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Department of Utilities
Engineering Services Division

CITY OF SACRAMENTO
CALIFORNIA

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September 8, 2000

APPROVED

SEP 26 2000

OFFICE OF THE
CITY CLERK

City Council
Sacramento, California

Honorable Members in Session:

SUBJECT: SACRAMENTO RIVER WATER TREATMENT PLANT REPLACEMENT INTAKE PROJECT (ZF56) - APPROVAL OF SUPPLEMENTAL AGREEMENT NO. 1 WITH CH2M HILL FOR AN AMOUNT NOT-TO-EXCEED \$278,000

LOCATION AND COUNCIL DISTRICT:

Sacramento River Water Treatment Plant (City Wide)

STAFF RECOMMENDATION:

Staff recommends the City Council approve Supplemental Agreement No. 1 (City Manager Agreement No. 2000-001) with CH2M Hill for an amount not to exceed \$278,000.

CONTACT PERSONS: Gary A. Reents, Engineering Services Manager - 264-1433
Gary E. Gosse, Supervising Engineer - 264-1426

FOR CITY COUNCIL MEETING OF: September 26, 2000

SUMMARY:

On January 4, 2000, City Council approved a Consultant Services Agreement with CH2M Hill in the amount of \$1,303,600. The scope of services of the consultant agreement was for final engineering design of a replacement intake and access bridge for the Sacramento River Water Treatment Plant. Authorization for the City Manager and City Clerk to execute Supplemental Agreement No. 1 to the original consultant agreement for an amount not to exceed \$278,000 is requested.



CITY OF SACRAMENTO
DEPARTMENT
OF UTILITIES

Making a Difference in Your Neighborhood

City Council
September 8, 2000
Sacramento River Water Treatment Plant Replacement Intake Project-ZF56

COMMITTEE/COMMISSION ACTION: None

BACKGROUND:

The fish screens on the existing intakes at the E A Fairbairn and Sacramento River Water Treatment Plants (WTP) do not meet the current standards of either the California Department of Fish and Game or the National Marine Fisheries Service. A new intake pump station is needed for the Sacramento River WTP. The diversion capacity of the replacement intake is to be 160 million gallons per day (mgd), the same capacity of the existing intake pier.

Final design work and the preparation of plans, specifications, and construction cost estimate for the Sacramento River WTP Replacement Intake project are nearly complete. Additional engineering effort and consulting fee augmentation are needed to complete the design work related to the project but not anticipated in CH2M Hill's original scope of services.

The elements of the project requiring additional work are related to (1) architectural sensitivity and high visibility, (2) regulatory and permitting agency interaction, (3) permanent easement / land acquisition support, and (4) engineering support contingency for architecture and landscape design.

Architectural aspects of the intake project that impacted the cost of engineering design by CH2M Hill are:

- * Need to revise structural design of the intake access bridge due to change in span lengths and location of bridge abutment. Also revisions to the structural configuration of the intake as the design evolved. The location and relocation of electrical control and power equipment as well as access hatches are examples of intake elements that went through several design iterations.
- * Structural design coordination with architectural design of the rolling gates in the central rotunda, curtain wall system, and metal roof system on the intake structure. Structural design coordination for several landside features (plaza slab, stairways/ramps, retaining walls, rolling entrance gate, shade trellises, and levee access/parking area access gates. Also, the need to perform the detail design of miscellaneous attachments for handrailing, light standards, and benches on the intake structure and the access bridge.

Resource agency review and permitting agency interaction aspects of the intake project that impacted CH2M Hill's design fee are:

- * Need to prepare a slope stability and liquefaction potential analysis for the raised

City Council

September 8, 2000

Sacramento River Water Treatment Plant Replacement Intake Project-ZF56

and widened levee at the intake site. Slope stability and liquefaction analysis were prepared at the request of the State Reclamation Board.

- * Computational modeling of water flow through the fish screens to refine the design of diffuser plates to achieve uniform flow through the screens.
- * Presentations made to Anadromous Fish Screen Program Technical Team on design progress of replacement intake project. Written responses to review comments from members of the Technical Team on the project's design were prepared.
- * Design of a pilot/demonstration tank for testing of water wash screen cleaning system. The demonstration tank was fabricated by City water treatment plant operation and maintenance staff.

