

<b>Items 6, 7, 8, 9 and 10</b> <b>Files 11-0870, 11-0871, 11-0872, 11-0874 &amp; 11-0875</b>	<b>Department:</b> Public Utilities Commission (PUC)
<b>EXECUTIVE SUMMARY</b>	
<p style="text-align: center;"><b>Legislative Objectives</b></p>	
<ul style="list-style-type: none"> <li>• <u>File No. 11-0870</u>: The proposed resolution would authorize the General Manager of the San Francisco Public Utilities Commission (PUC) to execute amendments to increase Engineering Project Design Services Agreement No. CS-879A for Water System Improvement Program (WSIP)-funded projects.</li> <li>• <u>File No. 11-0871</u>: The proposed resolution would authorize the General Manager of the PUC to execute amendments to increase Engineering Project Design Services Agreement No. CS-879B for WSIP-funded projects.</li> <li>• <u>File No. 11-0872</u>: The proposed resolution would authorize the General Manager of the PUC to execute amendments to increase Engineering Project Design Services Agreement No. CS-879C for WSIP-funded projects.</li> <li>• <u>File No. 11-0874</u>: The proposed resolution would authorize the General Manager of the PUC to execute amendments to increase Construction Management Services Agreement No. CS-918 for WSIP-funded projects.</li> <li>• <u>File No. 11-0875</u>: The proposed resolution would authorize the General Manager of the PUC to execute amendments to increase Program Construction Management Services Agreement No. CS-963 for WSIP-funded projects.</li> </ul>	
<p style="text-align: center;"><b>Key Points</b></p>	
<ul style="list-style-type: none"> <li>• The PUC is requesting amendments to increase the not-to-exceed amounts for five existing WSIP services agreements: Agreement CS-879A (File 11-0870); Agreement CS-879B (File 11-0871); Agreement CS-879C (File 11-0872); Agreement CS-918 (File 11-0874); and Agreement CS-963 (File 11-0875) and to extend terms for two of the existing WSIP services agreements: Agreement CS-918 (File 11-0874) and Agreement CS-963 (File 11-0875).</li> <li>• The PUC is requesting the five amendments to adjust for previously unforeseen changes in scale, scope, and timing for their respective WSIP projects.</li> <li>• According to the PUC, delay or failure to approve the proposed amendments would likely result in (a) delays to the construction for WSIP regional projects (Files 11-0870, 11-0871, and 11-0872); (b) potentially inadequate quality assurance inspections of the tunnel construction and the fabrication of the new pipe for the tunnel (File 11-0874); and (c) a lack of capacity to complete the WSIP as outlined in the June 2011 Revised WSIP proposal recently approved by the PUC (File 11-0875).</li> </ul>	
<p style="text-align: center;"><b>Fiscal Impact</b></p>	
<ul style="list-style-type: none"> <li>• The total increased cost of the five increased not-to-exceed amounts is \$17,200,000. The PUC advises that using surplus funds from other previously approved WSIP projects will be used to fund the increased costs of \$17,200,000.</li> </ul>	
<p style="text-align: center;"><b>Recommendations</b></p>	
<ul style="list-style-type: none"> <li>• Approve the four proposed resolutions under Files 11-0870, 11-0871, 11-0872, and 11-0874.</li> <li>• Because the PUC has requested the transfer of responsibilities from one existing agreement, previously awarded through a competitive process, to another existing agreement, also previously awarded through a competitive process, without first conducting a separate additional competitive process, approval of the fifth resolution, File 11-0875, is a policy matter for the Board of Supervisors.</li> </ul>	

## MANDATE STATEMENT AND BACKGROUND

### Mandate Statement

In accordance with City Charter Section 9.118(b), (a) any contract or agreement that exceeds \$10,000,000 in anticipated expenditures, and (b) any contract amendment that exceeds \$500,000 is subject to Board of Supervisors approval.

### Background

The San Francisco Public Utilities Commission (PUC)'s Water System Improvement Program (WSIP) consists of 81 projects (35 local projects and 46 regional projects) to repair, replace, and seismically upgrade the Hetch Hetchy water system's aging pipelines, tunnels, pumps, tanks, reservoirs and dams. PUC commenced the WSIP in FY 2002-2003 and is scheduled to complete all projects by the end of July 2016. Total estimated costs for the 81 WSIP projects are \$4,585,556,260, including financing costs.

