Foster City Community Center.

Respectfully submitted,

Arthur R. Jensen, General Manager and Secretary

ARJ/le

Attachments: 1) Attendance Roster

BAY AREA WATER SUPPLY AND CONSERVATION AGENCY**Board of Directors Meeting****November 17, 2005****Attendance Roster****Present:**

Bern Beecham	City of Palo Alto
Randy Breault	Guadalupe Valley Water District
Richard Claire	City of Redwood City
Robert Craig	Westborough Water District
John Fannon	Town of Hillsborough
Kelly Fergusson	City of Menlo Park
Stan Gage	Los Trancos County Water District
Mike Goff	Stanford University
Rob Guzzetta	California Water Service Company
Marc Hershman	City of Millbrae
Mike Kasperzak	City of Mountain View
Patrick Kolstad	City of Santa Clara
Robert Livengood	City of Milpitas
Irene O'Connell	City of San Bruno
Rosalie O'Mahony	City of Burlingame
Tom Piccolotti	North Coast County Water District
Chris Reynolds	Skyline County Water District
Tim Risch	City of Sunnyvale
Dan Seidel	Purissima Hills Water District
Adrienne Tissier	City of Daly City
Louis Vella	Mid-Peninsula Water District
John Weed	Alameda County Water District

Absent:

Roberta Cooper	City of Hayward
Chris Mickelsen	Coastside County Water District
Lee Panza	City of Brisbane
Chuck Reed	City of San Jose
David Woods	City of East Palo Alto
Rick Wykoff	City of Foster City

BAWSCA

Bay Area Water Supply & Conservation Agency

155 Bovet Road, Suite 302
 San Mateo, California 94402
 (650) 349-3000 tel. (650) 349-8395 fax

TO: Arthur R. Jensen, General Manager **Agenda Item #8B**

FROM: John Ummel and Deborah Grimes

DATE: January 11, 2006

SUBJECT: Budget Status Report – As of November 30, 2005

This memorandum shows the budget status for the first five months of FY 2005-06. It includes major areas of spending, provides an assessment of the overall budget, and summarizes reserve fund balances. This report covers the budget and expenses for BAWSCA. The BAWSCA budget includes necessary resources for the RFA and BAWUA. Administrative procedures created with the formation of BAWSCA maintain a strict accounting of the budgets, expenses and funds for the three entities.

Summary:

For the five months ending November 30, 2005, total expenses were \$687,742 or roughly 33% of the total budget of \$2,099,975

Table 1. Budget Summary as of November 30, 2005

Cost Category	Budget	Year-To-Date Expenses	Percent
Consultants /Direct Expenditures			
Reliability	590,000	201,093	34%
Fair Pricing	232,000	68,933	30%
Administration	86,000	32,644	38%
Subtotal	908,000	302,670	33%
Administration			
Salary & Benefits	850,195	311,509	37%
Other Expenses			
BAWUA	5,150	0	n/a
BAWSCA	225,600	71,902	32%
Subtotal	230,750	71,902	31%
Total	1,988,945	686,081	34%
Capital Expenses	8,000	1,661	21%
Budgeted Contingency	95,480	0	n/a
Regional Financing Authority	7,550	0	n/a
Grand Total	2,099,975	687,742	33%

Overview:

With five months or 42% of the fiscal year completed, overall expenditures are tracking below budgeted levels. Major consultant budgets are addressed below.

The \$210,000 budget related to the technical review and tracking of the SFPUC's revised WSIP program was 44% expended. This includes work by both by Dr. William Ibbs and SRT (Yurovski, Newkirk, and Gardner). The KNN financial advisory services budget of \$50,000 remains unexpended. David Brodsky, of KNN, has provided ongoing consultation concerning the draft WSIP. Significant financial advisory services will support master contract negotiations and the examination financial matters which are more likely to occur after the first of the year.

The overall legal budget of \$335,000 was 30% expended with all but one task area tracking as expected. Higher expenses in the "legislation" area were primarily attributable to the Restore Hetch Hetchy movement and the proposal to tear down O'Shaughnessy Dam. Strategic counsel's budget of \$120,000 was 41% expended. Preliminary drafts of BAWSCA's annual membership survey and consultant report of SFPUC's indirect (overhead) costs were completed and tracking per budget.

Use of Reserve Fund Balance:

In accordance with authority with the adoption of the annual budget, \$120,000 of the BAWUA reserve account was granted to BAWSCA to pay eligible expenses during FY 2005-06. Unspent BAWSCA revenues from FY 2004-05 of \$240,000 were used to form the initial contribution to BAWSCA's Reserve Fund.