Permanent easement/land acquisition support by CH2M Hill for the intake project that increased the cost of engineering design included:

- * Preparation of property descriptions and exhibit maps for a permanent easement, a temporary construction easement, and a map showing all of the several parcels owned by the California Department of Water Resources near the replacement intake site. Also, a property description and exhibit map for a levee maintenance easement on behalf of the American River Flood Control District were prepared at the District's request.

Architectural coordination and engineering support contingency provides for additional engineering effort anticipated during the project bidding process and for undefined architectural modifications such as a grade level fountain within the land-side central plaza.

FINANCIAL CONSIDERATIONS:

The estimated cost of Supplemental Agreement No. 1 with CH2M Hill Engineers is \$278,000. There are sufficient funds in the project to administer this Supplemental Agreement No. 1.

The City recently received for execution a cooperative agreement from the Bureau of Reclamation that provides \$2,462,500 federal funds for cost share of final design for replacement of fish screens at the E A Fairbairn and Sacramento River WTP intakes.

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ENVIRONMENTAL CONSIDERATIONS:

An environmental assessment in the form of a mitigated negative declaration for the Intake Fish Screen Replacement Projects was prepared consistent with the California Environmental Quality Act and the National Environmental Policy Act. On June 27, 2000 the City Council adopted the mitigated negative declaration and mitigation monitoring and reporting plan for the Intake Fish Screen Replacement Projects at the Sacramento River and Fairbairn WTPs.

POLICY CONSIDERATIONS:

The firm of CH2M Hill, in a joint venture of Montgomery Watson and Carollo Engineers was selected to perform design work on the City's four water facilities expansion projects pursuant to City Council consultant selection procedures. The Sacramento River WTP Replacement Intake Project is being designed by CH2M Hill.

ESBD CONSIDERATIONS:

In their scope of services of the original consultant agreement (CMA No. 2000-001), CH2M Hill had identified the tasks of tunneling, general civil/earthwork, soils investigation, engineering design and drafting support that could be subcontracted. The identified subconsultant work had a value of \$300,000 and constitutes approximately 23 percent of the original final design budget.

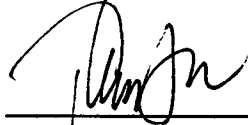
CH2M Hill has retained the services of City certified ESBD firms to perform 7.7 percent of the subconsultant work and minority and women-owned businesses to perform 15.3 percent of the subconsultant work for a total of 23 percent. A description of CH2M-Hill's efforts for ESBD participation is covered in their December 1, 1999 letter attached to the City Council report for approval of the original consultant agreement (Attachment 1)

Respectively submitted,



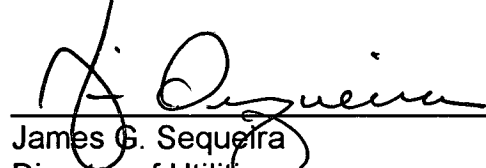
Gary A. Reents
Engineering Services Manager

RECOMMENDATION APPROVED:

