

Item 5
File 11-0052

Department:
Public Utilities Commission (PUC)

EXECUTIVE SUMMARY

Legislative Objective

- The proposed resolution would authorize an agreement between the Public Utilities Commission (PUC) and HDR Engineering, Inc. for HDR Engineering to provide construction management services for the PUC's Harry Tracy Water Treatment Plant (HTWTP) Project (a) for a maximum term of 60 months or five years, from February 25, 2011 through February 24, 2016 and (b) in an amount not to exceed \$16,000,000.

Key Points

- The Harry Tracy Water Treatment Plant (HTWTP) Long Term Improvements Project is one of 86 separate capital improvement projects included in the PUC's Water System Improvement Program (WSIP), which will provide increased water delivery capacity and seismic reliability throughout the Hetch Hetchy water system. The HTWTP treats water pumped from the Peninsula for delivery to customers in Northern San Mateo County and San Francisco. The HTWTP Project will increase the capacity of the HTWTP from 120 million gallons per day to 140 million gallons per day and improve seismic reliability following a major earthquake.
- On April 20, 2010, the Board of Supervisors appropriated \$359,063,409 for the HTWTP Project (File 10-0337). However, the current estimated cost for the HTWTP is \$351,525,000, a reduction of \$7,538,409 or 2.1 percent. According to Ms. Rosiana Angel, Manager of Infrastructure Budgeting and Administrative Services at the PUC, the reduction reflects (a) the completion of the project design, which led to a more accurate estimate of construction requirements, and (b) the timely completion of the environmental review and design activities.
- After a competitive Request for Proposal (RFP) process, the PUC selected HDR Engineering, Inc. to provide construction management services, including specialized staff, for the HTWTP Project during the Project's construction and closeout phases.

Fiscal Impact

- The proposed agreement between the PUC and HDR Engineering, in a not-to-exceed amount of \$16,000,000, would be funded from \$298,408,678 in proceeds, previously appropriated by the Board of Supervisors (File 10-0337), from the sale of Water Revenue Bonds, which were placed on Controller's reserve on November 3, 2010 by the Budget and Finance Committee, pending supporting documentation from the PUC for construction and construction management-related activities (File 10-1297).

Recommendation

- Approve the proposed resolution.

MANDATE STATEMENT / BACKGROUND**Mandate Statement**

City Charter Section 9.118 (b) requires any agreement which would result in anticipated expenditures of \$10,000,000 or more by the City and County be approved by the Board of Supervisors.

Background

The Harry Tracy Water Treatment Plant Long Term Improvements Project is one of 86 separate capital improvement projects included in the PUC's Water System Improvement Program (WSIP)¹. The Harry Tracy Water Treatment Plant (HTWTP) treats water pumped from the Peninsula local reservoirs for delivery to customers in Northern San Mateo County and San Francisco. The HTWTP Project will increase the capacity of the HTWTP from 120 million gallons per day to 140 million gallons per day and improve seismic reliability following a major earthquake. According to the WSIP Regional Projects Quarterly Report for the 1st Quarter of FY 2010-2011, the HTWTP Project includes: (a) extensive seismic, hydraulic, and electric upgrades throughout the Plant, (b) five new filters, (c) improvements to the washwater² and sludge handling systems, (d) a new 11 million gallon treated water reservoir, and (e) associated piping and equipment replacement.

In 2009, the PUC discovered the Serra Fault line underneath the proposed HTWTP site, which resulted in the PUC (1) adding further structural reinforcements to the existing facilities, (2) replacing the two existing water reservoirs with a new water reservoir, and (3) including various associated facility improvements. These changes delayed the construction completion date by approximately five months, from December 2014 to April 2015. Ms. Rosiana Angel, Manager of Infrastructure Budgeting and Administrative Services at the PUC, states that the changes resulted in revised HTWTP Project costs from the previous HTWTP Project cost estimate of \$175,760,000 to \$359,063,409, an increase of \$183,303,409 or 104.3 percent.