Table 2. Reserve Fund Balances

Fund	Account Balance (As of 11/30/2005)*
BAWUA RESERVE	\$145,667
BAWSCA RESERVE	\$468,593
Total	\$614,260

** During the course of the year, some BAWSCA funds (assessments) are temporarily deposited in BAWSCA's(LAIF) reserve account for safekeeping, higher interest earning, and to ensure compliance with BAWSCA's investment policy. Of BAWSCA's reserve total of \$468k shown above, \$240k comprises unspent revenues from FY 2004-05.*

BAY AREA WATER SUPPLY AND CONSERVATION AGENCY

BOARD OF DIRECTORS MEETING

Agenda Title: **Mid-Year 2005-06 Progress and Budget Review with
Recommended Adjustments**

Summary:

BAWSCA is achieving the results it set out to achieve at the beginning of this year. Work on thirty-nine milestones has been completed or initiated as scheduled. Three items have been delayed awaiting completion of reports by San Francisco or State agencies. Two items have been achieved or are being pursued through alternative approaches.

The following three activities will require funding through the end of this fiscal year.

- a) Dr. Ibbs' ongoing monitoring of WSIP schedules and budgets and expert advice.
- b) Professional services for modeling the regional water system and providing input to Master Contract negotiations and ongoing water supply planning.
- c) An outside auditor to evaluate the current and prospective Master Contract auditing issues and procedures. A competitive selection process will be used to identify a qualified firm or individual.

Sufficient funding is available within the existing approved budget. Alternatives are provided for board consideration.

Fiscal Impact:

The approved FY 2005-06 budget contains planned expenditures of \$ 2,099,975 funded using a combination of assessments, money from the BAWUA General Reserve and other sources. Current spending is within budget. The November budget report to the board noted that a mid-year progress review and budget assessment would be made, and that recommended adjustments would be brought to the board of directors in January.

The approved budget will meet all currently anticipated needs through the end of the fiscal year. Three recommended activities requiring outside expertise were not anticipated at the time the budget was adopted. The estimated cost of all three activities through the end of this fiscal year is \$75,000. The budgeted contingency of \$95,480 is sufficient to fund these activities subject to the approval of the board of directors.

Board Policy Committee Action: The committee voted unanimously to recommend Board approval of the proposed action.

Recommended Committee Action:

That the board authorize the general manager to allocate \$75,000 from the contingency budget as follows:

- a) \$15,000 for Dr. Ibbs continued monitoring of WSIP schedules and budgets, and modify the not-to-exceed contract limit to a total of \$60,000,
- b) \$30,000 for initial professional water system modeling investigations, and
- c) \$30,000 for evaluation of Master Contract auditing issues and procedures.

Discussion:

Mid-year progress review. The budget document identified the nine results to be achieved this year. Work toward all nine results has been completed on schedule. The attachment shows the status of intermediate milestones to be achieved or initiated this fall.

At its request, these intermediate milestones were presented to the Board Policy Committee in July so it might better assess BAWSCA's progress.

Assessment of work needing to be completed by June 30, 2006. The matters on which BAWSCA must focus through the end of this fiscal year are:

1. Ensure the regional water system gets rebuilt on time and on budget now that San Francisco has adopted a revised Water System Improvement Program (WSIP).
2. Coordinate technical data and input to alternative analyses for San Francisco's Program Environmental Impact Report and individual project environmental assessments and documents.
3. Continue work to initiate negotiations of a new Master Water Contract.
4. Complete planned efforts to ensure that communities are prepared to cope with extended water outages.

These matters are within the original nine results to be achieved this year and can be realized with existing budget resources.

Recommended work and associated budget adjustments. Work in the following three areas will require the board to allocate budget resources. A portion of the budgeted contingency is sufficient to fund all three activities.

a. Monitoring WSIP implementation. It is critically important that San Francisco maintain the aggressive project schedules and implement the organizational and management changes recommended by Parsons. Dr. Ibbs' participation in Parsons' review of the WSIP, and his independent evaluation of the program schedule and project budgets required significantly more time than originally estimated. His continued review of WSIP progress and spending through the end of this fiscal year will require up to \$15,000 of additional time.

b. Water system operations modeling. As stated at the beginning of the year, it is important to understand how San Francisco operates the water system and how its operation may affect water supply reliability and the ability for San Francisco to meet future water needs. Expertise in analyzing and modeling water system operations is needed to help us understand how San Francisco operates the system; how the WSIP projects, including Calaveras Reservoir, will provide sufficient drought reliability; to what extent hydropower generation affects water supply reliability; and how future contract terms may protect or compromise water customers' water supply needs. The investigations of these issues should begin this fiscal year. A qualified firm has been identified and the definition of a scope of work for the next six months will be discussed on December 15th with the prospective consultant.

c. Evaluation of Master Contract Auditing procedures and needs. It makes sense at this time to hire a qualified auditor to evaluate Master Contract auditing needs. For the balance of this fiscal year, the selected firm or individual would provide an initial evaluation of the following issues:

- 1) Evaluate the recently released Master Contract compliance audit for FY 2002-03. The current contract compliance auditor states that audit reporting requirements contained in the Master Contract should be reconsidered. Expert advice is needed to understand these matters and provide recommendations consistent with the interests of customers outside San Francisco.
- 2) Evaluate the recent San Francisco Board of Supervisors' audit of SFPUC financial and accounting management and practices, and recommend how customer interests might best be protected. This is particularly relevant at this time, given the increased volume of transactions and expenditures associated with SFPUC's capital improvement program.
- 3) Become familiar with the existing Master Contract and issues relevant to negotiating the new Master Contract, and provide guidance as needed or appropriate.