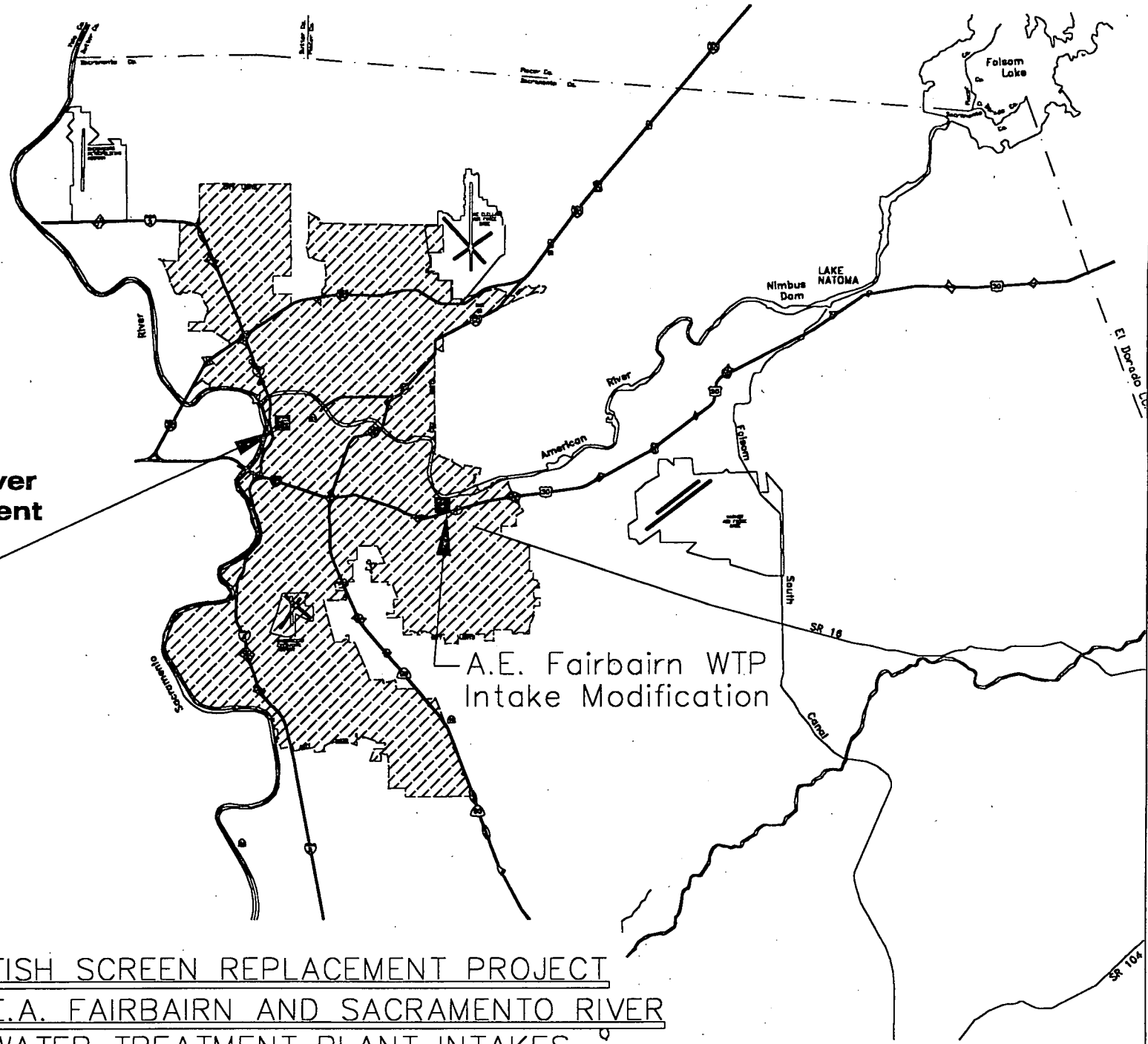


Robert P. Thomas
City Manager

APPROVED



James G. Sequera
Director of Utilities



**Sacramento River
WTP Replacement
Intake
(PN: ZF57)**

A.E. Fairbairn WTP
Intake Modification

FISH SCREEN REPLACEMENT PROJECT
E.A. FAIRBAIRN AND SACRAMENTO RIVER
WATER TREATMENT PLANT INTAKES

September 2000



CH2MHILL

CH2M HILL
2485 Natomas Park Drive
Suite 600
Sacramento, CA
95833-2937
Tel 916.920.0300
Fax 916.920.8463

December 1, 1999

151335.PM

Mr. Gary Gosse
Supervising Engineer
City of Sacramento
Department of Utilities
Engineering Services
1395 35th Avenue
Sacramento, CA 95822-2911

Subject: Sacramento River Water Treatment Plant Replacement Intake Project (ZF56)
ESBE Participation

Dear Mr. Gosse:

CH2M HILL is pleased to have been selected as the Design Engineer for the Sacramento River Water Treatment Plant Replacement Intake Project. This project will be a key feature in the City's program for improving the water supply facilities for the future. We are excited about working with you on this challenging project, and have assembled a team of qualified and experienced engineers, scientists, and other specialists to deliver this project.

CH2M HILL is cognizant and supportive of the ESBE participation goal of 20 percent established by the City. As you and I have discussed recently, the City's transition from a minority and women-owned business program to an emerging/small business program in the middle of the Replacement Intake Project has caused us some unique challenges in meeting your goals. This letter will describe those challenges and our approach to providing meaningful participation by other firms in the project.