On April 20, 2010, the Board of Supervisors appropriated \$359,063,409 in total estimated costs for the Harry Tracy Water Treatment Plant Project, including (a) \$54,091,322 in appropriated and unreserved funds, and (b) \$304,972,087 in appropriated and reserved funds (Ordinance 92-10, File 10-0337). Ordinance 92-10 placed the entire appropriation of \$304,972,087 on two separate but overlapping reserves including (a) a Budget and Finance Committee reserve, and (b) a Controller's reserve pending approval of Environmental Impact Reports (EIRs) prepared pursuant to the California Environmental Quality Act (CEQA).

¹ Propositions A and E, which were approved by the San Francisco voters on November 4, 2002, authorized the PUC to issue Wastewater and Water Revenue Bonds to finance the PUC's \$4,585,556,261 Water System Improvement Program, which consists of 86 separate projects designed to provide increased water delivery capacity and seismic reliability throughout the Hetch Hetchy water system. However, the most recent quarterly report published by the PUC on November 3, 2010 (WSIP Regional Projects Quarterly Report for the 1st Quarter of FY 2010-2011) estimates that WSIP will have a total cost of \$4,523,000,000.

² Washwater is the water being used to clean the filters at the Harry Tracy Water Treatment Plant.

On November 3, 2010, the Budget and Finance Committee of the Board of Supervisors (a) released from reserve \$298,408,678 of the \$304,972,087 on Budget and Finance Committee reserve for construction and construction management-related activities and transferred the \$298,408,678 to a Controller's reserve, (b) instructed the Controller to release the amount of funds needed for construction and construction management-related activities of the HTWTP Project upon receiving supporting documentation from the PUC, and (c) instructed the Controller to return any funds remaining on Controller's reserve to the Budget and Finance Committee reserve (File 10-1297). In addition, on November 9, 2010, the Board of Supervisors approved the EIR findings under CEQA (File 10-1302).

As of November 3, 2010, the total estimated HTWTP Project cost has been revised downward by \$7,538,409, from \$359,063,409 to \$351,525,000, as detailed in Table 1 below. The Budget and Legislative Analyst notes that the current estimated Project cost reflects a reduction of \$7,538,409 or 2.1 percent from the revised Project cost of \$359,063,409. Ms. Angel states that this reduction in current Project costs reflects (a) the completion of the project design, which led to a more accurate estimate of construction requirements, and (b) the timely completion of the environmental review and design activities.

**Table 1: Harry Tracy Water Treatment Plant
Long-Term Improvement Estimated Project Costs**

Construction	\$ 278,284,000	
Total Construction Costs		\$ 278,284,000
Project Management	8,786,000	
Planning	4,816,000	
Environment Review	2,422,000	
Design	20,123,000	
Bid and Award	685,000	
Construction Management ³	36,255,000	
Construction Closeout	154,000	
Total Non-Construction Costs		73,241,000
Total Budget		\$ 351,525,000

On April 1, 2010, the PUC issued a Request for Proposal (RFP) for construction management services for the HTWTP Project. However, Ms. Angel states that a protest was received alleging that one of the bidders had access to non-public information regarding the HTWTP Project, and the PUC, in consultation with the City Attorney's Office, re-issued the RFP on October 13, 2010. On November 8, 2010, three firms, HDR Engineering, Inc., URS Corporation, and MWH Constructors, submitted proposals that were evaluated by a PUC selection committee comprised of staff from the PUC, the San Mateo County Department of Public Works, and the East Bay Municipal Utilities District. Table 2 below shows the results of the selection committee's scoring of the three written proposals, oral interviews, and overhead and profit schedules.

³ Ms. Angel states that of the \$36,255,000 for construction management, (a) \$16,000,000 would be allocated to the proposed, subject agreement with HDR Engineering, and (b) the remaining \$20,255,000 would be allocated for the PUC staff for in-house construction management services and engineering support for construction on the HTWTP Project.

Table 2: HTWTP Project Construction Management Services Scoring Matrix

	HDR Engineering, Inc.	URS Corporation	MWH Constructors
Written Proposal (60 Points)	50.650	50.200	49.225
Oral Interview (25 Points)	21.000	16.475	16.850
Overhead and Profit Schedule (15 Points)	13.000	15.000	15.000
Total (100 Points)	84.650	81.675	81.075

As shown in Table 2 above, HDR Engineering received the highest score of 84.650 out of a total score of 100 points. After negotiations between the PUC and HDR Engineering regarding the scope of services, including a 21.63 percent Local Business Enterprise participation goal for this agreement, the PUC is recommending that an agreement for construction management services, the subject of the proposed resolution, in an amount not to exceed \$16,000,000, be awarded to HDR Engineering.