A qualified firm would be identified through a competitive selection process. This work is viewed as a short-term engagement through the end of this fiscal year. If the firm's work is satisfactory, the general manager may recommend extension of the engagement to provide support during development of the next Master Contract. This possibility will be explicitly stated in the Request for Proposals to attract highly qualified firms that might not otherwise respond.

Additional activity needing no budget adjustment -- Economic impacts of water shortages. San Francisco recently released a draft of a report on the economic impacts of water shortages. This study, originally requested by BAWSCA, cites many issues open to further refinement. Dr. Wade, who conducted a preliminary evaluation through legal counsel, will review the SFPUC's draft report and provide his observations and suggestions. This work can be accommodated within legal counsel's existing budget unless an extended research effort is required.

Alternatives:

- a) Don't do the recommended work
The benefits of expert advice on WSIP program implementation, water supply capabilities, and Master Contract auditing practices would not be available to support achieving necessary results.
- b) Do the work but reduce other budgets rather than use the budgeted contingency.
While there may ultimately be savings in other budget areas, no reductions in other areas are recommended. One area in which savings are projected to occur is in salaries and benefits. Interviews to fill the current vacancy in the office assistant position will be held this month. Because unspent money is deposited in BAWSCA's general reserve at the close of each fiscal year there is limited value in moving funds from one budget area to another.

BAY AREA WATER SUPPLY AND CONSERVATION AGENCY
BOARD OF DIRECTORS MEETING

Agenda Title: **Authorize Agreement with GardenSoft to Develop the Waterwise Gardening CD-ROM for BAWSCA Service Area**

Summary:

BAWSCA's FY 2005-2006 adopted budget and work plan includes implementation of a public education program targeted at efficient landscape water use. The education program is targeted at both residential water customers and landscape professionals.

The Waterwise Gardening CD-ROM is a user-friendly way to demonstrate that water-efficient gardens can be beautiful, and offers specific information to help customers improve their landscaping. Users can obtain ideas and information specific to their geographic location, sun exposure, soil type and other factors. The Waterwise Gardening CD-ROM presents professional photos of water efficient plants and gardens, provides easy access to plant information, and includes a gardening resources tool (Figures 1-4).

BAWSCA's Water Resources Committee supports this program as a component of an effective developing landscape education program.

Fiscal Impact:

The one-time development fee of \$15,000 was included in the \$40,000 approved budget for the public education component of BAWSCA's water conservation program. No money has been spent to-date against this budget. Following development, participating agencies will pay a cost per CD-Rom on a volume basis (see table below for pricing). The cost per CD will be good for five years from the date the contract is signed. The contract would require the developer to provide any future software upgrades desired by BAWSCA at a fixed rate of \$150/hr.

Board Policy Committee Action: The committee voted unanimously to recommend Board approval of the proposed action.

Recommendation: That the Board authorize the General Manager to:

- 1) Execute a contract with GardenSoft for:
 - a. Development of a Waterwise Gardening CD-Rom tailored to the BAWSCA area for an amount not to exceed \$15,000; and
 - b. Purchase of the Waterwise Gardening CD-Roms for resale-at-cost to interested BAWSCA agencies.
 - c. Future updates of the software, if requested by BAWSCA.
- 2) Offer the participation in the above mentioned program to BAWSCA member agencies.

Discussion:

The Waterwise Gardening CD-Rom will be an instructional aid for residential customers on how to garden and landscape in a water-conserving manner. BAWSCA member agencies can purchase the CD-ROM from BAWSCA for distribution to their customers.

Tailored to the needs of BAWSCA agencies. The GardenSoft Company will tailor the information to the needs of the BAWSCA service area. The CD-Rom will contain specific information regarding water conserving landscaping and gardening techniques that are unique to each regional hydrologic area within the overall BAWSCA service area (Figure 1).