Files No. 11-0870, 11-0871, and 11-0872

On October 9, 2007, as the result of a competitive Request for Qualifications (RFQ) process, PUC awarded four separate agreements with identical scopes to provide as-needed engineering design services for WSIP projects. Three of the agreements are germane to this report:

- The Sunol Valley Water Treatment Plant (SVWPT) Expansion and Treated Water Reservoir (TWR) and the Tesla Treatment Facility (File 11-0870)
- Seismic Upgrade of Bay Division Pipeline Nos. 3&4 at Hayward Fault Crossing; Crystal Springs/San Andreas Transmission Upgrade; and Lower Crystal Springs Dam Improvements; SVWTP Expansion and TWR (File 11-0871)
- Harry Tracy Water Treatment Plant Long Term Improvements and the Regional and San Francisco Groundwater projects (File 11-0872)

Each of the three engineering design services agreements was for a not-to-exceed amount of \$9,000,000, and each had a term of seven years, from December 7, 2007 through December 6, 2014. Because each of the three agreements was under the \$10,000,000 threshold established in Charter Section 9.118(b), these agreements were not subject to approval by the Board of Supervisors. However, on October 20, 2009, the Board of Supervisors approved amendments to increase each of the three agreements' not-to-exceed amounts above \$10,000,000 (File 09-1068), as summarized in Table 1 below:

**Table 1: Summary of Three Engineering Project Design Service Agreements**

File Nos.	Contract No.	Contractor	Original Not-to-Exceed Amount	Amended Not-to-Exceed Amount*
11-0870	CS-879A	MWH/AGS/Lee Inc. (a Joint Venture)	\$9,000,000	\$11,000,000
11-0871	CS-879B	URS Corporation	\$9,000,000	\$14,000,000
11-0872	CS-879C	Kennedy/Jenks Consultants	\$9,000,000	\$13,800,000

\* Approved by the Board of Supervisors on October 20, 2009 (File 09-1068).

File No. 11-0874

Based on a competitive Request for Proposals (RFP) process, and as previously approved by the Board of Supervisors on August 11, 2009 (File 09-0869), on September 1, 2009, the PUC entered into an agreement with Hatch Mott MacDonald to provide construction management services for the New Irvington Tunnel Project for a not-to-exceed amount of \$15,000,000 with a term of up to five years, from August 1, 2009 through July 31, 2014.

The existing Irvington Tunnel, which connects the water collected from the Sierra Nevada mountains and the Alameda Watershed to the Bay Area water distribution pipelines, was completed in 1930 and has served a steadily increasing number of Bay Area water customers to the point where the Tunnel cannot be taken out of service for repairs or maintenance without impacting the water supply to existing Bay Area water customers. In addition, the eastern end of the Irvington Tunnel is within 2,000 feet of the Calaveras Fault, such that a major earthquake along the Calaveras Fault or any of the smaller nearby faults could result in significant structural damage to the existing Tunnel.

The New Irvington Tunnel Project involves (a) constructing a second Irvington Tunnel, from the Alameda West Portal<sup>1</sup> to the Irvington Portal in the City of Fremont, and (b) replacing the existing Alameda West Portal and Irvington Portal with new, more seismically reliable portals. The New Irvington Tunnel will allow for the shut down and repair of the existing Irvington Tunnel and will improve the seismic reliability of this section of the Hetch Hetchy Water System.

File No. 11-0875

Based on a competitive RFP process, and as previously approved by the Board of Supervisors on February 3, 2009 (File 08-1536), on March 8, 2009, the PUC entered into a seven-year agreement, extending from March 8, 2009 through March 7, 2016 with AECOM USA Inc. (AECOM) for AECOM to provide overall program construction management services to the PUC WSIP for a not-to-exceed amount of \$26,000,000. Under this agreement, AECOM's overall program construction management services include (a) oversight of the regional and project-specific construction management teams, (b) quality assurance oversight and management, (c) oversight of construction contractor compliance with the WSIP safety plan, (d) implementation (including training and technical support to PUC staff and other WSIP consultants) of the construction controls information system, and (e) administrative oversight of construction contracts.

