EWEB Board Consent Calendar Request

For Contract Awards, Renewals, and Increases

The Board is being asked to approve a contract with R2 Resource Consultants, Inc. for engineering services**.**

Board Meeting Date: 10/2/2018

Project Name/Contract #: Analysis of Operational Modifications to Pass the PMF at Smith Dam

Primary Contact: Cheri Wilson Ext.7458

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Contract Amount:

Original Contract Amount:	$24,000 (original) plus $86,000 (amendment) equals $110,000 total
Additional $ Previously Approved:	$0
Invoices over last approval:	$0
Percentage over last approval:	0
Amount this Request:	$205,000
Resulting Cumulative Total:	$315,000

Contracting Method:

Method of Solicitation:	Direct Negotiation
If applicable, basis for exemption:	Sole Source
Term of Agreement:	September 13, 2017 to April 19, 2019
Option to Renew?	No

Approval for purchases *"as needed"* for the life of the Contract Yes☐ No☒

Proposals/Bids Received (Range): N/A

Selection Basis: N/A

Narrative:

Operational Requirement and Alignment with Strategic Plan

The FERC requires that EWEB maintain up to date analysis and an accurate model of Probable Maximum Flood (PMF) flow routing through the Carmen-Smith Project (Project). This requirement is intended to confirm the adequacy of flood passage facilities and flood flow management protocols at the Project. Earlier this year, an update of the PMF analysis and model for Smith Dam revealed that 1998 analysis and modeling work was outdated and underestimated the PMF inflow to Smith Reservoir. As a result of that finding, the FERC has directed EWEB to conduct similar updates to the PMF analysis and modeling for Carmen Diversion and Trail Bridge Reservoirs. This contract will enable EWEB to maintain compliance with FERC dam safety requirements and supports EWEB efforts to maintain safe and reliable operation of the Project.

Contracted Goods or Services

This contract amendment procures expert consulting engineering services to update hydrologic analyses and model PMF flow management through the Project. The consultant's scope of work includes updating the stage/storage curves for each reservoir, recalculating the Probable Maximum Precipitation (PMP) that drives the PMF using updated FERC guidelines, updating spillway discharge curves to reflect recent survey and modeling results, modeling PMF flow routing through the Project, and documenting results in a report for submittal to the FERC.

Prior Contract Activities

The initial selection process relied on Direct Negotiation with R2 Resource Consultants, Inc. (R2) following the Qualification Based Selection (QBS) process. R2 was selected because of their expertise in the field of hydraulics and hydrology, their highly educated and well-published professional staff, and their reputation for outstanding past performance on EWEB projects. In 2016, R2 completed a project (contract value of $89k) which utilized computational fluid dynamics (CFD) modeling of the Smith Dam spillway system to reveal that an orifice flow

condition would develop during PMF flow conditions. The orifice flow condition adversely throttles the discharge of peak flood flows from Smith Reservoir, indicating a risk of overtopping at the dam during a PMF (10,000-year return frequency storm). The original scope for this follow-up contract with R2 in 2017 ($24k value) was to model operational protocols for reservoir level management to determine if the throttling orifice flow conditions could be sufficiently mitigated to reduce the risk of overtopping Smith Dam. After their initial modeling, it became apparent that the modification of operational protocols would not be sufficient to resolve the problem. That initial finding indicated that resolution of the situation would be complex, requiring a multi-phase project that would deal with not only dam safety issues, but several upcoming relicensing projects. In addition, preliminary reviews by the FERC indicated that changes in their guidelines would affect the baseline assumptions for the flood routing. As a result, a prior sole source exemption was granted in 2017 to amend the R2 contract by $86k to update modeling per current FERC guidelines, bringing the total contract value to $110,056.10. The sole source approach was selected for expedience, continuity of project data, and the considerable value of the knowledge that R2 engineers had obtained from their work to date. R2 has performed successfully through the first phases of the work, providing the high quality documentation that EWEB needs to satisfy regulatory requirements.

Purchasing Process

EWEB now desires to further expand the scope of the original contract to include Carmen Diversion and Trail Bridge, engaging R2 once again and benefiting from their considerable history and knowledge of this work that was gained during their analyses for Smith Dam. EWEB has determined that additional sole sourcing with R2 for the next phase of analysis will be the most cost effective and time efficient approach. Sole sourcing ensures continuity of the new work with the analyses recently completed for Smith Reservoir as needed to meet current FERC requirements.

Bidder/Proposer Information	Bidder/Proposer Location
N/A	N/A

Competitive Fair Price (If less than 3 responses received)

EWEB staff have worked with R2 to negotiate the level of effort and pricing to ensure that their proposal is appropriate for the necessary scope of work. The level of effort required to complete similar analysis and modeling updates for Smith Reservoir is an excellent point of reference. The R2 proposal reflects the value of that work in making the next phases of similar efforts for Carmen Diversion and Trail Bridge more time and cost efficient.

ACTION REQUESTED:

Management requests the Board approve a contract with R2 Resource Consultants, Inc. for engineering services. Funds for these services were budgeted for 2019. Total department budget for 2019 is $31.6 million.