Water-Wise Gardening - Homepage

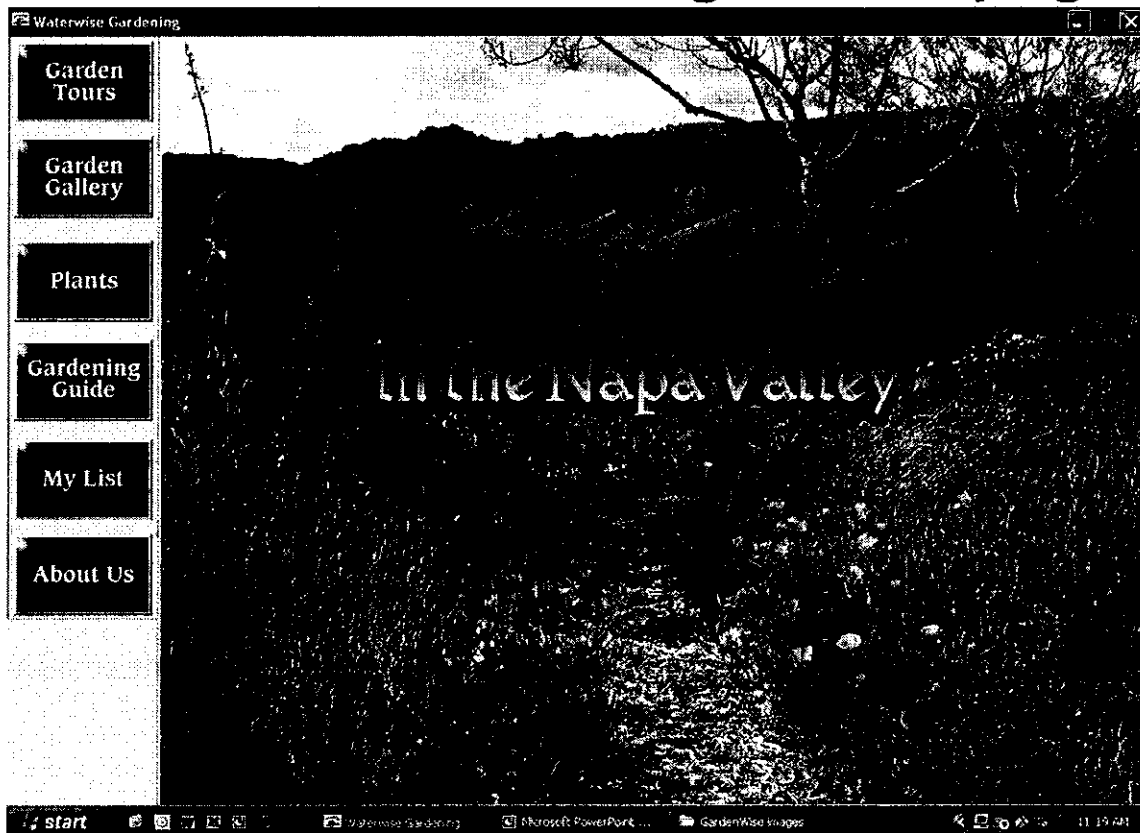


Figure 1: Example of the Homepage from Water-Wise CD for Napa Valley

Visual garden tours. The GardenSoft CD-Rom will contain a garden tours section, a garden gallery section, a plants section, a garden resources section and a watering tips section. BAWSCA member agency representatives will take part in the selection process for the garden tours section of the CD-Rom by suggesting the best examples of water-conserving gardens in their cities. The intent is to feature water-conserving gardens from each individual BAWSCA agency service area (Figure 2).

