

COUNCIL ACTION FORM

SUBJECT: VALUE ENGINEERING FOR NEW WATER TREATMENT PLANT

BACKGROUND:

On October 13, 2009, the City Council awarded a contract to FOX Engineering to develop a conceptual plan for a new 15-million-gallon-per-day water treatment plant. That work was concluded in September of 2011. With the acquisition of property for the new facility nearing completion, final design work may now proceed.

City staff is proposing that a Value Planning Study be performed prior to commissioning FOX to complete the final design of the facility. The purpose of the Value Planning Study will be to use a structured, team-oriented value engineering process to take one final review of the range of solutions for the project at the conceptual stage before committing substantial resources and funds towards the final design.

The Study will evaluate the functional components of the project and perform a Function/Cost Analysis to identify areas where a mismatch may exist, or areas where “scope creep” may have occurred. **Where appropriate, the Value Planning Study will explore alternatives that may be able to provide the same functional performance at a lower life-cycle cost, or to increase the level of service without increasing the project cost.** The most promising ideas are then put through a rigorous evaluation matrix, which will ultimately result in a Value Planning Recommendation for consideration by the City.

Staff initially began the solicitation for value engineering with a vision of hiring a skilled facilitator, and then selecting subject matter experts in areas such as treatment processes, structural, electrical, mechanical, and others, from across multiple firms. The main reason for the envisioned approach was to avoid the biases that may come from having a single firm perform the review. However, after meeting with representatives from Alfred Benesch & Company, staff believes that an initial Value Planning Study that stays at the high, concept-level of detail will provide the greatest opportunity for impacting the direction of the final design. The originally envisioned approach is still the method that will likely be utilized in a later value engineering review.

Staff has worked with Benesch to develop a scope of work for the Value Planning Study utilizing staff from their Ames and Chicago offices. The proposal from Benesch is a lump sum agreement not to exceed \$48,500, inclusive of direct expenses, which is a price that allows informal scope development by staff without undergoing a formal solicitation process.

The pre-design contract with FOX Engineering still has funds available to cover their participation in the Value Planning Study workshop. Should the Study require additional extensive support from the FOX team (such as additional cost estimating of new alternatives not previously considered), a change order to their contract would be appropriate. After completion of the Value Planning Study, a final design contract with FOX Engineering that incorporates the adopted recommendations will be brought to Council.

Funds for performing two rounds of Value Engineering were included in the Planning and Design Loan application to the State Revolving Fund. The agreement presented to Council at this time is for the initial Value Planning Study only, and no commitment is being made to Benesch for their involvement in the second value engineering exercise that will occur later in the design stage.

ALTERNATIVES:

1. Award a contract to Alfred Benesch & Company in a lump sum amount not to exceed \$48,500 to perform a Value Planning Study for the new water treatment plant.
2. Direct staff to solicit additional proposals for performing a Value Planning Study.
3. Take no action related to conducting a Value Planning Study and direct staff to proceed directly to final design.
4. Take no action related to design and provide staff direction on the future of the project.

MANAGER'S RECOMMENDED ACTION:

Construction of a new water treatment plant is a significant, high priority component of the water utility's long-range plan. The new plant will provide increased reliability to meet current customers as well as provide increased capacity to serve residential, commercial, and industrial growth. Because of the impact the project on water rates, staff are responsible for ensuring that the scope and design are meeting the appropriate service level targets at the best possible price. **It is believed that these project goals will be better met by having this "second set of eyes" review our plans through a value engineering exercise.**

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, thereby awarding a contract to Alfred Benesch & Company to conduct a Value Planning Study for a lump sum fee not to exceed \$48,500.