**DETAILS OF PROPOSED LEGISLATION**

The five proposed resolutions would authorize the General Manager of the San Francisco Public Utilities Commission (PUC) to execute amendments to existing agreements to increase the not-to-exceed amounts for five Water System Improvement Program (WSIP) service agreements and to extend the terms for two of the five existing WSIP service agreements, as summarized in Table 2 below.

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<sup>1</sup> Portals are the connections at the entrance and exit of a tunnel.

**Table 2: Summary of Five Proposed Service Agreement Amendments**

<b>File No.</b>	<b>Agreement</b>	<b>Contractor</b>	<b>Proposed Term Extension</b>	<b>Existing Agreement Not-to-Exceed Amount</b>	<b>Proposed Amendment Not-to-Exceed Amount</b>	<b>Proposed Not-to-Exceed Increase</b>	<b>Percent Increase</b>	<b>Average Hourly Billing Rate</b>	<b>Additional Services (in hours)</b>	<b>Additional FTEs *</b>
11-0870	Engineering Project Design Services, Agreement No. CS-879A	MWH/AGS/Lee Inc. (a Joint Venture)	None	\$11,000,000	\$14,000,000	\$3,000,000	27.3%	\$127.44	7,600	3.10
11-0871	Engineering Project Design Services, Agreement No. CS-879B	URS Corporation	None	14,000,000	15,000,000	1,000,000	7.1%	\$116.00	7,600	1.13
11-0872	Engineering Project Design Services, Agreement No. CS-879C	Kennedy/Jenks Consultants	None	13,800,000	16,500,000	2,700,000	19.6%	\$144.56	7,600	2.46
11-0874	Construction Management Services, Agreement No. CS-918	Hatch Mott MacDonald	1 year	15,000,000	17,500,000	2,500,000	16.7%	\$156.10	9,500	5.39
11-0875	Construction Management Services, Agreement No. CS-963	AECOM USA, Inc.	4 months, 22 days	26,000,000	34,000,000	8,000,000	30.8%	\$119.04	4,750	4.42
		<b>Total</b>		<b>\$79,800,000</b>	<b>\$97,000,000</b>	<b>\$17,200,000</b>	<b>21.6%</b>			

\* Full-time Equivalencies

Source: PUC.

As shown in Table 2 above, two of the proposed amendments would extend the agreement term. File 11-0874 would extend the agreement between the PUC and Hatch Mott MacDonald by one year (from its current term of five years from August 1, 2009 through July 31, 2014 to a new term of six years from August 1, 2009 through July 31, 2015). File 11-0875 would extend the agreement between the PUC and AECOM by four months and 22 days (from its current term of seven years, from March 8, 2009 through March 7, 2016 to a new term of seven years, four months, and 22 days, from March 8, 2009 through July 29, 2016).

The reasons for the requested increased amounts for the five existing agreements and for the requested extended terms of two of those five agreements are explained below.

#### File 11-0870

According to Ms. Kathryn How of the PUC, the proposed \$3,000,000 increase to the Engineering Project Design Services Agreement with MWH/AGS/Lee Inc. (Joint Venture), from \$11,000,000 to \$14,000,000 is for new engineering services to relocate underground utilities and provide additional geotechnical engineering support during construction for the Sunol Valley Water Treatment Plant Expansion (SVWTP) and Treated Water Reservoir (TWR) Project. Ms. How advises that the proposed amendment is necessary for three reasons: (1) a major scoping change involving the replacement of chemical tanks and chemical boilers; (2) relocation of undocumented underground utilities; and (3) additional geotechnical engineering support due to unforeseen soil conditions.

#### File 11-0871

According to Ms. How, the proposed \$1,000,000 increase to Engineering Project Design Services Agreement with URS Corporation, from \$14,000,000 to \$15,000,000 will provide ongoing engineering services related to four WSIP projects: (1) additional seismic engineering design services for the Seismic Upgrade of Bay Division Pipeline Nos. 3 & 4 Project; (2) additional geotechnical engineering support during construction of the Crystal Springs/San Andreas Transmission Upgrade Project; (3) additional engineering services to address unforeseen conditions associated with the micro-tunneling work required for SVWTP Expansion and TWR Project; and (4) additional support needed to address California Division of Safety of Dam requirements for the Lower Crystal Springs Dam Improvement Project.

