

SUBJECT

BOARD RESOLUTION NO. 15-682

Pertaining to an agreement with CH2M HILL Engineers, Inc. to provide alternatives and conceptual design for replacement of main electrical equipment for McCarrons treatment plant and campus.

BACKGROUND INFORMATION

Staff is seeking approval of a \$95,000 professional services agreement (PSA) with CH2M HILL Engineers, Inc. (CH2M) to evaluate options and develop a conceptual design for replacement of the main electrical equipment that operates the McCarrons treatment plant and campus. Replacement of this equipment was identified as the highest priority project in the 40-year Master Plan completed by CH2M in the fall of 2014.

Following Board approval, City Contracts and Analysis will prepare and execute a Professional Services Agreement, which will include the City's standard terms and conditions, liability and insurance language, and the following:

- Scope of Work:
- 1) Investigate and evaluate options for electrical equipment replacement with SPRWS staff based on voltages, locations, future ozone treatment demands, security, and safety.
 - 2) Develop a conceptual design of the electrical equipment replacement based on the results of the evaluation.

The work is further detailed in CH2M's March 23, 2015 Proposal.

Cost: Not to exceed \$95,000

Term: May 15, 2015 - October 15, 2015

See attached Report and Proposal.

RECOMMENDATION

Approval is recommended.

REPORT

McCarrons Treatment Plant Electrical Equipment Replacement Evaluation and Conceptual Design

April 14, 2015

Previously completed 40-year Master Plan

The recently completed Master Plan developed by CH2M HILL Engineers, Inc. (CH2M) highlighted a list of improvement projects that the Board should consider to be highest priority based on age, advancements in technology, past failure history, and other criteria. The project with the highest priority was replacement of the main electrical equipment that operates the treatment plant and the McCarrons campus. The majority of this equipment was installed more than 50 years ago, beyond its typical life expectancy. Backup generators are in place to handle power outages, but the current electrical equipment configuration does not allow for full operation of the campus. To provide for long term, reliable electrical operation into the future, the electrical equipment should be replaced.

Proposed Work

Primary objectives of the scope of work:

- 1) Work with SPRWS staff to examine the existing electrical equipment, collect data, and determine the project mission and key success factors.
- 2) Investigate and evaluate various replacement possibilities that would provide the treatment plant and campus with future flexibility, cost effectiveness, safety, and security.
- 3) Work with SPRWS staff to determine
 - a) which replacement possibility best suits the current and future needs, and
 - b) develop a conceptual design that can be used to compile +/- 30% budgeting level construction estimates.

A Request For Proposal (RFP) was advertised by the City of Saint Paul Contracts and Analysis Services (CAS). Seven proposals were received from area consulting firms. Those seven were reviewed by a SPRWS selection committee, which decided to interview and score the four lowest cost firms. In addition to being higher priced, the firms not interviewed were less experienced in water treatment plant processes.

Scoring of the four interviewed firms:

<u>Criteria</u>	<u>Max Points</u>	<u>TKDA</u>	<u>CDM Smith</u>	<u>Black & Veatch</u>	<u>CH2M</u>
Staff Qualifications	200	176	194	191	194
Related Experience	200	173	190	185	191
Philosophy & Approach	300	252	271	266	294
Compensation	200	194	185	174	172
Project Schedule	100	86	98	96	98
Interview	<u>100</u>	<u>82</u>	<u>93.6</u>	<u>82.6</u>	<u>97.4</u>
Total	1100	963	1031.6	994.6	1046.4

Final Results:

	<u>Cost</u>	<u>Score</u>
TKDA	\$78,000	963.0
CDM Smith	\$79,980	1031.6
Black & Veatch	\$89,000	994.6
CH2M	\$95,000	1046.4
Mead & Hunt	\$116,800	
HR Green	\$156,900	
Excel Engineering	\$227,250	

Although the CH2M's proposal is not the lowest cost, the selection committee found that its project team demonstrated the best expertise and understanding of SPRWS electrical systems, design for advancement in ozone water treatment, and industrial design of medium and high voltage electrical systems required to complete the project Scope of Work.