DETAILS OF PROPOSED LEGISLATION

The proposed resolution would authorize an agreement between the Public Utilities Commission (PUC) and HDR Engineering, Inc. for HDR Engineering to provide construction management services for the PUC's Harry Tracy Water Treatment Plant (HTWTP) Project (a) for a maximum term of 60 months or five years, from February 25, 2011 through February 24, 2016, and (b) in an amount not to exceed \$16,000,000.

According to Ms. Angel, the proposed agreement period ending on February 24, 2016 exceeds the anticipated project construction completion date of April 2015 to allow (1) for construction management tasks that occur after construction ends (such as verifying the project as-built to specifications, preparation of the close-out report, and the finalization of testing and commissioning, including operation and maintenance manuals) and (2) any delays in construction activities.

Ms. Angel advises that the not-to-exceed amount of \$16,000,000 is the estimated maximum cost of the proposed agreement, and the PUC does not anticipate future modifications to the scope of services or total cost of the proposed agreement. Table 3 below shows the anticipated expenditure plan for the proposed agreement in a not-to-exceed amount of \$16,000,000.

Table 3: Anticipated Expenditures Under the Proposed Agreement between PUC and HDR Engineering

Construction and Closeout Task Descriptions	Construction Phase					Closeout Phase	Total Estimated Expenditures
	Months 1-12	Months 13-24	Months 25-36	Months 37-48	Months 49-54	Months 55-60	
Safety, Compliance Management, Construction Contract Management, Quality Assurance/Quality Control, Project Controls, Environmental Compliance, Outreach, Testing and Start-up, Acceptance, Closeout and Turnover	\$3,300,000	\$3,100,000	\$3,000,000	\$3,000,000	\$1,427,772	\$400,000	\$14,227,772
Other Direct Charges ⁴ and Mark-up Fees	\$400,000	\$400,000	\$400,000	\$400,000	\$147,228	\$25,000	\$1,772,228
Total (60 months)	\$3,700,000	\$3,500,000	\$3,400,000	\$3,400,000	\$1,575,000	\$425,000	\$16,000,000

The attached memorandum from Ms. Angel describes in detail (a) the construction management responsibilities, to be performed by HDR Engineering, (b) the estimated hours for each responsibility, and (c) the range of hourly rates.

Ms. Angel states that the PUC will lead the construction management team, while HDR Engineering will provide specialized staff to augment the construction management services provided by PUC's in-house construction management staff on the HTWTP Project because the expertise and capabilities of the PUC's in-house construction management staff are either not available or not sufficient for the scope and complexity of the construction management services required by the HTWTP Project.

Ms. Angel states that delays in commencing construction of the HTWTP would impact the shutdown and construction schedules of other WSIP projects, as WSIP shutdown schedules contain a series of shutdowns impacting the entire water system. Extensive coordination has been invested to schedule the sequencing of the corresponding shutdowns such that the PUC will be able to maintain quality and safe water delivery to PUC customers. A delay in one project would precipitate a domino effect on other projects, resulting in significant cost and schedule variances to several WSIP projects.

According to Section 21 of the proposed agreement with HDR Engineering, the PUC maintains the right to terminate the agreement at any time, with at least 14 days written notice, without penalty.

FISCAL IMPACT

The proposed agreement between the PUC and HDR Engineering would be funded from \$298,408,678 in proceeds, previously appropriated by the Board of Supervisors (File 10-0337),

⁴ Other Direct Charges include travel costs, equipment rental, and other fee-based services.

from the sale of Water Revenue Bonds, which were placed on a Controller's Reserve on November 3, 2010, pending supporting documentation from the PUC (File 10-1297). Water Revenue Bonds are funded with revenues received from the PUC's water ratepayers.