Throughout the design development phase of the project (recently completed this September) we utilized a number of minority and women-owned firms to perform the work, commensurate with their expertise and experience. As we prepare for the final design activities, we want to maintain our commitment to these firms for their involvement in the project. In addition, our preparation for final design activities added two more firms with women and minority-owned business credentials to our list of partner firms for the project. These firms (Bennett and Staheli and NRCE) were added because of their specialized expertise in specific areas (Bennett and Staheli for microtunnelling) and familiarity with our structural design approaches (NRCE). NRCE is also a protege firm of CH2M HILL through the federal government's mentor-protege program (the focus of which is to link smaller firms with larger firms to help mentor and develop business practices).

Mr. Gary Gosse
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Our understanding at the time was that both firms would fit under the City's ESBE program, due to their documented credentials as minority and women-owned businesses with the required level of revenues below the City's ceilings. As such, we engaged these two firms in the transition phase between design development and final design (as you know, the schedule for the Replacement Intake Project is exceptionally aggressive, and with your prior approval, we provided some transition services to advance the design).

Unfortunately, it now appears that both Bennett and Staheli and NRCE will not meet the City's requirements for the ESBE program. As I understand it, Bennett and Staheli do not meet the requirements because they are not a California firm (which would be difficult for them to do, since their specialty work requires them to work across the nation). Also, NRCE does not meet the requirements for all of their officers to be domiciled in California (although they are a California firm, some of their officers are domiciled in Colorado).

As you and I have discussed, it is unfortunate that these two firms do not meet the ESBE requirements. However, I strongly believe that we should maintain these firms involvement in the project. I see this maintenance of involvement to benefit the City, because we have already invested knowledge in these individuals that will be valuable for the completion of the project. In addition, maintenance of our commitments is a business practice that is highly valued by CH2M HILL.

Accordingly, we have assembled a project team that provides the necessary expertise to meet your schedule goals on the project, and also provides significant participation by emerging/small businesses, minority-owned businesses, and women-owned businesses. A summary of our project partners and their level of involvement are provided in the table below.

Support Service	Firm	Status	Budget
Tunneling and off-site utilities	Bennett-Staheli	WBE	\$100,000
General civil/earthwork	Blackburn	ESBE	\$30,000
Geotechnical	AGS, Inc	ESBE	\$70,000
Civil engineering/drafting support	NRCE, Inc	MBE	\$100,000
Total			\$300,000

The estimated total amount of these services is \$300,000, or approximately 23 percent of the total final design budget. This represents a significant level of participation in the project.

We are also pleased with the level of participation reached by MBE/WBE firms during the design development phase of the project (currently approximately 25 percent). I believe

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this magnitude of participation demonstrates our commitment to meeting the City's goals for emerging firm's participation in their projects.

We look forward to working with the City and our project partners on the delivery of this challenging project. Please contact me at 916-920-0212, x211 if you have any questions.

Sincerely,

CH2M HILL



Gary S. Nuss, P.E.
Vice President

APPROVED
SEP 26 2000
OFFICE OF THE
CITY CLERK

RESOLUTION NO. 2000-563

ADOPTED BY THE SACRAMENTO CITY COUNCIL

ON DATE OF _____

RESOLUTION TO AUTHORIZE THE CITY MANAGER AND CITY CLERK TO EXECUTE SUPPLEMENTAL AGREEMENT NO. 1 WITH CH2M HILL FOR FINAL DESIGN WORK FOR THE SACRAMENTO RIVER WATER TREATMENT PLANT REPLACEMENT INTAKE PROJECT (ZF56) FOR AN AMOUNT NOT TO EXCEED \$278,000

BE IT RESOLVED BY THE SACRAMENTO CITY COUNCIL THAT:

The City Manager and City Clerk are hereby authorized to sign and execute Supplemental Agreement No. 1 with CH2M Hill for additional engineering work on the final design of the Sacramento River Water Treatment Plant Replacement Intake Project (ZF56) for an amount not to exceed \$278,000.

MAYOR

ATTEST:

CITY CLERK

FOR CITY CLERK USE ONLY

RESOLUTION NO.: _____

DATE ADOPTED: _____