#### File 11-0872

According to Ms. How, the proposed \$2,700,000 increase to the Engineering Project Design Services Agreement with Kennedy/Jenks Consultants, from \$13,800,000 to \$16,500,000, will provide ongoing and additional engineering services that are necessary due to the expanded design scopes and construction schedule associated with the Harry Tracy Water Treatment Plant Project, and provide Groundwater Modeling and Test Well installation support for the Regional Groundwater Storage and Recovery and San Francisco Ground Water Supply Projects.

File 11-0874

According to Ms. Julie Labonte of the PUC, the proposed \$2,500,000 increase and one-year extension to the New Irvington Tunnel Construction Management Services Agreement with Hatch Mott MacDonald, from \$15,000,000 to \$17,500,000, will provide ongoing services for quality assurance inspections and construction phase services. Additionally, the proposed amendment would increase the current agreement term end-date by one year, from July 31, 2014 to July 31, 2015. According to Mr. Carlos Jacobo, PUC Budget Director,

“The increase in construction management is due to additional costs for additional oversight and inspection to cover extended night shift work at multiple tunnel headings, and specialty inspection of installation of the steel tunnel lining alternative selected by the contractor. Based on unforeseen and more challenging field geotechnical conditions, the tunnel production rate is slower than the projected production rate. Furthermore, the ongoing services needed under this amendment consist of quality assurance inspections and various construction phase services related to the addition of 15,000 linear feet of new welded steel pipe liner for the tunnel.”

File 11-0875

According to Mr. E. Harvey Elwin of the PUC, the proposed \$8,000,000 increase and four month, 22 day extension to the WSIP Construction Management Agreement with AECOM will provide ongoing construction management services and extend services through the WSIP completion date, which was recently revised from March 2016 to July 2016. The proposed amendment would change the current agreement term end-date from March 7, 2016 to July 29, 2016. Mr. Elwin notes that the cost for the additional work to be performed during the requested extended term of four months and 22 days accounts for an estimated \$3,000,000 of the proposed \$8,000,000 increase to the agreement.

Under the proposed amended agreement, AECOM would also be taking on tasks previously performed by Parsons Water & Infrastructure Inc. (see Policy Considerations, below). These tasks account for the remaining estimated \$5,000,000 of the proposed \$8,000,000 amendment, and include risk management, supplier quality surveillance, and dispute resolution and partnering tasks.

## FISCAL IMPACTS

As shown in Table 3 below, the total of the five proposed agreement amendments would result in a new total not-to-exceed amount of \$97,000,000, which is an increase of \$17,200,000, or 21.6 percent, above the existing not-to-exceed amounts which total \$79,800,000. All five of the agreements were awarded through a competitive process. The funding source for these agreements, including the requested increased amounts, is PUC Water Revenue Bonds.

**Table 3: Summary of Five Proposed Increases to Agreement Not-to-Exceed Amounts**

File No.	Contract No.	Existing Agreement Not-to-Exceed Amount	Proposed Amendment Not-to-Exceed Amount	Increase	Percent Increase
11-0870	CS-879A	\$11,000,000	\$14,000,000	\$3,000,000	27.3%
11-0871	CS-879B	14,000,000	15,000,000	1,000,000	7.1%
11-0872	CS-879C	13,800,000	16,500,000	2,700,000	19.6%
11-0874	CS-918	15,000,000	17,500,000	2,500,000	16.7%
11-0875	CS-963	26,000,000	34,000,000	8,000,000	30.8%
	<b>Total</b>	<b>\$79,800,000</b>	<b>\$97,000,000</b>	<b>\$17,200,000</b>	<b>21.6%</b>

The PUC is proposing to use surplus funds from other existing WSIP projects to fund the \$17,200,000 in increased costs for the five subject existing agreements. Table 4 below identifies the other existing WSIP projects from which surplus funds would be used to fund the increased costs of the five subject existing agreements.