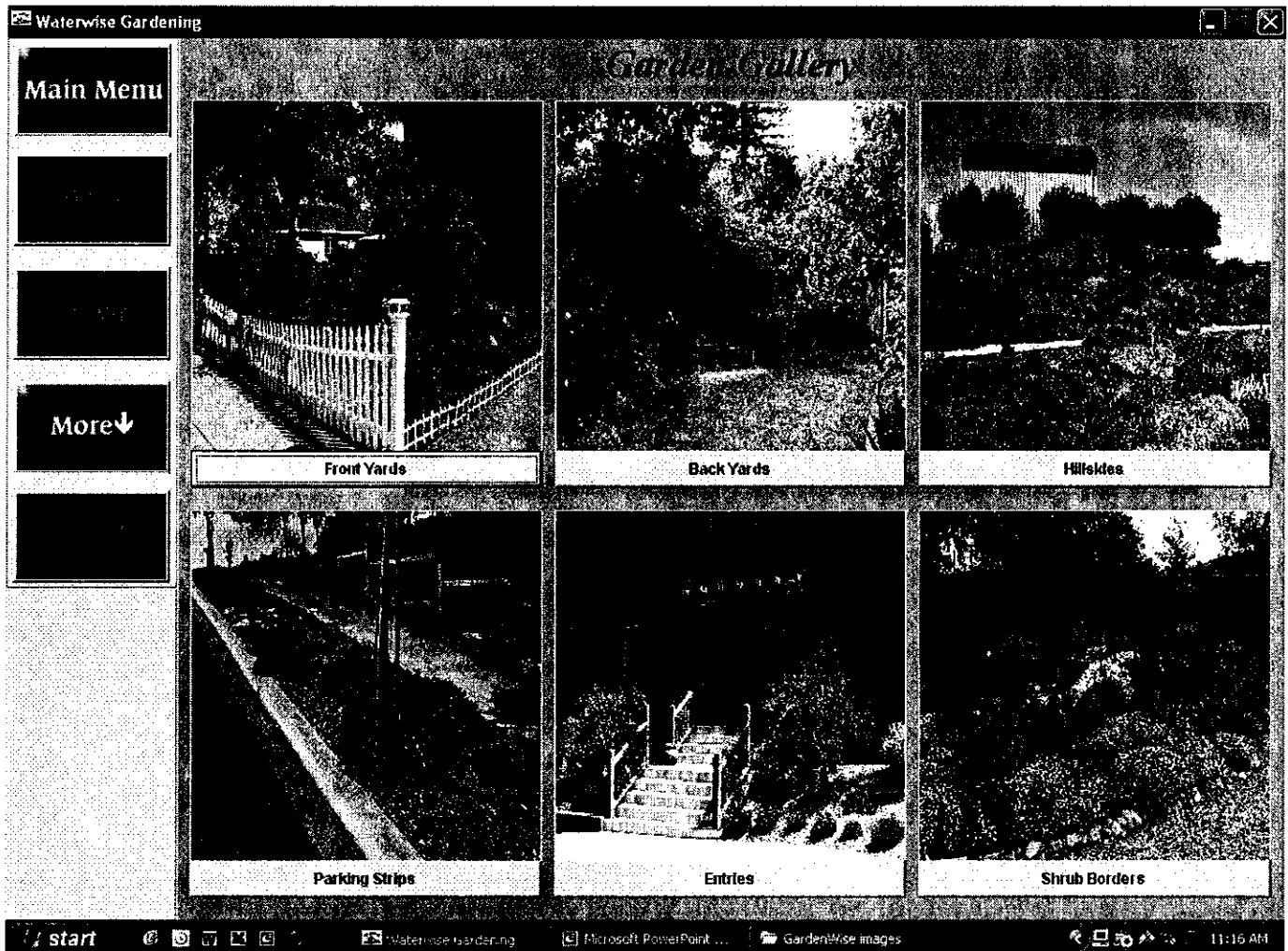


Figure 2: Garden Gallery from Water-Wise CD for Napa Valley

Plant selection and landscape planning tips. The plant section will contain a searchable guide to the best water-conserving plants appropriate for a particular area. The garden resources section will contain specific garden design and watering tips based on recommended monthly watering guidelines. The user of the CD-Rom will be able to create and print a personalized list of best-choice plants organized by water needs with pictures and descriptions of the plants (Figures 3 and 4).

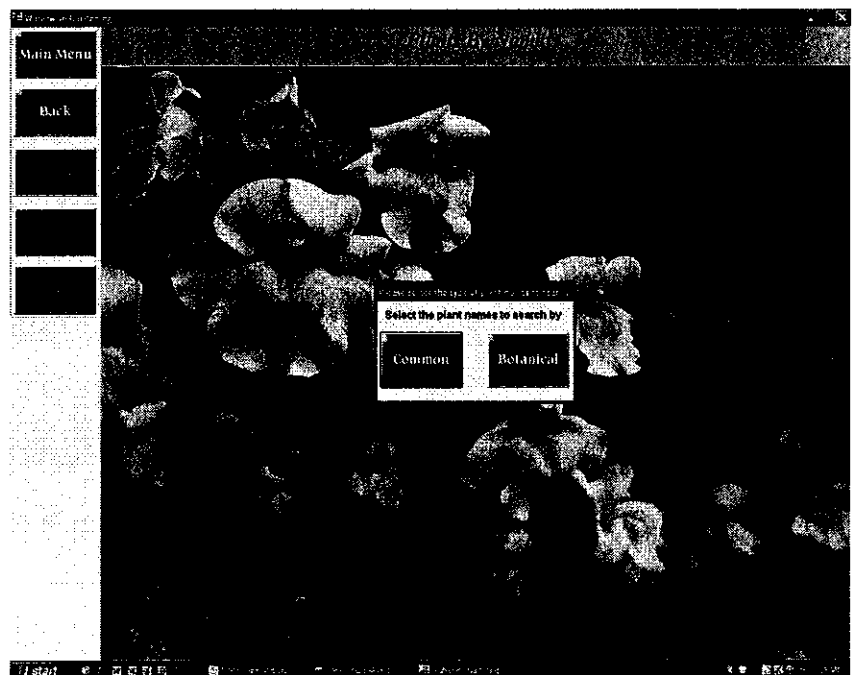


Figure 3: Example of Plant Searches from Water-Wise CD for Napa Valley



Figure 4: Index of Gardening Tips from Water-Wise CD for Napa Valley

Prior applications. A few water agencies in the local area, including Santa Clara Valley Water District, East Bay Municipal Utility District, and Redwood City, have developed a Waterwise Gardening CD-Rom for their service areas. Each of these agencies have entered into similar exclusive license agreements with GardenSoft. Development of this program for the entire BAWSCA service area was suggested by a BAWSCA agency last year as a way of covering a large area for which such information is not currently available.

BAWSCA agency support. This program has the support of the BAWSCA Water Resources Committee. A subgroup of the Water Resources Committee will serve as a Project Working Team during product development.

Costs:

Product development and update costs The one-time development cost would be paid by BAWSCA. The GardenSoft Company charges a one-time development fee of \$15,000 for the program. With the development fee, GardenSoft retains ownership of the program and creates an exclusive license with BAWSCA for the customized content of the CD-Rom that is created for BAWSCA. This development fee does not include the cost of future upgrades. All future software upgrades will be performed by GardenSoft at a fixed rate of \$150/hr.