In addition, Ms. Angel advises that based on a competitive bid process, on January 28, 2011, the PUC awarded the main construction agreement to Kiewit Infrastructure West totaling \$174,197,000 for construction of the HTWTP Project. Ms. Angel advises that the PUC will request a release of this \$174,197,000, plus a ten percent construction contingency of \$17,419,700, for a total of \$191,616,700, from the Controller's reserve to fund this recently awarded construction agreement. Ms. Angel states that the PUC anticipates awarding several smaller construction agreements in the near future for completion of the HTWTP Project.

Therefore, if the proposed resolution is approved, the PUC will request that the Controller release a total of \$207,616,700 from reserve, including (a) \$16,000,000 for the subject agreement for construction management services with HDR Engineering, and (b) \$191,616,700 for the recently awarded construction agreement with Kiewit Infrastructure West, including the construction contingency. If the total \$207,616,700 is released from Controller's reserve, a remaining balance of \$90,791,978 from the previously reserved \$298,408,678 will remain on Controller's reserve.

RECOMMENDATION

Approve the proposed resolution.



SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Infrastructure Budget and Administrative Services
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February 2, 2011

Mr. Jonathan Tang
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GENERAL MANAGER

Subject: Detailed Breakdown of CS-919 R - Construction Management Services for the
Harry Tracy Water Treatment Plant (HTWTP) Long Term Improvements Project

Dear Mr. Tang:

Below is a detailed breakdown of the spending plan under this Agreement. This spending plan is broken down by twelve month periods for the duration of the Agreement.

The duration of this Agreement is 60 months.

The average billing rate is \$137.23 and the hourly rate ranges from \$62.30 to \$220.00

Table 1 - Anticipated Spending Plan in Dollars

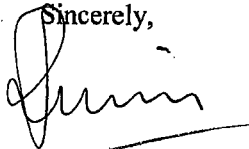
Service Description	Construction Phase					Closeout Phase	Total Construction and Closeout Phase
	Year 1 (12 Months)	Year 2 (12 Months)	Year 3 (12 Months)	Year 4 (12 Months)	Year 5 (6 months)	Year 5 (6 months)	
Safety, Mitigation Monitoring and Resource Planning	\$300,000	\$0	\$0	\$0	\$0	\$0	\$300,000
Construction Contract Administration	\$745,000	\$895,000	\$795,000	\$795,000	\$427,772	\$100,000	\$3,757,772
Construction Quality Assurance	\$1,005,000	\$1,005,000	\$1,005,000	\$1,005,000	\$400,000	\$50,000	\$4,470,000
Construction Contract Management	\$350,000	\$350,000	\$350,000	\$350,000	\$150,000	\$100,000	\$1,650,000
Construction Project Control	\$250,000	\$250,000	\$250,000	\$250,000	\$150,000	\$50,000	\$1,200,000
Construction Environmental Compliance	\$650,000	\$600,000	\$600,000	\$600,000	\$300,000	\$100,000	\$2,850,000
Other Direct Charges & Mark-up Fees	\$400,000	\$400,000	\$400,000	\$400,000	\$147,228	\$25,000	\$1,772,228
Total	\$3,700,000	\$3,500,000	\$3,400,000	\$3,400,000	\$1,575,000	\$425,000	\$16,000,000

Table 2 - Anticipated Spending Plan in Hours

Service Description	Construction Phase					Closeout Phase	Total Construction and Closeout Phase
	Year 1 (12 Months)	Year 2 (12 Months)	Year 3 (12 Months)	Year 4 (12 Months)	Year 5 (6 months)	Year 5 (6 months)	
Safety, Mitigation Monitoring and Resource Planning	2,447	-	-	-	-	-	2,447
Construction Contract Administration	5,802	6,970	6,191	6,191	3,331	779	29,264
Construction Quality Assurance	9,031	9,031	9,031	9,031	3,595	449	40,169
Construction Contract Management	2,325	2,325	2,325	2,325	996	664	10,960
Construction Project Control	1,574	1,574	1,574	1,574	945	315	7,557
Construction Environmental Compliance	5,975	5,515	5,515	5,515	2,758	919	26,197
Total	27,154	25,416	24,637	24,637	11,624	3,126	116,594

We thank you for your continued support

Sincerely,



Rosiana Angel,
Manager of the Infrastructure Budget and Administrative Services

cc: Husam Masri
CS-919 R File