**Table 4: Funding Sources for the Five Proposed Agreement Amendments**

File No.	Proposed Increase to Existing Agreements	Funding Source (Surplus from Other WSIP Projects)	Amount
11-0870	\$3,000,000	CUW38101 Sunol Valley Water Treatment Plant Expansion and Treated Water Reservoir	\$3,000,000
11-0871	\$1,000,000	CUW35302 Seismic Upgrade of Bay Division Pipeline Nos. 3&4	\$385,000
		CUW37101 Crystal Springs/San Andreas Transmission Upgrade	\$305,000
		CUW38101 Sunol Valley Water Treatment Plant Expansion and Treated Water Reservoir	\$200,000
		CUW35401 Lower Crystal Springs Dam Improvement	\$110,000
11-0872	\$2,700,000	CUW36701 Harry Tracy Water Treatment Plant Long Term Improvement Project	\$1,700,000
		CUW301 Regional and San Francisco Groundwater Projects	\$1,000,000
11-0874	\$2,500,000	CUW35901 New Irvington Tunnel	\$2,500,000
11-0875	\$8,000,000	CUW39201 Program Management Project	\$8,000,000
<b>TOTALS</b>	<b>\$17,200,000</b>		<b>\$17,200,000</b>

**POLICY CONSIDERATIONS****Delay or Inaction on the Five Proposed Amendments Would Likely Delay or Affect the Quality Assurance of WSIP Projects**

According to PUC managers, delay or inaction on the proposed agreement amendments would have detrimental impacts on WSIP projects.

- File 11-0870, 11-0871, and 11-0872 - According to Ms. How, inaction on the proposed amendments to increase the engineering design service agreements “will likely result in delays to the construction for several WSIP regional projects.”
- File 11-0874 - According to Ms. Labonte, without the proposed increase in funding and extension of the agreement for construction management services, PUC would potentially have inadequate quality assurance inspections of the New Irvington Tunnel construction and the fabrication of the new pipe for the Tunnel.
- File 11-0875 - According to Mr. Elwin, a delay in amending the proposed agreement would “result in a lack of capacity to complete the WSIP as outlined in the June 2011 Revised WSIP proposal.”

**The Amendment to the Construction Management Contract with AECOM Includes Responsibilities Previously Completed by a Different Contractor**

Under the proposed amendment to Agreement No. CS-963 (File 11-0875) between the PUC and AECOM USA Inc. (AECOM), AECOM would add tasks previously assigned to another PUC contractor, Parsons Water & Infrastructure Inc. (PWI). These tasks, which include risk management, supplier quality surveillance, and dispute resolution and partnering tasks, account for an estimated \$5,000,000 of the proposed \$8,000,000 amendment with AECOM.

According to Mr. Surinderjeet Bajwa, Manager of the PUC Project Management Bureau and Deputy Director of WSIP Pre-Construction,

“The Parsons Water & Infrastructure (PWI) scope addressed mostly pre-construction Program level scope items and few construction level scope items. In this reassignment the program construction management services scope of work addressing risk management, supplier quality surveillance (SQS), and dispute resolution and partnering (with construction management teams and construction contractors) that were previously provided by Parsons Water & Infrastructure under the Program Project Pre-Construction Management Services agreement are now going to be performed by AECOM. The reason of this realignment is that since the WSIP program is predominantly in construction phase and the above listed services are construction oriented, and since AECOM is the program Construction Management Consultant thus it should handle all the construction related items.”

Mr. Bajwa adds that both PWI and AECOM are equally capable of fulfilling the responsibilities to be added to AECOM’s agreement with the PUC, but that having AECOM fulfill the



responsibilities, instead of PWI, will streamline PUC's transition of the program from pre-construction to construction activities. However, the PUC has proposed transferring these responsibilities from PWI's existing agreement, which was awarded through a competitive process, to AECOM's existing agreement, which was also awarded through a competitive process, without first conducting an additional competitive process. According to Mr. Bajwa, the PUC believes that due to the highly specialized nature of the work, it would be more costly for the PUC to conduct another competitive process than to have those responsibilities added to the AECOM agreement.

## RECOMMENDATIONS

1. Approve the four proposed resolutions under Files 11-0870, 11-0871, 11-0872, and 11-0874.
2. Because the PUC has requested the transfer of responsibilities from one existing agreement, previously awarded through a competitive process, to another existing agreement, also previously awarded through a competitive process, without first conducting a separate additional competitive process, approval of the fifth resolution, File 11-0875, is a policy matter for the Board of Supervisors.