CD-Rom cost. The cost for copies of the product would be paid by participating agencies. The GardenSoft Company charges for the reproduction of the CD-Rom and offers a significant cost savings based on volume purchased. BAWSCA is proposing to purchase the CD-Rom and make it available for individual agency purchase at the reduced bulk volume price. The actual number of CD-Roms purchased by BAWSCA will be determined by the interest expressed by individual agencies, although there is a minimum purchase of 1,000 CDs. The GardenSoft cost per CD-ROM is shown in Table 1. The prices listed in Table 1 will be good for five years from the date that the contract with GardenSoft is signed.

Table 1: GardenSoft Cost per CD-Rom

Quantity	CD-ROM only	CD-ROM inserted and sealed in plain white window mailer	CD-ROM inserted and sealed in 4 panel color mailer
1,000-4,999	\$3.00	\$3.30	\$5.00
5,000-9,999	\$2.85	\$3.15	\$3.45
10,000-24,999	\$2.75	\$3.05	\$3.15
25,000-49,999	\$2.65	\$2.95	\$3.00
50,000-99,999	\$2.55	\$2.80	\$2.85
100,000-199,999	\$2.45	\$2.70	\$2.70
200,000-299,999	\$2.35	\$2.60	\$2.55
300,000-499,999	\$2.25	\$2.50	\$2.45
500,000 and up	\$2.10	\$2.30	\$2.30

Optional Services. BAWSCA has asked GardenSoft about the possibility of developing the software for either a web download or for a scaled-down version of the software to be placed on the web. GardenSoft responded that the overall size of the software prohibits a full download. Staff is currently discussing ideas with GardenSoft for either a partial download or at a minimum having a link to request a copy of the CD posted on the BAWSCA and its agencies websites.

**BAY AREA WATER SUPPLY AND CONSERVATION AGENCY
BOARD OF DIRECTORS MEETING**

Agenda Title: **Authorize Agreements to Implement the Pilot Cooling Tower
Conductivity Rebate Program**

Summary:

Cooling towers on buildings and at industrial facilities have been identified as a potential source of water savings. Equipment can be installed on cooling towers to measure water flow and water chemistry and make automatic adjustments that may reduce the amount of water used. The savings can reduce the cost of water to customers and agencies, and help meet future water needs.

The Santa Clara Valley Water District (SCVWD) is initiating a pilot project that would offer rebates for the installation of these control devices at existing cooling towers. The SCVWD has offered to partner with BAWSCA to expand the program into the service areas of interested BAWSCA agencies.

To implement the program, BAWSCA must enter into an agreement with SCVWD and offer the program to its member agencies. The information gained through this regional pilot project can be used to estimate potential water savings that might be realized through a broader retrofit program.

Fiscal Impact:

All costs to administer this water conservation assistance program, including budgeted BAWSCA staff time, will be billed to the participating members.

Board Policy Committee Action: The committee voted unanimously to recommend Board approval of the proposed actions. The committee was enthusiastic about the potential of this program and was pleased to see that BAWSCA was taking a leadership role for a program that responds directly to concerns raised by the SFPUC commissioners regarding water use in the BAWSCA region.

Recommendation: **That the Board authorize the General Manager to:**

- (1) Execute an agreement with SCVWD to implement a cooling tower conductivity rebate program that would run in FY 2005-06 and FY 2006-07; and**
- (2) Offer the participation in the above mentioned program to BAWSCA member agencies.**

Discussion:

Some Bay Area water agencies (Contra Costa Water District, East Bay Municipal Utilities District, for example) offer commercial and/or industrial customers rebates for the installation of cooling tower conductivity controllers to reduce water use. There is no such program established in the BAWSCA area. There are also no substantive studies that demonstrate what water savings might be obtained through increased cooling tower efficiency in the Bay Area.

Potential value. Results elsewhere indicate potential savings may be substantial. Information from Los Angeles Department of Water and Power indicates that a 500-ton cooling tower in their service area would save 2,450 gallons/day through implementation of a controller that increases the cycles of concentration from 3 to 5.5 (Figure 1). Actual savings achieved depend upon many factors including current tower operations, incoming water quality, and size of the cooling tower. If the incoming water into the cooling tower is entirely from Hetchy Hetchy, the high quality of the water may accommodate up to 15 cycles. However, when the supply is predominantly from San Francisco's local reservoirs, the change in water chemistry may limit cycles to one-half that amount, still a substantial increase over lower quality waters. The cooling tower controllers sense changes in water quality and adjust water use accordingly.

Development consistent BAWSCA work plan. This project is consistent with BAWSCA's FY 2005-2006 work plan and the desire of the Board of Directors to pursue implementing programs targeted at saving water in the commercial and industrial sector. The Water Resources Committee, chaired by Marilyn Mosher from the City of Hayward, reviewed and supports this program. Several BAWSCA agencies have already indicated an interest in participating in this pilot project on a subscription basis.

Implementation. The regional program will build off work already completed by SCVWD. A new RFP will be issued by SCVWD for a contractor to administer the program for all participants. The contractor will be hired by SCVWD and will be responsible for the following tasks: Marketing and providing outreach to solicit participation, certifying participant eligibility, creating a program application form and a database that will track all phases of the program, providing pre- and post-installation inspection services, processing and distributing rebate checks, and providing program record-keeping. Cost to participating agencies will be the actual rebate value as well as a portion of the regional contractor administrative costs.

The regional program will be structured with one Memorandum of Understanding (MOU) between SCVWD and BAWSCA. The MOU will define the financial arrangements and responsibilities between the participating parties. Individual BAWSCA agencies will be able to choose to participate via an application directly with BAWSCA. Like other subscription based conservation programs that BAWSCA offers, all program costs will be paid for by participating agencies. The SCVWD and SFPUC may enter into a separate MOU to expand the program to customers in San Francisco.

A regional program can offer increased benefits to all participants including reduced administrative costs and a larger sample size for analyzing results. A regional pilot program will also allow for an examination of any implementation issues specific to the Bay Area (e.g. wastewater discharge impacts, wastewater savings).

Background:

The signatories to the California Urban Water Conservation Council's (CUWCC) Memorandum of Understanding (MOU), commit to implementing a number of Best Management Practices (BMPs) for urban water conservation. BMP 9 targets water conservation in the Commercial, Institutional, and Industrial (CII) sector, an area where significant water conservation potential still remains. A Cooling Tower Conductivity Controller Rebate Program has the potential to achieve significant water conservation in the CII sector.

BAWSCA's role. Recognizing this opportunity for savings, BAWSCA has taken a leadership role by initiating a Bay Area Cooling Tower Efficiency Initiative. The Bay Area Cooling Tower Efficiency Initiative is a collaborative effort between BAWSCA, non-BAWSCA water agencies, and local business groups to create and implement a water conservation program aimed at increasing the efficiency of commercial and industrial cooling towers in the Bay Area. BAWSCA is collaborating with the Silicon Valley Leadership Group, representing local businesses, as well as Santa Clara Valley and Alameda County Water Districts, the San Francisco Public Utilities Commission, and California Water Service Company, all of whom have expressed interest in participating in a regional program.

How it works. Cooling towers are a common piece of equipment in the CII sector and are used to regulate air temperature in a CII facility. While cooling towers use substantial quantities of water, approximately 75% of cooling towers do not use water efficiently, primarily because the volume of discharge of “blowdown” water (the water used to remove the excess concentrations of minerals that build up over time and can cause corrosion and scaling) is greater than what is actually necessary. A schematic of typical cooling tower operation is shown in Figure 1.

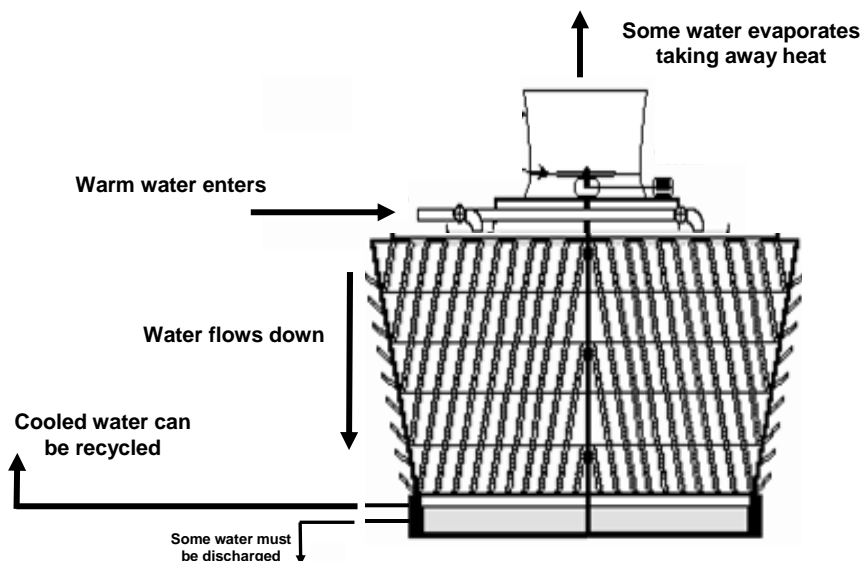


Figure 1: Basic Cooling Tower Operation

Minerals in water become more concentrated as water evaporates. If the concentration of minerals gets too high, the water in the cooling tower must be discharged and replaced with fresher water. Conductivity controllers can be installed to continuously monitor mineral concentration and minimize the amount of water that must be discharged to waste. Such a cooling tower uses less water than one that does not have a conductivity controller. Additional devices can work in tandem with a conductivity controller to control the acidity of the water circulating through the tower. Water that is slightly acidic can minimize scaling and corrosion, reduce the volume of water discharged to waste, and use less water.

Additional benefits. In addition to reducing water use, increasing cooling tower efficiency has the potential to reduce: labor cost associated with manual controls and cleaning, the use of treatment chemicals, wastewater discharges and wastewater chemicals (including metals), cooling tower scaling and premature equipment failure.

BAY AREA WATER SUPPLY AND CONSERVATION AGENCY

Board of Directors Meeting

Agenda Title: **Approval of Additional Signature Authority for BAWSCA and BAWUA Bank Accounts**

Summary:

The Board is asked to rescind Resolution No. 2004-02 and to adopt Resolution No. 2006-01. Resolution No. 2006-01 would authorize the Senior Administrative Analyst to sign checks in the absence of the general manager. That individual, John Ummel, currently has authority to transfer funds to and from BAWSCA and BAWUA accounts.

Fiscal Impact: None.

Board Policy Committee Action:

The committee voted unanimously to recommend Board approval of the proposed action.

Recommendation:

That the Board of Directors:

- a. **Rescind Resolution No. 2004-02 that specifies what individuals are authorized to sign checks;**
- b. **Adopt a replacement Resolution No. 2006-01 that adds the authority for the BAWSCA Senior Administrative Analyst to sign checks in the absence of the general manager, and requires that for checks needing two signatures, at least one shall be that of a director.**

Discussion:

The currently authorized signers for BAWSCA's checking account are the General Manager, the Board Chair, Vice-Chair, and the three directors from agencies located closest to the BAWSCA office (Foster City, Millbrae, & Burlingame). For medical, business travel, vacation or other reasons, the general manager may not always be available to sign checks.

To ensure that payments are not unduly delayed, another staff person can be authorized to sign checks. The signature of a staff person is desirable to indicate appropriate review of payments, sources of funds and related budgets. The Senior Administrative Analyst is already authorized to transfer funds between accounts and is recommended as an alternate to the general manager.

For checks requiring two signatures, at least one should be that of a board member.

Attachment:

1. Draft Resolution 2006-01 showing changes to Resolution 2004-02.
2. A clean copy of Resolution 2006-01.

RESOLUTION NO. 2006-01

Deleted: 2004-02

BAY AREA WATER SUPPLY AND CONSERVATION AGENCY

AUTHORIZING SIGNATURES FOR BANK ACCOUNTS

OF BAWSCA AND BAWUA

WHEREAS the Bay Area Water Supply and Conservation Agency (BAWSCA) and the Bay Area Water Users Association (BAWUA), of which BAWSCA is the sole member, have established deposit accounts with Borel Bank and Trust Company in San Mateo and may establish accounts at other institutions in the future;

RESOLVED that the following persons shall have signature authority for accounts of BAWSCA and BAWUA as described below;

BAWSCA Chair
BAWSCA Vice-Chair
BAWSCA General Manager
or BAWSCA Sr. Admin Analyst
Director from City of Foster City
Director from City of Burlingame
Director from City of Millbrae

1) To deposit funds of the Agency in such accounts and to endorse checks, drafts, and other investments of deposit;
2) To sign checks, drafts or other orders for the payment of money, provided that any check, draft or order in the amount of \$2,500.00 or more shall require two signatures, one of which shall be that of a director.

BAWSCA General Manager
BAWSCA Sr. Admin Analyst

1) To transfer funds between accounts as may be necessary or desired for investment purposes.

Deleted: Staff Analyst

AND RESOLVED FURTHER that the General Manager is authorized to complete each depository bank's customary blank signature card forms in order to conveniently exercise the authority granted by this resolution, and any resolutions printed on those forms shall be deemed adopted as part of this resolution.

PASSED AND ADOPTED this 19th day of January, 2006 by the following vote:

Deleted: February

Deleted: 2004

AYES: Directors

NOES:

ABSENT:

Chair, Board of Directors

ATTEST:

General Manager and Secretary

RESOLUTION NO. 2006-01

BAY AREA WATER SUPPLY AND CONSERVATION AGENCY

AUTHORIZING SIGNATURES FOR BANK ACCOUNTS

OF BAWSCA AND BAWUA

WHEREAS the Bay Area Water Supply and Conservation Agency (BAWSCA) and the Bay Area Water Users Association (BAWUA), of which BAWSCA is the sole member, have established deposit accounts with Borel Bank and Trust Company in San Mateo and may establish accounts at other institutions in the future;

RESOLVED that the following persons shall have signature authority for accounts of BAWSCA and BAWUA as described below;

BAWSCA Chair
BAWSCA Vice-Chair
BAWSCA General Manager
or BAWSCA Sr. Admin Analyst
Director from City of Foster City
Director from City of Burlingame
Director from City of Millbrae

- 1) To deposit funds of the Agency in such accounts and to endorse checks, drafts, and other investments of deposit;
- 2) To sign checks, drafts or other orders for the payment of money, provided that any check, draft or order in the amount of \$2,500.00 or more shall require two signatures, one of which shall be that of a director.

BAWSCA General Manager
BAWSCA Sr. Admin Analyst

- 1) To transfer funds between accounts as may be necessary or desired for investment purposes.

RESOLVED that the General Manager is authorized to complete each depository bank's customary blank signature card forms in order to conveniently exercise the authority granted by this resolution, and any resolutions printed on those forms shall be deemed adopted as part of this resolution.

RESOLVED FURTHER that Resolution No. 2004-02 is rescinded.

PASSED AND ADOPTED this 19th day of January, 2006 by the following vote:

AYES: Directors

NOES:

ABSENT:

Chair, Board of Directors

ATTEST:

General Manager and Secretary